

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 29, 2019

Mr. Scott Trebus, Area Environmental Manager
Blue Ridge Landfill TX, LP
5757A Oates Road
Houston, Texas 77078

Re: Municipal Solid Waste Type I Landfill Gas Monitoring Investigation at:
Blue Ridge Landfill, 2200 FM 521 Rd., Fresno (Fort Bend County), Texas
TCEQ Municipal Solid Waste Permit No.: 1505A

Dear Mr. Trebus:

On March 19, 2019, Mr. Tom Collins of the Texas Commission on Environmental Quality (TCEQ) Houston Region Office conducted an investigation of the above-referenced regulated entity to evaluate compliance with applicable requirements for municipal solid waste. No violations are being alleged as a result of the investigation.

The TCEQ appreciates your assistance in this matter and your compliance efforts to ensure protection of the State's environment. If you or members of your staff have any questions regarding these matters, please feel free to contact Mr. Collins in the Houston Region Office at (713) 422-8915.

Sincerely,

A handwritten signature in cursive script that reads "Guadalupe Quiroz".

Guadalupe Quiroz, Team Leader
Waste Section
Houston Region Office

GQ/HTC/na

MSW PA_1505A_CO_20190319_Investigation Report
Texas Commission on Environmental Quality
Investigation Report

The TCEQ is committed to accessibility. If you need assistance in accessing this document, please contact oce@tceq.texas.gov

Customer: Blue Ridge Landfill TX, LP
Customer Number: CN602820599

Regulated Entity Name: BLUE RIDGE LANDFILL

Regulated Entity Number: RN102610102

Investigation # 1550788

Investigator: TOM COLLINS

Conducted: 03/19/2019 -- 04/25/2019

Program(s): MUNICIPAL SOLID WASTE DISPOSAL

Investigation Type: Compliance Investigation

Additional ID(s): 1505A

Address: 2200 FM 521 RD,
 FRESNO, TX , 77545

Incident Numbers

Site Classification TYPE 1

NAIC Code: 562212

NAIC Code: 486210

SIC Code: 4922

SIC Code: 4953

SIC Code: 1521

Location: LOCATED ON 2200 FM 521

Local Unit: REGION 12 - HOUSTON

Activity Type(s): IIIICH4 - Comprehensive evaluation of a landfill's methane monitoring system

Principal(s):

Role	Name
RESPONDENT	BLUE RIDGE LANDFILL TX LP

Contact(s):

Role	Title	Name	Phone
PARTICIPATED IN	ENVIRONMENTAL SPECIALIST	MS AMY KUBINSKI	Phone (346) 269-2946 Phone (281) 835-6142
NOTIFIED	AREA ENVIRONMENTAL MANAGER	MR SCOTT TREBUS	Phone (713) 726-7506 Fax (713) 675-3660 Work (281) 222-8251
REGULATED ENTITY CONTACT	AREA ENVIRONMENTAL MANAGER	MR SCOTT TREBUS	Work (281) 222-8251 Fax (713) 675-3660 Phone (713) 726-7506
REGULATED ENTITY MAIL CONTACT	AREA ENVIRONMENTAL MANAGER	MR SCOTT TREBUS	Phone (713) 726-7506 Fax (713) 675-3660 Work (281) 222-8251
PARTICIPATED IN	GAS TECH	MR Mario NUNEZ	Work (330) 659-5930

BLUE RIDGE LANDFILL - FRESNO

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Other Staff Member(s):

Role	Name
Supervisor	CARLOS ROMO
Supervisor	GUADALUPE QUIROZ
QA Reviewer	MARISOL ROBERTSON

Associated Check List

<u>Checklist Name</u>	<u>Unit Name</u>
MSW LANDFILL GAS	Blue Ridge Landfill

Investigation Comments:

INTRODUCTION

On March 19, 2019, Mr. Tom Collins, Environmental Investigator of the Texas Commission on Environmental Quality (TCEQ) Houston Region Office, conducted a Municipal Solid Waste Type I Landfill Gas Monitoring Investigation at the Blue Ridge Landfill (BRL) located at 2200 FM 521 Rd. (Fort Bend County), Texas 77545. Mr. Scott Trebus, Area Environmental Manager, was contacted via telephone on February 26, 2019 concerning the investigation.

The investigation involved an opening conference at the facility, a site investigation of the facility including gas probe sampling, facility landfill gas records review and an exit interview. During the investigation, BRL was represented by Mr. Trebus and Ms. Amy Kubinski, Environmental Specialist. Mr. Trebus was designated as the regulated entity contact.

BACKGROUND

The TCEQ Houston Region Office files were reviewed and a Consolidated Compliance and Enforcement Data System (CCEDS) search was conducted prior to this investigation. Two MSW alleged violations were noted during a previous investigation and remain outstanding. The alleged violations are further addressed in CCEDS Investigation No. 1569760. No MSW outstanding alleged violations were documented concerning the Landfill Gas Management Plan or the required landfill gas monitoring on-site associated with this facility.

GENERAL FACILITY AND PROCESS INFORMATION

BRL is a Type I landfill, located at 2200 FM 521 Road, Fresno (Fort Bend County), Texas and is authorized to operate by TCEQ MSW Permit No. 1505A. The landfill received its permit in March 1985 and began operating on January 31, 1986. In January 2006, the landfill submitted a major permit amendment to: (i) increase the permit boundary from 598.6 acres to 1,344.88 acres; (ii) increase the fill area from 301.89 acres to 784.24 acres; (iii) and increase the maximum height from the current 58 feet to 170 feet. The permit amendment authorization was approved on July 2, 2010. A Facility Location Map and Central Registry information for BRL are included in Attachment 1.

Landfill gas activities:

Landfill Gas (LFG) migration is monitored quarterly around the perimeter of the facility utilizing probes spaced no greater than 500 feet. BRL monitors twenty-seven (27) probes, the mechanic shop, scale house, lab room and a meeting room for the presence of LFG. The current Landfill Gas Management Plan and Landfill Gas Quarterly Monitoring Reports for 2016, 2017, 2018 were reviewed. No issues or exceedances were found during the review of documents.

Surrounding land use:

The surrounding land use includes light industry, agricultural production and several residential subdivisions.

Summary of on-site investigation:

Prior to traveling to BRL, Mr. Collins used the TCEQ Standard Operating Procedures to calibrate the TCEQ

BLUE RIDGE LANDFILL - FRESNO

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Landtec GEM 5000 Landfill Gas Monitoring instrument on March 19, 2019 at 8:00 am.

Mr. Collins arrived at BRL at approximately 10:00 am on March 19, 2019 and met with Mr. Trebus at the landfill office. Mr. Collins explained to Mr. Trebus, in the opening conference, the purpose of the site investigation. Following the opening conference, Mr. Collins was accompanied by Ms. Kubinski and Mr. Mario Nunez, Field Technician with TETRA TECH, to sample the landfill gas probes at the facility.

The locations of the landfill gas probes are shown on the facility Landfill Gas Probe Location drawing included in Attachment 2. Prior to probe sampling, Mr. Nunez field calibrated the TETRA TECH Landtec GEM 2000nav LFG monitoring equipment. The result of the field calibration is included in Attachment 3.

Probe sampling began at the southeast corner of the facility and proceeded around the perimeter of the facility in a counter-clockwise manner. Mr. Nunez sampled each well first, with a Landtec GEM 2000nav Landfill Gas Monitor, and the TCEQ investigators followed by sampling probes with the TCEQ Landtec GEM 5000 Landfill Gas Monitor. The amount of methane detected by TETRA TECH and the TCEQ were compared for 16 of the 27 landfill gas monitoring probes and found to be the same. The methane readings at each compared probe were between 0 and 0.1 % methane by volume in air. TETRA TECH and TCEQ monitoring results are included in Attachment 3. No issues were found during this investigation.

Monitoring probes observed appeared to be well maintained, in good condition, well protected and locked. Photographs of representative landfill gas monitoring probes are included in Attachment 4. No issues were found during this investigation.

Summary of exit interview conference:

The exit interview was conducted with Mr. Trebus at the conclusion of the site investigation. Facility records were well maintained and available for review by investigators at the time of the investigation. No alleged violations of the solid waste management requirements related to landfill gas monitoring at landfill gas probes or monitors in onsite structures were observed during this investigation.

CONCLUSION

No alleged violations of the solid waste management requirements were observed during this investigation concerning landfill gas monitoring and required quarterly sampling. A general compliance letter was transmitted to the facility.

No Violations Associated to this Investigation

Signed Francis Collins, P.E.
Environmental Investigator

Date 5/29/2019

Signed Guadalupe Dominguez
Supervisor

Date 5/29/19

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Attachments: (in order of final report submittal)

Enforcement Action Request (EAR)

Letter to Facility (specify type) : GC

Investigation Report

Sample Analysis Results

Manifests

Notice of Registration

Maps, Plans, Sketches

Photographs

Correspondence from the facility

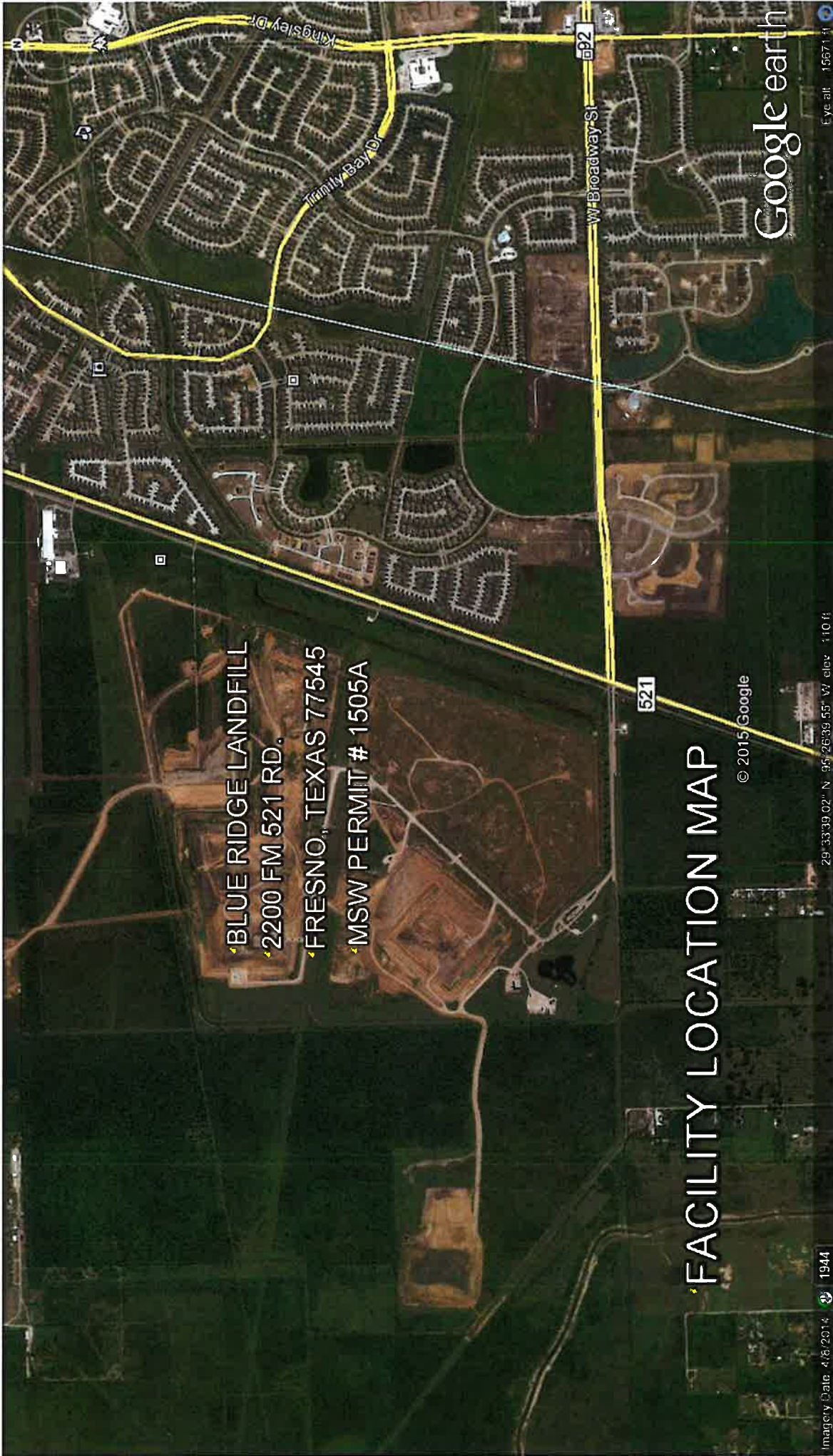
Other (specify):

SEE "LIST OF ATTACHMENTS"

Blue Ridge Landfill
2200 FM 521 Rd.
Fresno (Fort Bend County), Texas 77545
Municipal Solid Waste Type I Landfill Gas Monitoring Investigation
TCEQ Municipal Solid Waste Permit No. 1505A
Investigation No. 1550788
Conducted on March 19, 2019
LIST OF ATTACHMENTS

1. Attachment 1 - Facility Location Map and Central Registry Information
2. Attachment 2 - Landfill Gas Probe Locations
3. Attachment 3 - TETRA TECH and TCEQ Gas Monitoring Results
4. Attachment 4 - Photographic Documentation

ATTACHMENT 1



• BLUE RIDGE LANDFILL
• 2200 FM 521 RD.
• FRESNO, TEXAS 77545
• MSW PERMIT # 1505A

FACILITY LOCATION MAP

© 2015 Google

Google earth

Imagery Date: 4/8/2014 1944

29° 33' 39.02" N 95° 26' 39.55" W elev: 110 ft

Eye alt: 15671 ft

[Questions or Comments >>](#)[Customer Search](#)[RE Search](#)[ID Search](#)[Document Search](#)[Search Results](#)[TCEQ Home](#)[Query Home](#)

Central Registry Query - Regulated Entity Information

Regulated Entity Information

RN Number: RN102610102**Name:** BLUE RIDGE LANDFILL**Primary Business:** MUNICIPAL SOLID WASTE LANDFILL**Street Address:** 2200 FM 521 RD, FRESNO TX 77545 8214**County:** FORT BEND**Nearest City:** FRESNO**State:** TX**Near ZIP Code:** 77545**Physical Location:** LOCATED ON 2200 FM 521

Affiliated Customers - Current

Your Search Returned **6** Current Affiliation Records ([View Affiliation History](#))

The Customer Name displayed may be different than the Customer Name associated to the Additional IDs related to the customer. This name may be different due to ownership changes, legal name changes, or other administrative changes.

1-6 of 6 Records

CN Number ▲	Customer Name	Customer Role(s)	Details
CN600343826	BFI WASTE SYSTEMS OF NORTH AMERICA INC	OWNER OPERATOR	↔
CN601527963	BFI WASTE SERVICES OF TEXAS LP	OWNER OPERATOR	↔
CN601721657	LONGHORN EXCAVATORS INC	OPERATOR	↔
CN602820599	BLUE RIDGE LANDFILL TX LP	OWNER OPERATOR	↔
CN603713595	GRISHAM & JHA GROUP LLC	OPERATOR	↔
CN605441328	BLUE RIDGE RENEWABLES LLC	OWNER OPERATOR	↔

Industry Type Codes

Code	Classification	Name
486210	NAICS	Pipeline Transportation of Natural Gas
562212	NAICS	Solid Waste Landfill
1521	SIC	General Contractors-Single-Family Houses
1629	SIC	Heavy Construction
1794	SIC	Excavation Work
4922	SIC	Natural Gas Transmission
4953	SIC	Refuse Systems

Permits, Registrations, or Other Authorizations

There are a total of **25** programs and IDs for this regulated entity. Click on a column name to change the sort order.

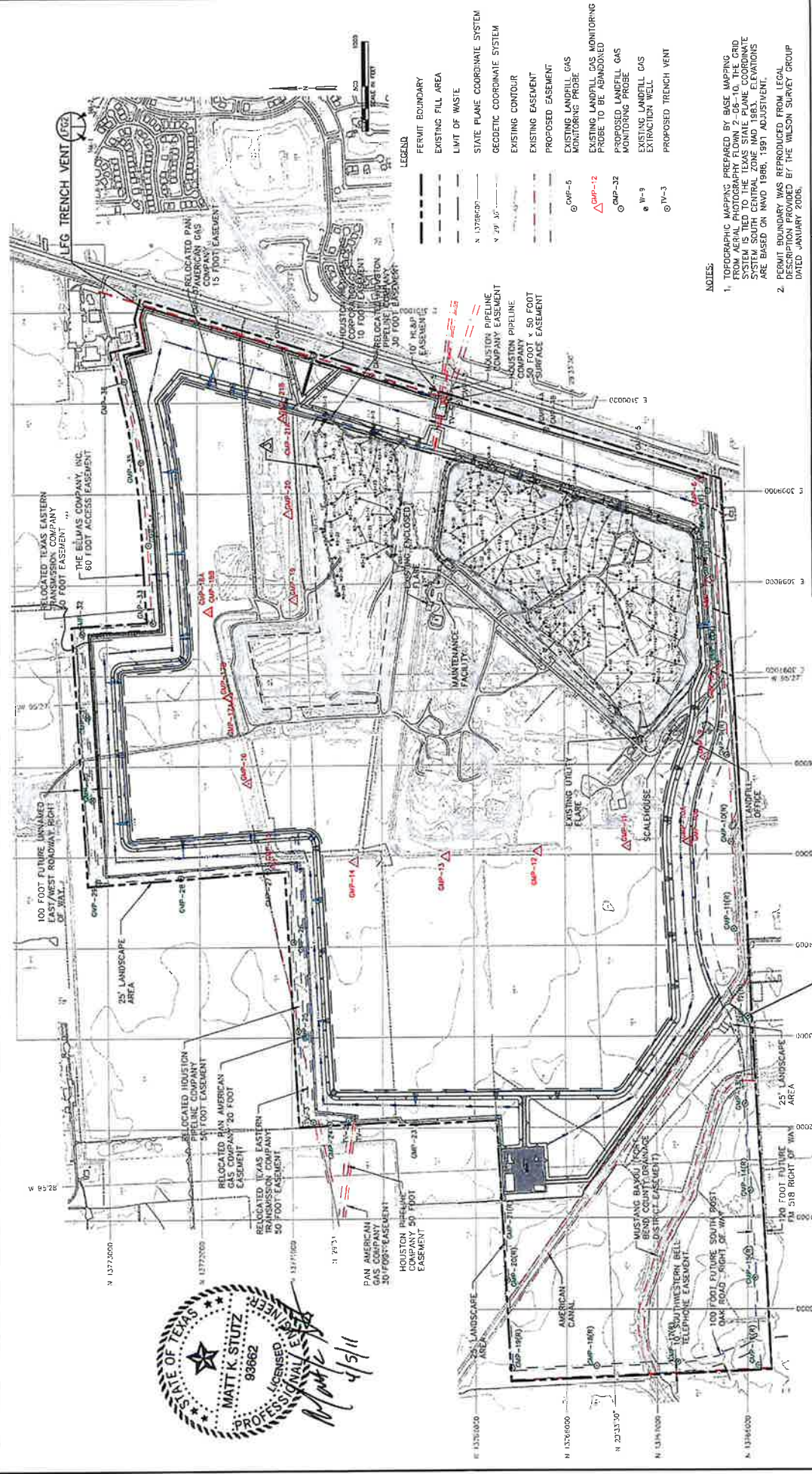
1-25 of 25 Records

Program ▲	ID Type	ID Number	ID Status
AIR EMISSIONS INVENTORY	ACCOUNT NUMBER	FG0536E	ACTIVE
AIR NEW SOURCE PERMITS	ACCOUNT NUMBER	FG0536E	ACTIVE
AIR NEW SOURCE PERMITS	AFS NUM	4815700111	ACTIVE
AIR NEW SOURCE PERMITS	REGISTRATION	149416	ACTIVE
AIR NEW SOURCE PERMITS	REGISTRATION	156301	ACTIVE
AIR NEW SOURCE PERMITS	REGISTRATION	32691	CANCELLED
AIR NEW SOURCE PERMITS	REGISTRATION	51882	CANCELLED
AIR NEW SOURCE PERMITS	REGISTRATION	55939	CANCELLED
AIR NEW SOURCE PERMITS	REGISTRATION	77271	CANCELLED
AIR NEW SOURCE PERMITS	REGISTRATION	77703	CANCELLED
AIR NEW SOURCE PERMITS	REGISTRATION	81004	ACTIVE
AIR OPERATING PERMITS	ACCOUNT NUMBER	FG0536E	ACTIVE
AIR OPERATING PERMITS	PERMIT	1472	PENDING
INDUSTRIAL AND HAZARDOUS WASTE	EPA ID	TXR000084592	ACTIVE
INDUSTRIAL AND HAZARDOUS WASTE	SOLID WASTE REGISTRATION # (SWR)	89429	ACTIVE
MUNICIPAL SOLID WASTE DISPOSAL	PERMIT	1505	INACTIVE
MUNICIPAL SOLID WASTE DISPOSAL	PERMIT	1505A	ACTIVE
MUNICIPAL SOLID WASTE PROCESSING	REGISTRATION	48043	ACTIVE
PETROLEUM STORAGE TANK REGISTRATION	REGISTRATION	64950	ACTIVE
PETROLEUM STORAGE TANK STAGE II			
STORMWATER	PERMIT	TXR05N415	CANCELLED
STORMWATER	PERMIT	TXR05S302	ACTIVE
STORMWATER	PERMIT	TXR15NZ96	CANCELLED
STORMWATER	PERMIT	TXR15QJ54	EXPIRED
STORMWATER	PERMIT	TXR15RD60	EXPIRED

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ATTACHMENT 2



PREPARED FOR		BLUE RIDGE LANDFILL TX, LP		LANDFILL GAS PROBE LOCATIONS	
<input type="checkbox"/> DRAFT <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input checked="" type="checkbox"/> INTENDED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL ONLY		NO. DATE REVISION 1 11/15/11 PERMIT REVISIONS 2 01/27/12 MAJOR TRENCH REVISIONS		BLUE RIDGE LANDFILL FORT BEND COUNTY, TEXAS	
SHEET NO. 1 OF 1 DATE: 11/15/11 DRAWN BY: JMM CHECKED BY: JMM JOB NO: 11-101-0001-10		PROJECT NO. 11-101-0001 PROJECT NAME: BLUE RIDGE LANDFILL GAS PROBE LOCATIONS		Weaver Bear Consultants TUBE REGISTRATION NO. F-5727	
THE ENGINEER HAS REVIEWED THE INFORMATION AND, AS AN INDICATION OF HIS/HER PROFESSIONAL OPINION, IS OF THE OPINION THAT THE INFORMATION IS TRUE AND CORRECT AND THAT THE DESIGN IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE TEXAS PROFESSIONAL ENGINEERING ACT.		PROJECT NO. 11-101-0001 PROJECT NAME: BLUE RIDGE LANDFILL GAS PROBE LOCATIONS		ATTACHMENT 14A-1	

NOTES:

1. TOPOGRAPHIC MAPS PREPARED BY BASE MAPPING FROM AERIAL PHOTOGRAPHY FLOWN 2-08-10. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM SOUTH CENTRAL ZONE (MAD 1983). ELEVATIONS ARE BASED ON (MAD 1986, 1991) ADJUSTMENT.
2. PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION PROVIDED BY THE WILSON SURVEY GROUP DATED JANUARY 2008.



ATTACHMENT 3

Tom Collins

From: Telepak, Timothy [REDACTED]
Sent: Thursday, April 25, 2019 3:41 PM
To: Tom Collins
Subject: Blue ridge egm report
Attachments: attachment 1.pdf; ATT00001.htm



Blue Ridge Landfill
Fresno, Texas

Explosive Gas Monitoring
1st Quarter Report 2019

Prepared By:



Tetra Tech
3600 Brecksville Road
Richfield, Ohio 44286
(330) 659-5930

Explosive Gas Monitoring Report

Blue Ridge Landfill

Fresno, Texas



Date:	3/19/2019		Date Last Calibrated:	3/19/2019
Time:	9:34	13:54	Barometric Press (in Hg):	30.10
Technician:	Mario Nunez		Relative Humidity (%):	37%
Monitoring Device:	GEM 2000NAV		Weather Conditions:	Party Cloudy
Air Temperature (deg F.):	70			

Quarterly Probe Monitoring:

Probe No.	Date/Time	(%) Methane 1-100	(%) ¹ LEL 1-100	Pressure ("w.c.) ²	Oxygen (%)	Probe Integrity Verified Yes/No	COMMENTS
BRLCG001	3/19/2019 9:34	15.1	>>>>	106.08	0.0	N/A	Calibration
BRLCG002	3/19/2019 9:36	0.0	0	119.34	3.8	N/A	Calibration
BLRGGMP1	3/19/2019 10:49	0.0	0	-0.01	7.5	Yes	None
BLRGGMP2	3/19/2019 10:17	0.0	0	0.04	19.7	Yes	None
BLRGGMP3	3/19/2019 10:11	0.0	0	0.01	16.4	Yes	None
BLRGGP4A	3/19/2019 10:04	0.0	0	0.02	19.6	Yes	None
BLRGGP4B	3/19/2019 10:07	0.0	0	0.01	19.7	Yes	None
BLRGGMP5	3/19/2019 10:00	0.0	0	0.01	19.8	Yes	None
BLRGGMP6	3/19/2019 9:55	0.0	0	0.05	19.7	Yes	None
BLRGGMP7	3/19/2019 9:51	0.0	0	0.04	19.6	Yes	None
BLRGGMP8	3/19/2019 9:46	0.0	0	0.05	13.7	Yes	None
BLRGGMP9	3/19/2019 13:29	0.0	0	-0.09	19.9	Yes	None
BLRGP10A	3/19/2019 13:18	0.0	0	-0.11	19.8	Yes	None
BLRGP10B	3/19/2019 13:20	0.0	0	-0.10	19.2	Yes	None
BLRGGP11	3/19/2019 13:12	0.0	0	-0.03	19.9	Yes	None
BLRGGP12	3/19/2019 13:06	0.0	0	-0.09	15.9	Yes	None
BLRGP13A	3/19/2019 12:52	0.0	0	-0.08	18.2	Yes	None
BLRGGP14	3/19/2019 12:45	0.0	0	-0.03	19.9	Yes	None
BLRGGP15	3/19/2019 12:39	0.0	0	-0.06	18.9	Yes	None
BLRGGP28	3/19/2019 12:18	0.0	0	-0.08	19.7	Yes	None
BLRGGP29	3/19/2019 12:26	0.0	0	-0.06	15.0	Yes	None
BLRGGP30	3/19/2019 12:30	0.0	0	-0.06	19.9	Yes	None
BLRGGP31	3/19/2019 11:48	0.0	0	-0.06	19.8	Yes	None
BLRGGP32	3/19/2019 11:42	0.0	0	0.00	19.7	Yes	None
BLRGGP33	3/19/2019 11:33	0.0	0	-0.02	19.8	Yes	None
BLRGGP34	3/19/2019 11:26	0.0	0	-0.02	19.9	Yes	None
BLRGGP35	3/19/2019 11:21	0.0	0	-0.06	19.7	Yes	None
BLRGGP36	3/19/2019 11:12	0.0	0	-0.01	19.7	Yes	None
BLRGGP37	3/19/2019 10:57	0.0	0	-0.01	15.2	Yes	None
BLRGM CSP	3/19/2019 13:43	0.0	0	-0.09	20.2	Yes	Mech Shop
BLRGSCHS	3/19/2019 13:45	0.0	0	-0.07	20.2	Yes	Scale House
BLRGLBRM	3/19/2019 13:54	0.0	0	-0.10	20.1	Yes	Lab Room
BLRGMTRM	3/19/2019 13:38	0.0	0	-0.08	20.1	Yes	Meeting Room

Onsite Structures	Verify if Continuous LFG Alarm is Operational		Continuous LFG Alarm Activated (LEL>25%) During Previous	
	Yes	No	Yes	No
Mechanic Shop	X			X
Scalehouse	X			X
Engineering Annex	X			X
Meeting Room	X			X

1 % LEL = (20) x (observed % methane) - Note: Record >100% in LEL column if percent methane is over 5%

2 "w.c." - Inches Water Column

Additional Comments:



Blue Ridge Landfill

Fresno, Texas

Daily GEM Calibration Logs



REPUBLIC - Blue Ridge LF

Daily GEM Calibration Log

DATE: March 19, 2019

SITE: Blue Ridge LF

TECHNICIAN: Mario Nunez

INSTRUMENT S/N: GM13293

INSTRUMENT TYPE: GEM2000nav

Calibration No. 1

TIME: 9:00 TEMP: 60

LOT #: 50% CH4 / 35% CO2 / Balance Gas:exp OC N/A

(Probes Only) LOT #: 15% CH4 / 15% CO2 / Balance Gas: TDBI-399-S-1

LOT #: 4 % O2 / Balance Gas:OCT/2019 TCBJ-161-4-3

Calibration No. 2

TIME: _____ TEMP: _____

LOT #: 50% CH4 / 35% CO2 / Balance Gas: _____

(Probes Only) LOT #: 15% CH4 / 15% CO2 / Balance Gas: _____

LOT #: 4 % O2 / Balance Gas: _____

Calibration No. 3

TIME: _____ TEMP: _____

LOT #: 50% CH4 / 35% CO2 / Balance Gas: _____

(Probes Only) LOT #: 15% CH4 / 15% CO2 / Balance Gas: _____

LOT #: 4 % O2 / Balance Gas: _____



Blue Ridge Landfill

Fresno, Texas

Calibration Gas Certificate of Analysis



GASCO AFFILIATES, LLC.

320 Scarlet Blvd.
Oldsmar, FL 34677
(800) 910-0051
fax: (866) 755-8920
www.gascogas.com

CERTIFICATE OF ANALYSIS

Date: March 1, 2018
Order Number: 6025345
Lot Number: TCBI-399-S-1

Customer: Pine Environmental Services LLC
Use Before: 03/01/2022


<u>Component</u>	<u>Specification (+/- 5%)</u>	<u>Analytical Result (+/- 2%)</u>
Carbon Dioxide	15% vol.	14.99% vol.
Methane	15%vol.	14.99% vol.
Nitrogen	BALANCE	BALANCE

Cylinder Size: 1.2 Cu. Ft.
Contents: 34 Liter

Valve: CGA 600
Pressure: 500 psig

The calibration gas prepared by Gasco is considered a certified standard. It is prepared by gravimetric, or partial pressure techniques. The calibration standard provided is certified against Gasco's G.M.I.S. (Gas Manufacturer's Intermediate Standard) which is either prepared by weights traceable to the National Institute of Standards and Technology (NIST) or by using NIST Standard Reference Materials where available.

Analyst:


Alyssa Nicholson



GASCO AFFILIATES, LLC.

320 Scarlet Blvd.
Oldsmar, FL 34677
(800) 910-0051
Fax: (866) 755-8920
www.gascogas.com

CERTIFICATE OF ANALYSIS

Date: January 25, 2019
Order Number: 6036764
Lot Number: TBBJ-161-4-3

Customer: PINE-HOUSTON
Use Before: 01/25/2023

<u>Component</u>	<u>Specification (+/- 5%)</u>	<u>Analytical Result (+/- 2%)</u>
Oxygen	4% vol	3.9% vol.
Nitrogen	Balance	Balance

Cylinder Size: 1.2 Cu. Ft.
Contents: 34 Liter

Valve: CGA 600
Pressure: 500 psig

NIST Weight Certificate Number(s): 193776

The calibration gas prepared by Gasco is considered a certified standard. It is prepared by gravimetric, or partial pressure techniques. The calibration standard provided is certified against Gasco's G.M.I.S. (Gas Manufacturer's Intermediate Standard) which is either prepared by weights traceable to the National Institute of Standards and Technology (NIST) or by using NIST Standard Reference Materials where available.

Analyst:

Sadene Maddox
Sadene maddox

CERTIFICATION OF CALIBRATION

ISSUED BY: QED Environmental Systems, Inc. Services Facility

Date Of Calibration: February 1, 2019

Certificate Number: GM13293_10/35797



No. 66916

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Approved By Signatory



QED Environmental Systems, Inc. Services Facility,
2355 Bishop Circle West, Dexter, MI 48130
www.qedenv.com

Kyle Racine
Laboratory Inspection

Customer: American Environmental Group LTD

3600 Brecksville Rd STE 100
Richfield, OH 44286
USA

Description: Gas Analyser

Model: GEM2000

Serial Number: GM13293

Accredited Results:

Methane (CH ₄)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	5.0	0.41
15.0	15.0	0.65
50.0	49.2	1.05

Carbon Dioxide (CO ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.8	0.43
15.0	14.7	0.71
50.0	49.6	1.20

Oxygen (O ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
20.7	20.7	0.25

Gas cylinders are traceable and details can be provided if requested.

CH₄, CO₂ readings recorded at: 32.2 °C/89.9 °F

Barometric Pressure: 29.32 "Hg

O₂ readings recorded at: 22.8 °C/73.0 °F

Method of Test: The analyzer is calibrated in a temperature controlled chamber using reference gases. All analyzers are calibrated in accordance with our procedure ISP-17 using high purity grade gas.

All calibrations are performed in accordance with ISO 17025 at LANDTEC, an ISO 17025:2005 – accredited service facility through PJLA.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with NIST requirements.

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable through NIST to the International System of Units (SI). Certification only applies to results shown. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

CERTIFICATION OF CALIBRATION

PJLA ACCREDITED CALIBRATION LABORATORY NO. 66916

Certificate Number
GM13293_10/35797

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Non Accredited results:

Pressure Transducers (inches of water column)					
Transducer	Certified (Low)	Reading (Low)	Certified (High)	Reading (High)	Accuracy
Static	0"	0"	40"	39.8"	2.0"
Differential	0"	0"	4"	3.9"	0.7"

Barometer (mbar)	
Reference	Instrument Reading
0993 mbar / 29.32 "Hg	0993 mbar / 29.32 "Hg

As received gas check readings are only recorded if the instrument is received in a working condition. Where the instrument is received damaged no reading can be taken.

End of Certificate

RE Name: BLUE RIDGE LANDFILL
 Investigation Date: 3/19/2019
 Inv. # -
 Permanent GMP: Monitoring Probe Type: Bar hole Probe: Other:
 Investigator signature: *Flannery Collins, P.E.*
 Signature date: 3/19/2019

Meteorological Data
 Barometric Pressure: _____ Temperature: _____
 Rainfall since last sampling event: _____
 Data Source: NOAA On-Site: _____ Other: _____
 Instrument Data
 Pressure Gauge Model Calibration Date Calibration Time
 Gas Meter LANTEC 5000 3/19/2019 8:00 A.M.
 Water Level Meter
 Other Instruments

GMP IDENTIFICATION NUMBER

	GMP 37	GMP 36	GMP 35	GMP 34	GMP 33	GMP 32	GMP 31	GMP 30	GMP 29	GMP 28
GMP Construction										
Total Depth (below ground surface)										
Top of Screen (below ground surface)										
GMP Condition										
Clearly Labeled?										
Steel Collar Condition:										
Concrete Pad Condition:										
Lock in Place?										
Casing Capped?										
Fitting in Good Condition?										

Field Measurements

Time of Measurement:										
Pressure in Well Casing:										
Probe Gas Temperature:										
Methane %:	0.1	0.1	0.0	0.0	0	0	0	*	*	0
LEL (%), calibrated for methane)	0%	0%	0.0	0.0	0	0	0	*	*	0

GMP = Gas Monitoring Probe.
 Enter the appropriate data, or enter one of the following and include a brief explanation in the investigation comments section: N/A = Not Applicable;
 N/R = Not required at this time; N/O = Not Observed; N/E = Not Evaluated

* - NOT MEASURED BY INVESTIGATOR
 DUE TO FLOODED & MUDDY CONDITIONS AT SITE!
 Rev. 10/14/09

MSW LANDFILL GAS MONITORING REPORT

RE Name:		Meteorological Data			
Investigation Date:		Barometric Pressure:		Temperature:	
Inv. # -		Rainfall since last sampling event:			
Monitoring Probe Type		Data Source: NOAA		On-Site: Other:	
Permanent GMP:	Bar hole Probe:	Instrument Data		Model	
	Other:	Pressure Gauge		Calibration Date	
		Gas Meter		Calibration Time	
Investigator signature:		Water Level Meter			
Signature date:		Other Instruments			

GMP IDENTIFICATION NUMBER

	GMP 15	GMP 1A	GMP 13	GMP 12	GMP 11	GMP 10A	GMP 10B	GMP 9
GMP Construction								
Total Depth (below ground surface)								
Top of Screen (below ground surface)								
GMP Condition								
Clearly Labeled?								
Steel Collar Condition:								
Concrete Pad Condition:								
Lock in Place?								
Casing Capped?								
Fitting in Good Condition?								
Field Measurements								
Time of Measurement:								
Pressure in Well Casing:								
Probe Gas Temperature:								
Methane %:	0	0	0	0	0	0	0	0
LEL (% calibrated for methane)	0	0	0	0	0	0	0	0

GMP = Gas Monitoring Probe.
 Enter the appropriate data, or enter one of the following and include a brief explanation in the investigation comments section: N/A = Not Applicable;
 N/R = Not required at this time; N/O = Not Observed; N/E = Not Evaluated

ATTACHMENT 4

PHOTOGRAPHIC DOCUMENTATION

RE Name:	Blue Ridge Landfill, 220 FM 521 Road, Fresno (Fort Bend County), Texas 77545 MSW Permit # 1505A	
Investigation Date:	03/19/2019	Investigation Photos
Page: 1 of 1	Attachment 4	

Photographs taken by: H. Thomas Collins, P.E.



Photo No. 1
Gas Monitoring Probe GP-32. Permanent probe was locked, well supported, protected and maintained.



Photo No. 2
Gas Monitoring Probe GMP-12. Permanent probe was locked, well supported, protected and maintained.