

**CONFIDENTIAL**

**PENNSYLVANIA DEPARTMENT OF HEALTH  
NATURAL GAS DRILLING LOG  
ISSUES DOCUMENTATION**



**CONFIDENTIAL**

**Number:** 1

**Record Number:** 1000

**Date of Contact:** 3/30/2011

**Name/Organization:** Dr. [REDACTED] [REDACTED] McMurray, PA [REDACTED]  
**Tel:** [REDACTED] Allegheny County [REDACTED]

**PADOH District of Complaint Origination:** SW

**County:** Allegheny

**Issue:** Documentation of general query from Dr. [REDACTED] to Dr. [REDACTED] at SW District. Physician asks for environmental guidance for dealing with chemicals in her patients' drinking water. Dr. [REDACTED]'s patients have had problems: elevated manganese, strontium and arsenic.

**How Issue Managed:** Dr. [REDACTED] gives recommendations for poison control, PADEP, and PADOH and Penn State Agricultural Extensions for improving well water.

**Notes:** Email dated 3/30/2011 from Dr. [REDACTED] to SW District, BOE, and DEHE.

**Number of Cases Affected:** N/A

**Person Reporting Case:**

**Attachments:**

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**Number:** 2

**Record Number:** 2000

**Date of Contact:** 3/30/2011

**Name/Organization:** Physician/resident [REDACTED] (SW District), email of 3/24/2011.

**PADOH District of Complaint Origination:** SW

**County:** Washington

**Issue:** Physician determined elevated random arsenic levels. Drilling activity began in a nearby property in summer of 2009 - water became discolored and smelled of "rotten eggs". Residents began using bottled water for drinking and cooking.

In September 2009, a 14 y/o male became ill: symptoms included fever, fatigue and abdominal pain. Diagnosis: Crohn's disease.

In August, the 14 y/o had a broken foot that would not heal. Physician could not determine the cause.

Neighbor's dog died of possible glycol poisoning and elevated arsenic (determined by autopsy). Neighbor's horse died of possible glycol poisoning.

**How Issue Managed:** November 2010 well-drilling company began supplying water to the residences even though DEP sampling showed water met/exceeded standards, Subsequent urine samples indicated levels "in the teens".

**Notes:**

**Number of Cases Affected:** 2

**Person Reporting Case:**

**Attachments:**

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**Number:** 3

**Record Number:** 3000

**Date of Contact:** 4/22/2011

**Name/Organization:** PA Staff Alert

**PADOH District of Complaint Origination:** NC

**County:** Bradford

**Issue:** PA GAS WELL INCIDENT/FRESH WATER LEAK: During the "kill" process, all operations stopped due to high "lower explosive limit" readings. "Two farms in the area and one pasture with cows in it have water flowing in it". Unknown amount of water entered into [REDACTED] Creek. Approximately 30,000 of fresh water leaked out of a gas well and into a secondary containment area.

**How Issue Managed:** [REDACTED] poured mud into the well to "kill" flow of water. "Approximately 30 persons on both sides of the well were evacuated". Report stated: "No injuries were reported. This was a rural area with no impact to nearby residents".

**Notes:** PEMA SEOC operations reported on 4/22/2011 to PA State Agencies.

**Number of Cases Affected:** 30

**Person Reporting Case:**

**Attachments:**

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**Number:** 4

**Record Number:** 4000

**Date of Contact:** 5/23/2011

**Name/Organization:** ATSDR Region 3 report to U. Pitt.

**PADOH District of Complaint Origination:** SW

**County:** Washington

**Issue:** Two families next door to [REDACTED] Impoundment complain of flushed/burning face, nose/throat burning, and bleeding nose blisters. Due to impoundment lagoon?

**How Issue Managed:** PADEP reported to EPA that the lagoon is not leaking. Cleanout of the lagoon was because water had reached its useful life and can't be used for recycling. PADEP states that after clean-out of lagoon, they will fill it again and restart the recycle process for the flow back water.

**Notes:** Email of 5/23/2011 - ATSDR Region 3 to EPA and PADOH BOE: ATSDR in discussions with EPA as to monitoring of air (odors) VOCs.

**Number of Cases Affected:** 2 families

**Person Reporting Case:**

**Attachments:**

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**Number:** 5

**Record Number:** 5000

**Date of Contact:** 5/27/2011

**Name/Organization:** Bradford County resident.

**PADOH District of Complaint Origination:** NC

**County:**

**Issue:** On 5/27/2011, the Pennsylvania Department of Health (PADOH) North Central district office was contacted by an individual who lives in Bradford County, whose primary concern was that her 13 y/o daughter had lost approximately a third of her hair within the previous 2 weeks. She believed this was related to the child's exposure to contaminants in their private well water. The well is situated <1000 feet from a natural gas well with casing issues which she believes is contaminating her well.

**How Issue Managed:** Copies of previously done 2009 baseline and 2010 well water sampling reports were requested, as was a copy of the report of the latest round of sampling when available.

The child's health care provider was also contacted. The laboratory test results were also requested. The laboratory was also contacted to obtain more details regarding the testing.

PADOH contacted the resident on 7/11/2011 and explained the results of its evaluation.  
**STATUS: Inquiry closed.**

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

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**Number:** 6

**Record Number:** 6000

**Date of Contact:** 6/9/2011

**Name/Organization:** [REDACTED], [REDACTED], Region 3, ATSDR, Philadelphia, [REDACTED]. Tel: [REDACTED]

**PADOH District of Complaint Origination:** SW

**County:**

**Issue:** [REDACTED] requested health consultation with PADOH regarding clinical data she had received for seven patients in the [REDACTED] area of Washington County, PA.

**How Issue Managed:** On 6/10/2011, the Division of Environmental Health Epidemiology (DEHE) conducted a cursory review of the clinical data and provided comment to the Director of the Bureau of Epidemiology (BOE) who then contacted ATSDR and shared PADOH's comments. **STATUS: Inquiry closed.**

**Notes:** This Record Number refers to seven patients.

**Number of Cases Affected:** 7

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 7

**Record Number:** 7000

**Date of Contact:** 7/8/2011

**Name/Organization:** "[REDACTED]" - who asked to remain anonymous and resided in northeast PA.

**PADOH District of Complaint Origination:** NE

**County:**

**Issue:** [REDACTED] had concerns regarding health and safety at a Marcellus Shale worksite. [REDACTED] was mainly concerned about radiation exposure from the Marcellus Shale shavings.

**How Issue Managed:** Aside from initial phone contact, [REDACTED] does not want to file a formal complaint with OSHA, refusing to give his last name, where the site is located and the name of his employer.

**Notes:** Furthermore, from our discussion, DEHE believes [REDACTED] has legitimate concerns about safety at the site. From what was discussed, if OSHA were to conduct an inspection at this site they would find numerous violations. Hence, DEHE believes this complaint would be best handled by OSHA.

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**



**CONFIDENTIAL**

**Number:** 8

**Record Number:** 8000

**Date of Contact:** 7/12/2011

**Name/Organization:** [REDACTED] (? Spelling) Community Services, Tel: [REDACTED]  
[REDACTED], cell: [REDACTED], Canton, PA [REDACTED]

**PADOH District of Complaint Origination:** NC

**County:** Bradford

**Issue:** Combustible gas found in the well causing the pump to cavitate and stop the water supply, leaving the residents without water.

**How Issue Managed:** Problem: As there is no drinking water standard for methane levels - PADEP can't enforce remediation. [REDACTED] told by [REDACTED] DEP Oil & Gas, Geologist Specialist, Tel: [REDACTED] that there is no toxicity levels/drinking water standards for presence of methane in drilling water supply.

NCDO received inquiry on 7/12/2011 and Division Director is forwarding the matter.

**Notes:** Email chain 7/12/2011 to Division Dir. over NC District Office.

**Number of Cases Affected:** Multiple, unknown

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 9

**Record Number:** 9000

**Date of Contact:** 7/12/2011

**Name/Organization:** [REDACTED] Clearville, PA.

**PADOH District of Complaint Origination:** SC

**County:** Bedford

**Issue:** Patient believes she has an "immune-like disease". She lives near drilling site. Has Red spots "strange looking" on face, arms, etc., hair falling out, and nose bleeding.

Dr. says likely chigger bites and apply ointment. Shower steam makes her cough.

PADEP states water is okay. Yet episodes of fainting (? methane exposure) eyes burn, nausea and body weakness for days.

**How Issue Managed:** [REDACTED], MD passes to Deputy of BOE the patients two and a quarter-page email he received from [REDACTED].

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 10

**Record Number:** 10000

**Date of Contact:** 7/12/2011

**Name/Organization:** [REDACTED], MD to Deputy Secretary for BOE.

**PADOH District of Complaint Origination:** NC

**County:**

**Issue:** Dr. [REDACTED] sends "a map of impacted people and water wells in a part of Bradford County". Map compiled by [REDACTED] of [REDACTED]  
[REDACTED].

**How Issue Managed:** [REDACTED] suggests further PADOH contact with [REDACTED]  
[REDACTED].

**Notes:** Email from [REDACTED] to Deputy for BOE.

**Number of Cases Affected:** NA

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 11

**Record Number:** 11000

**Date of Contact:** 8/5/2011

**Name/Organization:** [REDACTED], **Tel:** [REDACTED]

**PADOH District of Complaint Origination:** NE

**County:** Susquehanna County, Thompson Township

**Issue:** Citizen contacts PADOH. She resides in farmlands with constant drilling near her home and is affected physically and mentally.

**How Issue Managed:** DEHE contacts lady. Her primary concern is perceived vibrations from drilling approx. one and one-half miles from her home. She's being "jiggled to death". She has GI symptoms and arrhythmias as a result of "vibro-acoustic disease".

She also called NIOSH, PADEP and State Police. She claims none have followed up.

No follow-up necessary or planned according to Marcellus Shale Complaint Report #2 (08/08/2011).

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

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**Number:** 12

**Record Number:** 12000

**Date of Contact:** 12/7/2011

**Name/Organization:** Email from EPA to ATSDR, BOE and DEHE.

**PADOH District of Complaint Origination:** NE

**County:** Susquehanna

**Issue:** EPA formally requests that ATSDR conduct a Health Consultation on the individual contaminant risks as well as the cumulative risk of various compounds found in the private wells in and around Dimock, PA. EPA believes that private wells around the Dimock area have been negatively impacted by the Cabot natural gas drilling processes "evidenced by the presence of methane, butane, propane, ethane, etc."

**How Issue Managed:** ATSDR states that it will do its best for a timely review of the data. ATSDR, "will complete individual well-specific health consultation reviews, focusing on what appear to be the most impacted private wells."

**Notes:** Email from EPA 12/7/2012 to ATSDR, BOE and DEHE.

**Number of Cases Affected:** N/A

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 13

**Record Number:** 13000

**Date of Contact:** 1/31/2012

**Name/Organization:** ATSDR Region 3, patient is [REDACTED] (deceased).

**PADOH District of Complaint Origination:** NC

**County:**

**Issue:** [REDACTED] family initially referred to ATSDR Region 3 because of concerns about Marcellus Shale last year. [REDACTED] now deceased.

**How Issued Managed:** ATSDR met family in their home. Family has many concerns. [REDACTED] developed colon cancer. Family relocated to Cambria County because of their health concerns. The wife and daughter said they were experiencing health problems similar to [REDACTED].

U. Pitt conducts medical record review for [REDACTED] at request of ATSDR;  
PADEP tests water for some metals and methane – not enough environmental evidence to warrant follow-up with the family.

**Notes:** Email to BOE from ATSDR, 1/31/2012.

**Number of Cases Affected:** 3

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 14

**Record Number:** 14000

**Date of Contact:** 3/2/2012

**Name/Organization:** An Evans City resident and [REDACTED]  
[REDACTED] Bucks County contacted PADOH.

**PADOH District of Complaint Origination:** SE

**County:**

**Issue:** Request for assistance with interpretation of the sampling results of the resident's well water.

**How Issue Managed:** PADOH told resident to send the laboratory sampling results for her well water and that PADOH would determine the public health significance of exposures to the contaminants present in the well water.

**STATUS:** We are awaiting receipt of the environmental data.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 15

**Record Number:** 15000

**Date of Contact:** 3/2/2012

**Name/Organization:** [REDACTED] DO, [REDACTED], [REDACTED]  
Towanda, PA [REDACTED]. Tel: [REDACTED].

**PADOH District of Complaint Origination:** NC

**County:**

**Issue:** Dr. [REDACTED] had a patient with an elevated blood barium level and requested consultation on potential sources and health effects of barium exposure.

**How Issue Managed:** On 3/2/2012, DEHE called the physician and discussed the sources and health effects of exposures to barium with him. PADOH also sent a follow up email providing him with links to PADOH's Environmental Fact Sheet on barium and other sources.

**STATUS:** Inquiry closed.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**



**CONFIDENTIAL**

**Number:** 16

**Record Number:** 16000

**Date of Contact:** 4/12/2012

**Name/Organization:** Patient from Tunkhannock, PA.

**PADOH District of Complaint Origination:** NE

**County:**

**Issue:** Patient states that a physician and nurse in the Geisinger Medical Group in Tunkhannock keep seeing patients with GI problems, rashes (particularly among children) and they are doing more biopsies than they used to. Clinicians are highly frustrated by the increased demand in services and "unanswerable patient questions".

**How Issue Managed:** NE District Office indicates it is not aware of any complaints. Geisinger is not on the RODS system to be able to check on chief complaints. NE District Office receives call from Geisinger Operations Manager of Medical Group in Tunkhannock - she will consult there, though not aware of problems. May further advise PADOH.

**Notes:** Email trail from ATSDR Region 3 to BOE (4/12/2012) to DEHE (4/13/2012).

**Number of Cases Affected:** N/A

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 17

**Record Number:** 17000

**Date of Contact:** 4/16/2012

**Name/Organization:** Mid-Atlantic Center for Children's Health and the Environment (MACCHE) by way of email to [REDACTED], Region 3 ATSDR to DEHE. Regarding a call from a mother whose child has symptoms she believes may be related.

**PADOH District of Complaint Origination:** Unknown

**County:**

**Issue:** Non-specific symptoms without a context to the illness make testing of water problematic. No diagnosis known yet that would recommend targeted testing of water, states EPA.

**How Issue Managed:** EPA states testing of water problematic in the absence of symptoms or differential diagnosis. Yet, general water-testing a possibility in case patient cannot tolerate "poor water quality". Additional information about the area may "direct some of the samples considered".

**Notes:** Email trail initiating from MACCHE on 4/18/2012 to [REDACTED] ATSDR R3 and DEHE.

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 18

**Record Number:** 18000

**Date of Contact:** 4/30/2012

**Name/Organization:** [REDACTED] located in  
Williamsport, PA.

**PADOH District of Complaint Origination:** NC

**County:**

**Issue:** [REDACTED] wanted to know what are PADOH's responsibilities regarding ambient air quality at Marcellus Shale compressor stations.

**How Issue Managed:** Explained to [REDACTED] PADOH has no regulatory authority (enforcement) regarding ambient air standards. In addition, DEHE mentioned PADOH does not do any air sampling. All sampling of air and regulatory issues are the authority of PADEP. Furthermore DEHE explained PADOH is an advisory agency (DEHE would interpret test results from DEP and make recommendations).

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 19

**Record Number:** 19000

**Date of Contact:** 5/4/2012

**Name/Organization:** [REDACTED], MD., [REDACTED], McMurray, PA  
[REDACTED]. Tel: [REDACTED].

**PADOH District of Complaint Origination:** SW

**County:**

**Issue:** Dr. [REDACTED] requested the Department review the results of urine analysis and environmental sampling data for four Rea, PA residents living near a compressor station and determine if a health threat exists.

**How Issue Managed:** Dr. [REDACTED] requested the Department review the results of urine analysis and environmental sampling for four Rea, PA residents living near a compressor station and determine if a health threat exists.

**STATUS:** DEHE is presently evaluating the clinical and the environmental data and preparing a health assessment of the data.

**Notes:** On 5/4/2012, the Division of Environmental Health Epidemiology (DEHE) received the clinical data for four residents.

On 5/14/2012, DEHE received the environmental data for four residents.

On 6/6/2012, DEHE requested from Dr. [REDACTED] additional information needed to complete its health evaluation.

On 6/7/2012, DEHE followed up with a telephone call and was informed that [REDACTED] and Dr. [REDACTED] would not be in the office until Monday, 6/11.

DEHE is presently evaluating the clinical and the environmental data and preparing a health assessment of the data. Dr. [REDACTED] partially responded to DEHE's request for additional information on Saturday, 6/9. She stated that she will provide the remaining information as soon as she can.

DEHE is currently awaiting receipt of the final data to finish our evaluation.

**Number of Cases Affected:** N/A

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 20

**Record Number:** 20000

**Date of Contact:** 5/10/2012

**Name/Organization:** [REDACTED] resident living in Evans City, Connoquenessing Township, Butler County, [REDACTED]. Tel: [REDACTED] [REDACTED] Evans City, PA [REDACTED]

**PADOH District of Complaint Origination:** SW

**County:**

**Issue:** On 5/10/2012, DEHE received a letter dated 5/2/2012 from a resident. The resident was concerned that her family's health symptoms may be associated with gas drilling operations and asked PADOH to contact her to discuss her health history and her concerns.

The resident is in the process of obtaining environmental sampling and requests PADOH to review the results when they become available in about 3 to 4 weeks and determine if her family's continued exposure to contaminants represents a health threat

Note: The resident has also been in contact with the PADOH District on a variety of issues

**How Issue Managed:** On 5/10/2012, DEHE contacted the resident. PADOH told the resident to send the results of the analysis of the environmental media and that PADOH would determine if exposure to contaminants represents a health threat.

**STATUS:** PADOH is presently awaiting receipt of the environmental sampling results.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 21

**Record Number:** 21000

**Date of Contact:** 5/14/2012

**Name/Organization:** [REDACTED], [REDACTED], Morrisdale, PA [REDACTED].

**PADOH District of Complaint Origination:** SE

**County:**

**Issue:** Controlled correspondence from [REDACTED] (State Representative) to Secretary [REDACTED] [REDACTED] says she has suffered, by her physician's account - "acoustic trauma" from a helicopter hovering over her trailer related to a Marcellus Shale incident on 8/30/2011. Specifically, her physician ([REDACTED]) documents: roaring in her ears, vertigo and headaches.

**How Issue Managed:** State Representative [REDACTED] received response from [REDACTED] [REDACTED] based in Stafford, Texas. They deny operating or contracting for helicopter services but passed on information to their [REDACTED] clients in hopes of minimizing future problems. [REDACTED] does not accept this explanation stating, "What good is this to me?"

PADOH is in process of responding to legislator: will contact the patient first.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 22

**Record Number:** 22000

**Date of Contact:** 5/17/2012

**Name/Organization:** [REDACTED], Morrisdale, PA [REDACTED]  
[REDACTED] MD, Dubois Regional Medical Center, [REDACTED], Curwensville,  
PA [REDACTED]. Tel: [REDACTED]

**PADOH District of Complaint Origination:**

**County:**

**Issue:** Dr. [REDACTED] has a patient who sustained acoustic trauma when a helicopter flew over her home and then remained close overhead for nearly five minutes and shook her trailer. The helicopter is believed to have been a contractor working on Marcellus Shale activities.

**How Issue Managed:** On 5/17, the Division of Environmental Health Epidemiology called the physician and confirmed that the patient has been suffering chronic hearing damage as a result of the incident. On 5/17/2012, the Division also contacted the patient and confirmed that the helicopter was conducting Marcellus Shale activities.

**STATUS:** The patient was advised to continue to seek medical care from her primary care physician. Inquiry closed.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 23

**Record Number:** 23000

**Date of Contact:** 6/7/2012

**Name/Organization:** [REDACTED], MD., [REDACTED] - Canonsburg, [REDACTED]  
[REDACTED], Canonsburg, PA [REDACTED] Tel: [REDACTED]

**PADOH District of Complaint Origination:** SW

**County:**

**Issue:** On 6/4/2012, the Southwestern Health District referred for guidance from a physician to the Bureau of Epidemiology. Dr. [REDACTED] was seeking guidance in addressing Marcellus Shale health issues.

**How Issue Managed:** On 6/7/2012, the Division of Environmental Health Epidemiology contacted Dr. [REDACTED] office. Dr. [REDACTED] was out of the office and was scheduled to return on 6/11/2012.

**STATUS:** DEHE spoke with Dr. [REDACTED] and followed up with an email on Monday, 6/11/2012. **Inquiry closed.**

**Notes:**

**Number of Cases Affected:** N/A

**Person Reporting Case:**

**Attachments:**



**CONFIDENTIAL**

**Number:** 24

**Record Number:** 24000

**Date of Contact:** 6/19/2012

**Name/Organization:** [REDACTED] (Address) Tel: [REDACTED]

**PADOH District of Complaint Origination:** NE

**County:**

**Issue:** On 6/18/2012, the Northeast Health District Office referred a call to the Division of Environmental Health Epidemiology. A resident, [REDACTED], left a voice message requesting information on health effects of Marcellus Shale fracking.

[REDACTED] had previously contacted the Governor's Office, his Congressman, and the Department of Environmental Protection and was not satisfied with the information they provided him. He asked very "open-ended" questions. He was concerned that his family's health may be harmed at some point in the future, but admitted that they were not currently being exposed to any contaminants. STATUS: DEHE spoke with Dr. [REDACTED] and followed up with an email on Monday, 6/11/2012. **Inquiry closed.**

**How Issue Managed:** On 6/19/2012, the Division of Environmental Health Epidemiology attempted to contact [REDACTED] via telephone. DEHE left a voice message to return its call.

On 6/20/2012, the DEHE attempted to contact [REDACTED] via telephone. DEHE left a voice message to return its call.

On 6/20/2012, the DEHE spoke with [REDACTED] and explained the role of the Health Department in addressing environmental exposure issues associated with Marcellus Shale drilling activities.

STATUS: [REDACTED] is not satisfied that the Department is protecting the health of the residents.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 25

**Record Number:** 25000

**Date of Contact:** 7/19/2012

**Name/Organization:** [REDACTED] (sic), [REDACTED], Brooklyn, PA (Kingsley [REDACTED]) and [REDACTED] Advocate and a [REDACTED] [REDACTED] Bucks County, contacted the Department.

**PADOH District of Complaint Origination:** SE

**County:**

**Issue:** On 7/19/2012, the Northeast Health District Office referred a call to the Division of Environmental Health Epidemiology (DEHE). A resident, [REDACTED], was concerned that her health was harmed following exposure to air near the [REDACTED] flare.

**How Issue Managed:** On 7/19/2012, the DEHE attempted to contact [REDACTED] via telephone.

[REDACTED] and [REDACTED] returned the call on 7/19/2012. [REDACTED] stated that while she was driving near the [REDACTED] flare on 7/12/2012, she experienced the sudden onset of a severe headache, sore throat and tightness in her chest. She was driving west onto [REDACTED] Road when she experienced the symptoms. She also complained that similar symptoms occurred when the [REDACTED] Pad flared nine wells near her home.

She requested the Department record her symptoms.

**STATUS:** [REDACTED] experience and symptoms have been duly documented.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 26

**Record Number:** 26000

**Date of Contact:** 8/4/2012

**Name/Organization:** [REDACTED], Tunkhannock, Pa. [REDACTED],  
Wyoming County. Tel: [REDACTED]

**PADOH District of Complaint Origination:** NE

**County:**

**Issue:** On 8/3/2012, the Northeast Health District Office referred a call to the Division of Environmental Health Epidemiology (DEHE).

A resident, [REDACTED], contacted the District with concerns regarding air emissions from gas drilling in Tunkhannock area. She stated that the air has a sickening sweet odor and exposure to it causes her breathing to become labored and causes nose and throat irritation. She believes this air is contaminated with harmful hydrocarbons from hydro-fracking activities.

She requested that the air outside her home be sampled and that the Health Department address the results of the sampling. She believes the results of the air sampling will show the existence of a health hazard.

**How Issue Managed:** On 8/3/2012, the DEHE contacted [REDACTED] via telephone. STATUS: [REDACTED] was told that the Health Department does not conduct air sampling and that she should make her request for air sampling to the Pennsylvania Department of Environmental Protection (PADEP). She was also told that the Health Department's Division of Environmental Epidemiology would be happy to review the results of PADEP's air sampling and determine if a health hazard exists.

On 8/13/2012, DEHE received a copy of a letter dated 8/9/2012 to Secretary [REDACTED] Pennsylvania Department of Environmental Protection (DEP). In her letter to DEP, she stated that she has not received the reports or the results from DEP's investigation of her 7/16/2012 complaint.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 27

**Record Number:** 27000

**Date of Contact:** 8/30/2012

**Name/Organization:** [REDACTED] Clearville,  
PA [REDACTED], Bedford County. Tel: [REDACTED]

**PADOH District of Complaint Origination:** NC

**County:**

**Issue:** On 8/29/2012, [REDACTED] contacted the Bureau of Epidemiology expressing concerns that her health has been harmed from exposure to methane, arsenic and other contaminants as a result of Marcellus Shale drilling activities. The call was referred to the Division of Environmental Health Epidemiology (DEHE).

**How Issue Managed:** On 8/30/2012, the DEHE contacted [REDACTED] via telephone.

**STATUS:** [REDACTED] was told that the Health Department (PADOH) would need to evaluate the results of air and well water analysis at her residence to determine if a health hazard exists from exposure to those media. [REDACTED] was also told that the PADOH does not conduct environmental sampling and that she should make her request for sampling to the Pennsylvania Department of Environmental Protection (PADEP). She was further told that PADOH's Division of Environmental Epidemiology would be happy to review the results of PADEP's air and water sampling and determine if a health hazard exists.

She said that she would send DEP's sampling results to DEHE as soon as they are available.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 28

**Record Number:** 28000

**Date of Contact:** 10/10/2012

**Name/Organization:** [REDACTED] Public Health Educator with the [REDACTED]  
[REDACTED] Bucks County facilitated a joint conference call with [REDACTED]  
[REDACTED] Brackney, PA [REDACTED] and the Department to discuss the resident's  
Marcellus Shale-related health concerns.

**PADOH District of Complaint Origination:** SE

**County:**

**Issue:** [REDACTED] expressed concern that her health may become harmed from exposure to contaminants in air as a result of Marcellus Shale drilling activities and wanted the Department to conduct air sampling to document her exposures to hazardous contaminants. She was also concerned that her private well water may become contaminated as future drilling activities commence near her home. She stated that she had baseline sampling done by a certified laboratory for her well water and would have the water sampled again in the future. She also expressed concern that a nearby restaurant was operating with bottled water because their well became polluted. **NOTE:** [REDACTED] is noted for repeated calls to the Department expressing similar concerns to different people.

**How Issue Managed:** STATUS: [REDACTED] was told that the Health Department does not conduct air sampling and that she should make her request for air sampling to the Pennsylvania Department of Environmental Protection (PADEP) or hire a certified laboratory to conduct the sampling. She was also told that the Health Department's Division of Environmental Health Epidemiology would be pleased to review the results of the air sampling and determine if a health hazard exists. Finally, she was reminded that the Department had previously referred her concerns about the restaurant to the Department of Agriculture. STATUS: The Division of Environmental Health Epidemiology is presently awaiting receipt of air or well water sampling results for health evaluation.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 29

**Record Number:** 29000

**Date of Contact:** 10/15/2012

**Name/Organization:** [REDACTED], Public Health Educator [REDACTED]  
[REDACTED], Bucks County.

**PADOH District of Complaint Origination:**

**County:**

**Issue:** [REDACTED] forwarded to the Department a copy of an October 14, 2012 news article titled *DEP alters policy on foul-water notifications*. She asked if the Department was aware of the article and stated that she was confused why DEP would initiate a change in their policy regarding notification of residents whose well water was contaminated.

**How Issue Managed: STATUS:** [REDACTED] was referred to go to DEP's Director of Communications, [REDACTED].

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 30

**Record Number:** 30000

**Date of Contact:** 10/31/2012

**Name/Organization:** [REDACTED] [REDACTED] Brackney, PA [REDACTED]

**PADOH District of Complaint Origination:** NE

**County:**

**Issue:** [REDACTED] contacted the Department on 10/26/2012 complaining of a "bad burning chemical odor" that is intermittently occurring at her home which she believes is hydrochloric acid used during fracking activities. She said she requested assistance from the Department of Environmental Protection on 10/24/2012 and wanted to know the results of DEP's investigation at the site and whether the odors posed a health hazard.

**How Issue Managed:** STATUS: [REDACTED] concerns were forwarded to DEP's Division of Oil and Gas Regulations (DOAGR), North Central Regional Office.

On 10/26/2012, the Department received an email from DOAGR stating that on 10/24/2012, they investigated the site and found no violations occurring. They also stated that they found no odors on the well pad other than diesel exhaust from operating equipment.

DOAGR stated that they were aware of [REDACTED] concerns and have encouraged her multiple times to contact them to report complaints. They also told her how to report the complaints so that they can be investigated.

On 10/31/2012, the Department contacted [REDACTED] by telephone and shared DEP's response with her. She expressed concerns that state government is not interested in helping the residents suffering from fracking activities.

**STATUS:** [REDACTED] experience and symptoms have been duly documented. **No further action is being taken at this time.**

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 31

**Record Number:** 31000

**Date of Contact:** 1/29/2013

**Name/Organization:** [REDACTED] Public Health Educator [REDACTED]  
[REDACTED], Bucks County facilitated a joint conference call between [REDACTED]  
[REDACTED], Portage, PA [REDACTED], the Department of Health and herself to discuss  
the resident's Marcellus Shale-related health concerns.

**PADOH District of Complaint Origination:** SE  
**County:**

**Issue:** [REDACTED] is a truck driver for [REDACTED] (a subcontractor with the  
oil and gas industry) in East Freedom, PA. He expressed concern that while washing  
fracking mud off mats on a drill pad that the contaminated water ate through his work  
boots and caused long-lasting rashes and welts on his feet and legs. He was taken to  
the [REDACTED] Hospital where he was treated with prednisone and other medications. He  
claims to have seen 42 physicians and was diagnosed to have "Chemical Sensitivity" by  
[REDACTED] M.D., [REDACTED] West Virginia University, [REDACTED]  
[REDACTED], Morgantown, WV [REDACTED].

**How Issue Managed:** [REDACTED] was told to continue to work with his allergist and  
other physicians and that PADOH would provide him with the name of a nationally  
known expert (physician) in occupational and environmental toxicology whom he could  
use for an additional opinion, if necessary.

On 2/6/2013, he was also given the name, telephone number ([REDACTED]) and email  
address ([REDACTED]) for [REDACTED], MD, MS, Founding  
Director of the [REDACTED]  
[REDACTED], University of Pennsylvania ([REDACTED]) and physician with [REDACTED]  
[REDACTED]

[REDACTED] Philadelphia, PA. STATUS: [REDACTED] experience and symptoms have been  
duly documented. **No further action is being taken at this time.**

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**



**CONFIDENTIAL**

**Number:** 32

**Record Number:** 32000

**Date of Contact:** 1/30/2013

**Name/Organization:** [REDACTED], Public Health Educator [REDACTED]  
[REDACTED], Bucks County facilitated a joint conference call between [REDACTED]  
[REDACTED], Towanda, PA [REDACTED], Tel: [REDACTED], the Department of  
Health (PADOH) and herself to discuss the resident's Marcellus Shale-related health  
concerns.

**PADOH District of Complaint Origination:** SE

**County:**

**Issue:** On 5/25/2011, [REDACTED] broke out in rashes on his neck and back which he  
believes is a result of being exposed to contaminants in his shower water. The  
Pennsylvania Department of Environmental Protection (PADEP) tested the water and  
found elevated levels of manganese and coliforms.

According to [REDACTED], during this time, [REDACTED] an oil and gas company, drilled and  
fracked a well ([REDACTED] well) 1200 feet downgradient of [REDACTED] home. They also  
fracked a well ([REDACTED] well) approximately 1800 feet above his home. [REDACTED] placed an  
inline filter in the home and provided bottled water until 11/2012.

PADEP again sampled water coming into the [REDACTED] home on 1/29/2012.

On 2/4/2013, PADOH requested the PADEP ([REDACTED]) to send them a copy of  
the laboratory results.

On 2/7/2013, [REDACTED] left a voice message asking if the Health Department had  
anything to do with air quality issues associated with the burning off of the gasses at the  
drilling pads. He stated that he was also concerned about the air quality at the pad and  
at his home. He said that when they are burning off the gasses, it is hard to breathe  
and one's sinuses "burn".

He requested daily monitoring at the pad near (and at) his home to determine if  
contaminants were present at levels that could harm his health.

**How Issue Managed:** STATUS: On 2/4/2013, PADOH requested DEP ([REDACTED])  
to send them a copy of the laboratory results. PADOH will review the 1/29/2013 results  
of DEP's water sampling at the [REDACTED] residence as soon as it is available and  
determine if exposure to the household water represents a health hazard.

**CONFIDENTIAL**

Number 32 (cont.)

If necessary, PADOH will make recommendations to protect the health of residents using the water. On 2/8/2013, [REDACTED] was contacted via telephone by PADOH. He was told that air quality monitoring falls under the purview of DEP and that he should make his request for air monitoring at the drilling pad (and his home) to DEP. [REDACTED] was also told that the PADOH does not conduct air sampling and that he should make his request for air sampling to the Pennsylvania Department of Environmental Protection (PADEP) or hire a certified laboratory to conduct the sampling.

He was further told that the Health Department's Division of Environmental Epidemiology would be pleased to review the results of the air sampling and determine if a health hazard exists. If necessary PADOH will make recommendations to protect the health of residents breathing contaminated water.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 33

**Record Number:** 33000

**Date of Contact:** 2/19/2013

**Name/Organization:** [REDACTED] Division of Environmental Health Epidemiology, was directly contacted (phone message) by [REDACTED], Director of Community Outreach, from Senator [REDACTED] office regarding Marcellus Shale issues.

**PADOH District of Complaint Origination:**

**County:**

**Issue:** [REDACTED] stated that Senator [REDACTED] is interested in our exchange of emails with Dr. [REDACTED] during the spring of 2012.

Last year, Dr. [REDACTED] contacted the Department of Health with concerns that several of her patients may have been exposed to contaminants in ambient air and groundwater in their private wells that may have been negatively impacted from Marcellus Shale drilling activities. She was concerned that she was seeing unusual numbers of skin lesions/rashes in residents in southwestern Pennsylvania and thought that the skin conditions may be related to shale gas activities.

**How Issue Managed:** We reviewed the results of environmental and clinical sampling provided to us by [REDACTED] and prepared and sent [REDACTED] a report of our findings that addressed her concerns. Dr. [REDACTED] did not share the report in its entirety with Dr. [REDACTED], but instead sent her a letter stating "the Department did not identify findings that support your contention that environmental exposures may be impacting the health of your patients."

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 34

**Record Number:** 34000

**Date of Contact:** 2/27/2013

**Name/Organization:** [REDACTED] Division of Environmental Health Epidemiology, was contacted by [REDACTED], Public Health Educator [REDACTED], Bucks County, Tel: [REDACTED] (home office), [REDACTED] (cell), to facilitate a conference call between [REDACTED], [REDACTED] Brackney, PA [REDACTED], herself and him.

**PADOH District of Complaint Origination:** SE

**County:**

**Issue:** [REDACTED] complained of experiencing a severe nose bleed that required medical intervention that she believes is a result of exposure to contaminants in air occurring during gas fracking activities. She stated that she routinely takes people to see gas wells and is routinely exposed to air contaminants associated with those sites. [REDACTED] was seen by [REDACTED], MD, [REDACTED], Montrose, Pennsylvania.

She stated that Dr. [REDACTED] ruled out high blood pressure but was unable to come to a diagnosis, although he did mention dry air as a possible cause. He told her to return if the nose bleeds continued

**How Issue Managed:** STATUS: [REDACTED] symptoms have been duly documented. No further action is being taken at this time.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 35

**Record Number:** 35000

**Date of Contact:** 3/1/2013

**Name/Organization:** [REDACTED], Public Health Educator [REDACTED]  
[REDACTED] Bucks County facilitated a joint conference call between [REDACTED]  
[REDACTED] Chaneyville/Clearville, PA [REDACTED], Bedford  
County. Tel: [REDACTED] and the Division of Environmental Health on (Date).

**PADOH District of Complaint Origination:** SE

**County:**

**Issue:** [REDACTED] complained of methane gas entering her home from her hand-dug well. She claimed that following her visit to the hospital's Emergency Room, she was diagnosed with low levels of oxygen and high levels of methane in her blood. She also stated that her physician told her not to return to her home because "it is killing you".

She purchased a gas mask about a year ago and claims to wear it 100% of the time when she is sleeping. [REDACTED] said that [REDACTED] DEP Air Quality District Supervisor for the Southwestern (?) District visited her home but told her he could not smell anything and refused to conduct air testing.

[REDACTED] DEP Oil & Gas Inspector, did testing with a "gas meter" and told her she had low levels of gasses in her home. [REDACTED] complains of myalgias.

**How Issue Managed: STATUS:** [REDACTED]'s symptoms have been duly documented. **No further action is being taken at this time.**

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 36

**Record Number:** 36000

**Date of Contact:** 3/7/2013

**Name/Organization:** [REDACTED], [REDACTED], Towanda, PA [REDACTED],  
**Tel:** [REDACTED], contacted the Division of Environmental Health on 3/7/13.

**PADOH District of Complaint Origination:** NC

**County:**

**Issue:** [REDACTED] reported that he received the results of DEP's recent analysis of his well water and was concerned that it indicated high levels of fecal coliforms and that the color of his drinking water remained black. He desired to have [REDACTED] furnish him with clean water and asked DEP ([REDACTED]) to make and support his request directly to [REDACTED]. He also asked if the Department of Health had received copies of his water analyses from DEP.

[REDACTED] contacted the Division of Environmental Health on 3/15/2013 and inquired if we had received the well water sampling results from DEP yet.

On 3/18/2013, [REDACTED] asked if the Division had received a copy of his well water results from DEP. He wants to know if DEP tested for manganese which he believes is present in his well water at toxic levels. He also complained that he reported a spill at the [REDACTED] to DEP and that DEP did not return his repeated calls.

On 3/28/2013, the DEHE spoke with [REDACTED], DEP Oil and Gas regarding their previous and current sampling of [REDACTED] well water.

**How Issue Managed:** STATUS: [REDACTED] was told that the Division of Environmental Health had not yet received the laboratory results.

On 3/18/2013, the Division followed-up with an email to [REDACTED] and [REDACTED], DEP asking for a copy of [REDACTED] well water sampling results.

On 3/28/2013, [REDACTED] told DEHE that historical well water sampling met primary and secondary safe drinking water standards, however, bacteria was present in [REDACTED] well water. He was instructed by DEP to shock his well water to kill the bacteria.

According to DEP, [REDACTED] refused to shock his well water fearing that it would make the matters worse.

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Number 36 (cont.)

In 2011, [REDACTED] offered [REDACTED] a UV light system to disinfect his well water. But, to receive the UV system, he was required to sign extensive documents absolving [REDACTED] of legal responsibility for damaging the well water quality. [REDACTED] refused to sign their documents and continues to use water today.

PADOH has received and reviewed well water sampling results at the [REDACTED] residence.

On 4/9/2013, DEHE spoke with [REDACTED] and told him that coliforms were present in his well water and that he needed to install an inline UV light to disinfect the water entering his home.

**STATUS: No further action is being taken at this time.**

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 37

**Record Number:** 37000

**Date of Contact:** 3/11/2013

**Name/Organization:** [REDACTED] Public Health Educator [REDACTED]  
[REDACTED], Bucks County attempted to facilitate a joint conference call between  
[REDACTED], [REDACTED], Warren Center, PA [REDACTED], Tel: [REDACTED]  
[REDACTED], and the Division of Environmental Health on 3/11/2013.

**PADOH District of Complaint Origination:** SE

**County:**

**Issue:** [REDACTED] left a voice message with the Division of Environmental Health stating that they have "big problems with air and water from gas wells and that the Bradford County Health Department (whom he had previously contacted) did not help".

**Background:** On 3/9/2013, [REDACTED] contacted DEP's [REDACTED]. [REDACTED] came to his home and conducted emergency response air sampling. On the same day, [REDACTED] also contacted [REDACTED] and complained of having a burning pain in his chest that he believed was from contaminants in his home's air. [REDACTED] recommended that he vacate his residence and see if his symptoms improve. [REDACTED] left his home and spent the weekend with his daughter, [REDACTED].

On 3/12/2013, the Division of Environmental Health spoke with [REDACTED], [REDACTED] and his daughter. [REDACTED] presently desires to know if it is safe for him to return to his home.

**How Issue Managed:** [REDACTED] was told that the Division of Environmental Health needs to review the results of the air and water sampling to determine if a health hazard exists and would request the data from DEP.

**STATUS:** PADOH will review the results of the DEP's air and water sampling at the [REDACTED] residence as soon as they are available and determine if exposure to the household air and water represents health hazards.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**  
**Number:** 38



**CONFIDENTIAL**

**Record Number:** 38000

**Date of Contact:** 1/5/2013

**Name/Organization:** EPA Region 3

**PADOH District of Complaint Origination:** NC

**County:** Bradford

**Issue:** On 1/5/2013, at the request of the Agency for Toxic Substances and Disease Registry (ATSDR), PADOH Health Assessment Program staff and ATSDR were jointly briefed by the United States Environmental Protection Agency (EPA) Region 3 Office on their activities regarding residential drinking water quality issues in Dimock, Bradford County.

EPA R3 is in the initial stage of canvassing residents in the Dimock area to determine, if possible, whether or not residential drinking water has been impacted by nearby natural gas drilling activities and to ensure the public's health.

The agency is gathering information and evaluating water quality sampling results, the type and whether or not water treatment is currently being utilized, and if residents attribute any adverse health effects to water consumption.

EPA is considering a plan to offer bottled water and water quality testing to residential well users. There are approximately 60 residential wells in the nine square mile area being examined and permits for 63 natural gas wells, most of which were drilled, beginning in 2008.

**How Issue Managed:**

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 39

**Record Number:** 39000

**Date of Contact:** 3/21/2013

**Name/Organization:** [REDACTED], [REDACTED], Lititz, PA. Tel: [REDACTED]; cell [REDACTED]  
[REDACTED]

**PADOH District of Complaint Origination:**

**County:**

**Issue:** (Need date of original contact). During February, 2013, [REDACTED] contacted the Division of Environmental Health Epidemiology (DEHE). She expressed concerns that her well water was contaminated with arsenic.

On 3/19/2013, the DEHE left [REDACTED] a voice mail requesting a copy of her 24-hour urine collection test.

On 3/21/2013 [REDACTED] left a voice mail with the Division of Environmental Health stating that her physician faxed the Department of Health a copy of her 24-hour urine collection test. She also stated that she was having her water tested for arsenic and that the total dissolved solids (TDS) in her well water were 337 which she was told was high.

**How Issue Managed:** STATUS: The Division of Environmental Health Epidemiology received a faxed copy of the completed Authorization for Release of Patient Information Form used by the [REDACTED] Medical Group, the results of blood metals analysis for essential and toxic metals and the Packed Blood Cell Elements Report, Toxic and Essential Elements; Hair and Hair Elements Report, ([REDACTED] [REDACTED] Orefield, PA [REDACTED]) on 3/18/2013. STATUS: **DEHE is evaluating the clinical data to determine if the patient is exposed to environmental chemicals at levels that could harm her health.**

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 40

**Record Number:** 40000

**Date of Contact:** 4/26/2013

**Name/Organization:** [REDACTED], Sayre, PA  
[REDACTED]. Tel: [REDACTED]

**PADOH District of Complaint Origination:**

**County:**

**Issue:** [REDACTED] contacted the Division of Environmental Health Epidemiology (DEHE) on 4/27/2013 and requested assistance.

On 10/14/2012 and 10/15/2012, a representative ([REDACTED]) from [REDACTED] in Sayre, PA was performing routine checks for leaks in their gas lines. One of the lines passed through the [REDACTED] yard. By chance, [REDACTED] discovered high levels (44.1 mg/L) of methane exiting from the [REDACTED] well (DEP's Action Level for methane is 7 mg/L).

**How Issue Managed:** On 4/26/2013, the DEHE contacted [REDACTED] Water Quality Specialist with the Department of Environmental Protection's Division of Oil and Gas Regulation, North Central Regional Office in Williamsport (Tel: [REDACTED]) and discussed the [REDACTED] situation.

DEP informed DEHE that the [REDACTED] well water contained high levels of coliforms in addition to the methane. DEP is conducting an investigation to locate the source of the methane. The nearest known gas well is 2 miles away from the [REDACTED] home. DEP agreed to send DEHE the results of the [REDACTED] well water sampling for review.

On 4/29/2013, DEHE reviewed well water sampling results provided by DEP and identified levels of methane that represent a fire and explosion threat.

On 4/29/2013, DEHE contacted [REDACTED] DEP and shared its concerns that the levels of methane can represent a fire and explosion threat and asked if DEP could vent the [REDACTED] well. [REDACTED] stated that the well cap has been loosely placed on the well head to facilitate venting but that basically there was nothing that DEP could do to correct the situation since they do not yet know the source of the methane.

On 4/29/2013 DEHE contacted the [REDACTED] and spoke with [REDACTED]. DEHE expressed its concerns that the methane may represent a fire and explosive threat and

**CONFIDENTIAL**

Number 40 (cont.)

recommended that they connect to municipal water. Regrettably, the [REDACTED] shared that they could not afford to connect to the municipal water and pay for its use.

On 5/15/2013, DEHE contacted [REDACTED] and discussed with her the latest sampling results provided to it by DEP. DEHE recommended the [REDACTED] should give consideration to purchasing a methane alarm and a water filter for potable water until more permanent solutions could be found. They are presently purchasing bottled water for drinking and cooking.

STATUS: DEHE presently awaiting additional laboratory sampling results from DEP. DEHE will review the results when they are available and determine if use of the water represents a health threat.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 41

**Record Number:** 41000

**Date of Contact:** 4/30/2013

**Name/Organization:** [REDACTED], ATSDR Region III, Philadelphia, and [REDACTED], Environmental Health Specialist, Southwestern Health District, Department of Health, contacted the Division of Environmental Health Epidemiology (DEHE) regarding an air release that occurred in the evening of 4/29/2013 and impacted the air quality near the [REDACTED] Lakeland, Fayette County, PA. The air release was reported to the National Response Center by [REDACTED] [REDACTED] Lakeland, PA. Tel: [REDACTED].

**PADOH District of Complaint Origination:**

**County:**

**Issue:** By chance, [REDACTED] discovered high levels (44.1 mg/L) of methane exiting from the [REDACTED] well (DEP's Action Level for methane is 7 mg/L). The [REDACTED] reported that the family became very sick after breathing the odors and multiple members vomited. ASTDR requested assistance from the Department of Health to bring this to the attention of the Pennsylvania Department of Environmental Protection (DEP) and to assess the health complaints.

**How Issue Managed:** On 4/30/2013 [REDACTED] brought the situation to the attention of [REDACTED] DEP's Southwest Regional Office in Greensburg, PA [REDACTED]; Tel: [REDACTED].

**STATUS:** In the event that the DEP conducts air sampling at the compressor station, the DEHE will evaluate the sampling results and determine if a health threat exists.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 42

**Record Number:** 42000

**Date of Contact:** 5/6/2013

**Name/Organization:** [REDACTED] South Franklin Township, Washington County, PA. Tel: [REDACTED]

**PADOH District of Complaint Origination:**

**County:**

**Issue:** On 5/6/2013, [REDACTED] contacted [REDACTED] Division of Environmental Health Epidemiology (DEHE) via voice mail, regarding health issues that she experienced as a result of Marcellus Shale activities. She had previously been interviewed for a feature published on YouTube where she stated that she has experienced chemical burns to her eyes, bad rashes, and effects from noise/air pollution and truck traffic.

On 5/7/2013, DEHE attempted unsuccessfully to reach [REDACTED] by telephone. DEHE reached [REDACTED] by telephone on 5/8/13. She was unable to talk at that time so another call was scheduled to discuss her concerns.

On 5/10/2013, DEHE spoke with [REDACTED]. She expressed concerns that she and her family's health were being harmed from exposures to contaminants in the air as a result of Marcellus Shale drilling and fracking activities and requested assistance.

**How Issue Managed:** DEHE told her to have the air in her home and on her property tested by a qualified environmental engineering firm and analyzed by a certified laboratory when the pollution was present and that we would be happy to determine if exposure to the contaminants represented a health threat. DEHE also told her to continue to work with the Pennsylvania Department of Environmental Protection (DEP) for those issues under their jurisdiction. She said she will get back to DEHE with the sampling results as soon as they are available and thanked the Department for offering assistance.

**STATUS:** The DEHE will evaluate the sampling results when they become available and determine if a health threat exists. The Department of Health is presently awaiting receipt of the environmental sampling data.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 43

**Record Number:** 43000

**Date of Contact:** 5/21/2013

**Name/Organization:** On Friday, 5/17/2013, [REDACTED] of [REDACTED] in Coal Center, Washington County, PA. (Tel: [REDACTED]), contacted the Division of Environmental Health Assessment (DEHE). She was referred by the PADEP who she contacted to request water quality testing of her private residential well and cistern.

**PADOH District of Complaint Origination:**

**County:**

**Issue:** [REDACTED] has had a skin rash on her forehead and nose intermittently over the past year and she is concerned that the private residential water may be impacted by two natural gas wells she stated are located on her property and for which she has a lease with [REDACTED]. [REDACTED] states she has a well and a cistern.

Her drinking water is treated with a water softener and two cylinder filters of unknown type and for which she pays a water company [REDACTED] to maintain and change the filters every 3-4 months. They also deliver water periodically when the water "runs out".

She stated that someone came to her home and sampled her water a few years ago but she never received the results.

**How Issue Managed:** STATUS: DEHE mentioned that drilling companies generally pre-sample water wells in the vicinity of natural gas well drilling and that those results may still be available. DEHE called back [REDACTED] later in the day (5/17) and let her know that the PADEP will be contacting her to sample her water and DEHE offered to review the water quality results with her when they become available.

She indicated that she would give DEHE a call when she received the water results from PADEP and would appreciate our assistance.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 44

**Record Number:** 44000

**Date of Contact:** 6/6/2013

**Name/Organization:** On 6/6/2013, [REDACTED], [REDACTED], New Castle, PA [REDACTED], contacted the Department of Health (Tel: [REDACTED]; Email: [REDACTED]).

**PADOH District of Complaint Origination:**

**County:**

**Issue:** [REDACTED] claimed that his family (wife, 19 y/o daughter and himself) are becoming ill due to breathing hazardous chemicals from fracking materials. His son is presently serving in the armed forces and is not at home.

[REDACTED] states that he believes [REDACTED] (Company) illegally discharges fracking materials into the sewer system and, as a result of this activity, a sulfur-like odor gets into his home. Breathing air containing the contamination causes his family to have respiratory and central nervous system issues.

**How Issue Managed:** STATUS: DEHE told him to have the air inside his home and on his property tested by the Pennsylvania Department of Environmental Protection or a qualified environmental engineering firm and analyzed by a certified laboratory when the pollution was present and that DEHE would determine if exposures to the contaminants represented a health threat.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**



**CONFIDENTIAL**

**Number:** 45

**Record Number:** 45000

**Date of Contact:** 7/05/2013

**Name/Organization:** On 7/01/2013, [REDACTED], Executive Director, [REDACTED], Executive Nurse Supervisor, and [REDACTED] Environmental Health Specialist, Northcentral Health District, Williamsport, referred a health complaint from [REDACTED] (Tel: [REDACTED]) related to Marcellus Shale Drilling.

[REDACTED] resides part of the year at [REDACTED], Thompson Township, PA in Susquehanna County. The other part of the year she resides at an unspecified location in [REDACTED]. On 7/05/2013 DEHE attempted to contact [REDACTED] but she did not answer her phone. On 7/08/2013 DEHE reached [REDACTED] at her Thompson Township residence.

**PADOH District of Complaint Origination:**

**County:**

**Issue:** [REDACTED] had contacted [REDACTED] and expressed concern that drilling activities were affecting her health and that she could no longer live in her home.

[REDACTED] believes she suffers from "vibro-acoustic disease" caused by her home consistently vibrating. She complains of macular degeneration, shortness of breath and difficulty urinating due to being "spun fast with vibrations.". She claims she awakens in the morning feeling "shell-shocked" and feels like an electric current is going through her. She believes that different frequencies of vibrations in her home affect different parts of her body and that at a certain frequency she experiences cardiac arrhythmias. She stated that the vibrations make her insane and that she worries that these frequencies "lobotomize" children living in the area. Finally she stated that her physician has diagnosed her as being delusional, but she assured DEHE that this is not the case. She requested an environmental engineering assessment that will address her health concerns.

**How Issue Managed:** STATUS: During a previous (2012) contact with DEHE, [REDACTED] was told to work directly with her family physician to address her health symptoms. During the 7/05/2013 telephone conversation, DEHE referred her to the Agency for Toxic Substances and Disease Registry for further consultation.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 46A

**Record Number:** 46000A

**Date of Contact:** 8/12/2013

**Name/Organization:** [REDACTED]  
Little Meadows, PA. (Tel: [REDACTED])

**PADOH District of Complaint Origination:**

**County:**

**Issue:** On 8/6/2013, [REDACTED] Water Quality Specialist, Oil and Gas Regulation, Northcentral Department of Environmental Protection District Office (DEP), Scranton, PA referred health complaints from [REDACTED] related to Marcellus Shale drilling activities and contamination of her well water to the Director of the Division of Environmental Health (DEHE).

On 8/6 and 8/8/2013, DEHE contacted [REDACTED] regarding health issues that she and her husband experienced as a result of Marcellus Shale drilling activities.

[REDACTED] stated that their well water has been sampled and claims her water is contaminated with manganese, asbestos, arsenic, e-coli and other coliforms. She is concerned that her husband's and her health have been harmed by drinking the well water.

[REDACTED] both report diarrhea and skin rashes that started when their well water turned black in color. [REDACTED] also reports severe kidney issues due to infection; and colon surgery. [REDACTED] also had colon surgery. Finally, [REDACTED] reports difficulty walking (balance issues), COPD and untreated aortic aneurysm. DEHE requested copies of the laboratory results of their well water sampling and stated that they will evaluate the data and determine if using the water could harm the resident's health.

**How Issue Managed:** STATUS: DEHE discussed with [REDACTED] the seriousness of not being medically treated for her aortic aneurysm and instructed her to seek medical attention immediately.

STATUS: DEHE will evaluate the well water sampling results when they become available and determine if a health threat exists. The Department of Health is presently awaiting receipt of the environmental sampling data.

STATUS: (SEE 46B)

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 46B

**Record Number:** 46000B

**Date of Contact:** 9/26/2013

**Name/Organization:** [REDACTED]  
Little Meadows, PA. (Tel: [REDACTED])

**PADOH District of Complaint Origination:** [REDACTED] the Pennsylvania Department of Environmental Protection (DEP) asked to be updated on DEHE's phone contact with [REDACTED] and its review and assessment of the laboratory results of well water sampling in the [REDACTED] well.

**County:**

**Issue:** [REDACTED] the Pennsylvania Department of Environmental Protection (DEP) asked to be updated on DEHE's phone contact with [REDACTED] and its review and assessment of the laboratory results of well water sampling in the [REDACTED] well.

**How Issue Managed:** STATUS: The DEHE contacted [REDACTED] again on 9/30/2013 and reminded her to send us her environmental sampling data. She claims that she will fax some of the data to us today and see that we get the rest shortly.

STATUS: On 9/24/2013, DEHE shared with DEP the outcome of its 8/6 and 8/8/2013 contacts with [REDACTED] and explained that DOH is still awaiting receipt of the sampling data. DEHE promised to share the results of its finding with DEP after all of the well water sampling results become available.

STATUS: As of 9/30/2013, the Department of Health was still awaiting receipt of the environmental sampling data.

STATUS: As of 11/6/2013, the Department of Health was still awaiting receipt of the environmental sampling data. STATUS: On 11/6/2013, DEHE spoke with [REDACTED]

by telephone and reminder her that she needs to send to the Department her environmental sampling data if she still wants the DEHE to determine if her exposures to her contaminated well water is a threat to her health. She stated that she is awaiting consultation with her attorney before releasing the data.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**CONFIDENTIAL**

**Number:** 47

**Record Number:** 47000

**Date of Contact:** 10/11/2013

**Name/Organization:** [REDACTED] Advocate for [REDACTED]  
[REDACTED], Montrose, PA [REDACTED] (Tel: [REDACTED]), email:  
[REDACTED] ([REDACTED] previously resided at [REDACTED]  
[REDACTED], Portage, PA [REDACTED])

**PADOH District of Complaint Origination:**

**County:**

**Issue:** On 10/11/2013 [REDACTED] contacted the Division of Environmental Health Epidemiology (DEHE) to discuss the Marcellus shale related health concerns on behalf of residents [REDACTED].

[REDACTED] complains of suffering with eight nosebleeds over a two week period. [REDACTED] is also concerned that food being grown in the area becomes contaminated.

[REDACTED] previously resided at [REDACTED] Portage PA [REDACTED] (See log #16 above. [REDACTED] resides at [REDACTED], Portage, PA [REDACTED], (Tel: [REDACTED]). [REDACTED] was a truck driver (~4 months) and was exposed to drilling muds. His primary health complaint is rashes that will not abate.

[REDACTED] resides at [REDACTED], Montrose, PA [REDACTED], (Home Tel: [REDACTED]) and (Cell Tel: [REDACTED], email: [REDACTED]. [REDACTED] drove a water truck for [REDACTED] and alleges that he was exposed to contaminated air on the pad sites and exposed to contaminated well water. He stated that as a result of his exposures his legs swell and that he visited the hospital emergency room sixteen (16) times. (may only be swollen legs).

**How Issue Managed:** STATUS: The DEHE explained that food related concerns come under the jurisdiction of the Department of Agriculture.

**REQUESTS:** The DEHE requested that [REDACTED] send it the environmental sampling results and clinical records for [REDACTED] [REDACTED] and himself. DEHE also, requested that [REDACTED] confirm his post office and email addresses and his telephone numbers. Finally, DEHE requested that [REDACTED] include a brief synopsis of the health issues he and the others believe are related to exposures to toxic

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**CONFIDENTIAL**

substances relating to the drilling activities and the chemicals each person believes he may have been exposed to. He requested that hard copies be mailed to Dr. [REDACTED], Director, DEHE.

STATUS: DEHE will review the reports and respond with its findings.

STATUS: To date (10/30/13), DEHE has not received any correspondence or laboratory data from [REDACTED].

STATUS: On 10/30/13, DEHE sent an email to [REDACTED] requesting he share with the Department his health concerns relating to Marcellus shale drilling activities, environmental sampling results and clinical records. He was also requested to confirm his post office and email addresses and telephone numbers and to include a synopsis of the health issues he believes are associated with exposures to toxic substances relating to the drilling activities and chemicals you may have been exposed to.

STATUS: DEHE will review the reports and respond with its findings. Awaiting a reply.

STATUS: On 11/05/13, DEHE called [REDACTED] and spoke with him on the telephone and obtained his email address. DEHE sent an email to him requesting he share with the Department his health concerns relating to Marcellus shale drilling activities, environmental sampling results and clinical records. DEHE also requested that he confirm his post office and email addresses and telephone numbers and include a synopsis of the health issues he believes are associated with exposures to toxic substances relating to the drilling activities and chemicals he may have been exposed to.

STATUS: DEHE will review the documents and other information and respond with its findings. Awaiting a reply.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**Attachments:**

**Number:** 48A

**CONFIDENTIAL**

**Record Number:** 48000A

**Date of Contact:** 11/08/13

**Name/Organization:** [REDACTED], [REDACTED] Kingsley, PA [REDACTED]. (Tel: [REDACTED])

**PADOH District of Complaint Origination:**

**County:**

**Issue:** On 11/7/2013, [REDACTED] made telephone contact with the Department of Health. His health concerns were referred to the Division of Environmental Health Epidemiology (DEHE) for response.

**How Issue Managed:** STATUS: On 11/8/2013, DEHE attempted to contact [REDACTED] via telephone. DEHE left a voice mail for him to return its call.

STATUS: On 11/13/2013, DEHE attempted to contact [REDACTED] via telephone. DEHE left a voice mail for him to return its call. DEHE us is awaiting a return call. In the event that none is received, no further action is planned at this time.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**CONFIDENTIAL**

**Number:** 48B

**Record Number:** 48000B

**Date of Contact:** 01/15/14

**Name/Organization:** [REDACTED] Kingsley, PA [REDACTED] (Tel: [REDACTED])

**PADOH District of Complaint Origination:**

**County:**

**Issue:** On 1/9/2014, [REDACTED] left a voice mail with the Division of Environmental Health Assessment (DEHE) stating that he owned several properties in Lenox, Susquehanna County and that he is concerned that Marcellus shale drilling activities have resulted in the contamination of the well water at his properties.

**How Issue Managed:** STATUS: On 1/10/2014, DEHE called [REDACTED] and spoke with him on the telephone and discussed his concerns.

DEHE requested that he send an email to the Department identifying his specific environmental and health concerns relating to Marcellus shale drilling activities for each of his properties.

DEHE also requested that he share his current post office and email addresses.

**STATUS:** On 1/14/2014, (in the absence of receipt of the promised email) DEHE again contacted [REDACTED] and told him that we have not yet received his email. He apologized, said he had been very busy and promised to send it to us shortly.

STATUS: Following receipt of the email, DEHE will review its contents and respond to [REDACTED] concerns.

STATUS: DEHE is awaiting the receipt of the [REDACTED] email. In the event that none is received, no further action is planned.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**CONFIDENTIAL**

**Number:** 49

**Record Number:** 49000

**Date of Contact:** 09/09/13

**Name/Organization:** [REDACTED] Office of Oil and Gas Management, Pennsylvania Department of Environmental Protection (DEP). (Tel [REDACTED]) email: [REDACTED]

[REDACTED] Wyalusing, PA [REDACTED]

**PADOH District of Complaint Origination:**

**County:**

**Issue:** On 9/9/2013, [REDACTED] sent [REDACTED], Division of Environmental Health Assessment (DEHE) an email requesting it evaluate her well water sampling results and determine if a health threat exists for the [REDACTED] family using their allegedly contaminated residential well water.

Historically, two complaints were filed with DEP. DEHE is responding to the second one.

In 2012, DEP made the determination that at that time Oil and Gas activities had not impacted the water supply.

There are two natural gas well pads within 1 mile of the complainant's water supply. The [REDACTED] Pad is located approximately 2,612 feet north of the complaint's water supply well. There are three wells in production on this pad and drillings operations began on a fourth well. The [REDACTED] well site is located approximately 3,362 feet northwest of the complaint's water supply well. There is one well in production and five other wells are being drilled.

The original [REDACTED] complaint (ID: [REDACTED]) was logged into DEP's Marcellus Shale complaint data base on September 4, 2013 by [REDACTED] Service Representative, Office of Field Operations, North Central District Office, DEP on 9/4/13.

**How Issue Managed:** STATUS: On 9/10/2013, DEHE requested a copy of the laboratory analytical results of the sampled well water and additional information. DEHE told DEP that it would review and evaluate the sampling results and determine the public health significance of exposures to contaminants in the well water.



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STATUS: On 11/13/2013, DEHE contacted DEP and reminded them to send the sampling data.

STATUS: On 11/14/2013, DEHE received the sampling data from DEP.

On 11/19/2013, DEHE completed its review and assessment of any potential health threat associated with exposures to the residential private well water. Based on the data DEHE received from DEP and reviewed, the gases and other compounds (non-biological) present in the water are at levels that would not harm the health of the residents using the water and does not represent a health hazard.

Also, DEHE concurs with a recommendation made by DEP that the residents should hire an environmental professional with expertise in bacteriological abatement in residential well water to address the presence of Iron Related Bacteria and Slime Forming Bacteria that was present in the well water.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**CONFIDENTIAL**

**Number: 50**

**Record Number: 54000**

**Date of Contact: 02/24/14**

**Name/Organization: [REDACTED], Kingsley, PA [REDACTED].**

**PADOH District of Complaint Origination:**

**County:**

**Issue:** On 2/24/2014, [REDACTED] contacted the Division of Environmental Health Epidemiology (DEHE) regarding alleged pipeline runoff that was entering her private well. [REDACTED] stated that water with an oily sheen and a musty odor was running across her property from a Marcellus shale pipeline and contaminating her well water. She further states that the [REDACTED] (Marcellus shale) well is located 500' – 1000' from her home and was fracked on 11/13/2013. The [REDACTED] gas company has found elevated levels on manganese and iron in her well water.

She is currently receiving water from her son who has a clean well and is transporting it in 5 gallon containers and is using it for drinking and cooking. Her well water is used for bathing.

**How Issue Managed: STATUS:** On 2/24/2014, DEHE attempted to contact [REDACTED] via the telephone (she was not home/left message). On 2/25/2014, DEHE reached [REDACTED] and spoke with her regarding her concerns.

DEHE told her to continue to use clean water for drinking and cooking and continue to work with [REDACTED] to resolve her runoff issues. DEHE also told her to contact it if she had further questions or concerns.

**STATUS:** No further action is planned at this time

**Notes:**

**Number of Cases Affected:**

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**Person Reporting Case:**

**CONFIDENTIAL**

**Number: 51**

**Record Number: 51000**

**Date of Contact: 03/25/14**

**Name/Organization:** [REDACTED] [REDACTED], Hanover Township,  
Washington County, PA. Tel [REDACTED] (h); [REDACTED] (c); [REDACTED] (w).

**PADOH**

**County:**

**Issue:** [REDACTED] contacted the Department of Health regarding her concerns that [REDACTED], based in Blossburg, PA was planning to place 6 tanks, 3 stories high and containing 2 million gallons of fracking waste water behind her home. Per [REDACTED], there would be anywhere between 150 to 200 trucks (and their associated diesel exhaust) traveling to the tanks each day. She was concerned that exposure to the toxic components in the voluminous diesel exhaust would harm the health of her children and neighborhood children who regularly play baseball and other activities in her backyard. [REDACTED] is also concerned about the fumes impacting a nearby township park and other homes which she claims are approximately 200 yards from the proposed industrial site.

**How Issue Managed:** On 3/24/2014, the Division of Environmental Health Assessment (DEHE) contacted [REDACTED] to gain a better understanding of her concerns. DEHE explained the Department of Health's role in addressing environmental health issues associated with Marcellus shale fracking activities and told [REDACTED] that we would evaluate air sampling data at the site and in her yard, if it becomes available, and determine if a public health hazard exists. [REDACTED] stated that she would share the information with her neighbors who also had air quality concerns.

**Note:** [REDACTED] subsequently decided to place the tanks in an alternate location.

**STATUS:** No further action is planned at this time.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:**

**CONFIDENTIAL**

**Number: 52**

**Record Number:**

**Date of Contact:** 07/17/14

**Name/Organization:** [REDACTED] Thompson, PA [REDACTED]  
[REDACTED]

**County:** Susquehanna

**Issue:** The Division of Environmental Health Epidemiology called [REDACTED] regarding a complaint related to Marcellus Shale drilling. [REDACTED] has contacted our division in 2012 and 2013 with similar complaints. [REDACTED] stated that she lives most of the year in [REDACTED] NY and spends one or two weeks a year at her place in Susquehanna County. [REDACTED] complaints of feeling constant vibrations while she is visiting her home in Pennsylvania (which she attributes to the drilling near her home) are similar to what she has discussed with our division in her previous contacts with us. [REDACTED] stated that she has talked to other people who live around her and they have told her that they have not felt the same type of vibration that she is experiencing. It is also worth noting that [REDACTED] also told us that she experiences the same vibrating sensations in her home in [REDACTED] NY. She states that she feels that she is very sensitive to any type of vibration. She did state that she is under a doctor's care for what she terms anxiety.

When asked what type of help she would like from us, she stated that she would just like us to have the drilling companies post a notice in the local newspaper stating when they would be drilling, so that the residents in that area would be aware of it.

She also stated that she would be returning to her home in [REDACTED], NY very shortly.

**How Issue Managed:** We encouraged [REDACTED] to continue to work with her physician to address her health concerns. We thanked her for her call and we would pass her concerns on to the appropriate agency. On 8/4/14 wrote draft (pending approval) letter with internet links for PADEP websites where she can view and request e-notices on fracking activities in her area.

**Notes:** DRAFT letter to [REDACTED] on September 8, 2014 and sent 12/4/14

**Number of Cases Affected:** 1

**Person Reporting Case:** [REDACTED], Ph.D., R.N., Epidemiologist, Community Health Epidemiology at the request of [REDACTED] Legislative Director, Senator [REDACTED]  
[REDACTED] Harrisburg, PA 17120 Phone: [REDACTED]

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**Number: 53**

**Record Number:**

**Date of Contact: 07/02/14**

**Name/Organization:** [REDACTED] and [REDACTED] held a telephone conference call with [REDACTED] who represents the [REDACTED] from the Marcellus Shale group. This call was in response to his email of June 20, 2014 that outlined what he perceived as health concerns related to natural gas fracking in North central Pennsylvania.

**PADOH**

**County:**

**Issue:** Phone conversation with [REDACTED]

[REDACTED] discussed with us his personal health issues that included numerous nose bleeds and rashes and peeling skin that he said was related to exposure from well water that had been contaminated as a result of the natural gas drilling.

Other issues discussed included:

- He said that were about 40 neighbors who now use plastic water tanks instead of well water because of water contamination. Families are finding it difficult to drink water and shower.
- He mentioned that in Washington County, since the fracking started there have been 6 residents have been diagnosed with a rare brain cancer.
- He stated that in 2007 pre-drilling well water testing was done and the wells were found to be contamination free. Recent testing shows that they are now contaminated.
- He also mentioned that post-testing of the well water was supposedly done by Duke University, Rochester Institute of Technology and 4 other universities. Their results showed that the well water was contaminated.
- He expressed concern that no testing had been done on the food (animal and vegetable) that is grown and sold from the farms in the area. He wanted the folks from Pennsylvania Department of Agriculture to test the animals.
- He said that no regular monitoring done is even though there are over 400 compressor stations in the area.
- He stated that when testing was being done during active drilling, EPA would be testing in the wrong location. Testing took place at the opposite side of where the wind was blowing.
- He mentioned of a friend who had worked for a drilling company and complained of developing skin rashes. The friend thought the rash was a result of exposure to the contaminated water. As a result of his complaint, he was given minimal work hours.

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- He also had heard of reports of numerous people complaining of respiratory problems who visited [REDACTED] Health Systems Hospital.
- In one instance he mentioned that EPA apparently tested the well water and publically told the residents that the water was safe to drink. When the residents offered them tap water to drink, the EPA officials refused. [REDACTED] stated the EPA told the residents "off the record" not to drink or shower with the well water because it was contaminated.
- He spoke about an issue at [REDACTED] School in Dimmick, PA had three compressor stations near the school and a gas drilling well within 1,000 feet of the school. He said that the school's water supply comes from three wells located in that area.
- He said that political leaders from New York State have come to tour these sites, but to date no political leaders from Pennsylvania have come up to discuss their concerns.
- He also said that USGS came to test their well water two weeks ago and told the residents that all toxicology programs related to gas drilling were going to be cut.
- He said that OSHA had investigated his fracking concerns connected to workers but no one is caring about the families and children.
- He mentioned that both the Inspector general and the FBI will be investigating his complaints.

**How Issue Managed:**

- [REDACTED] and [REDACTED] told [REDACTED] that DOH needed real data to more accurately evaluate their concerns and that we would be glad to review any data that they would send to us. We gave him our fax number and email address to send us any data or test results.
- [REDACTED] contacted [REDACTED] Health Systems Infection Control Nurse who stated she has not seen an increase in respiratory health complaints.
- [REDACTED] contacted the PADEP Safe Drinking Water Program to determine the results of water supply wells in the vicinity of the [REDACTED] School. The school is in compliance as a non-transient, non-community public drinking water provider under the Safe Drinking water act.

**Notes:** On 8/1/14 [REDACTED] is preparing a letter.

**Number of Cases Affected:** 1

**Person Reporting Case:** [REDACTED]

**CONFIDENTIAL**

**Number: 54**

**Record Number:**

**Date of Contact:** 07/30/2014

**Name/Organization:** [REDACTED], [REDACTED] Marienville, PA [REDACTED]

**Cell:** [REDACTED] **Email:** [REDACTED]

**County:** Forest

**Issue:** Dr. [REDACTED] talked to the gentleman above from Forest county around 2.30 pm on 07/30/2014. [REDACTED] had two specific questions: His first question was do we at DOH keep track of all health complaints related to environmental health/gas drilling and his second question was do we at DOH have a 'searchable database' by different variables for environmental complaints. My response was affirmative to both but I mentioned that we do not yet have a 'registry' but we do log all complaints and can do limited searches by different variables.

He informed me that he is the owner of a grocery store. He made a statement to the effect that while the state regulates grocery stores why the state does not regulate the environment 'polluters' ? He thought the environment was all polluted in the Forest county where he resides because of the 'massive gas drilling' in that area. [REDACTED] made some personal political comments during this conversation.

**How Issue Managed:** [REDACTED] said he was satisfied with the responses he received about his two specific questions above and did not need any follow-up from DOH.

**Notes:** Draft letter to [REDACTED] on September 4, 2014 and sent 12/4/14

**Number of Cases Affected:** 1

**Person Reporting Case:** [REDACTED]

**CONFIDENTIAL**

**Number: 55**

**Record Number:**

**Date of Contact:** 08/01/14

**Name/Organization:** [REDACTED] Tunkhannock PA [REDACTED]  
Her business is located on [REDACTED] in Tunkhannock.

**County:** Susquehanna

**Issue:** [REDACTED] was diagnosed with asthma 10 years ago. Over the past year, she has not been able to control her asthma. She stated that it is triggered while outside (her work requires that she be outside) and is not responsive to date to additional medications as prescribed by her medical specialist. She attributes the exacerbations to the significant increase in shale drilling associated truck traffic in the borough which she states is 140 trucks per day. In addition, she is concerned about the impact of a proposed sand transfer plant on the air quality in the borough. She noted that there is a haze over the borough.

The proposed location for the sand transfer station is next to a child care center ([REDACTED] [REDACTED]) and athletic fields. She believes that the sand transfer station will add to the existing air pollution and also increase the number of idling trucks in the borough.

She thinks air quality monitoring should be conducted in the borough. She also believes there is an increased incidence of cancer in the area.

She lives at home with her husband, also diagnosed with asthma and two adult children (21 and 27 years old).

**How Issue Managed:**

Referred to [REDACTED] of the PADOH Asthma Program to review ways to reduce asthma triggers.

Referred to [REDACTED] Air Program Manager, Northeast District of PADEP for air quality concerns and the proposed sand transfer station.

Referred cancer incidence concern to [REDACTED].

**Notes:** Letter sent to legal on 8/5/14  
Revised DRAFT letter to [REDACTED] on September 8, 2014 and sent 12/4/14

**Number of Cases Affected:** 4

**Person Reporting Case:** [REDACTED] MPH, BSN, RN



**CONFIDENTIAL**

**Number: 56**

**Record Number:** 56 (also #25)

**Date of Contact:** August 6, 2014

**Name/Organization:** [REDACTED], Kingsley, PA [REDACTED] Phone [REDACTED]  
[REDACTED] email: [REDACTED] and [REDACTED] Wellness Advocate

**County:** Susquehanna

**Issue:** Reports that the [REDACTED] well, approx. 2 miles from her home, lost \$1 million dollars of oil based drill mud on 3/23/2014 and believes it hit the aquifer. She states that soil samples were collected at the pad and a backhoe was seen moving dirt. She would like to know what chemicals were found in the drill mud. She has 2 [REDACTED] wells nearby: one 300 ft away that was drilled on 5/2013 and one 1500 ft away and drilled in Dec 2013. She also noted that there are approx. 20 gas wells within 1 mile of her home and a compression station less than one mile from her home. Her 250 foot well was drilled in 1988. She does not treat the water. She moved here in 1986. Has a hx of high blood pressure (tx w Inderal) and was told she has "pollution" allergies while in her 20's and living in Riverdale when treated by an ENT doctor. She reports that her Dad has mild [REDACTED]. She reports that she typically drinks 12 – 15 8 oz glasses of water a day.

- [REDACTED] reports that in April 2014 she developed very dry, itchy skin and on 4/3/2014 she noticed that her water had an odor of a chemistry lab and visual changes to her water.
- On 4/4/2014 she was treated for an ear and sinus infection by Dr. [REDACTED] (resolved w Augmentin). [REDACTED]
- On 6/6/2014 she was diagnosed with a viral infection in her mouth by her Dentist, Dr. [REDACTED] (resolved within 2 weeks of discontinuing the use of the well water). She also noticed changes in her hair, itching and burning eyes (when showering w well water), skin rashes, lower left jaw pain and a lump along with ear pain. Also, a lesion on her upper palate. Insatiable thirst, dry lips and tongue, tightness in chest, and red, dry skin on her hands. She had a pain in her stomach that went away when she stopped drinking the water.
- She noticed her Dad had red skin and lesions on his head.
- Daughter was in South Carolina.
- Her two dogs had diarrhea at the time of the chemical smell and it stopped when she stopped using the well water for them.
- She stopped smelling the chemicals in the water on 4/21/14.

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- She c/o headache and nausea on 5/7/14, headache on 5/7/14, and earache on 5/25/14.
- She currently has a sinus infection, bloody noses, and is sneezing. She is on Nasonex spray.

**How Issue Managed:** On 4/3/2014 she stopped drinking the well water. She uses a water buffalo for all purposes except doing the laundry and washing the dishes. She contacted [REDACTED] who checked her boiler and they reported no problems.

**Water samples:**

- on 4/5/14 by [REDACTED] for the oil company (reported to her that there was nothing in the water),
- on 4/5/2014 by a Duke/Yale student, [REDACTED] for a study,
- on 4/9/2014 by [REDACTED] of the PADEP (reported on 7/21/14 that Benatolyze <sp> in water). PADEP plans to come back soon and retest. They stated her 4/9/2014 sample was negative.
- on 4/8/2014 by Appalachia Hydrogeologic and Environmental Consulting, Inc. She reports that the Appalachia sample identified Trimethalsulfural (sp) and 2,5,5 trimethol 2 hexene (sp) in her water
- She also reports 9/8/2011 pre-drill samples.

Conducted conference call on 8/28/14 with Dr. [REDACTED] reviewing the water quality sampling results that [REDACTED] provided that were collected by Appalachia Hydrogeologic and Env Con on 4/8/14.

**Notes:** Reviewed: 4/8/14 Appalachia Hydrogeologic well water data,  
4/9/14 PADEP well water data,  
4/5/14 Moody well water data,  
Reviewed: Act 2 Mead Well Pad data review

Referral: UPENN Occupational and Environmental Medicine

Draft letter to Bureau Director on 10/6/14 and sent 12/4/14

Voicemail from [REDACTED] on 1/16/15. [REDACTED] states that her daughter is visiting and after taking a shower reports that she the water smells. She wants to have a "toxic assay" of her well water. Returned call on 1/17/15 with [REDACTED] and Dr. [REDACTED]. Offered to conduct visit with DEP who offered to re sample the well water and [REDACTED] stated she is not interested in a visit. She restated her desire to obtain a toxic assay of her well water and we told her that is for research purposes and not available through the DOH.

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On 1/31/15 [REDACTED] requested a phone call to discuss her water and a recent symptom she had – a nosebleed. Since she has requested Dr. [REDACTED] participate on the call, we are scheduling when Dr. [REDACTED] is available, on 2/19/15. Also requested air quality data and referred her to her PCP and DEP, as appropriate. Scheduled March 4<sup>th</sup> conference call to discuss the assay with Dr. [REDACTED] who conducted the study.

On 2/25/15 Received two emails from [REDACTED] with video recording of her Speck monitor this morning with readings up to 264 PM 2.5 levels. Called [REDACTED] and she requested a conference call to discuss and forwarded a copy of the 2.5 data that has been collected from October 30<sup>th</sup> as part of a study underway by the University of London. She reports no odors at this time, a metallic taste in her mouth, ongoing congestion and that she feels stressed. She also wanted us to note that her nosebleed that she mentioned on the previous call was on December 24, 2014 and her dog was dx with mengioencephalitis on December 25, 2014. [REDACTED] stated that she does not use an air filter in her home and I suggested that she might want to try one. I forwarded her information on air filters from the [www.environmentalhealthproject.com](http://www.environmentalhealthproject.com) webpage on air filters and how to improve indoor air quality.

4/11/15 email to [REDACTED] with “how to” guidance on the SPECK monitor and that I received DEP report stating that they investigated odor complaint at the [REDACTED] station and were unable to detect odors at the time of their visit.

4/14/15 email from [REDACTED] stating that the USGS and Penn State University will be collecting additional water quality samples from her private well. I requested that she share a copy for our review, if possible. I also spoke with [REDACTED] from ATSDR R3 who is trying to collect additional air samples, decision pending.

**Number of Cases Affected:** 2 (53 year old woman lives with 81 year old father and her 21 year old daughter who spends most of her time away at college)

**Person Reporting Case:** [REDACTED] MPH, BSN, RN

**CONFIDENTIAL**

**Number:** 57

**Record Number:**

**Date of Contact:** 6/13/2014

**Name/Organization:** [REDACTED] MD, FAAP

[REDACTED]

Washington, DC

**County:** Washington

**Issue:** Glioblastoma Cluster Concern

**How Issue Managed Dear** [REDACTED]

I am writing in response to your concerns about an apparent cluster of glioblastoma cases among residents of Washington County; specifically in zip codes [REDACTED]

When the Pennsylvania Department of Health (Department) investigates a potential cancer cluster, it examines cases in a defined area and compares the numbers with the frequency across the state. We do this using our statewide reporting system, the Pennsylvania Cancer Registry (PCR) that catalogues each new case diagnosed among Pennsylvania residents. Malignant gliomas represent 80 percent of primary brain tumors and glioblastoma *multiforme* are the most common primary brain cancer of adults. In our analyses we examined the incidence of both glioblastoma *multiforme* and *other gliomas*.

This was performed by measuring how often each type of cancer occurred in relation to the numbers that were anticipated if the rates for the entire state were also experienced by residents of these communities. The Department first looked at the number of cases diagnosed among residents of the six zip code area and compared incidence to the number of cases expected. The expected numbers were obtained by

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multiplying the populations living in these communities during the study period by the statewide incidence rates for the same time period. This was calculated for individual age groups first, and summed across 18 age groups [<5, 5-9, 10-14... 75-79, 80-84, 85+] to obtain the total cases expected. This total was compared to the actual number of cases recorded by the PCR to calculate a *standardized incidence ratio* (SIR). Analyses were based on the 22-year period from 1990 to 2011. Analyses were done separately for glioblastoma and glioma.

The SIR is comparable to comparing the cancer rate for the study area to the rate for the entire state. It is equivalent to the ratio of the observed numbers of cancers to the number expected. An SIR close to 1.00 indicates the incidence rate for the community is the same as the state rate, and an SIR larger than 1.00 suggests that the area's rate is greater than the state, while an SIR less than 1.00 suggests the area's rate is lower than the state. If a ratio is sufficiently large or small for the population examined, the likelihood that it occurred by chance will be small, and the incidence ratio considered statistically significant. During the 22-year period, 15 cases of glioblastoma *multiforme* were diagnosed among the area's residents and 16.19 expected for a ratio of 0.93 [ $\text{SIR} = 15 \text{ obs.} / 16.19 \text{ exp.} = 0.93$ ] indicating the rate was lower than the state. Based on 15 observed cases the *likelihood* that the rate could vary from the state by 7.0 percent [ $1.00 - 0.93 = 0.07$ ] was not sufficiently small to consider the difference in the rates [ratios] between study zip codes and Pennsylvania statistically significant. Additionally, 3 cases of malignant glioma were diagnosed and 5.2 cases expected based on Pennsylvania's incidence rates. This resulted in a ratio of 0.58 [ $\text{SIR} = 3 \text{ obs.} / 5.2 \text{ exp.} = 0.58$ ] indicating the rate was 42 percent lower than the state [ $1.00 - 0.58 = 0.42$ ] but again this did not deviate from 1.00 sufficiently to consider it statistically significant for the population size of these communities.

In Pennsylvania, nearly 76,000 residents are diagnosed with cancer each year. Because cases are seldom equally spaced from each other, and are not spread out similarly over time, clusters will appear. When recent cases are added to the numbers diagnosed from previous years, the total number of persons diagnosed in a population can be large. From the six zip codes examined approximately 85 residents had been observed annually or 1,870 total cancers since 1985. Without knowing the distribution of the factors contributing to the risk it is not possible to explain disease patterns in the population. Epidemiology studies show glioblastoma cases appear to be sporadic, without any genetic predisposition, though for unknown reasons it occurs more commonly in males. No links have been found between glioblastoma and smoking, consumption of cured meat, or electromagnetic fields. Alcohol consumption may be a possible risk factor. Glioblastoma has been associated with several viruses; SV40,

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HHV-6, and cytomegalovirus. There also appears to be a small link between ionizing radiation and glioblastoma.

The Department of Health is sensitive to the community's concern about the numbers of people diagnosed with cancer in their area. In an effort to provide the most current assessment of the cancer burden and risks, the types of cancer, relative frequencies, as well as incidence rates were examined from 1985 through 2011. This study was not an etiologic investigation designed to prove that an environmental pollutant or other factor caused cancer. Rather, it is a descriptive study. It provides objective measures of cancer incidence rates relative to all Pennsylvanians. Based on the types of cancer in the area and the rates, there isn't an indication that environmental pollutants contributed to the cancer risk, and there is no environmental data demonstrating that there are human exposures to carcinogens in the area that could increase the risk.

Sincerely,

[REDACTED], MPH, Dr. PH

Director, Division Community Epidemiology

Bureau of Epidemiology

Pennsylvania Department of Health

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:** [REDACTED], MPH, Dr. PH

**CONFIDENTIAL**

**Number: 58**

**Record Number:**

**Date of Contact:** 8/1/2014

**Name/Organization:** [REDACTED] Simpson, PA [REDACTED]

**County:** Lackawanna

**Issue:** Concerned regarding the health of her husband who has been working for the last 10 years as a truck driver hauling drilling wastes from a gas drilling site into a landfill in Lackawanna County, PA. She wants to know if her husband's health conditions (Autoimmune disease, Emphysema, COPD and dementia) are related to his work as a truck driver and if he was exposed to anything that may have caused his illnesses.

**How Issue Managed**

**Referred to** Occupational Safety and Health Administration (OSHA), [REDACTED] at  
Ext. 15, or any duty officer at: **Wilkes-Barre Area Office**  
The Stegmaier Building, Suite 410  
7 North Wilkes-Barre Boulevard  
Wilkes-Barre, PA 18702-5241  
(570) 826-6538  
(570) 821-4170 FAX

Referral to UPENN Occupational and Environmental Medicine

**Notes:** Draft letter to [REDACTED] on September 4, 2014 and sent 12/4/14

**Number of Cases Affected:** 1

**Person Reporting Case:** Dr. [REDACTED]

**CONFIDENTIAL**

**Number: 59**

**Record Number:**

**Date of Contact:** 08/22/2014

**Name/Organization:** [REDACTED] Smithfield, PA [REDACTED]  
**Phone:** [REDACTED]

**County:** Fayette

**Issue:** [REDACTED] complains of blisters, tremors and diagnosis of chemical induced asthma from a gas well 500 feet from her property. The Marcellus shale gas well was established in 2010 and her symptoms started from 2012. Her 11 year old son also has blisters and stomach cramps. The well has a 'blow-out' twice a month and causes a mist that covers her home for about 45 minutes. She is 45 years old and complains of hair loss. She said she was diagnosed with chemical induced asthma by her physician. They have city water connection so there is no exposure from drinking water. DEP has collected some air data and she will ask her lawyer to share that data with DOH. She bought this property in early 2007 and her health was fine at that time and only started to have health issues since 2012

**How Issue Managed:** DOH requested that [REDACTED] sent DOH copy of DEP sampling data results and if possible, clinical data, with her permission, from her physician so that DOH can proceed with a complete evaluation.

**Notes:** Draft letter to [REDACTED] on September 4, 2014 and sent 12/4/14.

**Number of Cases Affected:** 2 (45 year old mother and 11 year old son)

**Person Reporting Case:** Dr. [REDACTED]



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**Number:** 60

**Record Number:**

**Date of Contact:** 8/27/2014

**Name/Organization:** [REDACTED], Great Bend,  
PA [REDACTED] Phone: [REDACTED]

**County:** Susquehanna

**Issue:** I received this referral from DEP who is investigating the odor complaint – they were going to try to send someone to the area today.

A couple and their son who live in Susquehanna County have health issues that are exacerbated by natural gas activities in their community. They experience difficulty breathing, migraine headaches, and disorientation with strong odors that they associate with flaring at nearby natural gas wells. They live in a valley and the odors are stronger when there is no wind. They are unable to remain outside of their home at times due to the odors. They are being followed by a health care provider for the condition but are very upset by how the air quality is impacting their health. They also reported heavy truck traffic at times on the road by their home. They are concerned about their water quality since their neighbor recently reported black water from a tap in their home. They are also concerned about future well drilling activities in their community and the impact of additional flaring from the wells, if additional wells are drilled nearby.

**How Issue Managed:** I encouraged the residents to notify PADEP when the odors are occurring so that they can conduct air quality testing while the odors are present. I offered to review any air quality sampling results, if collected. I encouraged them to stay indoors at times that they are having difficulty breathing, close the windows and turn on the air condition to help filter the air. I reassured them that PADEP is aware of the current situation and is investigating the odor complaint they reported yesterday. I told them to continue to follow up with DEP, as needed.

**Notes:** DRAFT letter to [REDACTED] on September 8, 2014. PADEP stated that they visited the area and were unable to detect an odor at the time of the visit. Response letter sent on 12/4/14.

**Number of Cases Affected:** 3

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

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**Number: 61**

**Record Number:**

**Date of Contact:** 8/28/14

**Name/Organization:** [REDACTED] [REDACTED], Daisytown, PA  
**Phone:** [REDACTED]

**County:** Washington

**Issue:** Complaint regarding noise and odors beginning 3 years ago. The odors cause her and her husband to get sick to their stomach, have headaches, and nose bleeds. It was so bad last Monday they left their home because can't breathe in their home, they were going to go for a medical evaluation but the symptoms dissipated when they left the area. They spent the night with a friend. They would like toxicology tests but can't afford to pay for them.

**How Issue Managed:** I recommended that they call PADEP when the odors are occurring and offered to review any air quality results, if available. Odor complaint referred to PADEP Air Management who stated they will contact this family. Recommended they follow up with their family health care provider as needed. Telephone conversation with PADEP who will be conducting air sampling at the well pad, offered to review air data, when available.

T/C from DEP [REDACTED] states that [REDACTED] is installing a thermal oxidizer at the compression station to reduce odors. It should be completed in the next two weeks.

11/9/2014 voicemail message from [REDACTED] States that he reported a release to DEP this morning. He was working outside and developed a headache and nausea to the point that he had to stop working outside. He would like to know what they are being exposed to from these releases. He reports that they occur primarily on nights and weekends. 11/10/14 spoke with [REDACTED] who would like to be tested, referred to Dr. [REDACTED]. His attorney has air quality data, offered to evaluate, if desired. Recommended he close windows when odors are occurring and turn on air conditioning/use an air filter.

**Notes:** DRAFT letter to [REDACTED] on September 8, 2014 and sent 12/4/14

**Number of Cases Affected:** 2

**Person Reporting Case:** [REDACTED] MPH, BSN, RN

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**Number: 62**

**Record Number:**

**Date of Contact:** September 5, 2014

**Name/Organization:** [REDACTED], Hopewell Township

**Phone:** [REDACTED]

**County:** Washington

**Issue:** BCHS logged "called reports finding snow-like substance on the ground of her property. She lives in Hopewell Township"

**How Issue Managed:** 9/5/14 called the phone number provided and left a message to return my call. Note: The message on the voice mail is a different name than the complaint. On 9/9/14 called and left a second message on the cell phone.

**Notes:** No response

**Number of Cases Affected:** unknown

**Person Reporting Case:** [REDACTED] MPH, BSN, RN

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**Number: 63**

**Record Number:**

**Date of Contact:** 9/19/14

**Name/Organization:** [REDACTED] West Newton, PA [REDACTED]

**Phone:** [REDACTED] (Cell)

**County:** Westmoreland

**Issue:** Rash on arms and legs for past 2-3 months. Her home is located less than half mile from a compressor station/drilling operation. She complains of constant noise from this site. She has made an appointment with her PCP for next Wednesday regarding her rash. She is using some kind of ointment for her rash to reduce the itching. She also called DEP (Oil & Gas) and talked to [REDACTED] who promised her that DEP will look into it. She is on city water. No other complaints. She is not sure if this is Marcellus Shale related.

**How Issue Managed:** She will send pictures of her rash and will ask her PCP to share her medical information with DOH. We will contact DEP oil and gas to find out more about the natural gas activities and related issues.

Resident reports that she was seen by her PCP and rash is improving with Rx cream. She also sent a photo of the rash for our records.

**Notes:** Draft initial letter submitted October 6, 2014 and sent 12/4/14

**Number of Cases Affected:** 01 (she lives alone)

**Person Reporting Case:** [REDACTED]

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**Number: 64**

**Record Number:**

**Date of Contact: 10/3/14**

**Name/Organization:** [REDACTED]  
[REDACTED], Liberty Township, [REDACTED], Montrose, PA [REDACTED]. Park owner is [REDACTED]  
[REDACTED]

**County:** Susquehanna

**Issue:** Since [REDACTED] installed a pipeline two years ago across [REDACTED] Road, there has been a noticeable change in the drinking water: sediment, odors, and "possible health reactions".

**How Issue Managed:** Telephone call to [REDACTED] who states that the water is no longer a concern.

Email from PADEP who is following up as the trailer park is regulated under the Safe Drinking Water Act.

Follow up conversation and email with PADEP who states that the trailer park meets the standards under the Safe Drinking Water act, under which it is regulated and that an investigation was conducted 2 years ago around the time the pipeline was installed and they found sediment in the dead end line of the distribution system. The line was flushed and the problem was resolved.

**Notes:** Draft letter submitted Oct 6, 2014.

**Number of Cases Affected:** unknown

**Person Reporting Case:** [REDACTED] MPH, BSN, RN

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**Number: 65**

**Record Number:** [REDACTED]

**Date of Contact:** 10/6/14

**Name/Organization:** Phone [REDACTED]

**County:** San Miguel, New Mexico

**Issue: General inquiry.** She wants to discuss the status of the proposed registry to track illness near Marcellus shale gas drilling. Quoted 2011 article in which Dr. Eli Avila stated that he wanted to start a registry to track illness and complaints into fracking concerns.

**How Issue Managed:** Left voice mail message on 10/6/14

Telephone conversation on 10/8/14. [REDACTED] lives in New Mexico and is concerned about the prospect of natural gas development in her community (San Miguel County). I provided general information on the log we maintain and sent her information on health effects and natural gas studies via email: [REDACTED]

**Notes:**

**Number of Cases Affected:** Unknown

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

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**Number: 66**

**Record Number:**

**Date of Contact: 10/2/14**

**Name/Organization:** [REDACTED], Muncy, PA [REDACTED], Muncy  
Creek Township. Phone: [REDACTED]

**County:** Lycoming

**Issue:** [REDACTED] believes that local natural gas drilling activities are "ruining her water system". She states that she has been purchasing bottled water due to a decrease in the volume of water and air coming from her private well. PADEP came to [REDACTED]'s residence on 10/06/2014 and collected samples from her well. The test results will be available soon and [REDACTED] will request PADEP to share results with DOH. PADEP also informed [REDACTED] that they did not find methane in her private well.

**How Issue Managed:** PADEP will share test results when available from DEP lab.

**Notes:** According to their website, PADEP has not issued any natural gas well permits in close proximity (less than 5 miles) to her home for the years 2008 to date. PADEP states that it appears to be a problem with the pump. Water quality data pending.

**Number of Cases Affected:** No health concerns reported.

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

**Number: 67**

**Date of Contact:** 10/14/14

**Name/Organization:**

[REDACTED], Springville, PA

Phone: [REDACTED]

**County:** Susquehanna

Spoke with [REDACTED] on 10-14-14, she stated that they have been having trouble with their well water since the natural gas drilling began near their home around 2012. She has had dry skin since 2012, noticed odors and "black stuff" in the water. About two weeks ago they noticed foam in the water. They paid \$12000 to have a water treatment system installed by [REDACTED]. She, her husband and their two employees have had diarrhea and stomach cramps which they believe came from drinking the water. Since they had the home treatment system installed on their drinking water about two weeks ago, their symptoms have improved and no one is drinking the untreated water. They continue to use the water for bathing and for their dairy cattle. She continues to apply argon oil and shea butter to the dry skin. They have not contacted their health care provider to date. Cows have occasional diarrhea.

She described three sets of sampling results: a pre-drilling set from [REDACTED], I believe; a private company that she and husband paid to sample, both these I believe where back around 2012 which is around the time the natural gas activity began near her home; and the water samples that PADEP recently obtained. She asked that we obtain a copy of the results from PADEP. She states that the PADEP water sample had "a 717.1 and 659.5 sulfate level". She and her husband have a natural gas lease with [REDACTED]. [REDACTED] has a gas well on her brother in law's nearby property, the [REDACTED] well since 2012, [REDACTED] also installed a gas well about ¼ mile away on the [REDACTED]'s property which "they had to shut down" and she believed it is what "ruined" their water.

We told [REDACTED] that we would get back to her as soon as we reviewed her sampling results, as requested. She would like to be assured that her treatment system is removing all the contaminants from her water and that it is safe to bathe in the untreated water. She stated



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that Water Medics recently installed a reverse osmosis treatment system; she thinks it was this past summer, with a water softener and some additional tanks. She was uncertain what type of treatment the tanks provided.

**How Issue Managed:** Contacted PADEP for a copy of the water quality sampling results to date, they stated they are going to repeat the sampling in the next week or so. They also stated that the foam was identified only from a hose that was laying in the sun, the taps in the house did not foam when they collected their samples.

11/7/14 Reviewed water quality reports collected in January 2010, September 2012, December 2012, December 2012, January 2013, December 2013, and August 2014. We are awaiting water quality sampling results from October 2014. Based on the water quality sampling results reviewed to date with Dr. [REDACTED] the level of sulfates found in the water could pose health symptoms, particularly diarrhea, dehydration and increased stomach acidity. It is our understanding from conversation with [REDACTED] that the water treatment unit was purchased to remove the sulfates and that no one is drinking the untreated water at this time.

11/21/14 T/c with [REDACTED], PADEP. Reviewed 10/23/14 water quality reports. Total sulfates 73.7 and 36.5 mg/L. Review pending DEP geologist.

12/5/14 T/c [REDACTED] who states that the problem with the water has resolved. She stated that there are some additional natural gas wells that will be drilled in the near future and that they plan to retest the drinking water wells again at that time. She also states that her skin condition has resolved.

**Notes: Draft letter submitted for approval on 10/14/14 and sent 12/4/14**

**Number of Cases Affected: 4**

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

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**Number: 68**

**Record Number:**

**Date of Contact:** 10/17/14

**Name/Organization:** [REDACTED] Perryopolis, PA [REDACTED]  
**Phone:** [REDACTED] **Email:** [REDACTED]

**County:** Fayette

**Issue:** Beginning in April or May of this year [REDACTED] states that there has been a strong odor coming from the neighbor's property. Both her and her 82 y.o. mother have been having the following symptoms that they associate with the odors: vertigo, itchy and burning eyes, allergies, congestion, nausea, bronchitis x 1 month. Her mother has a history of asthma and the symptoms have worsened this summer. They are being followed by their family health care provider: Dr. [REDACTED] with [REDACTED] Medical Center in Dunbar, PA. [REDACTED] would like to be tested for exposure to chemicals from the fracking waste – I referred her and her doctor to [REDACTED] at the University of Pittsburgh Poison Control Center at 412-864-5382 for further information.

She states that the EPA and DEP have identified fracking "drill bit sludge" on the next door neighbor's property – [REDACTED] is the owner. She also reports dust from the neighbor's property blowing onto her property. She would like her well water and pond tested. She noticed four (4) dead geese at the pond ([REDACTED]) this past summer. I notified PADEP of this request. She is on public water and is not currently using her well water. I asked her to continue this practice until the water quality is verified.

There is a neighbor who has a cistern and reports poor water quality: [REDACTED] [REDACTED] at the corner of [REDACTED]. They are not on the public water system and may be using the water.

There is also a personal care home located at the corner of [REDACTED] [REDACTED] (licensed for up to 50 people). I notified PADEP of the personal care home and the [REDACTED] well issues and the request for air and water quality testing.

**How Issue Managed:** Spoke with [REDACTED] on 10/20/14.

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Reported drinking water issues/air quality/and waste disposal to PADEP [REDACTED] on 10/20/14. Spoke with [REDACTED] on 10/28/14 and he will follow up on the status of the personal care home's water supply, the [REDACTED] request to sample the water supplied by their cistern, and [REDACTED] request for testing of her well and pond water.

10/28/14 telephone call to [REDACTED] left voicemail that [REDACTED] was notified of her request to sample well and pond water.

10/29/14 received email from [REDACTED] with a photo of the mud-like material reportedly found on her neighbor's farm/quarry area. She reports that her bronchitis is slowly improving; I encouraged her to continue to follow up with her primary care provider as needed.

11/7/14 Telephone call from [REDACTED], symptoms are improving and plans to visit PCP next week. She and her mother have congestion, burning of their eyes and mucus membranes, especially if spending time outdoors.

She reports that her neighbors, the [REDACTED], are drinking the cistern water and using to shower. Also reports that they noticed a substance floating on the top of the water.

On 11/7/14 I emailed DEP to make them aware of the [REDACTED] well quality concern.

On 11/13/14 I received email from DEP that the personal care home is served by public water.

On 11/14/14 from [REDACTED] that PADEP visited her this morning and scheduled 11/24/14 water sampling with her.

On 1/15/15 water quality data review with Dr. [REDACTED] and draft letter.

February 20, 2015 final letter sent.

April 30, 2015 T/C from [REDACTED]. She inquired if her well water was safe for her livestock and stated that the neighbor's property has not been cleaned up to date. I referred her to [REDACTED] for follow up since she stated that he told her that it was contaminated and that the DEP came to an agreement with the landowner that he would clean up the property. She states that she has not noticed odors lately but that her mother has recent asthma attacks.

**Notes: Draft letter submitted for approval on 10/21/14 and sent 12/4/14**

**Number of Cases Affected: 4+**

**Person Reporting Case:** [REDACTED] MPH, BSN, RN

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**Number: 69**

**Record Number:**

**Date of Contact:** 10/23/14

**Name/Organization:** [REDACTED] Clifford, PA [REDACTED]

**Telephone:** [REDACTED] **or** [REDACTED] **Email:** [REDACTED]

**County:** Suquehanna

**Issue:** [REDACTED] would like to know what is in the air, and if the levels they are breathing is safe, for family and outdoor pets, horses, chickens dogs and rabbit.

Metering station is located 1/4 mile from her home, compressor station 1-2 miles away. Approx. two weeks ago loud whooshing sound and extremely noxious smell (rotten eggs) at residence -8hr. Husband was at home and called [REDACTED] who was not at home, he was experiencing an intense headache. Neighbor also had same symptom and concern about a potential home explosion. [REDACTED] returned home and went to metering station and spoke to supervisor. Supervisor explained that they were purging lines, fixing a leak, and offered to supply the mercaptan levels he recorded. He gave [REDACTED] his cell phone number/ call him at any time. Smell and sound persist each night after dark.

[REDACTED] - eyes red and irritated for the past 3-4 days, a picking feeling in her eye.

Husband - Intense headache with initial loud swooshing sound that lasted 6 – 8 hours.

5 year old [REDACTED] died of Pneumonia in Dec 2013, and this female dog had been taken to [REDACTED] they could not diagnose the cause. Male dog currently has been sneezing for about a month. Rabbit did not look well on the evening [REDACTED] first walked to station and rabbit died aprox 30 minutes later.

**How Issue Managed:** Telephone call 10/24/14 left voicemail message

Telephone call on 11/7/14 with [REDACTED], [REDACTED] and [REDACTED]. [REDACTED] reports that she reported an odor on 11/1/14 and DEP emergency response ([REDACTED]) is working with the [REDACTED] company who is responsible for the metering station to make corrections to eliminate the odor causing leaks. She states that their home is ¼ mile from the metering station (on [REDACTED] Clifford Township) and that there were odors for the past 1 ½ - 2 months but there are

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no odors at this time. Also was told that there was a mercaptan spill on soil at metering station. At another location she reports odors each time she drives by the compressor station located 1 – 2 miles from her home at [REDACTED] and [REDACTED].

These symptoms persist: [REDACTED] – eyes are red, runny nose, and increase congestion.

11 year old son – beginning on 10/29 has had three bloody noses

14 year old daughter – increased coughing and nasal allergies

A chicken and rooster died on 10/25/14

On a private well which was last tested about 6 years ago (they are 5 – 10 miles from a natural gas well). She plans to participate in NYU? Well water study ([REDACTED] contact).

11/10/14 T/C with [REDACTED], DEP. No air sampling was collected by DEP. DEP observed the mercaptan odor which was in the mercaptan tubing (no natural gas released) at the metering station. He described the mercaptan release as “very minimal”. No record of complaints relating to the nearby compressor station. No spill occurred that DEP is aware of and the leak has been repaired.

11/14/14 Follow up phone call with [REDACTED]. Reported findings to [REDACTED] and that we were unable to assess exposure due to a lack of environmental sampling data. We discussed the odor threshold and occupational standards for mercaptan. [REDACTED] is not experiencing any odors from the metering station at this time.

[REDACTED] son had another nosebleed, this time at school. He was examined by his physician who described his mucus membrane as irritated and Rx with ointment. [REDACTED] also noted blood in her daughter’s nose. She questioned the air quality at her son’s school: [REDACTED] [REDACTED] It is in close proximity to 5 well pads and 1 compressor station.

[REDACTED] complained about a humming noise from the metering station which I suggested she monitor it over time with the phone app. I referred her to the local municipality for noise complaints.

**Notes:** I recommended family follow-up with PCP if needed.

I also recommended routine private well water testing.

Telephone call with school nurse who states that there have not been any increased incidence of nosebleeds or asthma attacks in the elementary or high school (no separate middle school). She states that they “do not have an air quality problem”.

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Response letter sent 12/4/14.

**Number of Cases Affected: 4**

**Person Reporting Case:** [REDACTED] MPH, BSN, RN

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**Number:** 70

**Record Number:**

**Date of Contact:** 10/23/14

**Name/Organization:** [REDACTED] North Tunkhannock,  
PA [REDACTED] Cell phone [REDACTED] Email: [REDACTED]

**County:** Wyoming

**Issue:** “**Air Quality** is currently biggest concern, would like air monitoring. Some residents are doing their own air monitoring.” Nearest well within a mile, 3 compressor stations within three miles of her home. A pipeline is ½ mile from home and on each side of property. There is a silica plant proposed within 2 miles of her home and sited 300 yards from day-care and 500 yards from two little league fields and less than 500 yards from apartments w/mostly elderly. PennDot permits 750 trucks per day for the transfer station. She regularly observes trucks idling in violation of idling limits and knows she can contact the local police. Rural area with high truck traffic with diesel emissions that average 120 - 180 trucks per hour. In June, while driving near a well pad she had sore throat followed by throat closing sensation and saw her doctor three days later. Recurring symptoms include **nausea, coughing, burning eyes nose & throat, dry heaves** when flaring occurs at well pads. Local minister reports increase in asthma, she will contact him for more information. She is working with several researchers to conduct air monitoring in the area.

She feels **high stress and noise levels** Also, **insomnia** related to truck traffic that shakes the house, often between 10 p.m. - 12 a.m. Interrupted sleep impacts her son who has schizophrenia and her fibromyalgia.

Her water pipe recently cracked and has low water pressure from her private well which she believes may be related to the **seismic testing**. Their garage has cracks in the foundation. She has friends with water quality problems related to drilling.

**How Issue Managed:** Telephone call on 10/24/14, left voicemail message. Spoke with [REDACTED] on 11/14/14. She would like air monitoring at the transfer station and consideration for cumulative impacts of air pollutants. I offered to evaluate any air monitoring, if available. I reported that DEP is planning to monitor silica at the proposed sand transfer station. She would like to see a registry of health issues and believes there is an increased rate of cancer in their community.

**Notes:**

**CONFIDENTIAL**

**Number of Cases Affected: 3**

**Person Reporting Case:** [REDACTED], MPH, BSN, RN



**CONFIDENTIAL**

**Number: 71**

**Record Number:**

**Date of Contact:** 11/15/14

**Name/Organization:** [REDACTED], Perryopolis, PA [REDACTED]  
**Phone:** [REDACTED]

**County:** Fayette

**Issue:** [REDACTED] states that runoff from the neighbor's field with "fracking" waste deposited on it runs onto their property and has "oil" in it. She states that the neighbor covers the fracking waste with soil and also burns some type of log or railroad ties w creosote in it. She states that the runoff has eroded the foundation of their home.

She lives with husband and son with grandchildren visiting on the weekends. They have a cistern but [REDACTED] states that they have not been drinking the water for years (using spring water). PADEP is scheduled to collect water quality samples on 11/24/14.

Reports that when the neighbor is burning on his property, there is a strong rotten egg odor and her eyes burn like they are "on fire". Last time she noticed burning was 2 weeks ago. I encouraged her report any concerns to DEP by calling the DEP response line, at the time of the activity and to collect water samples as planned.

T/C from PADEP [REDACTED] visited the [REDACTED] home and states that the home is upgradient from the contaminated property and the DEP will not be testing the cistern water for the [REDACTED] family. Provided information on monies available for assistance with public water line access.

**How Issue Managed:** Offered to interpret water sample results, when available.

**Notes:** Neighbor of #68

**Number of Cases Affected:** 5

**Person Reporting Case:** [REDACTED] MPH, BSN, RN

**Number: 72**

**CONFIDENTIAL**

**Record Number:**

**Date of Contact:** 11/21/14

**Name/Organization:** [REDACTED]

**County:** Sullivan

**Issue:** Found 10 dead frogs by his cabin's spring house.

**How Issue Managed:** No response to email.

**Notes:**

**Number of Cases Affected:** unknown

**Person Reporting Case:** Via website

**Number:** 73

**CONFIDENTIAL**

**Record Number:**

**Date of Contact:** 12/11/14

**Name/Organization:** [REDACTED], Cannonsburg, PA  
[REDACTED]

**County:** Washington County

**Issue:** T/C 12/12 from [REDACTED] He and his wife have been experiencing health issues that he thinks is related to a nearby well pad ([REDACTED]). He reported that there are odors, visible emissions, and jet type noises associated with the symptoms. He states there are odors present now so I gave him the DEP numbers to report this. Last Friday, Dec 5<sup>th</sup>, at about 9 p.m. he opened his window for about 5 minutes and noticed an odor, a jet like noise and visible emissions from the nearby well pad, he closed the window he remembers falling and waking up at 4 a.m. with shoulder pain. He also has had a sore or hoarse throat for the past 4 months. I recommended he contact his doctor about his symptoms to have it evaluated. I offered the health department is available for consultation, as needed. He reports that his wife has a persistent cough and also has kidney failure which will soon be requiring dialysis. She is under a doctor's care. He has a Speck Monitor in his home and states that it is currently has a "hazardous" reading. He states that it was given to him by the southwest PA Environmental Health Project. I recommended that he contact them to determine how he should respond to this reading, if at all.

He states there are several other neighbors who have been experiencing symptoms. Also, he mentioned a day care [REDACTED] that have expressed concerns. He believes everyone is on public water.

**How Issue Managed:** 12/11 received voicemail stated that his and other's health is being affected by [REDACTED]. Returned call on 12/12/14 and left a message to call me.

12/12/14 Recommended [REDACTED] contact his doctor to discuss his symptoms. He sees a Dr. [REDACTED]. Provided Dr. [REDACTED] contact information, if needed for consultation. Referred [REDACTED] to the SW PA Environmental Health Project to discuss the Speck Monitor readings and appropriate actions.

12/12/14 Emailed PADEP air quality, [REDACTED] DEP Air Quality SW Region regarding air quality concerns.

12/15/14 Received 12/13/14 voicemail message from [REDACTED] stating that the odors were occurring at that time. I called [REDACTED] who stated that the well pad was "shooting off gas all night long". I reinforced that he should contact the DEP when odors occur, that DEP can collect air quality data at that time and that the DOH is available to review air quality data. He stated that he would call DEP at the time of odors.

**CONFIDENTIAL**

12/15/14 Spoke with [REDACTED] with DEP who will refer this concern to air quality ([REDACTED]) for follow up.

12/16/14 Spoke with [REDACTED] who states that DEP called him and told him they will be setting up monitoring stations at the well pad. He also states that last night the well pad was dark and this morning he noticed that the drilling tower is gone. He was told that the fracking will begin in February 2015. He states he has been sick and his wife is coughing "like crazy". He states that the house shook every 20 minutes on Saturday night "like an earthquake". No odor complaint at this time.

1/12/15 Dr. [REDACTED] spoke with [REDACTED] regarding the [REDACTED] well.

1/13/15 Spoke with [REDACTED] regarding his concern that the [REDACTED] well will be remobilizing in February and he is concerned that his and his wife health symptoms will reappear as a result. He would like to know when they restart and I forwarded that request to PADEP. I instructed [REDACTED] that he should contact DEP at any time in which he notices odors so that they can investigate and collect environmental samples, if indicated, or if he is concerned about adverse health effects. I asked that he also contact the health department. He also expressed concerns for the child care facility on the corner of [REDACTED] in Canonsburg.

**Notes:** 1/13/15 emailed [REDACTED] concerns to PADEP.

**Number of Cases Affected: 2 or more**

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

**Number: 74**

**CONFIDENTIAL**

**Record Number:**

**Date of Contact:** 12/12/14

**Name/Organization:** [REDACTED] Cannonsburg, PA [REDACTED]

**County:** Washington

**Issue:** [REDACTED] has a history of asthma and COPD. He developed a cough on 11/14/14 that started when he returned home after lunch and he coughed all night and the next day, on the third day the cough continued and he went to the ER and got medicine to stop the cough. He followed up with his family doctor who RX steroids and antibiotics. He notices periodic odors (diesel) and occasional smoke from nearby natural gas activities ([REDACTED]). He is on O2.

**How Issue Managed:** I gave him the DEP numbers to call when he notices odors so that they can investigate. I also recommended closing windows when odors are occurring and using an air filter that filters small particles.

**Notes:** On 12/15/14 I spoke with [REDACTED] with DEP who will refer this concern to air quality ([REDACTED]) for follow up.

**Number of Cases Affected:** 1

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

**Number:** 75

**CONFIDENTIAL**

**Record Number:**

**Date of Contact:** 12/12/14

**Name/Organization:** [REDACTED] Cannonsburg PA Phone: [REDACTED]  
[REDACTED]

**County:** Washington

**Issue:** odors, noise and vibrations

**How Issue Managed:** Telephone call on 12/12/14 with [REDACTED] who states that the odors were terrible and the drilling noises were horrendous 3 – 4 weeks ago. They live about 2000' from the [REDACTED]. He states that his wife has had headaches for the past 3 – 4 weeks. He states that about 4 months ago his wife was in bed when 3 seismic tests shook the house and caused her to fall out of the bed with no notification. His wife has an appointment with her doctor next week and they will discuss her headaches and her problem with the odors. He states that she is a cancer survivor and is especially sensitive to odors.

**Notes:** I recommended [REDACTED] contact the DEP when odors occur. I also recommended keeping the windows closed when he notices the odors and use an air filtration unit, if possible.

On 12/15/14 I spoke with [REDACTED] with DEP who will refer this concern to air quality ([REDACTED]) for follow up.

**Number of Cases Affected:** 2

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

**Number:** 76

**Record Number:**

**CONFIDENTIAL**

**Date of Contact:** 12/15/14

**Name/Organization:** [REDACTED] Finleyville, PA [REDACTED] Cell [REDACTED]  
[REDACTED] and Home: [REDACTED]

**County:** Washington

**Issue:** [REDACTED] in Finleyville, Washington County reports that he lives approximately 550' from an [REDACTED] well pad and he reports experiencing severe health symptoms when strong odors occurred while walking to the mail box on his property. He states that he almost didn't make it back into the house and when he got inside his face was covered with red spots. He contacted his doctor who said they were a sign of asphyxiation. 5 days later the strong odors occurred again and he stayed in the house. Currently, the odors occur sporadically and primarily at night. I gave him the DEP complaint line to report the odors when they are occurring and asked him to let me know if the symptoms continue. He also reports a rash that his doctor Rx medicine to treat. He states that now the house is vibrating and the noise is disturbing. He keeps a log and the noise level fluctuates between 55 and 85 decibels. He states that the township has an ordinance and he will be following up on the noise with Union Township officials on 12/22/14.

**How Issue Managed:** I encouraged [REDACTED] to report odors to DEP when they occur and that the DOH is available to review any air quality sampling results, if available.

On 12/15/14 I contacted the DEP air quality section regarding the odors.

On 12/16/14 I spoke with [REDACTED] and he stated that there was a strong chlorine odor at 8 p.m. on Sunday 12/14/14. I told him that I conferred with Dr. [REDACTED] regarding the filter of his bipap machine and that the data, if tested, would not be the type that the DOH uses to evaluate exposures.

On 12/16/14 [REDACTED] referred me to [REDACTED] regarding air quality issues and natural gas wells. I forwarded the information to [REDACTED] regarding [REDACTED]'s air quality concerns and the chlorine odor that he reported today that occurred on Sunday evening.

On 12/29/14 Left a voicemail message for [REDACTED] to call me regarding any odor issues.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

**CONFIDENTIAL**

**Number:** 77

**Record Number:**

**Date of Contact:** January 8, 2015

**Name/Organization:** [REDACTED]  
[REDACTED] Williamsport, PA [REDACTED] Phone: [REDACTED]

**County:** Lycoming

**Issue:** Spoke with [REDACTED] on 1/12/15 regarding the Responsible Drilling Alliance work in researching the effects of natural gas drilling and collecting anecdotal reports on possible health impacts from these activities. He offered to provide information on suspected health impacts from the Lycoming county area.

**How Issue Managed:** Dr. [REDACTED] emailed [REDACTED] requesting [REDACTED] forward any information available on health impacts in the Lycoming County area.

**Notes:**

**Number of Cases Affected:** unknown

**Person Reporting Case:** [REDACTED]



**CONFIDENTIAL**

**Number:** 78

**Record Number:**

**Date of Contact:** [REDACTED] Avella, PA [REDACTED]  
**Phone:** [REDACTED] **Street location:** [REDACTED] Avella ([REDACTED])

**Name/Organization:**

**County:** Washington

**Issue:** [REDACTED] lives with her husband who is 82 and has asbestosis. [REDACTED] recently had open heart surgery for a tumor in the heart tissue that was removed and she is concerned that the air quality is going to impact her recovery. Her husband cannot go outside, because of the air quality, he cannot breathe. Both their eyes are "burning" while inside of their home and she is nauseated and gets headaches.

She reports that the air quality has been "horrible" for the past two weeks. She states that the truck traffic has increased greatly. She states they have had problems with the air, water, and their health since 2008. For the last two weeks, they have horrible **air, noise, smells and motors/lights** on all night.

[REDACTED] reports that they have been having problems since 2008. In 2009 Atlas provided water but stopped providing it to them after a while. She was bathing in the water for 6 years and had a rash for six years. She states she was seen by a "skin specialist" who could not determine what was causing the rash. She states that when she stopped using the water while she was in the hospital and rehab, that the rash disappeared and returned when she returned home and began using the water for bathing again. She states that her son bought a water tank and she is no longer using the water. She states that they have many water tests that say the water is contaminated but they were told that it is not related to the natural gas activities.

She states that she has a garden and that within 2 weeks of watering the garden everything they planted died. She took photos of their soil foaming. She states that the soil was tested and it is contaminated but they were told that it is not from the natural gas drilling.

She reports that many neighbors have been sick and I asked her to have them call us, if desired.

**How Issue Managed:**

1/21/15 Email to DEP requesting an evaluation.

**CONFIDENTIAL**

1/22/15 DEP email states they do not have an air complaint from [REDACTED]

1/22/15 T/C to [REDACTED] no answer.

1/23/15 T/C with [REDACTED] I gave her the DEP number to call with odor or other complaints. She states that the South West Environmental Health Project visited her and her husband and installed air monitors and air purifiers on 1/21/15.

2/24/15 T/C to [REDACTED] who states that she has the air monitors provided by the SW Environmental Health Project and that she has been in contact with them because she/they thought they were not working correctly.

She reports calling DEP on 2/20 due to strong odors and that the DEP visited on 2/23 and did not notice odors at that time of their visit. She reports waking about 10 days ago with a headache, nausea, vision problems, and light headedness that worsened so that she went to the ER in Canonsburg. She reports that her EKG was normal, bloodwork was done, and dx with vertigo. She stayed with her sister for 4 days and was fine and the symptoms returned when she returned home Sunday night and awoke Monday morning with strong odors and a headache. Her husband also had a headache. She reports that they live in a hollow and recalled a time last summer when their CO detector went off and when she opened the window it kept going off. I recommended that she continue to report odors when they occur. She reports less truck traffic now but more flaring and fracking.

2/25/15 T/C from [REDACTED] of the SW DEP O&G who stated that DEP does not plan to re-open the investigation and resample the well based on the previous tests the wells were not impacted. I asked that he consider it in this case since health effects continue to be reported and increased activities are occurring at the nearby natural gas well sites.

3/24/15 T/C from [REDACTED] who states that the odors were strong about two weeks ago and that she and her husband continue to experience symptoms that they relate to the odors. She states that her air monitor from SWEHP was reading in the 300 range. She states that she contacted the DEP but they did not respond as far as she is aware. She did state that the [REDACTED] Fire Company responded and she was told that they did not record any air quality readings at an unsafe level. She did not know what they tested for. She states that her husband has been tired, weak and short of breath. I recommended that he contact his family doctor to discuss any changes in his condition. Shirley also reports being tired and at times dizzy. She reports she is seeing her doctor tomorrow.

3/24/15 T/C to [REDACTED] Fire Department and spoke with [REDACTED] who states that an odor complaint from [REDACTED] was responded to earlier this month. The "CO reading was 0, the LEL was 0, and the hydrogen and oxygen levels were both normal."

**CONFIDENTIAL**

3/24/15 T/C to [REDACTED] to discuss odor concerns and whether or not they did or can evaluate.

3/26/15 T/C to [REDACTED] with results of fire department testing and informed her that DEP has not agreed to resample her water at this time. She will send me the other water quality test results that she has when she gets a chance. She mentioned that others in her community have health complaints and I informed her that we are interested in speaking with anyone with health concerns. She states that many people signed nuisance agreements but she will give them our number. She reports that two neighbors have been diagnosed with cancer: one with stomach and lung cancer another with cervical cancer.

4/14/15 Telephone call from [REDACTED]. She states that the air is still "bad". When asked, she states that there are intermittent odors. She states that the readings on her SPECK monitor are in the 30 range which is precautionary but not as high as in the past. She states that on April 9<sup>th</sup> she had a headache and the reading was 30. She states that on April 7<sup>th</sup> her husband worked in the yard and the soles of his shoes fell off afterwards. He was very sick (exhausted) on Tuesday night. She requested we visit to review her environmental sampling data since there is a very large amount of testing and she does not know what we need and is not able to copy all of the records. Plan: scheduled site visit on 5/7/15.

4/16/15 T/C to [REDACTED], PADEP Air Quality, Southwest District office. [REDACTED] states that the DEP inspector, [REDACTED] investigated odor complaints for [REDACTED] and was not able to verify the odors at his visit(s). [REDACTED] will send the inspection report for our records. He also stated that [REDACTED] may contact [REDACTED] at [REDACTED] or [REDACTED] at [REDACTED] when odors are occurring.

4/17/15 T/C to [REDACTED] and gave her the DEP contact info per [REDACTED].

**Notes:**

**Number of Cases Affected: 2**

**Person Reporting Case: [REDACTED], MPH, BSN, RN**

**Number: 79**

**CONFIDENTIAL**

**Record Number:**

**Date of Contact:** 1/22/15

**Name/Organization:** [REDACTED] Avella, PA  
**Phone:** [REDACTED]

**County:** Washington

**Issue:** 1/22/15 [REDACTED] 56 y.o., and her 93 y.o. mother report symptoms associated with the odors from the nearby natural gas activities. She reports that she has a history of a stroke. She states that it is "gassy (odors)" today and that she has a headache and that she has to sleep sitting up so she can breathe. She does not use the well water and that her well "caves" in when the fracking activities are occurring. She states that she has 4 years of water tests.

1/23/15 [REDACTED] called to say that there is a strong sewage odor in her mother's home and she is taking her mother who has nausea and vomiting to the doctor for a medical evaluation. I asked her to report the odors to PADEP, when possible and to let us know how her mother is doing, when able.

1/27/15 [REDACTED] states that her mother is doing better. She states that her mother was evaluated and treated. She was treated for dehydration. She states that she contacted DEP and that she was not aware of them conducting a site visit. She states that the activities have decreased and with that the odors lessened. She states that instead of flaring, they are heating the gases and then releasing into the air. She states that the neighbor's dog had seizures. She reports that other neighbors are complaining of headaches and that their feces turns yellow when the odors are occurring. She states that her water buffalo was donated and that it freezes up when cold outside so she cannot use it but fills jugs of city water for ingestion. She states that she would like the health department to review her water quality reports.

She also reports that when it snows the snow initially forms balls, she and the neighbors call "frack balls" that are the size of a small hail ball and round. She feels it is the precipitation forming around the particulate in the air. It lasts for about the first 20 minutes of a snow event.

**How Issue Managed:** Referred to DEP to report odors.  
Referred to family health care provider as needed.

**Notes:** 1/23/15 Email to DEP, [REDACTED]

**CONFIDENTIAL**

2/9/15 received water quality reports from DEP

2/23/15 Following a review of the water quality reports, sent email to DEP requesting a resampling to include VOCs and metals for both [REDACTED] wells since they report health effects and odors and VOCs and metals have not been collected in the reports that DEP provided for our review.

Reviewed the 12/7/09 and 5/16/15 DEP water quality reports with Dr. [REDACTED]. The total coliform = 6 and the Manganese level was in the range were we recommend a child less than 32 pounds use bottled water for ingestion or for preparing formula. This should not be an issue at this time since the resident reports using bottled water for ingestion. However, if they decide to use it in the future for drinking, they should shock chlorinate the well to treat the bacteria.

2/25/15 T/C from [REDACTED] of the SW DEP O&G who stated that DEP does not plan to re-open the investigation and resample the wells - based on the previous tests the wells were not impacted from natural gas activities. I asked that he consider it in this case since health effects continue to be reported and increased activities are occurring at the nearby natural gas well sites.

3/26/15 Left voicemail to call us.

4/17/15 Response letter from Dr. [REDACTED] sent on the water quality test results that the DOH reviewed.

**Number of Cases Affected: 2**

**Person Reporting Case:** [REDACTED] MPH, BSN, RN

**CONFIDENTIAL**

**Number:** 80

**Record Number:**

**Date of Contact:** 2/3/15

**Name/Organization:** [REDACTED] Jeannette, PA [REDACTED]  
[REDACTED]

**County:** Westmoreland

**Issue:** Proposed natural gas development near the personal care home

**How Issue Managed:** T/C from [REDACTED], Community health systems. She states the Bureau of Community Health Systems Director is handling this concern.

**Notes:**

**Number of Cases Affected:**

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

**CONFIDENTIAL**

**Number:** 81

**Record Number:**

**Date of Contact:** 2/4/15

**Name/Organization:** [REDACTED] Easton, PA

**County:** Northampton

**Issue:** Reports odors at her home located [REDACTED] from the [REDACTED]  
Compressor Station.

**How Issue Managed:** Contacted through ATSDR R3.  
Contacted PADEP who is investigating the complaint for further  
information.

3/9/15 email from [REDACTED], DEP Air Quality NE Region:  
"we did respond and did detect odors but have not taken any action. We're waiting to receive more  
information from the company related to their operations at the facility. We did find out that they are  
having periodic shutdowns which require release of gas."

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:** [REDACTED] MPH, BSN, RN

**CONFIDENTIAL**

**Number: 82**

**Record Number:**

**Date of Contact:** 2/9/15

**Name/Organization:** [REDACTED], [REDACTED]  
(via whitepages.com: [REDACTED] Montoursville, PA [REDACTED] Phone:  
[REDACTED] Cell: [REDACTED])

**County:** Lycoming

**Issue:** "[REDACTED] and I made an effort on Saturday to get to [REDACTED]. We were not successful. The road up the mountain was in great shape, until we got to the compressor station and all the well heads at the top of the mountain. We were then going to try to walk in for a while, but the odor from the station was so bad we could not even get out of the car, we literally ran away the first time we got near. We then aired out the car, rolled up the windows, turn on the recirculator and went back to take some pics. I have never been so overwhelmed by an odor in my life. I was stunned. I could not have made it five minutes standing within 500 yards of whatever was producing those noxious, I am assuming it was the compressor. If anyone knows anyone looking for a good place to take some air quality readings try there.

"3/9/15 [REDACTED] investigated the site on 02/19/15 and there were no odors detected. The facility representative informed us that they stopped operation for the next several months (for market reasons). The complainant was originally interviewed on 02/07/15 and then contacted on 02/24/15 to be given an update on our findings. No further action needed.

[REDACTED] | Air Quality District Supervisor  
Department of Environmental Protection | Air Quality  
North Central Regional Office"

**How Issue Managed:** 9/10/15 Reported to DEP NC Oil and Gas Program.

**Notes:**

**Number of Cases Affected:** 2

**Person Reporting Case:** [REDACTED], MPH, BSN, RN



**CONFIDENTIAL**

**Number:** 83

**Record Number:**

**Date of Contact:** 2/24/15

**Name/Organization:** [REDACTED] Finleyville, PA [REDACTED]

**Phone:** [REDACTED] or [REDACTED]

**County:** Washington County

**Issue:** Referral from EPA #1727469 reporting Diesel fuel smell in home. Health issues associated with daily smells, some acidic in odor and taste.

**How Issue Managed:** T/C to [REDACTED] on 2/24/15 and 2/25/15 and left a voicemail message. No response to date.

**Notes:**

**Number of Cases Affected:** 1

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

**CONFIDENTIAL**

**Number:** 84

**Record Number:**

**Date of Contact:** 3/4/15

**Name/Organization:** [REDACTED] Montrose, PA Phone: [REDACTED]

**County:** Susquehanna

**Issue:** [REDACTED] – under evaluation with health care provider for kidney and urinary problems

8 children – with nausea and vomiting, stomach cramps and skin rashes that they associate with showering and drinking of their well water since 2008 and shortly after natural gas drilling began near their home. They noticed chemical odor in their water since 2008. She reports that DEP and possibly EPA have collected water quality tests in the past. She also reports that her family doctor is evaluating these problems and collected bloodwork but the results were lost. She reports that they are using spring water for ingestion and showering in the well water.

**How Issue Managed:** 3/24/15 Reviewed water quality reports with Dr. [REDACTED]. Recommended resampling for methane, and possibly VOCs and metals since drilling operations are ongoing in the area. Also, [REDACTED] may want to sample the source of her spring water (if the water quality is not known) and she may want to consider a consultation with an occupational/environmental physician.

3/25/15 Requested DEP to resample well, if possible.

4/9/15 DEP states that they will not be resampling the well based on current request. Inquired as to whether or not DEP can sample spring water and they will check into it.

4/16/15 Sent response letter by Dr. [REDACTED].

**Notes:**

**Number of Cases Affected:** 9

**Person Reporting Case:** [REDACTED], MPH, BSN, RN

**CONFIDENTIAL**

**Number: 85**

**Record Number:**

**Date of Contact:** [REDACTED] Shelocta, PA [REDACTED]  
Phone: [REDACTED]  
e-mail: [REDACTED]

**Name/Organization:**

**County: Armstrong**

**Issue:** Lives with 36 y.o. husband and 2 children, 2 and 6 years old. Reports that on 2/12/13 there was natural gas well activity near their home and 2 months later she developed stomach problems. Additional fracking occurred 3000' from their home finishing in October 2014. On October 23, 2014 she noticed a change in the taste of their well water. She reports stomach problems, fatigue, and feeling like she was going to collapse from February 2012 to October/November of 2014. Following the installation of an osmosis and carbon treatment filter in November her symptoms have improved. She also reports being seen by her family doctor and that her "bloodwork" was normal. She states that the DEP collected water quality samples in February and March of 2015 and that she will send the reports to the DOH for evaluation.

4/13/15 Reviewed lab tests and DOH letter with Dr. [REDACTED].

4/17/15 T/C with Dr. [REDACTED] and [REDACTED] to discuss our findings and answer her questions. She added that the home's water treatment includes an ultraviolet filter and that the osmosis unit treats only the water used for cooking and drinking at the kitchen sink. She also commented that her GI issues began in February 2013 following delivery of her daughter and also that in 2013 her infant daughter was dx with gastric reflux. We referred her to her family health care provider regarding any possible long term effects to drinking the water when it had elevated chloride levels.

4/17/15 Response letter sent by Dr. [REDACTED].

4/28/15 Email from [REDACTED] regarding the letter. T/C with Dr. [REDACTED] to explain the meaning of "secondary drinking water standards". She was appreciative of the call and will have her husband call if he has any additional questions.

**How Issue Managed:**

**Notes:**

**CONFIDENTIAL**

**Number of Cases Affected: 4**

**Person Reporting Case: Dr. [REDACTED]**

**CONFIDENTIAL**

**Number:** 86

**Record Number:**

**Date of Contact:** 4/6/15

**Name/Organization:** [REDACTED] [REDACTED] Granville  
Summit, PA [REDACTED] Phone: [REDACTED]

**County:** Bradford

**Issue:** [REDACTED] reports that the gas company tested well water 3 weeks ago and they were told the barium, manganese and strontium levels are elevated and referred to family doctor for blood testing.

Their home is located about ½ mile from the [REDACTED] natural gas well. [REDACTED] (55 y.o.) and her son [REDACTED] (18 y.o.) moved in with the [REDACTED] in January 2014. They have been drinking bottled water since they moved in except for coffee and cooking. She boils the water used for cooking. They are showering with the well water. She states that [REDACTED] (43 y.o.) has lived there with his two sons, [REDACTED] (16 y.o.) and [REDACTED] (18 y.o.) for a long time and that the two sons spend every other week with their mother. She states that she travels out of town every other week also. She reports that her husband works at a [REDACTED] facility in Towanda, formerly [REDACTED] now [REDACTED]. He has worked there his "whole life" and has an annual physical to evaluate cobalt and tungsten exposure. He reportedly changes his clothes at the facility prior to coming home. He was dx last year with asthma and sleep apnea. They grow their own garden crops for subsistence. Reports watering garden with well water.

She states that the well was drilled in 2010 and that several neighbors quickly moved away after the drilling. She states that none of the neighbors has discussed their water quality with her.

**Barium blood levels:** [REDACTED] (55 y.o.) = 53 mcg/L. Symptoms began in July 2014 include the following: severe GI symptoms, swollen lymph node, severe R sided headache. Hospitalized in October 2014 with GI pain and dx with bowel obstruction, possible Chrones's disease. She reports being followed by a GYN, Internal medicine and GI specialist for her medical problems.

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██████████ (43 y.o.) = 89 mcg/L. Dx with asthma and sleep apnea last year.

██████████ (16 y.o.) = 59 mcg/L. Elevated BP.

██████████ (18 y.o.) = 61 mcg/L. Elevated BP.  
States ██████████ does drink well water.

██████████ (18 y.o.) Elevated BP.

**How Issue Managed:** Requested a copy of the bloodwork and well water testing results. Recommended that they do not use well water for consumption, including cooking. Stated that we would review the test results with Dr. ██████████ and get back to them. Received 1/4/12 water quality report and blood test results for barium except for ██████████. Also received CBC results for all family members.

4/9/15 Requested a copy of the recent water quality results from DEP.

4/9/15 Email from ██████████ reports preliminary barium from the 3/23/15 sample is 0.321 mg/L and he will forward the final results, when available.

4/9/15 T/C with ██████████ to ██████████. Discussed that our toxicologist review of the serum barium levels and the results are in the normal range as well as the preliminary DEP water quality test results. We will await final results. ██████████ is concerned that chronic serum barium levels may cause the symptoms over time and I referred her and or her physician to our toxicologist or Dr. ██████████ (occupational and environmental medicine physician). I also recommended that her finance consider contacting OSHA concerning his asthma diagnosis and possible exposure at the worksite. I recommended that the family follow up with their primary health care provider for their symptoms and the abnormal bloodwork (CBC and diff and other tests).

**Notes:** Contacted Dr. ██████████ with barium level for his review. As per his review, The barium levels in the blood as reported for the 4 family members to date do not exceed the normal range (Schonwald, Boston Medical Center; Glouster, Cleveland Clinic; and Friberg, Handbook of Toxicology of Metals). The family members should follow up with their primary care provider as needed for the symptoms and other abnormal blood test results (CBC, liver profiles, etc.).

4/14/15 Email from ██████████ stating that her son's, ██████████, barium serum came back at 150 mcg/L. She also states that all the boys have elevated blood pressure and have periodic bloody noses multiple times a week. ██████████ called ██████████ and stated that level was within the reported normal range and not likely to be causing the symptoms that were reported to the DOH. However, she and/or her physician are welcome to contact ██████████ for a second opinion. She stated that she was at work and will return our call at another time.

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4/16/15 Response letter sent by [REDACTED]

4/24/15 Dr. [REDACTED] spoke with [REDACTED] regarding her son, [REDACTED] blood barium level.

4/25/15 T/C to [REDACTED], left voice mail message to call DOH, if she has additional questions or concerns.

**Number of Cases Affected: 5**

**Person Reporting Case:** [REDACTED]