

AIR CP_104046511_CP_20151124_INVESTIGATION_1290020
Texas Commission on Environmental Quality
Investigation Report

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Customer: Generic Incident Principal
Customer Number: CN602295370

Regulated Entity Name: GENERIC INCIDENT ZIP CODE 77581

Regulated Entity Number: RN104046511

Investigation # 1290020

Incident Numbers

221249	223649
223696	224117
224077	224065
223748	224047
224098	223737
223726	223720
223732	224118
223712	223694
224116	223725
224074	224075
224040	223731
223750	223698
224055	224141
223692	223652
223659	223684
224071	224044
223663	224096
224080	224379
223734	224113
221001	223995
224067	223661
223719	223751
223687	223713

Investigator: IRENE TUCKER

Site Classification

Conducted: 11/24/2015 -- 12/07/2015

No Industry Code Assigned

Program(s): AIR QUALITY NON PERMITTED

Investigation Type: Compliance Investigation

Location:

Additional ID(s):

Address: ,

Local Unit: REGION 12 - HOUSTON

Activity Type(s): AIRCOMPL - AIR CMPL - AIR
COMPLAINT INV

Principal(s):

Role

Name

RESPONDENT

GENERIC INCIDENT PRINCIPAL

Contact(s):

Role

Title

Name

Phone

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Other Staff Member(s):

Role	Name
Investigator	JESSICA FOX
Investigator	ERESHA DESILVA
QA Reviewer	ERESHA DESILVA
Supervisor	WARDA OMAR
Investigator	JONATHAN STOFFER

Associated Check List

<u>Checklist Name</u>	<u>Unit Name</u>
AIR COMPLAINT INVESTIGATION	GENERIC ZIP CODE
AIR INVESTIGATION - EQUIPMENT	SITE.WIDE
MONITORING AND SAMPLING revised 06/2013	

Investigation Comments:

INTRODUCTION

On November 23, 2015, the Texas Commission on Environmental Quality (TCEQ) received 25 odor complaints relating to odors in the vicinity of Pearland, Texas. Eight of the complaints alleged health related effects. Typical health effects described by the complainants included burning eyes, throat, and nasal passages, coughing spells, nausea, insomnia, and headaches. The odors were described by the complainants as rotten egg smell, sulfur, natural gas, sewer gas, pungent odor, and/or foul stench. The complainants alleged that the odors were observed from Sunday, November 22, 2015 at 8:00 PM through Monday, November 23, 2015 at 7:00 AM. According to Weather Underground.com, the wind direction and the wind speed were predominantly calm during the hours of alleged odor occurrences.

Investigation Narrative

On November 24, 2015, TCEQ Investigators Irene Tucker and Jonathan Stoffer conducted an onsite odor investigation. The investigation focused on odor complaints where the complainants had alleged health effects. During the pre-investigation phase, Ms. Tucker was able to contact all but one of the complainants prior to the field investigation to gather more information. The investigators conducted the odor calibration test prior to the on-site field investigation according to the Odor Investigation Protocol.

The investigators arrived at the Shadow Creek Ranch Community at Farm to Market (FM) Road 2234/Shadow Creek Parkway and Trinity Bay Drive, which is primarily a residential area in Pearland at 1:21 PM. A perimeter survey was conducted to observe and note any significant odors, dust and/or visible emissions. There were no odors detected and no visible emissions observed. According to AccuWeather.com, the temperature at the time of the investigation was 81 degrees Fahrenheit, and the wind direction was from the south with a wind speed of 8 miles per hour (mph). There was no precipitation and skies were clear. The investigators conducted the Odor Survey in the areas surrounding the addresses of the complainants from Trinity Bay Drive to the W. Clear Loop and continued through the S. Clear Loop to Kirby. No odors were detected. The investigators left TCEQ contact information along with Odor Logs at the homes of all the complainants for them to document and report information on the occurrences of odors. The investigators continued the Odor Survey from the residential areas near Kirby to FM 2234/Shadow Creek Parkway, and continued to FM 521 near Akzo Nobel, and then to Broadway near the Blue Ridge Landfill. No odors were detected. The investigators were unable to confirm the presence of the alleged odors during the November 24, 2015. The Odor Survey was concluded at 2:30 PM. An Area Map has been included in Attachment No. 1.

On December 7, 2015, TCEQ investigators Eresha DeSilva and Jessica Fox arrived outside of the Akzo Nobel facility Gate 7 on FM Road 2234 (also known as Shadow Creek Ranch Parkway and McHard Road) west of FM 521 at 5:00 AM. The investigators noticed a slight sweet smell for approximately 30 seconds during the 10 minutes that odor observations were being made while facing the facility to the north. Weather conditions were as follows: clear skies and, according to the Kestrel Meter, the temperature was approximately 55 degrees Fahrenheit with no surface wind.

Next, the investigators visited the Shadow Creek Ranch community to perform observations and three odor

surveys were conducted. The first odor survey was conducted from 5:24 AM to 5:35 AM with strong to very strong intensity of odors similar to decaying animal and sewage emanating from two manholes for at least 7 minutes during the survey at the intersection of Regents Bay Drive and Shadow Cove Drive. The odor survey was conducted in the middle of the two manholes with one manhole located on the sidewalk to the north of Regents Bay Drive and the other manhole in the middle of Regents Bay Drive and Shadow Cove Drive. One of the investigators experienced the odor strongly enough from the manholes to almost induce vomiting. While driving through the community, a mildly spicy odor was detected throughout Shorebrook Drive, and a mildly sweet and rotten odor was detected at the end of Barton Shores Drive with odors from both locations within 5 to 10 feet from manholes. The second odor survey was conducted from 6:18 AM to 6:28 AM with odor varying from very light to moderate intensity near 13913 Morgan's Bay Drive. The odor in this location was difficult to identify, but had a slightly sweet and chemical odor with a mix of decomposing organic garbage and rotten egg smells, hereafter described as "mixed odor." A third odor survey was conducted from 6:50 AM to 7:01 AM with varying light to moderate intensity of mildly spicy odor at the intersection of Stormcroft Lane and Mooring Point Drive. The mixed odor and mildly spicy odors were noticeable throughout the eastern edge of the Shadow Creek Ranch community adjacent to FM 521. Weather conditions during the odors surveys were as follows: clear skies, and according to the Kestrel Meter, the temperatures ranged from 50 to 55 degrees Fahrenheit with no surface winds.

After performing observations and odor surveys in the Shadow Creek Ranch community, the investigators drove around the Fresno/Pearland area to identify the source of the odors. The investigators stopped at an unpaved driveway to an access gate onto Blue Ridge Landfill, and sitting on top of a pipeline corridor, located off of FM 521 and close to Ginger Cove Court. An odor survey was conducted at this location from 7:10 AM to 7:40 AM with the mixed odor varying from light to strong. Trucks (1-2 trucks every minute) could be seen unloading beyond the gate at the Blue Ridge Landfill. The optical gas imaging camera (OGIC) was used to determine whether any volatile organic compounds (VOCs) or any heat signatures could be traced with the odor to the landfill. Since no clear readings other than ambient heat signatures were present, it was determined that the mixed odor detected by the investigators does not appear to be of a VOC nature.

Next, the investigators went onsite at 7:53 AM and were escorted through the landfill by Mr. Matt Montagna, Landfill Operation's Manager. The misting system was actively spraying very sweet spray on the outer edges of the landfill piles. When in direct vicinity to the working face of the landfill pile, there was a strong trash smell unlike the mixed odor from the community. Mr. Montagna explained that truck unloading operations at the landfill begin at 4:30 AM and also pointed out the mercaptan station in front of the unpaved driveway where the odor survey was previously taken. A slight mercaptan odor was detected while standing at the fence line of the mercaptan station. Mr. Montagna also showed the investigators another potential odor source located offsite of the landfill in a section of the Shadow Creek Ranch community being built to the south of West Broadway Street and east of FM 521. New sewer lines with uncapped lines were being installed and no odors were detected. The mixed odor and slightly sewage-like odor were detected intermittently throughout the landfill tour and especially near the office area when leaving the landfill at 8:55 AM.

The investigators revisited the Shadow Creek Ranch community at 9:36 AM and detected the mixed odor with a light intensity on Mountain Sage Drive. At 10:00 AM, odor observations were made outside TBC-Brinadd Blue Ridge / Texas United Chemical, Inc., an alleged source located at 5035 McHard Road, and near an oil and gas field off of McHard Road between Blue Ridge Road and Chimney Rock Road. No odors were detected from either source. Upon visiting the Delta Transfer Station / Lone Star Disposal and Recycling Facility, it was noted that the dumpster odor from this source was distinctly different than the mixed odors. No odors were detected from Nalco Champion, LLC. and Technisand, Inc. along FM 521 and south of West Broadway Street. At 11:12 AM, the investigators stopped next to the Reflection Bay Water Reclamation Facility but did not detect any odors. At 11:20 AM, just before leaving the area, the investigators also conducted an odor observation near Syntech Chemicals, Inc. located at 14822 Hooper Rd where a slight to moderate chemical odor was detected.

Based on the Frequency, Intensity, Duration and Offensiveness (FIDO) chart used to characterize odors, the sewage / putrefying animal odors were classified as highly offensive and the mixed odor were classified as offensive. The four odor surveys taken during this complaint were assessed as a single occurrence. The odor surveys are provided in Attachment # 2. The single occurrence was not enough to confirm a nuisance based on the FIDO chart, since the highly offensive odor would have had to been documented with very strong intensity for at least an hour duration. From the observations made at the potential sources, the odors within the Shadow Creek Ranch community seem to correlate with the close proximity of the Blue Ridge Landfill and the odors emanating from the manholes which are located outside of almost every other home.

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On January 4, 2016, Irene Tucker of the TCEQ contacted Mr. Mike Masters of the City of Pearland about historical maps and potential odor sources in the complaint area. According to a review of the historical Aerial Maps, prior to 2004, the complaint area was primarily agricultural. According to the City of Pearland Sanitary Sewer Collection System Map, the Far NW Waste Treatment Plant (WTP), (Also known as the Reflection Bay WWTP) located north of the complaint area was identified as a potential source of odors. According to the historical Aerial Maps, the Blue Ridge Landfill, located west of the complaint area was also identified as a potential source of odors.

Exit Interview

An exit interview was not conducted since there were no alleged violations, additional issues, or records requested.

GENERAL FACILITY AND PROCESS INFORMATION

Process Description

Based on this investigation, there was no alleged source identified for the odors.

BACKGROUND

Based on a review of CCEDS during the past five years, hundreds of odor complaints have been received relating to this area and other TCEQ nuisance odor investigations are being conducted concurrently by the Region 12 Office.

Agreed Orders, Court Orders, and Other Compliance Agreements

NA

Prior Enforcement Issues

NA

Complaints

Based on a review of CCEDS during the past five years, hundreds of odor complaints have been received relating to this area and other TCEQ nuisance odor investigations are being conducted concurrently by the Region 12 Office.

ADDITIONAL INFORMATION

Conclusions, Recommendations, and Current Enforcement Actions

Based on the TCEQ's Odor Complaint Investigation Procedures and application of the FIDO Chart, an highly offensive odor with an intensity of very strong would have to be present on a daily basis continuously for at least one hour to constitute a nuisance. Although the investigators confirmed an odor, a nuisance condition and source of odor could not be confirmed at the time. No violations or areas of concern were noted during this investigation.

Additional Issues

No additional issues were noted during this investigation.

REPORT ATTACHMENT

1. Area Map
2. Odor Surveys

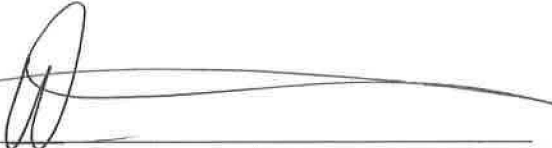
No Violations Associated to this Investigation

Signed


Environmental Investigator

Date 4/29/2016

Signed


Supervisor

Date 04/29/2016

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 Report Attachments

ATTACHMENT 1

AREA MAP

PEARLAND ODOR COMPLAINTS

INVESTIGATION NO. 1290020

GENERIC RN 104-046-511

PEARLAND/BRAZORIA



NOVEMBER 24, 2015 and DECEMBER 7, 2015

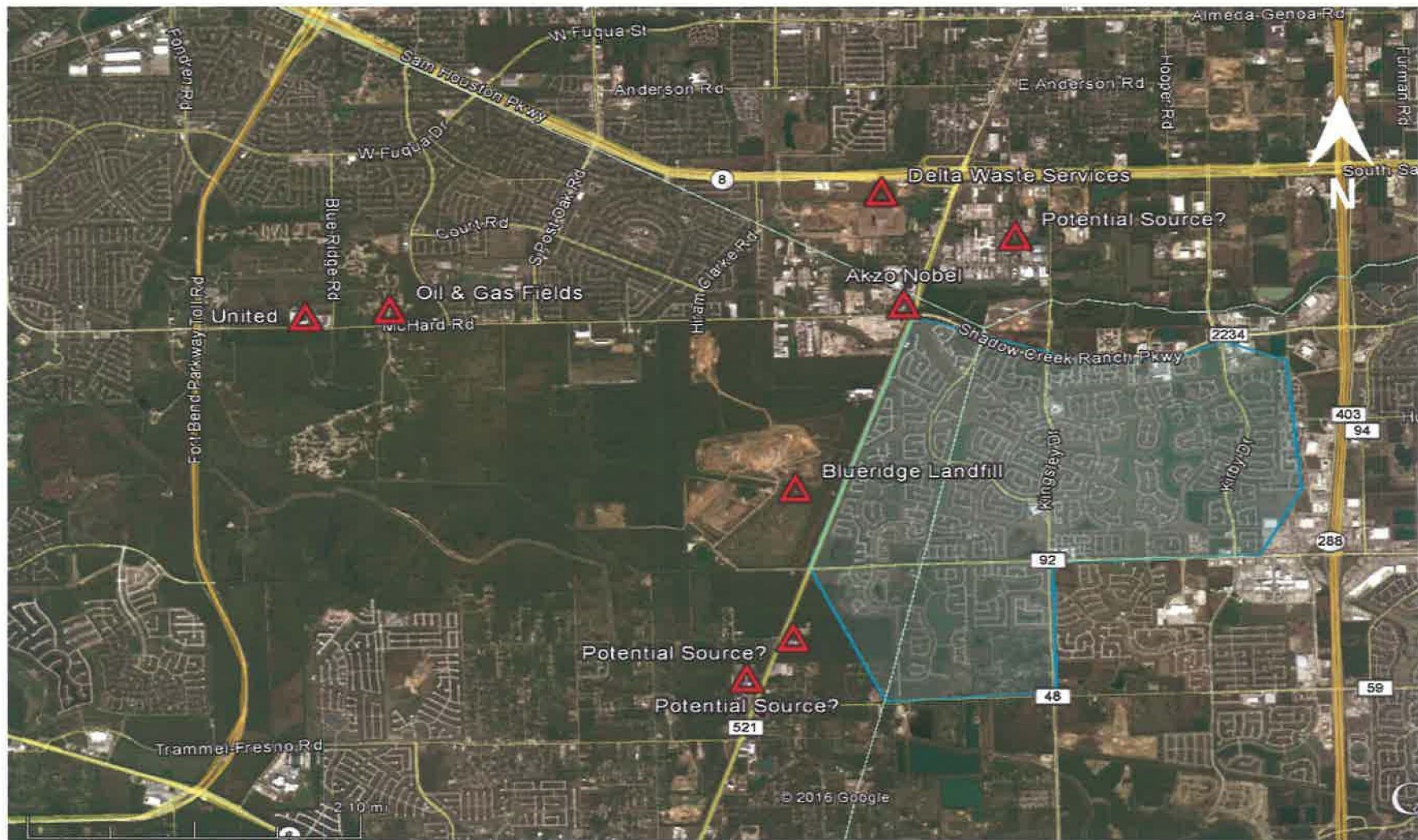
Area Map – Pearland, TX

Investigation Dates: 11/24/2015 & 12/7/2015

Investigation Number: 1290020

Legend

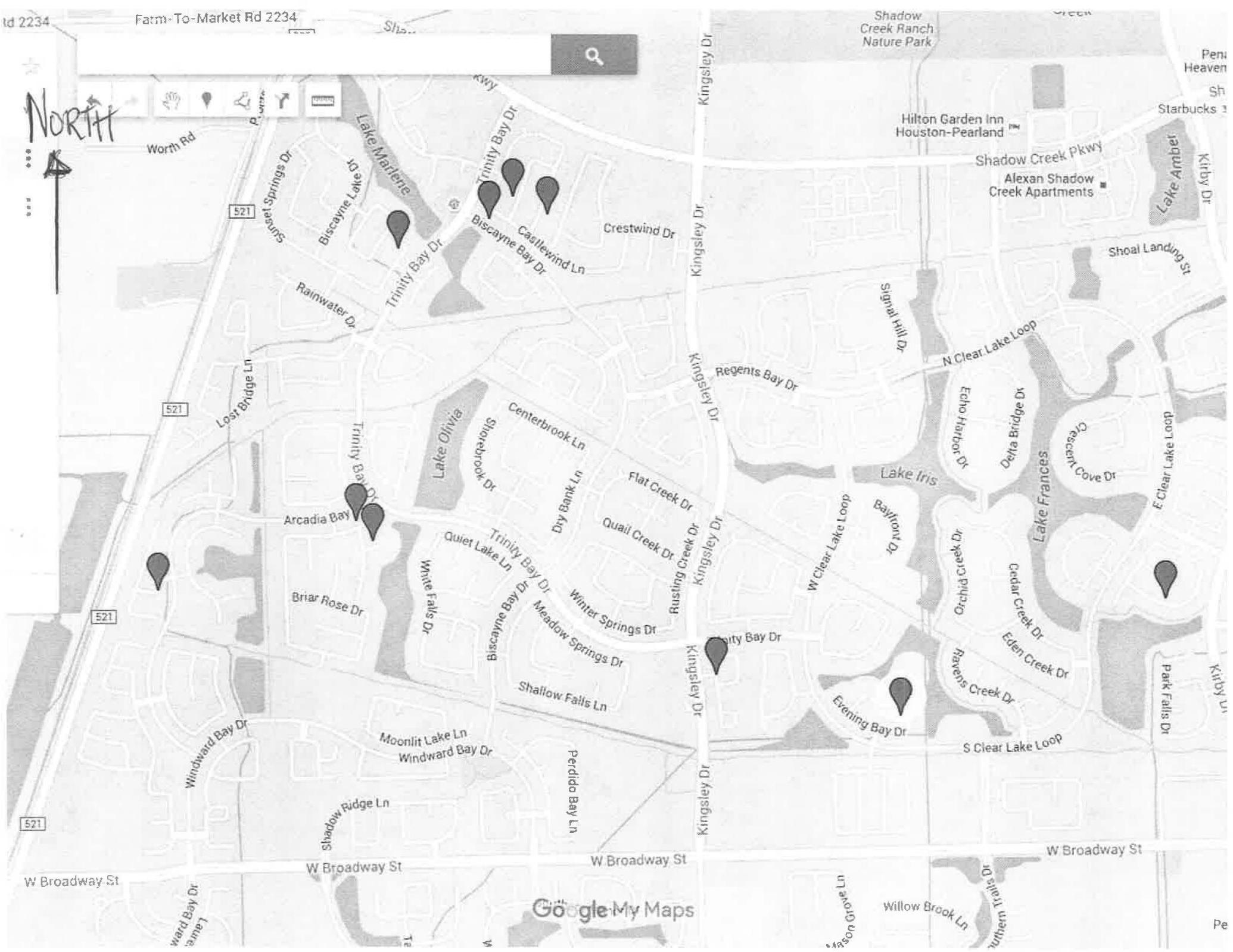
-  Potential Sources
-  Shadow Creek Ranch / Affected Area



Id 2234

Farm-To-Market Rd 2234

NORTH



Google My Maps

ATTACHEMENT 2

ODOR SURVEYS

PEARLAND ODOR COMPLAINTS

INVESTIGATION NO. 1290020

GENERIC RN 104-046511

PEARLAND/BRAZORIA

December 07, 2015

Investigator's Odor Intensity Time Log

Date of Investigation: Dec. 7, 2015 Start Time 5:24 AM
 Name and Address of Alleged Source: Shadow Cove + Regent's Bay manhole
 Investigator's Name: Print: Jessica Fox + Erosno DeSilva Sign: Jessica Fox

Minutes	Odor Intensity VL, L, M, S, VS
1 min	VS
2	VS
3	VS none
4	VS
5	S
6	none
7	none
8	none
9	VS
10	S
11	VS
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

5:25

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	
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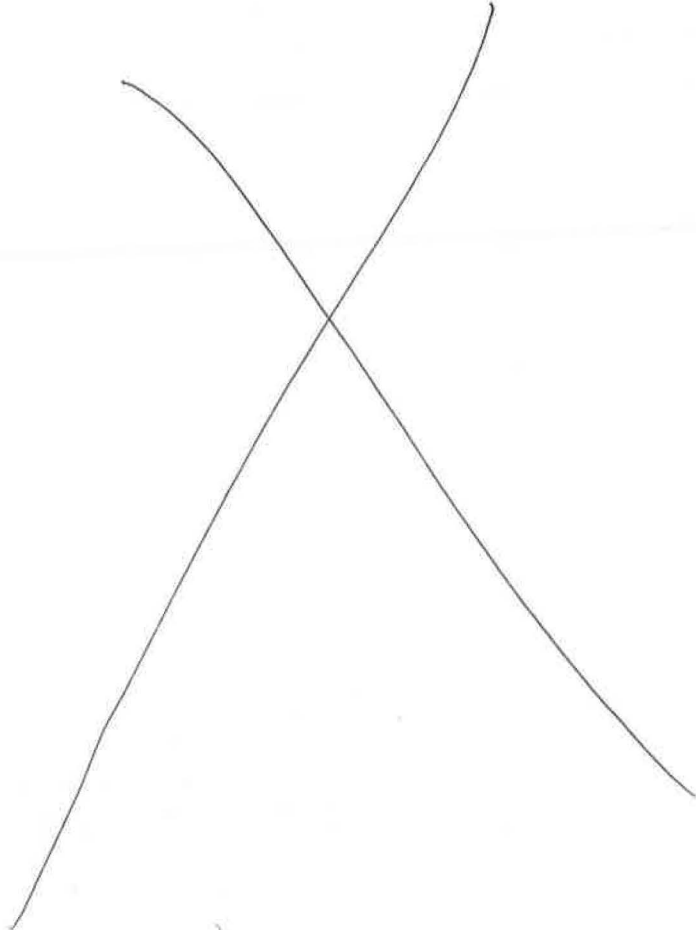
raw sewage
dead animal

Investigation Type: ACOMPL
 Air Account NO: EN. 104046511
 Attachment: 2
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Offensiveness: Highly ☒ Offensive ☐ Unpleasant ☐ Not Unpleasant ☐
 Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min	VS					
10 Min						
1 Hour						

50°F



Investigation Type: Compl

Air Account NO: RN 104-046-511

Attachment: 2

Page 2 of 7

Investigator's Odor Intensity Time Log

Date of Investigation: 12/7 Start Time 6:18 am
 Name and Address of Alleged Source: 13913 Morgans Bay Dr.
 Investigator's Name: Print: Eresha Desilva Sign: Eresha Desilva
 + Jessica Fox

Minutes	Odor Intensity VL, L, M, S, VS
1 min	M
2	M L
3	M
4	M
5	L
6	VL
7	VL
8	L
9	L
10	VL
11	
12	
13	
14	
15	
16	
17	
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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	
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53	Investigation Type: <u>COMPL</u>
54	Air Account NO: <u>RN. 104-046-511</u>
55	Attachment: <u>2</u>
56	Page <u>3</u> of <u>7</u>
57	
58	
59	
60	

garbage
landfill
rotten egg
slight sweet
chemical
~54°F
NW

Offensiveness: Highly _____ Offensive ☒ Unpleasant _____ Not Unpleasant _____
 Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min						
10 Min				L		
1 Hour						

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Air Ac
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COMPL
RN 104-046-511
2
4 7

Investigator's Odor Intensity Time Log

Date of Investigation: 12/17 Start Time 6:50 AM
 Name and Address of Alleged Source: Stonemereft + Mooring Point
 Investigator's Name: Print: Jessica Fox Sign: Jessica Fox

Minutes	Odor Intensity VL, L, M, S, VS
1 min	M
2	L
3	M
4	L
5	L
6	L
7	L
8	L
9	L
10	M
11	L
12	
13	
14	
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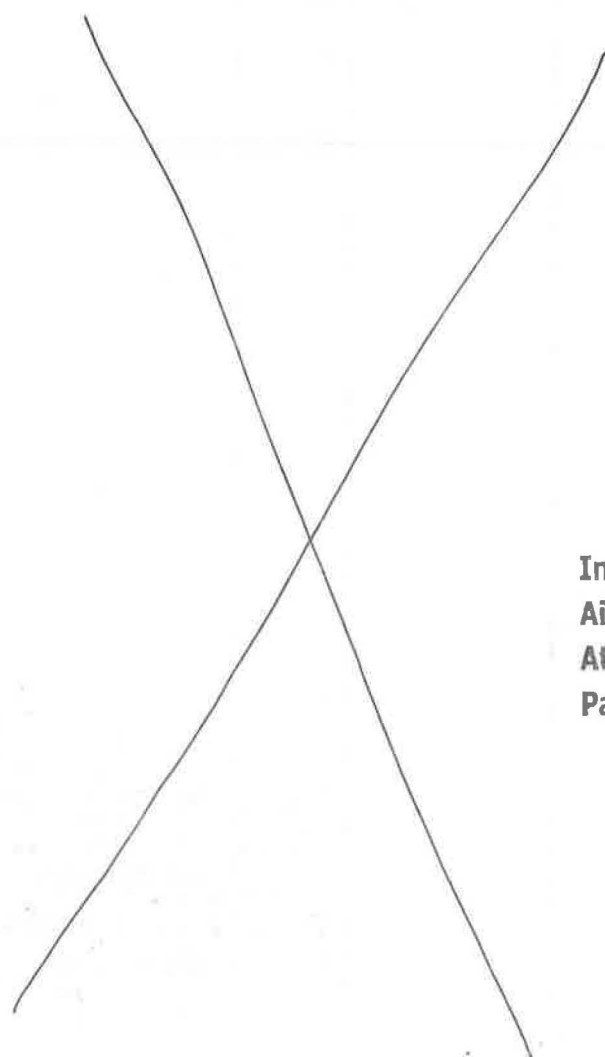
Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
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44	
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54	Investigation Type: <u>COMPL</u>
55	Air Account NO: <u>RAJ 104-046-511</u>
56	Attachment: <u>2</u>
57	Page <u>5</u> of <u>7</u>
58	
59	
60	

cabbage /
burnt cooking /
food / naan

55°F

Offensiveness: Highly _____ Offensive _____ Unpleasant ☒ Not Unpleasant _____
 Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min						
10 Min				L		
1 Hour						



Investigation Type: COMPL
Air Account NO: RN 104-046-511
Attachment: 2
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Investigation Type: 7
Air Account NO: 7
Attachment: 7
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Investigator's Odor Intensity Time Log

near Blue Ridge landfill

Date of Investigation: 12/7/15

Start Time 7:10 am

Name and Address of Alleged Source:

5216th Mountain Sage + Ginger Cove

Investigator's Name: Print:

Eresha Desilva & Jessica Fox

Sign:

Eresha Desilva

sneaking ratting garbage

truck activity at landfill active

sunlight

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

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
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52	Investigation Type: COMPL
53	Air Account NO: RA 104-046-511
54	Attachment: 2
55	Page 7 of 7
56	
57	
58	
59	
60	

Offensiveness: Highly _____ Offensive ☒ Unpleasant _____ Not Unpleasant _____

Dominant Odor Intensity For:

	VS	S	M	L	VL	No Odor
1 Min						
10 Min			M			
1 Hour						

