



File: Vincent Mullins L F
NP

MEMORANDUM

DATE: March 29, 2013

TO: Jim Mazzocco, Administrator
Planning and Development Services

FROM: Andrew H. Quigley
Director
Environmental Services

SUBJECT: Vincent Mullins Landfill Odor Study

Environmental Services (ES) undertook a study of the Vincent Mullins (VM) landfill. This study was undertaken to ascertain whether the landfill was a significant odor source. ES retained Geosyntec Engineers to perform the study which was completed earlier this month.

VM was operated as a sanitary landfill until 1987. It consists of approximately 61 acres and is located adjacent to the Speedway Landfill. It was closed in accordance to USEPA standards in 2007. ES is responsible for monitoring and maintenance at the landfill. VM also has an active gas collection system also operated and maintained by ES.

Geosyntec conducted an on-site odor assessment from several points. They examined three years of operational data from the methane collection system. They were provided with complaint records from Pima County Department of Environmental Quality who is responsible for regulating the air quality. Based upon the observations of the consultant, the landfill is not a significant odor source. ES will continue to maintain the landfill in such a way so it does not become a source of odors.

AHQ/dg

Enclosure

cc: Richard Miranda, City Manager
Albert Elias, Assistant City Manager
Nancy Petersen, Deputy Director, ES
Jeff Drumm, Engineering Manager, ES



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22 March 2013

Mr. Jeffrey Drumm
Environmental Services
City of Tucson
4004 S. Park Ave., Building 1
P.O. Box 27210
Tucson, AZ 85726-7210

Electronic Submittal

**Subject: Odor Evaluation
Vincent Mullins Landfill
Tucson, Arizona**

Dear Mr. Drumm:

Geosyntec Consultants (Geosyntec) is pleased to present the City of Tucson (COT) the results of our odor evaluation at the Vincent Mullins Landfill (Site). This work has been performed in accordance with our proposal dated 21 February 2013.

The Site is approximately 61 acres and is located northeast of the intersection of N. Kolb Road and Speedway Boulevard. The site is bounded by Pantano Wash and N. Kolb Road on the west, Pantano Townhomes and Udall Park on the north, the Speedway Recycling and Landfill Facility (including construction debris disposal, recycling and compost operations) on the east and the Ashton Meadow Apartments and an undeveloped area owned by COT on the south.

The site operated as a municipal solid waste (MSW) landfill between 1967 and 1987 and was closed in accordance with ADEQ regulations in November 2007. Closure activities included construction of drainage systems and an earthen final cover as well installation of a landfill gas (LFG) collection system including 60 LFG collection wells. As part of a settlement agreement, COT has installed a LFG collection system at the neighboring industrial facility. LFG from the Site and the neighboring facility are destroyed in two flares located at the northwest corner of the Site (see Site Plan, Figure 1).

We understand that the COT and the Pima Department of Environmental Quality (PDEQ) have received numerous odor complaints from receptors in the vicinity of the facility. The purpose of this study is to evaluate odors at the Site and to identify potential odor sources at the Site. In order to evaluate site conditions, our scope included:

- Review available odor complaints and responses from PDEQ;
- Perform up to three odor surveys at the Site;

- Observe the existing landfill conditions at the Site for potential odor sources; and
- Review the past three years of LFG well and flare data.

The methodology and results of these tasks are discussed in the following sections.

REVIEW OF PREVIOUS ODOR COMPLAINTS

A summary of complaints received by PDEQ is provided in Attachment 1 dating from 2001 to 2012. We have also reviewed several odor complaints provided by the COT provided, included in Attachment 1. These complaints generally originated from residential communities approximately 1,300 feet east of the Site and east of the Speedway Recycling and Landfill Facility. The odors were often described as rotting garbage or decaying vegetation. Based on complaints reviewed, odors have been observed by receptors at varying times throughout the day, from 4:00 am to 10:45 pm.

REVIEW OF LFG DATA

Geosyntec has been provided with three years of quarterly LFG well data by COT's LFG consultant for the Site, Engineering and Environmental Consultants, Inc. (EEC). Based on a review of the most recent event we identified several wells that had an approximate balance gas to oxygen ratio of four. Such a ratio typically indicates a leak near the well head that is allowing ambient air to enter the system. These wells are provided in Table 1 below.

Table 1: Summary of Selected LFG Extraction Well Data

<i>Device ID</i>	<i>Date/Time</i>	<i>CH4</i>	<i>CO2</i>	<i>O2</i>	<i>Balance Gas</i>	<i>Init. Static Press.</i>	<i>Balance Gas:O2 Ratio</i>
VML-0008	11/28/12	44.9	30.4	5.3	19.4	-0.5	3.6
VML-0035	11/28/12	7.1	11.6	16.1	65.2	0	4.0
VML-0041	11/29/12	4.0	4.1	15.3	76.6	0	5.0
VML-0044	11/29/12	57.3	39.5	0.5	2.7	-2.2	5.4
VML-0050	11/29/12	0.1	0.6	19.4	79.9	0	4.1
VML-0054	11/29/12	0.0	2.8	16.4	80.8	0	4.9

Additionally, a number of wells exhibited high levels of methane and had notes indicating that the well head was fully open. Such conditions may indicate that there is inadequate system vacuum or that the well's well head or orifice plate is too small and thus restricting flow. Low system vacuum or flow restriction at the well head may result in a reduced radius of influence creating a potential for uncaptured LFG and potential LFG surface emissions. These wells are presented below in Table 2.

Table 2: Summary of Selected LFG Extraction Wells with Open Well Head

<i>Device ID</i>	<i>Date</i>	<i>CH4</i>	<i>CO2</i>	<i>O2</i>	<i>Balance</i>	<i>Init. Static Press.</i>	<i>Adj. Static Press.</i>	<i>Comments</i>
VML-0004	11/28/12	57.2	40	0	2.8	-2.8	-2.8	Open no adj,Wide open
VML-0010	11/28/12	58.3	41.6	0	0.1	-2.7	-2.7	Open no adj,Wide open
VML-0011	11/28/12	59.1	40.8	0	0.1	-2.8	-2.9	Open no adj,Wide open
VML-0016	11/28/12	60.1	39.7	0	0.2	-0.9	-0.9	Open no adj,Wide open
VML-0017	11/28/12	60.6	39.3	0	0.1	-0.8	-0.7	Open no adj,Wide open
VML-0030	11/28/12	56.2	35.2	0.2	8.4	-2.3	-2.3	Open no adj,Wide open
VML-0034	11/28/12	57	31.5	0.1	11.4	-2.2	-2.3	Open no adj,Wide open
VML-0044	11/29/12	57.3	39.5	0.5	2.7	-2.2	-2.2	Open no adj,Wide open
VML-0046	11/29/12	58.2	41.6	0.1	0.1	-2.2	-2.2	Open no adj,Wide open

SITE RECONNAISSANCE

Our staff met with Mr. Jeffery Drumm at the site on 5 March 2013 for a brief site tour. At this time, we reviewed typical site conditions and discussed the history of the site. Copies of photographs taken during the site reconnaissance are provided in Attachment 2. The site is closed and no active operations currently exist at the site. Ongoing site activities are typically restricted to site maintenance (landfill gas system, drainage systems, and final cover) and monitoring (landfill gas probes and groundwater monitoring wells). We identified numerous empty commercial roll-off bins stored along the eastern portion of the site, just west of the berm between the Site and neighboring industrial facility (see Photo 1, Attachment B). The site is typically covered with sparse to medium vegetation typical of the area (see Photos 2 and 4, Attachment B). No significant fugitive dust was observed at the Site during our site visits.

Several areas of surface cracking of the final cover system were observed. Cracks varied in length from a few feet to more than 140 feet, with widths varying typically from one to three inches. Measured by inserting a tape measure into the crack, the cracks appear to extend to depths on the order of 8 to 15 inches beneath the existing ground surface into the final cover system (see Photos 3 through 7, Attachment B). No odors were noted emanating from these cracks. Vegetation was typically dense at the location of the cracks.

During our site reconnaissance, we noted that the flare servicing the LFG collection wells at the Site was operating, however the smaller flare, noted as the “Speedway flare”, servicing LFG collection wells at the neighboring industrial facility was not operating. It was indicated in a telephone interview with Kevin Pierce with EEC that this flare experiences frequent shutdowns due to poor gas quality. Poor gas quality may be indicative of an aging waste mass and out of refuse wells.

Mr. Jeffrey Drumm

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As discussed above, the balance gas to oxygen ratios of the six LFG extraction wells listed in Table 1 indicate that leak(s) may be present near the well heads of these wells. These extraction wells were identified in the field and no LFG odors were noted in their vicinity.

ODOR SURVEY

Odor surveys were performed on 5 March 2013 and 6 March 2013 at nine locations at the site as shown in Figure 1. Locations 1, 4, and 2 are located east, west, and at the “Speedway Flare”, respectively. Location 3 is located at the Vincent Mullins flare. The remaining locations are around the perimeter and center of the Site.

Odor observations were made in general accordance with Nasal Ranger® monitoring protocols. Strength/intensity of odors was measured, where feasible, using a Nasal Ranger® field olfactometer. The olfactometer is a portable field device which provides a quantitative measurement of odor strength in ambient air measured as ‘dilution-to-threshold’ (D/T) values. The D/T ratio is a measure of how many dilutions are needed to make odorous ambient air “non-detectable” and is defined as:

$$D/T = \text{Volume of Carbon-Filtered Air} / \text{Volume of Odorous Air}$$

Higher D/T ratios indicate increased odor intensity. The olfactometer D/T readings range from non-detectable (ND) to a D/T ratio of 60. It should be noted that the olfactometer measures the presence of odors in ambient air, and due to the duration of the testing, does not measure odors that may only be present for short durations, (e.g., odors that are transported with short gusts of wind). The results of the surveys are indicated in Table 3 below and summarized on the field documentation forms in Attachment 3. Weather conditions, including temperature, barometric pressure, wind direction and estimated speed are recorded on the field documentation forms.

Table 3: Field Odor Monitoring Results

Location	Description	D/T Ratio		
		3/5/13 PM ²	3/6/13 AM ³	3/6/13 PM ⁴
1	East of Speedway Flare	ND ⁵	ND	ND
2	At Speedway Flare	60 ⁶	ND	30 ⁶
3	At Vincent Mullins Flare	ND	ND	ND
4	West of Speedway Flare	ND	ND	ND
5	North Boundary of Site	ND	4 ⁸	ND
6	East Boundary of Site	ND ⁷	ND ⁷	ND
7	South Boundary of Site	ND	ND	ND
8	West Boundary of Site	ND	ND ⁷	ND
9	Approximate Center of Site	ND	ND ⁷	ND
Predominate Wind Direction at Time of Measurement		West	Southeast	West

Notes:

1. ND = Non detectable with olfactometer.
2. Measurements taken between 15:15 and 16:15.
3. Measurements taken between 07:00 and 07:40.
4. Measurements taken between 12:00 and 12:38.
5. Odors ND with olfactometer however, LFG odor detectable during gusts of wind.
6. Strong to very strong LFG odor detected.
7. Odors ND with olfactometer however, faint grassy odor detectable during gusts of wind.
8. Faint grassy odor detected.

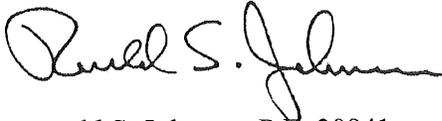
RESULTS

As discussed above, the Site is a closed MSW landfill. No active operations with exposed waste are present at the Site. Based on our data review, site reconnaissance and monitoring, no significant sources for odors were identified at the Site with the exception of the Speedway Flare. Based on discussions with COT, we understand a new blower system for the Speedway Flare is being acquired due to a suspected leak around the blower's shaft. The blower replacement is anticipated to limit the potential for future LFG leakage. Independent of the Speedway Flare, faint grassy odors were observed at the site, however, no on-site source for these odors was identified. No significant odors emanating from the site were identified at the site boundary monitoring locations (Monitoring Locations 3, 6, 7, and 8) during our field monitoring.

Mr. Jeffrey Drumm
22 March 2013
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We appreciate the opportunity to work with you on this interesting project. Please contact us at (858) 674-6559 if you have any questions, comments, or if you need additional information.

Sincerely,



Ronald S. Johnson, P.E. 30941
Principal, Project Director



Jane W. Soule, P.E.
Project Manager

Attachments:

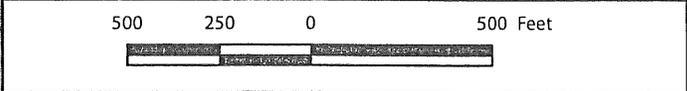
1. Copy of Odor Complaints
2. Photo Log
3. Field Documentation Forms



P:\GIS\SC0651_Tucson\VincentMullins_Odor.mxd

Legend

- Approximate Location of Odor Monitoring Location
- Approximate Site Boundary



Site Plan
 Vincent Mullins Landfill
 Odor Evaluation
 Tucson, Arizona

Geosyntec[®]
 consultants

Figure
 1

San Diego March 2013

Attachment 1: Copy of Odor Complaints



DEPARTMENT OF ENVIRONMENTAL QUALITY

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Tucson, Arizona 85701-1429

Visit our website at: www.deq.pima.gov

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Director

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March 18, 2013

City of Tucson Environmental Services
Attn: Jeffrey Drumm
P.O. 27210
Tucson, AZ 85726-7210

Via Email
Jeffrey.Drumm@tucsonaz.gov

RE: Public Records Request – Speedway/Vincent Mullins Landfill

Dear Mr. Drumm:

Pima County Department of Environmental Quality (PDEQ) received your request for information related to the following property:

Property Owner: Boone Operations Co., LLC/Fairfax Management

Property Address: 7301 E. Speedway Boulevard, Tucson, Arizona 85710

Parcel #: 133-11-002T Pima County, Arizona

TRS: T14S-R15E-Section 5

The PDEQ databases were searched for any complaints, violations, or active permits in the respective area(s). A search of the department's permitting records, compliance/enforcement records, and complaint records revealed the following information:

- No hazardous waste permits are currently issued for this location.
- Fugitive Dust Activity Permit # 7164 is currently active for this location. This permit is active until 5/3/13.
- 42 public complaints are on file for this location. A spreadsheet is attached detailing these complaints. There have been no Notices of Violation (NOV) issued as a result of complaints received by PDEQ.

In providing the foregoing advice, we have not made (nor have we been required to make) a current physical inspection of the property and have referred solely to our records at this time. The foregoing advice does not, therefore assure compliance in fact by the property at this time. If you have any questions, please call me at 724-7323.

Tracking #	Date Received	Time Received	Origin	Source Name	Location Description	Type	Specs	Description	Assigned To	Date Assigned	Date Closed	NOV?	Referred?
PC0101-012	1/3/2001	12:00 PM	BOS	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	LINGERING ODOR. MAY BE MORE THAN GREEN WASTE.	HILLMAN	1/3/2001	1/3/2001		
PC0106-028	6/5/2001	2:00 PM	BOS	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	ODORS FROM SPEEDWAY LANDFILL.	DAY	6/5/2001	6/5/2001		
PC0108-185	6/28/2001	9:50 AM	BOS	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	ODOR AT SPEEDWAY LANDFILL.	ANDERSON	6/28/2001	7/3/2001		
PC0108-086	8/8/2001	12:15 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	SPEEDWAY LANDFILL SMELLING SINCE THIS MORNING. PLEASE CALL FRANCES WITH OUTCOME	HILLMAN	8/8/2001	8/8/2001		
PC0108-084	8/10/2001	4:10 AM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	STRONG ODOR FROM LANDFILL.	ANDERSON	8/10/2001	8/13/2001		
PC0108-148	8/17/2001	11:10 AM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	STINKS/ FOUL ODOR. CHECK FLARE AT C.O.T. LANDFILL.	LAGRANGE	8/17/2001	8/17/2001		
PC0109-097	9/14/2001	3:10 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	SPEEDWAY LANDFILL ; STRONG ODOR.	LAGRANGE	9/14/2001	9/17/2001		
PC0109-102	9/17/2001	4:40 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	BAD ODOR. FRIDAY, SATURDAY, & SUNDAY WERE ESPECIALLY BAD. TODAY IS NOT TOO BAD.	LAGRANGE	9/17/2001	10/1/2001		
PC0111-118	11/18/2001	10:00 AM	PUBLIC	OLD MULLINS LANDFILL	SPEEDWAY & KOLB RD.	AIR	ODOR	ODORS COMING FROM THAT AREA. FLARE IS OUT. BAD ODOR.	DAY	11/18/2001	11/18/2001		
PC0204-095	4/9/2002	3:26 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	IT STINKS RIGHT NOW !!	LAGRANGE	4/9/2002	4/16/2002		
PC0205-066	5/8/2002	3:20 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	HIS NEIGHBORHOOD SMELL LIKE A DUMP. VERY UNPLEASANT BEING OUTDOORS IN HIS BACKYARD.	LAGRANGE	5/8/2002	5/9/2002		509
PC0206-119	6/12/2002	3:37 PM	BOS	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	KATHERINE GRAYBOER, 7501 E. FAIRMOUNT 298-8003, COMPLAINED TO CAROL WEST'S OFFICE OF A BURNING ODOR. COMING FROM THE SPEEDWAY LANDFILL LATE YESTERDAY AFTERNOON.	DAY	6/12/2002	6/12/2002		
PC0207-179	7/25/2002	2:25 PM	BOS	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	THE ODOR FROM THE LANDFILL CAN BE SMELLED TODAY. THE COMPLAINANT IS KATHRYN GRABENBAUER, 7501 E. FAIRMONT PL. 298-6003.	DAY	7/25/2002	7/25/2002		
PC0207-223	7/31/2002	4:07 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	A BAD ODOR IS COMING FROM THE LANDFILL RIGHT NOW.	ANDERSON	7/31/2002	8/5/2002		
PC0305-049	5/8/2003	08:30 AM	PUBLIC	LANDFILL BY VAN HORNE ELEM. SCHOOL	VAN HORNE ELEMENTARY SCHOOL	AIR	ODOR	QUALITY OF AIR AT THE SCHOOL FROM THE DUMP RIGHT NEXT DOOR. THINGS ARE FLYING OVER ONTO THE PLAYGROUND. CHILDREN ARE HAVING BREATHING PROBLEMS TURNING THINGS OVER AT DUMP. SILTY DUST IS BLOWING	DAY	5/8/2003	5/8/2003		
PC0310-005	10/2/2003	01:00 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	GREEN WASTE ODOR COMING FROM LANDFILL.	DAY	10/2/2003	10/3/2003		
PC0412-157	12/28/2004	10:30 AM	PUBLIC	LANDFILL/BOONE OPERATING CO.	7385 E. SPEEDWAY	AIR	ODOR	DUMPING CHEMICALS IN GREEN WASTE LANDFILL-ODORS OF CHEMICALS BAD (PDEQ HAS PREVIOUSLY BEEN OUT ON ODOR COMPLAINTS)	GINGRAS	12/28/2004	12/28/2004		X
PC0502-079	2/14/2005	01:30 PM	PUBLIC	VINCENT MULLINS LANDFILL	DIRECTLY BEHIND UDALL CENTER	AIR	ODOR	BAD ODOR COMING FROM THE LANDFILL LOCATED BEHIND HIS PLACE. TODAY IS WORSE THAN EVER.	FITZPATRICK	2/15/2005	2/15/2005		
PC0504-043	4/5/2005	11:04 AM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	SMELL IS REALLY BAD TODAY. ODOR STARTS UP 8 TO 7 AM.	FITZPATRICK	4/7/2005	4/18/2005		
PC0504-065	4/5/2005	03:30 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	BAD ODOR COMING FROM SPEEDWAY LANDFILL-SMELLS ALL DAY.	FITZPATRICK	4/7/2005	4/18/2005		
PC0504-098	4/11/2005	11:45 AM	PUBLIC	LANDFILL	BEHIND EASTSIDE CITY HALL	AIR	ODOR	ODOR FORM LANDFILL-GREEN WASTE. BEHIND EASTSIDE CITY HALL-LANDFILL	FITZPATRICK	4/12/2005	4/18/2005		
PC0804-061	4/9/2008	08:00 AM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	BAD ODOR COMING FRM SPEEDWAY LANDFILL. ODOR OFFENSIVE TO VAN HORNE ELEMENTARY SCHOOL. PLEASE CALL COMPLAINANT. ODOR WORSE IN AFTERNOON.	GREENE	4/9/2008	4/9/2008		
PC1011-113	11/2/2010	12:00 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	NOXIOUS ODOR FROM SPEEDWAY LANDFILL. 2 COMPLAINTS FILED PREVIOUSLY. REQUESTING COMPREHENSIVE ODOR MONITORING PROGRAM BY PDEQ.	FITZPATRICK	11/29/2010	8/10/2011		
PC1009-020	9/7/2010	08:00 AM	PUBLIC	SPEEDWAY LANDFILL	KOLB & SPEEDWAY	AIR	ODOR	BAD ODOR THROUGHOUT WHOLE NEIGHBORHOOD COMING FROM SPEEDWAY LANDFILL. PLEASE CALL COMPLAINANT.	LYNCH	9/7/2010	12/19/2010		
PC1010-025	10/7/2010	08:59 AM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	FOUL SMELLING ODOR OF ROTTING GARBAGE EMANATING FROM THE LANDFILL. NOTE: PC1005-035	LYNCH	10/8/2010	1/11/2011		
PC1105-064	5/17/2011		PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	TERRIBLE ODOR COMING FROM SPEEDWAY LANDFILL. NOTE: PC1010-025	LYNCH	5/17/2011	5/29/2011		
PC1106-001	6/1/2011	04:21 AM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	STRONG ODOR OF DECAYING VEGETATION.	LYNCH	6/1/2011	6/3/2011		
PC1106-002	6/1/2011	04:23 AM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	ODOR OF DECAYING GARBAGE. NOTE: PC1010-025, PC1105-118, PC1105-064	LYNCH	6/1/2011	6/3/2011		
PC1111-065	11/14/2011	02:33 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	VARY BAD SMELL AND LOUD MACHINERY. NOTE: PC1106-002, PC1105-064, PC1105-118	MARTIN	11/17/2011	11/21/2011		
PC1201-086	1/16/2012	01:23 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	HORRIBLE SMELL	WALTERS	1/18/2012	1/25/2012		

Tracking #	Date Received	Time Received	Origin	Source Name	Location Description	Type	Spec	Description	Assigned To	Date Assigned	Date Closed	NOV?	Referred?
PC1202-053	2/16/2012	12:01 PM	REFERRAL	SPEEDWAY CONSTRUCTION DEBRIS LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	COMPLAINANT NOTED THAT EVERY WEEK OR TWO, A REALLY FOUL ODOR BLOWS THROUGH THE NEIGHBORHOOD USUALLY A WEEK DAY MORNING AND USUALLY LASTS FOR AN HOUR. HOWEVER, RECENTLY THE ODOR IS OCCURRING DURING THE WEEKENDS, STARTING ON SATURDAY NIGHT AND EARLY SUNDAY.	LYNCH	2/16/2012	2/23/2012		
PC1202-096	2/25/2012	05:03 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	AIR QUALITY NOTE: PC1105-064, PC1105-118, PC1106-001, PC1106-002, PC1111-065, PC1201-025, PC1201-066	FITZPATRICK	2/27/2012	2/27/2012		
PC1203-031	3/6/2012	08:50 PM	PUBLIC	SPEEDWAY GREEN WASTE LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	VERY FOUL ODOR COMING FROM DIRECTION OF LANDFILL. CHEMICAL SMELL WITH ODOR OF NATURAL GAS AND RECLAIMED WATER. THIS IS HAPPENING WITH MORE FREQUENCY (EVERY 3-4 DAYS) AND ODOR SEEMS TO BE GETTING WORSE. DONT KNOW WHO ELSE IT COULD BE. PLEASE HELP.	WALTERS	3/7/2012	3/28/2012		
PC1203-072	3/16/2012	06:12 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	HORRIBLE SMELL. NOTE: PC1105-064, PC1105-118, PC1106-001, PC1106-002, PC1111-065, PC1201-025, PC1201-066, PC1202-099	WALTERS	3/19/2012	3/28/2012		
PC1204-107	4/28/2012	03:50 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	HORRIBLE SMELL. NOTE: PC1105-064, PC1105-118, PC1106-001, PC1106-002, PC1111-065, PC1201-025, PC1201-066, PC1202-099, PC1203-072	WALTERS		5/30/2012		
PC1210-015	10/2/2012	08:09 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	ODOR-SMELLS LIKE ROTTING GARBAGE.	MARTIN	11/2/2012	10/11/2012		
PC1211-022	11/6/2012	03:44 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	HORRIBLE SMELL ALL AFTERNOON AND DUST.	MARTIN	11/7/2012	11/15/2012		
PC1211-061	11/16/2012	02:20 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	HORRIBLE SMELL ALL WEEK. JUST WORSE TODAY.	UNASSIGNED		11/27/2012		
PC1211-073	11/19/2012	05:35 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	HORRIBLE SMELL. AGAIN!	UNASSIGNED		11/27/2012		
PC1211-105	11/30/2012	03:34 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	SMELLS SO BAD MY KIDS CANT PLAY OUTSIDE.	LYNCH	12/3/2012	12/4/2012		
PC1212-007	12/4/2012	11:06 AM	BOS	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	FOUL ODOR COMING FROM 7301 E. SPEEDWAY.	LYNCH	12/4/2012	12/4/2012		
PC1212-023	12/7/2012	03:07 PM	PUBLIC	SPEEDWAY LANDFILL	7301 E. SPEEDWAY	AIR	ODOR	ANOTHER HORRIBLE SMELL DAY. SLIGHT BREEZE MAKES IT EVEN WORSE. KIDS MAD CAUSE THEY CANT PLAY OUTSIDE.	LYNCH	12/10/2012	12/14/2012		

All records indicate location as Lat: 32.24054 and Long: -110.83557

Jeffrey Drumm - Vincent Mullins/Speedway Landfill odor complaint

From: Jeffrey Drumm
To: Bolger, Katie; Kramer, Ursula
Date: 6/9/2011 8:14 AM
Subject: Vincent Mullins/Speedway Landfill odor complaint
CC: Petersen, Nancy

Katie,

We received a call and letter this week from Brian Andrews pertaining to odor issue from the above listed landfills. The flare systems are working properly and we have Environmental Inspectors visit the site daily to check the systems and record odor issues. The flares are not producing odors.

Nancy and I visited the Speedway landfill yesterday. I spoke to the owner after the site visit and made some suggestions on green waste handling that will reduce odors from the piles.

Thanks,

Jeff Drumm, P.E.
Environmental Manager
City of Tucson Environmental Services
520-837-3713

Sincerely,

Jennifer Lynch, R.S.
Enforcement Manager

cc: Scott Porter, Environmental Quality Manager
Public Records Request, # 1303-05

June 6, 2011

Brian Andrews
7501 East Clarence Circle
Tucson, AZ 85715

Pima County Department of Environmental Quality
33 North Stone Avenue, Suite 700
Tucson, AZ 85701

Attention: Jennifer Lynch

Dear Ms Lynch:

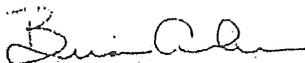
I have received your letter dated June 1, 2011 in response to my complaint filed via the Pima County Department of Environmental Quality (PDEQ) website on May 29, 2011. The subject complaint is one of four complaints I have filed with your department about the ongoing nuisance stemming from the processing of garbage at the Speedway Landfill since October of 2010 (Reference: letter dated October 27, 2010).

In your letter you have stated you were unable to detect any violations of Title 17 relating to Air Quality Control. However, Title 7 – Environmental Quality, Section 7.45.020 does address the types of environmental nuisances which have affected the residents around the Speedway Landfill. While this landfill may be permitted to operate under a city issued non-conforming zoning use permit and a state issued authorization to operate, I am unaware of any provisions within the Arizona Revised Statutes, Pima County Municipal Code or the City of Tucson Ordinances that would allow any type of commercial operation to generate offensive odors, especially within the center of a residential area of Tucson.

I believe I have properly referred this matter to your department and I am respectfully requesting you exercise the authority extended to the PDEQ by statute to abate this ongoing nuisance.

If you should have questions or require additional information, I may be contacted at (520) 909-4814.

Sincerely,



Brian Andrews

C: Arizona Department of Environmental Quality
City of Tucson Solid Waste Department
City Council Office – Ward 2 Paul Cunningham

October 27, 2010

Brian Andrews
7501 East Clarence Circle
Tucson, AZ 85715

Pima County Department of Environmental Quality
33 North Stone Avenue, Suite 700
Tucson, AZ 85701

Attention: Ursula Kramer

Dear Ms Kramer:

I reside within the square mile bounded by Speedway Boulevard to the south, Tanque Verde Road to the north, Sabino Canyon/Kolb Road to the west and Pantano Road on the east. This area is largely residential with the exception of a regional park, churches, some retail and commercial operations along arterial roads and a landfill.

I have filed two complaints with the Pima County Department of Environmental Quality (PDEQ) due to a very strong odor of rotting garbage or vegetative matter emanating from the landfill. In the first instance, the complaint was dismissed as a temporary condition resulting from the malfunction of a methane gas (an odorless gas) recovery system operated by the City of Tucson at the Mullins Landfill. My second complaint was investigated approximately thirteen (13) hours after having been filed. By the time of the inspection, the compliance officer was unable to detect any odor in the vicinity of my residence.

Although I have only filed two complaints about the odor from the Speedway Landfill, it occurs often. I have documented occurrences on the following dates and times:

May 7, 2010	9:30 am	September 10, 2010	7:30 am
May 8, 2010	4:45 pm	October 7, 2010	8:45 pm
June 23, 2010	5:45 pm	October 9, 2010	9:29 pm
June 27, 2010	5:46 pm	October 14, 2010	9:45 pm
July 25, 2010	3:00 pm	October 16, 2010	8:15 pm
August 29, 2010	8:35 am	October 17, 2010	10:45 pm
August 30, 2010	7:10 pm	October 19, 2010	8:15 pm
September 1, 2010	8:35 pm		

The frequency and noxious nature of this odor can be corroborated by my neighbors. In the interest of the residents in this area, I respectfully request that PDEQ establish a comprehensive program to monitor this ongoing problem to document the frequency and severity

of these occurrences and as applicable, enforce any statutory obligations the operator of this facility must follow to mitigate this public nuisance and possible health threat.

I trust you will find my request reasonable given the potential harm this situation presents to our quality of life and health. If you should have questions or require additional information, I may be contacted at (520) 909-4814.

Sincerely,



Brian Andrews

C: Arizona Department of Environmental Quality
City of Tucson Solid Waste Department
City Council Office – Ward 2 Paul Cunningham

Jeffrey Drumm - RE: Vincent Mullins/Speedway Landfill odor complaint

From: Jeffrey Drumm
To: Kramer, Ursula
Subject: RE: Vincent Mullins/Speedway Landfill odor complaint

Thanks for the info Jeff. We also received a complaint from the same person. We sent an inspector out to the facility and found they are in compliance. We will be sending a letter to the complainant stating that.

Ursula

Ursula Kramer, Director

Pima County Department of Environmental Quality

520.243.7454

From: Jeffrey Drumm [mailto:Jeffrey.Drumm@tucsonaz.gov]
Sent: Thursday, June 09, 2011 8:14 AM
To: Ursula Kramer; Katie Bolger
Cc: Nancy Petersen
Subject: Vincent Mullins/Speedway Landfill odor complaint

Katie,

We received a call and letter this week from Brian Andrews pertaining to odor issue from the above listed landfills. The flare systems are working properly and we have Environmental Inspectors visit the site daily to check the systems and record odor issues. The flares are not producing odors.

Nancy and I visited the Speedway landfill yesterday. I spoke to the owner after the site visit and made some suggestions on green waste handling that will reduce odors from the piles.

Thanks,

Jeff Drumm, P.E.
Environmental Manager
City of Tucson Environmental Services
520-837-3713



Attachment 2: Photo Log

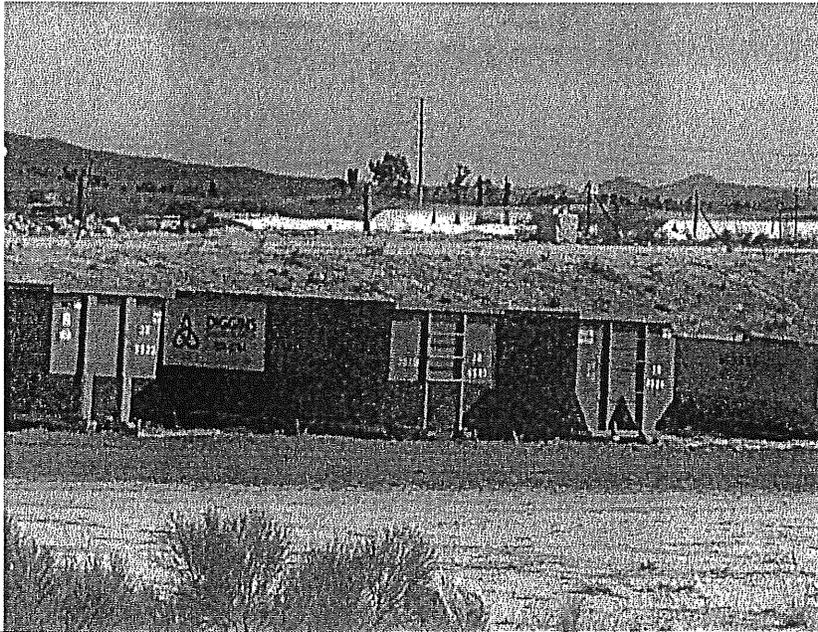


Photo No.:	1	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Commercial bins currently stored on east portion of Site.		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona



Photo No.:	2	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Looking west at closed Vincent Mullins Landfill		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona

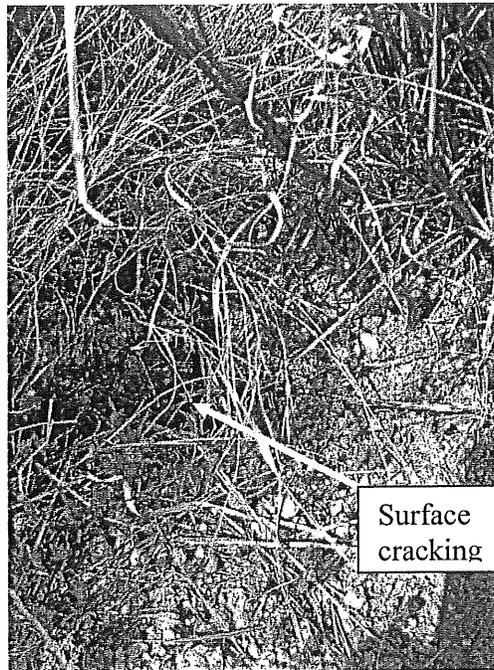


Photo No.:	3	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Typical surface cracking of final cover at Site, with dense vegetation		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona

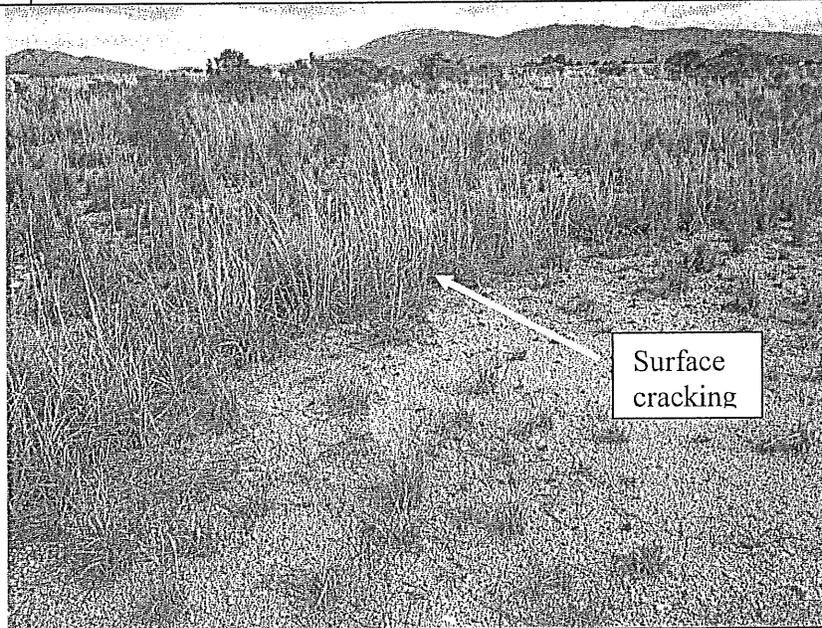


Photo No.:	4	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Typical surface cracking of final cover at Site, with dense vegetation at crack		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona

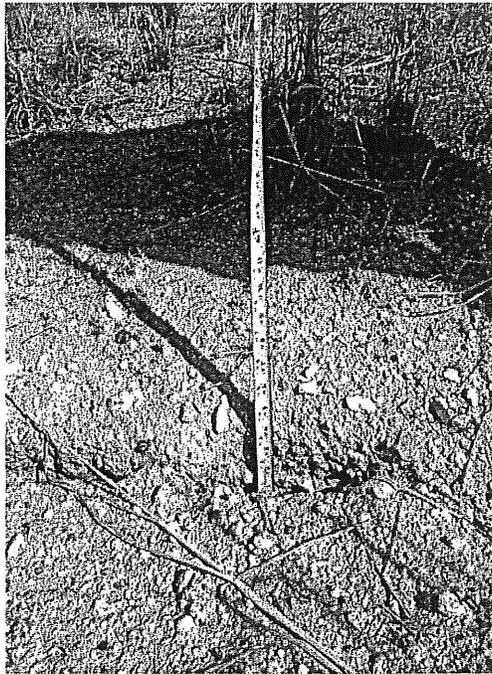


Photo No.:	5	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Typical surface cracking of final cover at Site, approximately 12 to 15 inches deep		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona

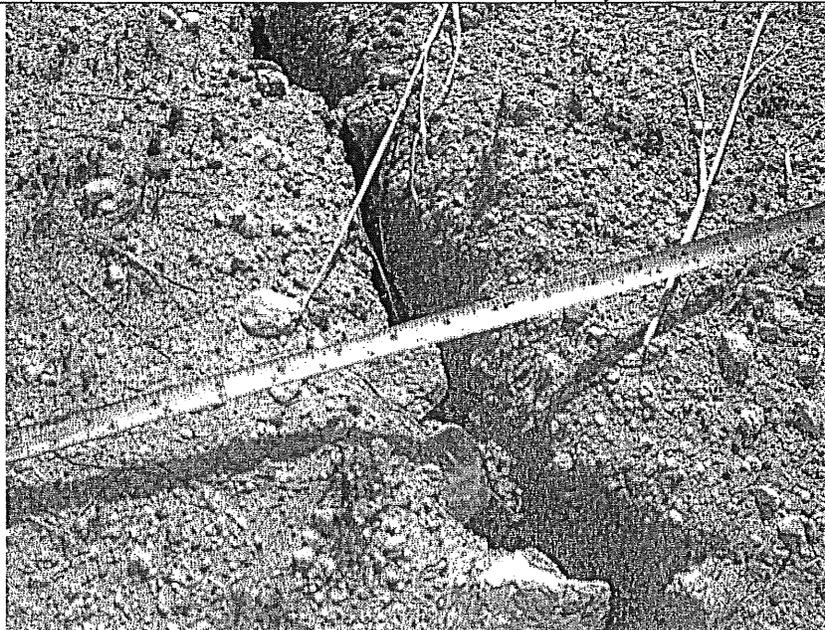


Photo No.:	6	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Typical surface cracking of final cover at Site, approximately 2 – 3 inches wide		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona



Photo No.:	7	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Typical surface cracking of final cover at Site, evidence of crack extends lateral distance of approximately 140 feet		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona



Photo No.:	8	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Speedway Flare		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona



Photo No.:	9	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Nasal Ranger® Field Olfactometer monitoring near Speedway Flare		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona

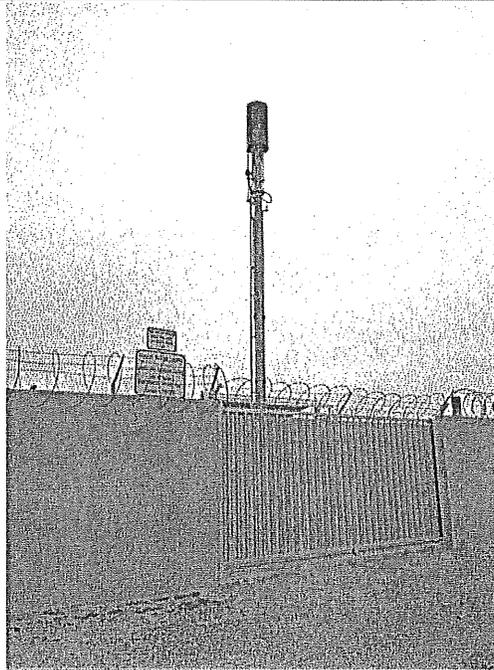


Photo No.:	10	Date:	03-05-13
Photographer:	J. Soule		
Subject:	Vincent Mullins Flare – operating.		
Project:	Vincent Mullins Landfill Odor Evaluation	City/State:	Tucson, Arizona

Attachment 3: Field Documentation Forms

