

AIR CP_102610102_CP_20160526_INVESTIGATION_1337795_
Texas Commission on Environmental Quality
Investigation Report

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

Regulated Entity Name: BLUE RIDGE LANDFILL

Regulated Entity Number: RN102610102

Investigation # 1337795

Investigator: GREGORY CROOK

Conducted: 05/26/2016 -- 05/26/2016

Program(s): AIR OPERATING PERMITS

Investigation Type: Site Assessment

Additional ID(s): FG0536E
1472

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

Incident Numbers

Site Classification MAJOR SOURCE

NAIC Code: 562212

SIC Code: 4953

SIC Code: 1521

Location: LOCATED ON 2200 FM 521

Local Unit: REGION 12 - HOUSTON

Activity Type(s): FIAIRODOR - AIR FIAIRODOR - FOC
INV ODOR SURVEY

Principal(s):

| Role | Name |
|-------------|---------------------------|
| RESPONDENT | BLUE RIDGE LANDFILL TX LP |

Contact(s):

| Role | Title | Name | Phone |
|--------------------------|-----------------------|-------------------|--------------|
| REGULATED ENTITY CONTACT | ENVIRONMENTAL MANAGER | MR BURGESS STENGL | |

Other Staff Member(s):

| Role | Name |
|--------------|----------------|
| QA Reviewer | SAMUEL CORTEZ |
| Investigator | SAMUEL CORTEZ |
| QA Reviewer | CORBETT BRINLY |
| Supervisor | CORBETT BRINLY |
| QA Reviewer | JOSEPH DOBY |

Associated Check List

Checklist Name

AIR FOCUSED INVESTIGATION - ODOR SURVEY
AIR INVESTIGATION - EQUIPMENT
MONITORING AND SAMPLING revised 06/2013

Unit Name

Blue Ridge Landfill
Blue Ridge Landfill

Investigation Comments:

RECEIVED

FEB 27 2017

TCEQ
CENTRAL FILE ROOM

INTRODUCTION/ INVESTIGATION SUMMARY

Introduction

On May 26, 2016, Chris Crook and Sam Cortez of the Texas Commission on Environmental Quality (TCEQ) Houston Region Office conducted a focused odor survey investigation in the Shadow Creek Ranch Subdivision area, in Pearland, in the Harris - Brazoria - Fort Bend County area. The purpose of this investigation (Investigation Typecode FIAIROPDOR) was to determine if any odors in the area constituted a nuisance condition. The Houston Region Office Air Section had investigators conducting odor surveys on the dates May 23 through May 26, 2016 in the Shadow Creek Ranch Subdivision and surrounding areas. The terrain in the area is flat land and the surrounding land use is residential.

May 26, 2016 - Investigation Daily Narrative

Meteorological data at time of investigation: May 26, 2016

Cloud cover: Overcast

Wind direction: Southeast

Wind speed: 0-8 mph

Average Temperature: 78° Fahrenheit

Precipitation: None

Source of Meteorological Data: Weather Underground (KAXH).

The investigators surveyed the Shadow Creek Ranch Subdivision and surrounding areas from 12:00 a.m. to 5:15 a.m. Refer to the attached log for specific details of time and location. The following is a summary of findings during this investigation:

The investigators arrived at the north side of the intersection of Highway 2234 and Highway 521, east of Akzo Noble at 12:15 a.m. The investigators conducted a general odor survey from 12:15 a.m. to 12:30 a.m. At 12:50 a.m., the investigators continued onto the first survey route (see attachment 1). For Section A of the survey route no odors were detected, in addition, a MultiRAE sensor was used and no readings were detected for Carbon Monoxide (CO), Hydrogen Sulfide (H₂S), or Volatile Organic Compounds (VOC). At 1:05 a.m. the investigators moved to section B of the survey route. At section B of the survey route no odors were detected and no readings were detected with the MultiRAE for CO, H₂S, or VOC. At 1:25 a.m. the investigators proceeded to section C of the survey route. At section C of the survey route no odors were detected and no readings were detected with the MultiRAE for CO, H₂S, or VOC. At 1:45 a.m. the investigators proceeded to section D of the survey route. At section D of the survey route, no odors were detected and no readings were detected with the MultiRAE for CO, H₂S, or VOC. At 2:07 a.m. the investigators completed the odor survey for route one.

At 2:12 a.m. the investigators conducted an odor survey of the second survey route (see attachment 2). During this odor survey, no odors were detected and no readings were detected with the MultiRAE for O₂, CO, H₂S, or VOC.

At 4:45 a.m. a highly offensive very light landfill gas/ honeysuckle odor was detected for under five minutes on the McHard Rd portion of the second survey route. The honeysuckle odor is a characteristic that can be linked to Blue Ridge Landfill, based on their usage of the scent as a deodorizer in their landfill process. During this time, the investigators set up two orifice SUMMA canister samples and one field blank SUMMA canister sample. The investigators took these samples North of Blue Ridge Landfill from 4:45 a.m. to 5:15 a.m. The approximate location of the SUMMA canister samples can be seen in attachment 3. Additionally, a 15-minute odor log was taken (see attachment 5). The one-minute and 10 minute weighted averages were each very light intensity. The wind was blowing from the Southeast at 0-5 mph.

SUMMA canister sample results were received on June 17, 2016 (see attachment 4). The TCEQ evaluation report noted that all of the 84 VOCs analyzed for both samples were either not detected or were detected below their respective short-term air monitoring comparison values (AMCVs). According to the evaluation conducted by the TCEQ Toxicology Division, exposure to levels of VOCs measured in this sample would not be expected to cause short-term adverse health effects, adverse vegetation effects, or odors. However, it is important to note that this evaluation only applies to the 84 VOCs that are analytically measured in a canister sample.

Process Description

BLUE RIDGE LANDFILL - FRESNO

5/26/2016 Inv. # - 1337795

Page 3 of 4

Blue Ridge Landfill is a municipal solid waste (MSW) landfill located at 2200 FM 521, in Fresno, Fort Bend County, Texas and is authorized to operate by TCEQ General Operating Permit No. O-01472. The landfill was issued this permit on August 23, 2003. The surrounding land use includes light industry, agricultural production and several residential subdivisions.

Exit Interview

No exit interview conducted for this investigation.

Background

Agreed Orders, Court Orders, and Other Compliance Agreements

These are not reviewed when no violations resulted from an investigation.

Prior Enforcement Issues

Based on review of CCEDS and enforcement database, there were no prior enforcement issues in the last five years.

Complaints

Based on review of CCEDS, there were approximately one thousand two hundred and seventy six (1,276) complaints filed against the regulated entity for the past year (August 1, 2016 through June 30, 2016).

Additional Information

Conclusions, Recommendations, and Current Enforcement Actions

One landfill gas/honeysuckle odor was detected throughout the investigation. Investigators characterized the landfill gas odor as highly offensive based on experience, training, and the examples on the TCEQ Frequency, Intensity, Duration and Offensiveness (FIDO) chart. During the survey, the strongest one-minute intensity was very light for the lead investigator. The 10 minute weighted average was determined to be very light for the lead investigator. During this investigation and in investigation #1331231, Blue Ridge Landfill was determined to be the source of the odors detected at offsite locations. The findings from this investigation will be addressed in investigation #1331231.

Additional Issues

No additional issues were noted.

Report Attachments

1. First Survey Route Map
2. Second Survey Route Map
3. Approximate Location of SUMMA Canister Samples
4. SUMMA Canister sample results
5. Odor Log

No Violations Associated to this Investigation

Signed Chris Cook
Environmental Investigator

Date 1/27/2017

Signed Corbett Bandy
Supervisor

Date 1-27-2017

Attachments: (in order of final report submittal)

- Enforcement Action Request (EAR)
- Letter to Facility (specify type) : _____
- Investigation Report
- Sample Analysis Results
- Manifests
- Notice of Registration

- Maps, Plans, Sketches
- Photographs
- Correspondence from the facility
- Other (specify) :
ODOR LOG
- Lab Analysis

Attachment 1

Blue Ridge Landfill

RN #102610102

Investigation #1337795

First Survey Route Map

May 26, 2016



Yellow : first survey route
Red Line: second survey route

Investigation Type: FIAIRODOR
Air Account NO: FG0536E
Attachment: 1. First Survey Route
Page: 1 of 1

Attachment 2

Blue Ridge Landfill

RN #102610102

Investigation #1337795

Second Survey Route Map

May 26, 2016



Yellow : first survey route

Red Line: second survey route

Yellow dot: potential places to take odor logs

Investigation Type: FIAIRODOR

Air Account NO: FG0536E

Attachment: 2. Second Survey Route

Page: 1 of 1

Attachment 3

Blue Ridge Landfill

RN #102610102

Investigation #1337795

Approximate Location of Summa Canister Samples

May 26, 2016



Google earth



Investigation Type: FIARODOR

Air Account NO: FG0536E

Attachment: 3. Approximate location of Summa samples

Page: 1 of 1

Attachment 4

Blue Ridge Landfill

RN #102610102

Investigation #1337795

Summa Canister Sample Results

May 26, 2016

Texas Commission on Environmental Quality

Laboratory and Quality Assurance Section
P.O. Box 13087, MC-165
Austin, Texas 78711-3087
(512) 239-1716

Laboratory Analysis Results

Request Number: 1606001

Request Lead: Frank Martinez

Region: T12

Date Received: 6/15/2016

Project(s): NA

| Facility(ies) Sampled | City | County | Facility Type |
|-----------------------|--------|-----------|----------------|
| Blue Ridge Landfill | Fresno | Fort Bend | Waste Disposal |

Sample(s) Received

Field ID Number: OFC-233 052616 Laboratory Sample Number: 1606001-001 Sampled by: Chris Crook
Sampling Site: Intersection of Mchard Rd. and Manor Park Dr. Date & Time Sampled: 05/26/16 04:45:00 Valid Sample: Yes
Comments: Canister N1670 was used to collect a 30-minute sample using OFC-233.

Field ID Number: OFC-205 052616 Laboratory Sample Number: 1606001-001FD Sampled by: Chris Crook
Sampling Site: Intersection of Mchard Rd. and Manor Park Dr. Date & Time Sampled: 05/26/16 04:45:00 Valid Sample: Yes
Comments: Canister N2007 was used to collect a 30-minute sample using OFC-205.

Field ID Number: Blank 052616 Laboratory Sample Number: 1606001-002TB Sampled by: Chris Crook
Sampling Site: Date & Time Sampled: 05/26/16 04:45:00 Valid Sample: Yes
Comments: Canister N0652 was used as trip blank.
Requested Laboratory Procedure(s):

Analysis: AP001VOC

Determination of VOCs in Canisters by GC/MS Using Modified Method TO-15

Please note that this analytical technique is not capable of measuring all compounds which might have adverse health effects. For questions on the analytical procedures please contact the laboratory manager at (512) 239-1716. For an update on the health effects evaluation of these data, please contact the Toxicology Division at (512) 239-1795.

Analyst: Jaydeep Patel

Jaydeep Patel

Date: 06/16/16Laboratory Manager: Frank Martinez

Frank Martinez

Date: 6/17/16Investigation Type: FIAIRODORAir Account NO: FG0536EAttachment: Summa Canister Sample ResultsPage: 1 of 6

Laboratory Analysis Results
 Request Number: 1606001
 Analysis Code: AP001VOC

Note: Results are reported in units of ppbv

| Lab ID | 1606001-001 | | | | | 1606001-001FD | | | | |
|-------------------------------|----------------|------|-----|---------------|---------|----------------|------|-----|---------------|---------|
| Field ID | OPC-233 052616 | | | | | OPC-205 052616 | | | | |
| Canister ID | N1670 | | | | | N2007 | | | | |
| Compound | Conc. | SDL | SQL | Analysis Date | Flags** | Conc. | SDL | SQL | Analysis Date | Flags** |
| ethane | 0.62 | 1.0 | 2.4 | 6/14/2016 | J,T,D1 | 0.81 | 1.0 | 2.4 | 6/14/2016 | J,T,D1 |
| ethylene | ND | 1.0 | 2.4 | 6/14/2016 | T,D1 | ND | 1.0 | 2.4 | 6/14/2016 | T,D1 |
| acetylene | ND | 1.0 | 2.4 | 6/14/2016 | T,D1 | ND | 1.0 | 2.4 | 6/14/2016 | T,D1 |
| propane | ND | 1.0 | 2.4 | 6/14/2016 | T,D1 | ND | 1.0 | 2.4 | 6/14/2016 | T,D1 |
| propylene | ND | 1.0 | 2.4 | 6/14/2016 | T,D1 | ND | 1.0 | 2.4 | 6/14/2016 | T,D1 |
| dichlorodifluoromethane | 0.48 | 0.40 | 1.2 | 6/14/2016 | L,D1 | 0.49 | 0.40 | 1.2 | 6/14/2016 | L,D1 |
| methyl chloride | 0.82 | 0.40 | 1.2 | 6/14/2016 | L,D1 | 0.88 | 0.40 | 1.2 | 6/14/2016 | L,D1 |
| isobutane | 0.13 | 0.46 | 2.4 | 6/14/2016 | J,D1 | 0.15 | 0.46 | 2.4 | 6/14/2016 | J,D1 |
| vinyl chloride | 0.01 | 0.34 | 1.2 | 6/14/2016 | J,D1 | 0.01 | 0.34 | 1.2 | 6/14/2016 | J,D1 |
| 1-butene | 0.27 | 0.40 | 1.2 | 6/14/2016 | J,D1 | 0.33 | 0.40 | 1.2 | 6/14/2016 | J,D1 |
| 1,3-butadiene | 0.01 | 0.54 | 1.2 | 6/14/2016 | J,D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| n-butane | 0.14 | 0.40 | 2.4 | 6/14/2016 | J,D1 | 0.16 | 0.40 | 2.4 | 6/14/2016 | J,D1 |
| t-2-butene | ND | 0.36 | 1.2 | 6/14/2016 | D1 | ND | 0.36 | 1.2 | 6/14/2016 | D1 |
| bromomethane | ND | 0.54 | 1.2 | 6/14/2016 | D1 | 0.02 | 0.54 | 1.2 | 6/14/2016 | J,D1 |
| c-2-butene | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| 3-methyl-1-butene | ND | 0.46 | 1.2 | 6/14/2016 | D1 | ND | 0.46 | 1.2 | 6/14/2016 | D1 |
| isopentane | 0.08 | 0.54 | 4.8 | 6/14/2016 | J,D1 | 0.12 | 0.54 | 4.8 | 6/14/2016 | J,D1 |
| trichlorofluoromethane | 0.21 | 0.58 | 1.2 | 6/14/2016 | J,D1 | 0.22 | 0.58 | 1.2 | 6/14/2016 | J,D1 |
| 1-pentene | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| n-pentane | 0.05 | 0.54 | 4.8 | 6/14/2016 | J,D1 | 0.07 | 0.54 | 4.8 | 6/14/2016 | J,D1 |
| isoprene | ND | 0.54 | 1.2 | 6/14/2016 | D1 | 0.03 | 0.54 | 1.2 | 6/14/2016 | J,D1 |
| t-2-pentene | ND | 0.54 | 2.4 | 6/14/2016 | D1 | ND | 0.54 | 2.4 | 6/14/2016 | D1 |
| 1,1-dichloroethylene | ND | 0.36 | 1.2 | 6/14/2016 | D1 | ND | 0.36 | 1.2 | 6/14/2016 | D1 |
| c-2-pentene | ND | 0.50 | 2.4 | 6/14/2016 | D1 | ND | 0.50 | 2.4 | 6/14/2016 | D1 |
| methylene chloride | 0.04 | 0.28 | 1.2 | 6/14/2016 | J,D1 | 0.05 | 0.28 | 1.2 | 6/14/2016 | J,D1 |
| 2-methyl-2-butene | ND | 0.46 | 1.2 | 6/14/2016 | D1 | ND | 0.46 | 1.2 | 6/14/2016 | D1 |
| 2,2-dimethylbutane | ND | 0.42 | 1.2 | 6/14/2016 | D1 | ND | 0.42 | 1.2 | 6/14/2016 | D1 |
| cyclopentene | ND | 0.40 | 1.2 | 6/14/2016 | D1 | ND | 0.40 | 1.2 | 6/14/2016 | D1 |
| 4-methyl-1-pentene | ND | 0.44 | 2.4 | 6/14/2016 | D1 | ND | 0.44 | 2.4 | 6/14/2016 | D1 |
| 1,1-dichloroethane | ND | 0.38 | 1.2 | 6/14/2016 | D1 | ND | 0.38 | 1.2 | 6/14/2016 | D1 |
| cyclopentane | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| 2,3-dimethylbutane | ND | 0.56 | 2.4 | 6/14/2016 | D1 | ND | 0.56 | 2.4 | 6/14/2016 | D1 |
| 2-methylpentane | 0.01 | 0.54 | 1.2 | 6/14/2016 | J,D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| 3-methylpentane | ND | 0.46 | 1.2 | 6/14/2016 | D1 | ND | 0.46 | 1.2 | 6/14/2016 | D1 |
| 2-methyl-1-pentene + 1-hexene | ND | 0.40 | 4.8 | 6/14/2016 | D1 | ND | 0.40 | 4.8 | 6/14/2016 | D1 |
| n-hexane | ND | 0.40 | 2.4 | 6/14/2016 | D1 | ND | 0.40 | 2.4 | 6/14/2016 | D1 |
| chloroform | ND | 0.42 | 1.2 | 6/14/2016 | D1 | ND | 0.42 | 1.2 | 6/14/2016 | D1 |
| t-2-hexene | ND | 0.54 | 2.4 | 6/14/2016 | D1 | ND | 0.54 | 2.4 | 6/14/2016 | D1 |
| c-2-hexene | ND | 0.54 | 2.4 | 6/14/2016 | D1 | ND | 0.54 | 2.4 | 6/14/2016 | D1 |
| 1,2-dichloroethane | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| methylcyclopentane | ND | 0.54 | 2.4 | 6/14/2016 | D1 | ND | 0.54 | 2.4 | 6/14/2016 | D1 |
| 2,4-dimethylpentane | ND | 0.54 | 2.4 | 6/14/2016 | D1 | ND | 0.54 | 2.4 | 6/14/2016 | D1 |
| 1,1,1-trichloroethane | ND | 0.52 | 1.2 | 6/14/2016 | D1 | ND | 0.52 | 1.2 | 6/14/2016 | D1 |
| benzene | ND | 0.54 | 1.2 | 6/14/2016 | D1 | 0.19 | 0.54 | 1.2 | 6/14/2016 | J,D1 |
| carbon tetrachloride | 0.09 | 0.54 | 1.2 | 6/14/2016 | J,D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| cyclohexane | ND | 0.48 | 1.2 | 6/14/2016 | D1 | ND | 0.48 | 1.2 | 6/14/2016 | D1 |
| 2-methylhexane | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| 2,3-dimethylpentane | ND | 0.52 | 1.2 | 6/14/2016 | D1 | ND | 0.52 | 1.2 | 6/14/2016 | D1 |

Laboratory Analysis Results
Request Number: 1606001
Analysis Code: AP001VOC

investigation Type: FLAVORODOR
 Air Account NO: FG0536E
 Attachment: Summa Canister Sample results
 Page: 3 of 6

Note: Results are reported in units of ppbv

| Lab ID | 1606001-002TB | | | | | | | | | |
|-------------------------------|---------------|------|------|---------------|---------|-------|-----|-----|---------------|---------|
| Field ID | Blank 052616 | | | | | | | | | |
| Canister ID | N0652 | | | | | | | | | |
| Compound | Conc. | SDL | SQL | Analysis Date | Flags** | Conc. | SDL | SQL | Analysis Date | Flags** |
| ethane | ND | 0.50 | 1.2 | 6/13/2016 | T | | | | | |
| ethylene | ND | 0.50 | 1.2 | 6/13/2016 | T | | | | | |
| acetylene | ND | 0.50 | 1.2 | 6/13/2016 | T | | | | | |
| propane | ND | 0.50 | 1.2 | 6/13/2016 | T | | | | | |
| propylene | ND | 0.50 | 1.2 | 6/13/2016 | T | | | | | |
| dichlorodifluoromethane | ND | 0.20 | 0.60 | 6/13/2016 | | | | | | |
| methyl chloride | 0.02 | 0.20 | 0.60 | 6/13/2016 | J | | | | | |
| isobutane | 0.05 | 0.23 | 1.2 | 6/13/2016 | J | | | | | |
| vinyl chloride | ND | 0.17 | 0.60 | 6/13/2016 | | | | | | |
| 1-butene | 0.11 | 0.20 | 0.60 | 6/13/2016 | J | | | | | |
| 1,3-butadiene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| n-butane | 0.05 | 0.20 | 1.2 | 6/13/2016 | J | | | | | |
| t-2-butene | ND | 0.18 | 0.60 | 6/13/2016 | | | | | | |
| bromomethane | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| c-2-butene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| 3-methyl-1-butene | ND | 0.23 | 0.60 | 6/13/2016 | | | | | | |
| isopentane | ND | 0.27 | 2.4 | 6/13/2016 | | | | | | |
| trichlorofluoromethane | 0.01 | 0.29 | 0.60 | 6/13/2016 | J | | | | | |
| 1-pentene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| n-pentane | 0.04 | 0.27 | 2.4 | 6/13/2016 | J | | | | | |
| isoprene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| t-2-pentene | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| 1,1-dichloroethylene | ND | 0.18 | 0.60 | 6/13/2016 | | | | | | |
| c-2-pentene | ND | 0.25 | 1.2 | 6/13/2016 | | | | | | |
| methylene chloride | ND | 0.14 | 0.60 | 6/13/2016 | | | | | | |
| 2-methyl-2-butene | ND | 0.23 | 0.60 | 6/13/2016 | | | | | | |
| 2,2-dimethylbutane | ND | 0.21 | 0.60 | 6/13/2016 | | | | | | |
| cyclopentene | ND | 0.20 | 0.60 | 6/13/2016 | | | | | | |
| 4-methyl-1-pentene | ND | 0.22 | 1.2 | 6/13/2016 | | | | | | |
| 1,1-dichloroethane | ND | 0.19 | 0.60 | 6/13/2016 | | | | | | |
| cyclopentane | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| 2,3-dimethylbutane | ND | 0.28 | 1.2 | 6/13/2016 | | | | | | |
| 2-methylpentane | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| 3-methylpentane | ND | 0.23 | 0.60 | 6/13/2016 | | | | | | |
| 2-methyl-1-pentene + 1-hexene | ND | 0.20 | 2.4 | 6/13/2016 | | | | | | |
| n-hexane | ND | 0.20 | 1.2 | 6/13/2016 | | | | | | |
| chloroform | ND | 0.21 | 0.60 | 6/13/2016 | | | | | | |
| t-2-hexene | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| c-2-hexene | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| 1,2-dichloroethane | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| methylcyclopentane | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| 2,4-dimethylpentane | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| 1,1,1-trichloroethane | ND | 0.26 | 0.60 | 6/13/2016 | | | | | | |
| benzene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| carbon tetrachloride | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| cyclohexane | ND | 0.24 | 0.60 | 6/13/2016 | | | | | | |
| 2-methylhexane | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| 2,3-dimethylpentane | ND | 0.26 | 0.60 | 6/13/2016 | | | | | | |

Laboratory Analysis Results

Request Number: 1606001

Analysis Code: AP001VOC

Note: Results are reported in units of ppbv

| Lab ID | 1606001-001 | | | | | 1606001-001FD | | | | |
|---------------------------|-------------|------|-----|---------------|---------|---------------|------|-----|---------------|---------|
| | Conc. | SDL | SQL | Analysis Date | Flags** | Conc. | SDL | SQL | Analysis Date | Flags** |
| 3-methylhexane | 0.02 | 0.40 | 1.2 | 6/14/2016 | J,D1 | 0.02 | 0.40 | 1.2 | 6/14/2016 | J,D1 |
| 1,2-dichloropropane | ND | 0.34 | 1.2 | 6/14/2016 | D1 | ND | 0.34 | 1.2 | 6/14/2016 | D1 |
| trichloroethylene | ND | 0.58 | 1.2 | 6/14/2016 | D1 | ND | 0.58 | 1.2 | 6/14/2016 | D1 |
| 2,2,4-trimethylpentane | ND | 0.48 | 1.2 | 6/14/2016 | D1 | 0.02 | 0.48 | 1.2 | 6/14/2016 | J,D1 |
| 2-chloropentane | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| n-heptane | 0.02 | 0.50 | 2.4 | 6/14/2016 | J,D1 | 0.02 | 0.50 | 2.4 | 6/14/2016 | J,D1 |
| o-1,3-dichloropropylene | ND | 0.40 | 1.2 | 6/14/2016 | D1 | ND | 0.40 | 1.2 | 6/14/2016 | D1 |
| methylcyclohexane | ND | 0.52 | 2.4 | 6/14/2016 | D1 | 0.01 | 0.52 | 2.4 | 6/14/2016 | J,D1 |
| t-1,3-dichloropropylene | ND | 0.40 | 1.2 | 6/14/2016 | D1 | ND | 0.40 | 1.2 | 6/14/2016 | D1 |
| 1,1,2-trichloroethane | ND | 0.42 | 1.2 | 6/14/2016 | D1 | ND | 0.42 | 1.2 | 6/14/2016 | D1 |
| 2,3,4-trimethylpentane | ND | 0.48 | 2.4 | 6/14/2016 | D1 | ND | 0.48 | 2.4 | 6/14/2016 | D1 |
| toluene | 0.10 | 0.54 | 1.2 | 6/14/2016 | J,D1 | 0.13 | 0.54 | 1.2 | 6/14/2016 | J,D1 |
| 2-methylheptane | ND | 0.40 | 2.4 | 6/14/2016 | D1 | ND | 0.40 | 2.4 | 6/14/2016 | D1 |
| 3-methylheptane | ND | 0.46 | 2.4 | 6/14/2016 | D1 | ND | 0.46 | 2.4 | 6/14/2016 | D1 |
| 1,2-dibromoethane | ND | 0.40 | 1.2 | 6/14/2016 | D1 | ND | 0.40 | 1.2 | 6/14/2016 | D1 |
| n-octane | 0.01 | 0.38 | 2.4 | 6/14/2016 | J,D1 | 0.01 | 0.38 | 2.4 | 6/14/2016 | J,D1 |
| tetrachloroethylene | ND | 0.48 | 1.2 | 6/14/2016 | D1 | ND | 0.48 | 1.2 | 6/14/2016 | D1 |
| chlorobenzene | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| ethylbenzene | 0.03 | 0.54 | 2.4 | 6/14/2016 | J,D1 | 0.03 | 0.54 | 2.4 | 6/14/2016 | J,D1 |
| m & p-xylene | 0.05 | 0.54 | 4.8 | 6/14/2016 | J,D1 | 0.05 | 0.54 | 4.8 | 6/14/2016 | J,D1 |
| styrene | ND | 0.54 | 2.4 | 6/14/2016 | D1 | 0.01 | 0.54 | 2.4 | 6/14/2016 | J,D1 |
| 1,1,2,2-tetrachloroethane | ND | 0.40 | 1.2 | 6/14/2016 | D1 | ND | 0.40 | 1.2 | 6/14/2016 | D1 |
| o-xylene | 0.01 | 0.54 | 2.4 | 6/14/2016 | J,D1 | 0.02 | 0.54 | 2.4 | 6/14/2016 | J,D1 |
| n-nonane | ND | 0.44 | 1.2 | 6/14/2016 | D1 | ND | 0.44 | 1.2 | 6/14/2016 | D1 |
| isopropylbenzene | ND | 0.48 | 1.2 | 6/14/2016 | D1 | ND | 0.48 | 1.2 | 6/14/2016 | D1 |
| n-propylbenzene | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| m-ethyltoluene | ND | 0.22 | 1.2 | 6/14/2016 | D1 | ND | 0.22 | 1.2 | 6/14/2016 | D1 |
| p-ethyltoluene | ND | 0.32 | 2.4 | 6/14/2016 | D1 | ND | 0.32 | 2.4 | 6/14/2016 | D1 |
| 1,3,5-trimethylbenzene | ND | 0.50 | 2.4 | 6/14/2016 | D1 | ND | 0.50 | 2.4 | 6/14/2016 | D1 |
| o-ethyltoluene | ND | 0.26 | 2.4 | 6/14/2016 | D1 | ND | 0.26 | 2.4 | 6/14/2016 | D1 |
| 1,2,4-trimethylbenzene | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| n-decane | 0.01 | 0.54 | 2.4 | 6/14/2016 | J,D1 | 0.01 | 0.54 | 2.4 | 6/14/2016 | J,D1 |
| 1,2,3-trimethylbenzene | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| m-diethylbenzene | ND | 0.54 | 2.4 | 6/14/2016 | D1 | ND | 0.54 | 2.4 | 6/14/2016 | D1 |
| p-diethylbenzene | ND | 0.54 | 1.2 | 6/14/2016 | D1 | ND | 0.54 | 1.2 | 6/14/2016 | D1 |
| n-undecane | 0.01 | 0.54 | 2.4 | 6/14/2016 | J,D1 | ND | 0.54 | 2.4 | 6/14/2016 | D1 |

Investigation Type: FIA/RODOR
 Air Account NO: FG0536E
 Attachment: Summa Canister Sample Results
 Page: 4 of 6

Laboratory Analysis Results

Request Number: 1606001

Analysis Code: AP001VOC

Note: Results are reported in units of ppbv

| Lab ID | 1606001-002TB | | | | | Conc. | SDL | SQL | Analysis Date | Flags** |
|---------------------------|---------------|-------|------|-----------|---------------|-------|-----|-----|---------------|---------|
| | Compound | Conc. | SDL | SQL | Analysis Date | | | | | |
| 3-methylhexane | ND | 0.20 | 0.60 | 6/13/2016 | | | | | | |
| 1,2-dichloropropane | ND | 0.17 | 0.60 | 6/13/2016 | | | | | | |
| trichloroethylene | ND | 0.29 | 0.60 | 6/13/2016 | | | | | | |
| 2,2,4-trimethylpentane | ND | 0.24 | 0.60 | 6/13/2016 | | | | | | |
| 2-chloropentane | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| n-heptane | ND | 0.25 | 1.2 | 6/13/2016 | | | | | | |
| c-1,3-dichloropropylene | ND | 0.20 | 0.60 | 6/13/2016 | | | | | | |
| methylcyclohexane | ND | 0.26 | 1.2 | 6/13/2016 | | | | | | |
| t-1,3-dichloropropylene | ND | 0.20 | 0.60 | 6/13/2016 | | | | | | |
| 1,1,2-trichloroethane | ND | 0.21 | 0.60 | 6/13/2016 | | | | | | |
| 2,3,4-trimethylpentane | ND | 0.24 | 1.2 | 6/13/2016 | | | | | | |
| toluene | 0.05 | 0.27 | 0.60 | 6/13/2016 | J | | | | | |
| 2-methylheptane | ND | 0.20 | 1.2 | 6/13/2016 | | | | | | |
| 3-methylheptane | ND | 0.23 | 1.2 | 6/13/2016 | | | | | | |
| 1,2-dibromoethane | ND | 0.20 | 0.60 | 6/13/2016 | | | | | | |
| n-octane | ND | 0.19 | 1.2 | 6/13/2016 | | | | | | |
| tetrachloroethylene | ND | 0.24 | 0.60 | 6/13/2016 | | | | | | |
| chlorobenzene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| ethylbenzene | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| m & p-xylene | 0.01 | 0.27 | 2.4 | 6/13/2016 | J | | | | | |
| styrene | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| 1,1,2,2-tetrachloroethane | ND | 0.20 | 0.60 | 6/13/2016 | | | | | | |
| o-xylene | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| n-nonane | ND | 0.22 | 0.60 | 6/13/2016 | | | | | | |
| isopropylbenzene | ND | 0.24 | 0.60 | 6/13/2016 | | | | | | |
| n-propylbenzene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| m-ethyltoluene | ND | 0.11 | 0.60 | 6/13/2016 | | | | | | |
| p-ethyltoluene | ND | 0.16 | 1.2 | 6/13/2016 | | | | | | |
| 1,3,5-trimethylbenzene | ND | 0.25 | 1.2 | 6/13/2016 | | | | | | |
| o-ethyltoluene | ND | 0.13 | 1.2 | 6/13/2016 | | | | | | |
| 1,2,4-trimethylbenzene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| n-decane | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| 1,2,3-trimethylbenzene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| m-diethylbenzene | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |
| p-diethylbenzene | ND | 0.27 | 0.60 | 6/13/2016 | | | | | | |
| n-undecane | ND | 0.27 | 1.2 | 6/13/2016 | | | | | | |

Investigation Type: FIAIR O DOR

Air Account NO: FG0536E

Attachment: Summer Canister Sample Results

Page: 5 of 6

Laboratory Analysis Results

Request Number: 1606001

Analysis Code: AP001VOC

Qualifier Notes:

- ND - not detected
- NQ - concentration can not be quantified due to possible interferences or coelutions.
- SDL - Sample Detection Limit (Limit of Detection adjusted for dilutions).
- SQL - Sample Quantitation Limit (Limit of Quantitation adjusted for dilution).
- INV - Invalid.
- J - Reported concentration is below SDL.
- L - Reported concentration is at or above the SDL and is below the lower limit of quantitation.
- E - Reported concentration exceeds the upper limit of instrument calibration.
- M - Result modified from previous result.
- T - Data was not confirmed by a confirmational analysis. Compound and/or results is tentatively identified.
- F - Established acceptance criteria was not met due to factors outside the laboratory's control.
- H - Not all associated hold time specifications were met. Data may be biased.
- C - Sample received with a missing or broken custody seal.
- R - Sample received with a missing or incomplete chain of custody.
- I - Sample received without a legible unique identifier.
- G - Sample received in an improper container.
- U - Sample received with insufficient sample volume.
- W - Sample received with insufficient preservation.

Quality control notes for AP001VOC samples.

D1-Sample concentration was calculated using a dilution factor of 4.01.

Investigation Type: FIAIRODOR
Air Account NO: FG 0536E
Attachment: Summa Canister Sample Results
Page: 6 of 6

TCEQ laboratory customer support may be reached at Frank.Martinez@tceq.texas.gov

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Attachment 5

Blue Ridge Landfill

RN #102610102

Investigation #1337795

Odor Log

May 26, 2016

Investigator's Odor Intensity Time Log

Date of Investigation: 5/26/2016 Start Time 5:00 A.M.

Name and Address of Alleged Source: Blue Ridge Landfill

Investigator's Name: Print: Chris Crook Sign: Chris Crook

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 1 min | VL |
| 2 | NO ODOR |
| 3 | NO ODOR |
| 4 | VL |
| 5 | VL |
| 6 | VL |
| 7 | VL |
| 8 | NO ODOR |
| 9 | NO ODOR |
| 10 | NO ODOR |
| 11 | NO ODOR |
| 12 | VL |
| 13 | NO ODOR |
| 14 | NO ODOR |
| 15 | NO ODOR |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | |
| 21 | |
| 22 | |
| 23 | |
| 24 | |
| 25 | |
| 26 | |
| 27 | |
| 28 | |
| 29 | |
| 30 | |

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 31 min | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |
| 36 | |
| 37 | |
| 38 | |
| 39 | |
| 40 | |
| 41 | |
| 42 | |
| 43 | |
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| 51 | |
| 52 | |
| 53 | |
| 54 | |
| 55 | |
| 56 | |
| 57 | |
| 58 | |
| 59 | |
| 60 | |

Offensiveness: Highly Offensive _____ Unpleasant _____ Not Unpleasant _____
 Weighted Average Intensity For:

| | VS | S | M | L | VL | No Odor |
|--------|----|---|---|---|----|---------|
| 1 Min | | | | | ✓ | |
| 10 Min | | | | | ✓ | |
| 1 Hour | | | | | | |

Investigation Type: FIAR ODOR

Air Account NO: FG0536E

Attachment: ODOR LOG

Page: 1 of 1