

Air CP\_102610102\_CP\_20160524\_INVESTIGATION\_1345016\_  
**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 #** 1345016

**Investigator:** JUSTIN MAYWORN

**Conducted:** 05/24/2016 -- 05/24/2016

**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:** 1521

**SIC Code:** 4953

**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	LANDIFLL OPERATIONS MANAGER	MR MATT MONTAGNA	Office (281) 668-9739

**Other Staff Member(s):**

Role	Name
Investigator	GABRIELLE LAMOREAUX
QA Reviewer	GABRIELLE LAMOREAUX
QA Reviewer	JOSEPH DOBY
Supervisor	JOSEPH DOBY
QA Reviewer	CORBETT BRINLY

**Associated Check List**

<u>Checklist Name</u>	<u>Unit Name</u>
AIR FOCUSED INVESTIGATON - ODOR SURVEY	Site Wide
AIR INVESTIGATION - EQUIPMENT	Site Wide
MONITORING AND SAMPLING revised 06/2013	

**Investigation Comments:**

## BLUE RIDGE LANDFILL - FRESNO

5/24/2016 Inv. # - 1345016

Page 2 of 4

---

### INTRODUCTION/ INVESTIGATION SUMMARY

#### Introduction

On May 24, 2016, Mr. Justin Mayworn and Ms. Gabrielle Lamoreaux of the Texas Commission on Environmental Quality (TCEQ) Houston Region Office conducted a focused odor survey investigation in the Shadow Creek Ranch Subdivision, in Pearland, and in Fort Bend, Brazoria, and Harris counties in the vicinity of Shadow Creek Ranch. The purpose of this investigation (Investigation Typecode FIAIRODOR) was to survey the area for odor sources. The TCEQ investigators conducted odor surveys from May 23, 2016 through May 26, 2016.

#### Investigation Narrative

The investigation took place on May 24, 2016. The surrounding land use is a mix of residential, light industrial, and commercial areas. The terrain is flat with sporadic forest.

#### Meteorological Conditions

Cloud Cover: Partly Cloudy  
Temperature: 79° Fahrenheit  
Wind Direction: East Southeast  
Wind Speed: Approximately 0-14 miles per hour  
Precipitation: 0.0 inches  
Source of Meteorological Conditions: Weather Underground (KAXH).

During this investigation the investigators were equipped with a Multi-RAE gas monitor. The Multi-RAE has alarms for high, low, short-term exposure limit (STEL), and the time-weighted average permissible exposure limit (TWA) levels. For H<sub>2</sub>S, high level is 20 parts per million (ppm), low level is 10 ppm, STEL is 15 ppm, and TWA is 10 ppm. For VOC, high is 100 ppm, low is 50 ppm, STEL is 25 ppm, and TWA is 10 ppm. None of the alarms went off during the investigation.

See attachment 1 for the area map and odor log locations. See attachment 2 for all odor logs.

#### May 24, 2016

At 0008 the investigators arrived at Shadow Creek Ranch subdivision to observe for odor frequency, intensity, duration, and offensiveness. The investigators began their survey on the west side of the neighborhood, working from south to north. No odor was detected.

At 0057 the investigators arrived at Green Valley Estates to observe for odor frequency, intensity, duration, and offensiveness. The investigators surveyed the neighborhood moving from east to west. No odor was detected.

At 0120 the investigators arrived at West Drive to observe for odor frequency, intensity, duration, and offensiveness. No odor was detected.

At 0128 the investigators arrived at Hooper Road to observe for odor frequency, intensity, duration, and offensiveness. No odor was detected.

At 0145 the investigators arrived at the Greater Houston Gun Club located at 6700 McHard Rd, Houston, TX 77053. The investigators detected a landfill gas/honeysuckle odor. A one-hour odor log was conducted by each investigator simultaneously (Location 1). For Mr. Mayworn's log, the one and ten minute weighted average was very strong, the one hour weighted average was strong (see attachment 2, page 2). For Ms. Lamoreaux's log, the one and ten minute weighted average was very strong, the one hour weighted average was moderate (see attachment 2, page 1).

At 0246 the investigators arrived at FM 2234 to observe for odor frequency, intensity, duration, and offensiveness. The investigators traveled from west to east. No odor was detected.

At 0325 the investigators arrived at the intersection of FM 2234 and Post Oak Road. The investigators detected a landfill gas/honeysuckle odor. A ten minute odor log was conducted by each investigator simultaneously (Location 2). For Mr. Mayworn's log, the one minute weighted average was light and the ten minute weighted average was very light (see attachment 2, page 3). For Ms. Lamoreaux's log, the one minute weighted average was

## **BLUE RIDGE LANDFILL - FRESNO**

**5/24/2016 Inv. # - 1345016**

**Page 3 of 4**

---

light and the ten minute weighted average was very light (see attachment 2, page 4).

At 0358 the investigators arrived at Reflection Bay to observe for odor frequency, intensity, duration, and offensiveness. No odor was detected.

At 0403 the investigators arrived at 2204 Cambridge Shores Lane to observe for odor frequency, intensity, duration, and offensiveness. A 30 minute odor log was conducted by each investigator simultaneously (Location 3). For Mr. Mayworn's log, the one and ten minute weighted average was no odor (see attachment 2, page 5). For Ms. Lamoreaux's log, the one and ten minute weighted average was also no odor (see attachment 2, page 6).

At 0448 the investigators arrived at the Greater Houston Gun Club located at 6700 McHard Rd, Houston, TX 77053 to observe for odor frequency, intensity, duration, and offensiveness. A 30 minute odor log was conducted by each investigator simultaneously (Location 4). For Mr. Mayworn's log, the one minute weighted average was very strong, and the ten minute weighted average was strong (see attachment 2, page 7). For Ms. Lamoreaux's log, the one minute weighted average was strong, and the ten minute weighted average was moderate (see attachment 2, page 8).

At 0535 the investigators returned to TCEQ Region 12 headquarters.

Two odors were detected during the odor surveys: the landfill gas and honeysuckle odors. According to the TCEQ Frequency, Intensity, Duration, and Offensiveness (FIDO) chart, the landfill gas odor is characterized as highly offensive. During the investigation, the strongest landfill gas odor intensity was very strong for the one and ten minute weighted average, and strong for the one hour weighted average (see attachment 2, page 2). The landfill gas odor was constant for the majority of the odor observation. A honeysuckle odor was also present in all cases where landfill gas was detected. From previous investigations it has been confirmed that Blue Ridge landfill uses a honeysuckle scented agent to mitigate or mask odors.

### **Exit Interview**

An exit interview was not conducted.

## **GENERAL FACILITY AND PROCESS INFORMATION**

### **Process Description**

Blue Ridge Landfill is a municipal solid waste landfill with a landfill gas collection and control system.

## **BACKGROUND**

### **Agreed Orders Court Orders, and Other Compliance Agreements**

Based on review of CCEDS and the regional office files during the past five years, there were no agreed orders, court orders, or other compliance agreements for the site.

### **Prior Enforcement Issues**

Based on a review of CCEDS and the regional office files, two violations were issued by the TCEQ to the alleged source during the past five years. There are no repeat violations.

### **Complaints**

Based on a review of CCEDS during the past five years, there have been hundreds of complaints filed against Blue Ridge Landfill.

## **ADDITIONAL INFORMATION**

### **Conclusions, Recommendations, and Current Enforcement Actions**

Two odors were detected throughout the investigation. The Frequency, Intensity, Duration and Offensiveness

**BLUE RIDGE LANDFILL - FRESNO**

**5/24/2016 Inv. # - 1345016**

**Page 4 of 4**

(FIDO) chart categorizes the landfill gas odor as highly offensive and the sweet, floral, honeysuckle odor could be categorized as not unpleasant. In investigation #1331231, it was determined that the source of the landfill gas/honeysuckle odor was Blue Ridge Landfill. The odors experienced during investigation #1331231 exactly match the odors experienced during this investigation.

**Additional Issues**

No additional issues were noted during this investigation.

**REPORT ATTACHMENTS**

1. Area Map and Odor Log Locations
2. Investigators' Odor Logs

**No Violations Associated to this Investigation**

**Signed**

  
Environmental Investigator

**Date**

10/24/16

**Signed**

  
Supervisor

**Date**

10/25/16

**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) :

See inv. Attachments

**Attachment 1**

**Area Map and Odor Log Locations**

**Investigation #1345016**

**RN 102610102**

**Blue Ridge Landfill**



Green Valley Estates  
Yellow line: Survey Route

Investigation Type: Fi Air Odor  
 Air Account NO: \_\_\_\_\_  
 Attachment: 1  
 Page 1 of 5





West Drive and Bluebonnet Drive  
Yellow line: Survey Route

Investigation Type: Fi Air Clar  
 Air Account NO: 1  
 Attachment: 2 of 5  
 Page 2 of 5



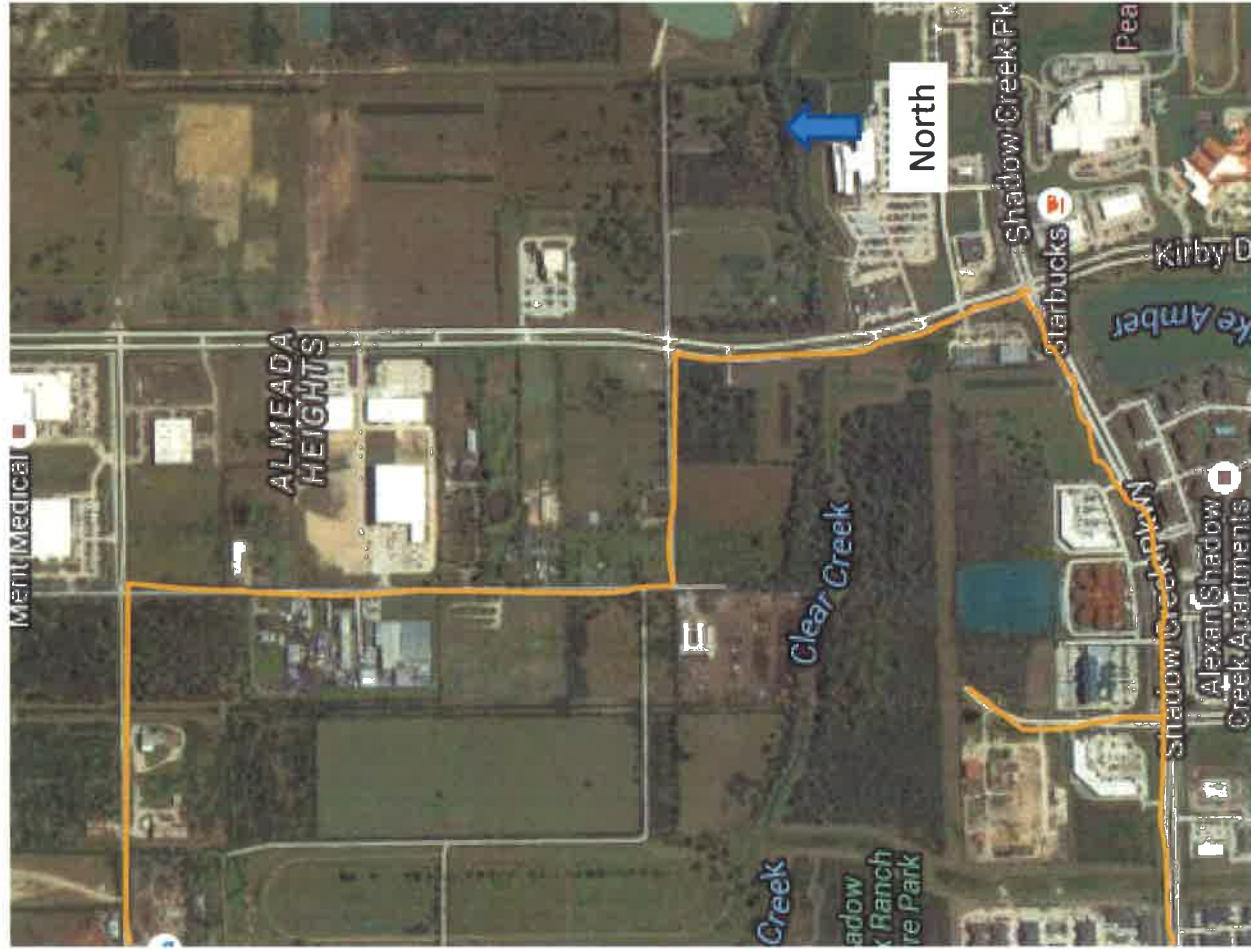
Farm to Market Road 2234

Yellow line: Survey Route

Yellow dots: Odor Log

Investigation Type: Fi Air Odor  
Air Account NO: 1  
Attachment: 3 of 5  
Page 3 of 5





Hooper Road and Farm to  
Market Road 2234  
Yellow line: Survey Route  
Yellow dots: Odor logs

Investigation Type: Fi Air Odor  
Air Account NO: 1  
Attachment: 4 of 5  
Page



Shadow Creek Ranch  
Yellow line: Survey Route  
Yellow dot: Odor Log

Investigation Type: For Air Odor  
Air Account NO: \_\_\_\_\_  
Attachment: 1 of 5  
Page 5

**Attachment 2**

**Investigator's odor Logs**

**Investigation #1345016**

**RN 102610102**

**Blue Ridge Landfill**



# Investigator's Odor Intensity Time Log

P. 1

Date of Investigation: 5/24/2016 Start Time 1:45 am  
 Name and Address of Alleged Source: Blue Ridge Landfill  
 Investigator's Name: Print: Gabriel Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	S
2	S
3	M
4	VL
5	VL
6	VL
7	VL
8	VL
9	VL
10	VL
11	VL
12	M
13	VL
14	VS
15	L
16	M
17	S
18	M
19	L
20	S
21	S
22	S
23	VS
24	M
25	L
26	M
27	VS
28	VS
29	S
30	VS

Minutes	Odor Intensity VL, L, M, S, VS
31 min	M
32	S
33	M
34	L
35	L
36	L
37	M
38	L
39	VL
40	VL
41	L
42	VL
43	S
44	VL
45	VS
46	VS
47	VS
48	M
49	VS
50	S
51	S
52	VS
53	VS
54	VS
55	S
56	VS
57	VS
58	VS
59	VS
60	VS

Offensiveness: Highly ☒ Offensive ☐ Unpleasant ☐ Not Unpleasant ☐

Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min	<input checked="" type="checkbox"/>					
10 Min	4.8 <input checked="" type="checkbox"/>					
1 Hour			2.48 <input checked="" type="checkbox"/>			

Landfill gas.

Investigation Type: Fi Air Odor  
 Air Account NO:                       
 Attachment: 2  
 Page 1 of 8

Location 1

odor log  
 1A  
 0-5  
 VL-5  
 L-8  
 M-10  
 S-12  
 VS-16

ten minutes  
 0-0  
 VL-0  
 L-0  
 M-0  
 S-2  
 VS-8

VS-14  
 S-12  
 M-10  
 L-8  
 VL-5

220

25

Recharge?

30 recharge

35

40

45

2A8



# Investigator's Odor Intensity Time Log

7.2

Date of Investigation: 5/24/16 Start Time 0645  
 Name and Address of Alleged Source: BR Landfill  
 Investigator's Name: Print: Mayhem Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	S
2	S
3	S
4	S
5	M
6	S
7	S
8	L
9	L
10	L
11	L
12	S
13	S
14	S
15	VS
16	VS
17	M
18	VS
19	M
20	VS
21	VS
22	S
23	M
24	S
25	S
26	VS
27	M
28	S
29	S
30	S

Minutes	Odor Intensity VL, L, M, S, VS
31 min	VS
32	VS
33	VS
34	S
35	M
36	S
37	M
38	M
39	M
40	M
41	L
42	L
43	VS
44	M VS
45	VS
46	VS
47	VS
48	VS
49	VS
50	S
51	VS
52	VS
53	VS
54	VS
55	VS
56	VS
57	S
58	VS
59	VS
60	VS

VS-23  
S-17  
M-9  
L

-leakage  
now  
in smelt

Location

Offensiveness: Highly ☒ Offensive \_\_\_\_\_ Unpleasant \_\_\_\_\_ Not Unpleasant \_\_\_\_\_  
 Dominant Odor Intensity For: \_\_\_\_\_

	VS	S	M	L	VL	No Odor
1 Min	✓					
10 Min	✓ (5)					
1 Hour	✓	3.63				

Wrighted  
Average

Landfill gas, slight hump-suckee

No wind, 26°  
wind from Pass  
L 5 mph

Investigation Type: F: Air Odor  
 Air Account NO: \_\_\_\_\_  
 Attachment: 2  
 Page 2 of 8

0-6  
L-6  
VL-0  
M-10  
S-17  
VS-24

ten minute

0-0  
VL-0  
L-0  
M-0  
S-0  
VS-10

# Investigator's Odor Intensity Time Log

P3

2

Date of Investigation: 5/24/16 Start Time 0326  
 Name and Address of Alleged Source: BR Landfill  
 Investigator's Name: Print: Max Work Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	VL
2	VL
3	-
4	L
5	VL
6	-
7	-
8	VL
9	L
10	L
11	
12	
13	
14	
15	
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	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	

0-3  
VL-4  
L-3  
M-0  
S-0  
VS-0

Investigation Type: FI Air Odor  
 Air Account NO: 2  
 Attachment: 2  
 Page 3 of 8

Location 2

Offensiveness: Highly X Offensive \_\_\_\_\_ Unpleasant \_\_\_\_\_ Not Unpleasant \_\_\_\_\_

Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min	<del>VS</del>			✓		
10 Min	<del>VS</del>				✓ (1)	
1 Hour						

Weighted Average

Low fill gas.

Intersection or 2254 &  
(Winney Rock

odor log  
2A

# Investigator's Odor Intensity Time Log

24

Date of Investigation: 5/24/16

Start Time 3:26am

Name and Address of Alleged Source: Blue Ridge Land L71

Investigator's Name: Print: Gabrielle

Sign: [Signature]

0-7  
VL-2  
L-1  
M-0  
S-0  
VS-0

Minutes	Odor Intensity VL, L, M, S, VS
1 min	L
2	VL
3	VL
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
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	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	

intersected  
Post  
Oak Rd  
H P  
H FM  
2234  
Shamrock  
parking  
lot

wind  
direction  
south  
varying  
1.5 mph

left of  
3:36

Location 2

Offensiveness: Highly ☒ Offensive ☐ Unpleasant ☐ Not Unpleasant ☐

Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min				<input checked="" type="checkbox"/>		
10 Min					✓ 2.4	
1 Hour	NA					

landfill gas

Investigation Type: AIR Odor  
Air Account NO: 2  
Page 4 of 8

Weighted  
Average

# Investigator's Odor Intensity Time Log

25

Date of Investigation: 5/24/16 Start Time 0404  
 Name and Address of Alleged Source: BR Landfill  
 Investigator's Name: Print: Muyman Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	—
2	—
3	—
4	—
5	—
6	—
7	—
8	—
9	—
10	—
11	—
12	—
13	—
14	—
15	—
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	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	

Location 3

Offensiveness: Highly \_\_\_\_\_ Offensive \_\_\_\_\_ Unpleasant \_\_\_\_\_ Not Unpleasant \_\_\_\_\_  
 Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min	None					
10 Min	None					
1 Hour NA						

Investigation Type: Field

Air Account NO: \_\_\_\_\_

Attachment: \_\_\_\_\_

Page: 5 of 8

Weighted Average



odor log  
3A

# Investigator's Odor Intensity Time Log

96

Date of Investigation: 6/24/2016

Start Time 4:00 PM

Name and Address of Alleged Source: Blue Ridge Landfill

Investigator's Name: Print: Gabrielle Lamereaux

Sign: [Signature]

0-10

10

15

20

25

Investigation Type: FI, AP, OI  
Air Account NO: 2  
Page 6 of 8

Minutes	Odor Intensity VL, L, M, S, VS
1 min	VL
2	VL
3	VL
4	VL
5	VL
6	VL
7	VL
8	VL
9	VL
10	VL
11	VL
12	VL
13	VL
14	VL
15	VL
16	VL
17	VL
18	VL
19	VL
20	VL
21	VL
22	VL
23	VL
24	VL
25	VL
26	VL
27	VL
28	VL
29	VL
30	VL

2204  
Cambridge  
Shores  
lane

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	

Wind  
direction  
South  
west  
1.7 mph

Location 3

Offensiveness: Highly ☒ Offensive ☐ Unpleasant ☐ Not Unpleasant ☐

Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min	None					<input checked="" type="checkbox"/>
10 Min	None					<input checked="" type="checkbox"/>
1 Hour	NA					

landfill odor

Weighted  
Average

# Investigator's Odor Intensity Time Log

2.7

Date of Investigation: 5/24/16 Start Time 0448  
 Name and Address of Alleged Source: BR Lumb  
 Investigator's Name: Print: Maple Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	VS
2	VS
3	VS
4	S
5	M
6	M
7	M
8	S
9	S
10	M
11	M
12	S
13	S
14	M
15	S
16	S
17	S
18	M
19	M
20	M
21	L
22	L
23	L
24	M
25	S
26	S
27	M
28	L
29	L
30	L

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	

VS-3  
S-8  
M-10  
L-6  
VL

Location 4

4

VS-3  
S-3  
M-4  
L-0  
VL-0  
0-0

Investigation Type: CHD  
 Air Account NO: 2  
 Attachment: 2  
 Page 2 of 2

Offensiveness: Highly X Offensive \_\_\_\_\_ Unpleasant \_\_\_\_\_ Not Unpleasant \_\_\_\_\_

Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min	✓					
10 Min		✓ (3.9)				
1 Hour						

Weighted Average

646L Lumb gas heavy smoke Wind from East

# Investigator's Odor Intensity Time Log

P8

odor log 4

Date of Investigation: 5/24/2016

Start Time 4:50

Name and Address of Alleged Source: Blue Ridge Landfill

Investigator's Name: Print: Gabrielle Lawrence

Sign: [Signature]

0-0  
VL-0  
L-0  
M-0  
S-4  
VS-0

Minutes	Odor Intensity VL, L, M, S, VS
1 min	M
2	S
3	M
4	S
5	4.5
6	M
7	M
8	S
9	M
10	M
11	L
12	L
13	M
14	L
15	M
16	VL
17	L
18	L
19	L
20	M
21	L
22	VL
23	L
24	VL
25	L
26	VL
27	VL
28	L
29	VL
30	VL

Gun Range road

wind origin

~~W~~

W

4 mph

75°F

sulfur

S

S

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	2.5
36	
37	
38	
39	
40	3.0
41	
42	
43	
44	
45	3.5
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	

2.5

3.0

3.5

lets  
at  
5:20

Location 4

Offensiveness: Highly ☒ Offensive ☐ Unpleasant ☐ Not Unpleasant ☐

Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min		<input checked="" type="checkbox"/>				
10 Min				<input checked="" type="checkbox"/>		
1 Hour	N/A					

landfill gas

Weighted  
Average

Investigation Type: Air  
Air Account NO: 1  
Attachment: 2  
Page 6 of 8