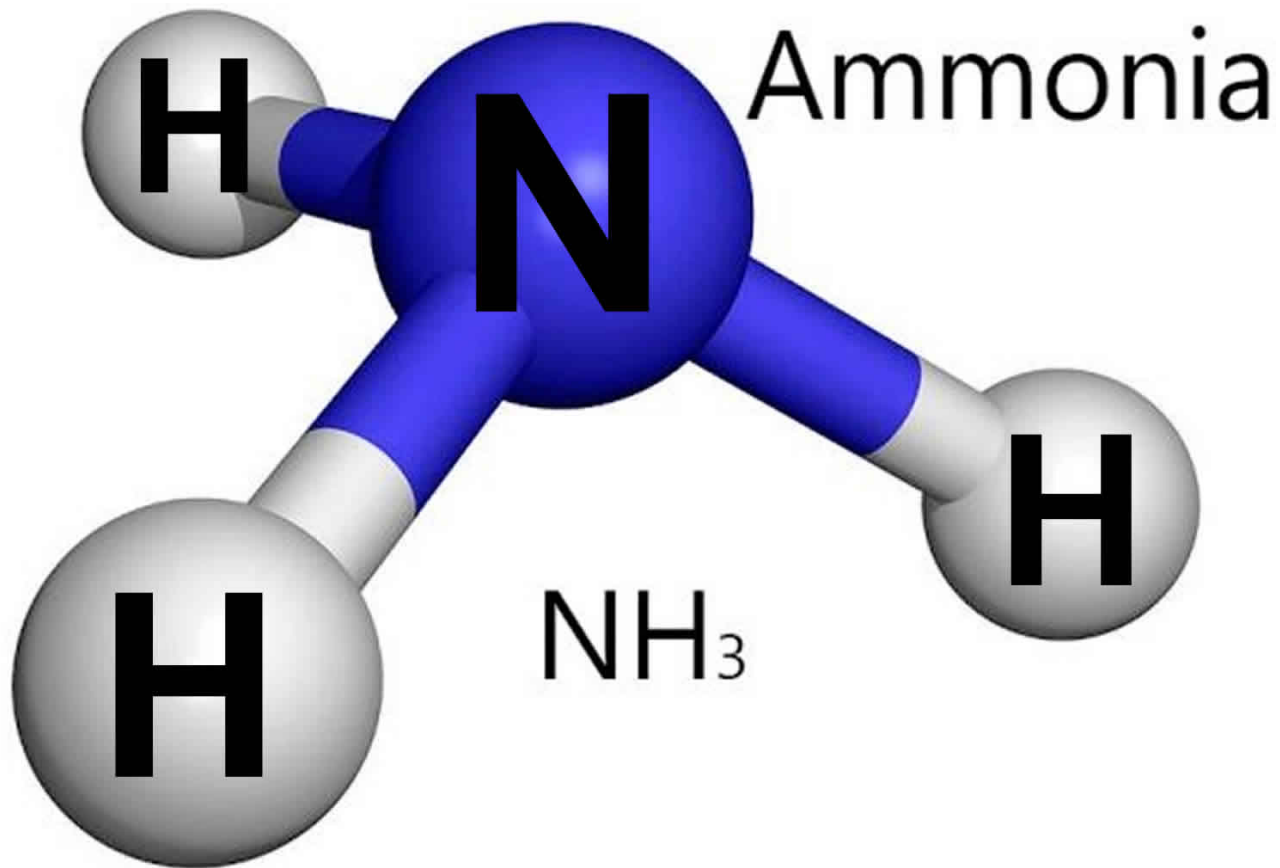


# Illicit Discharge



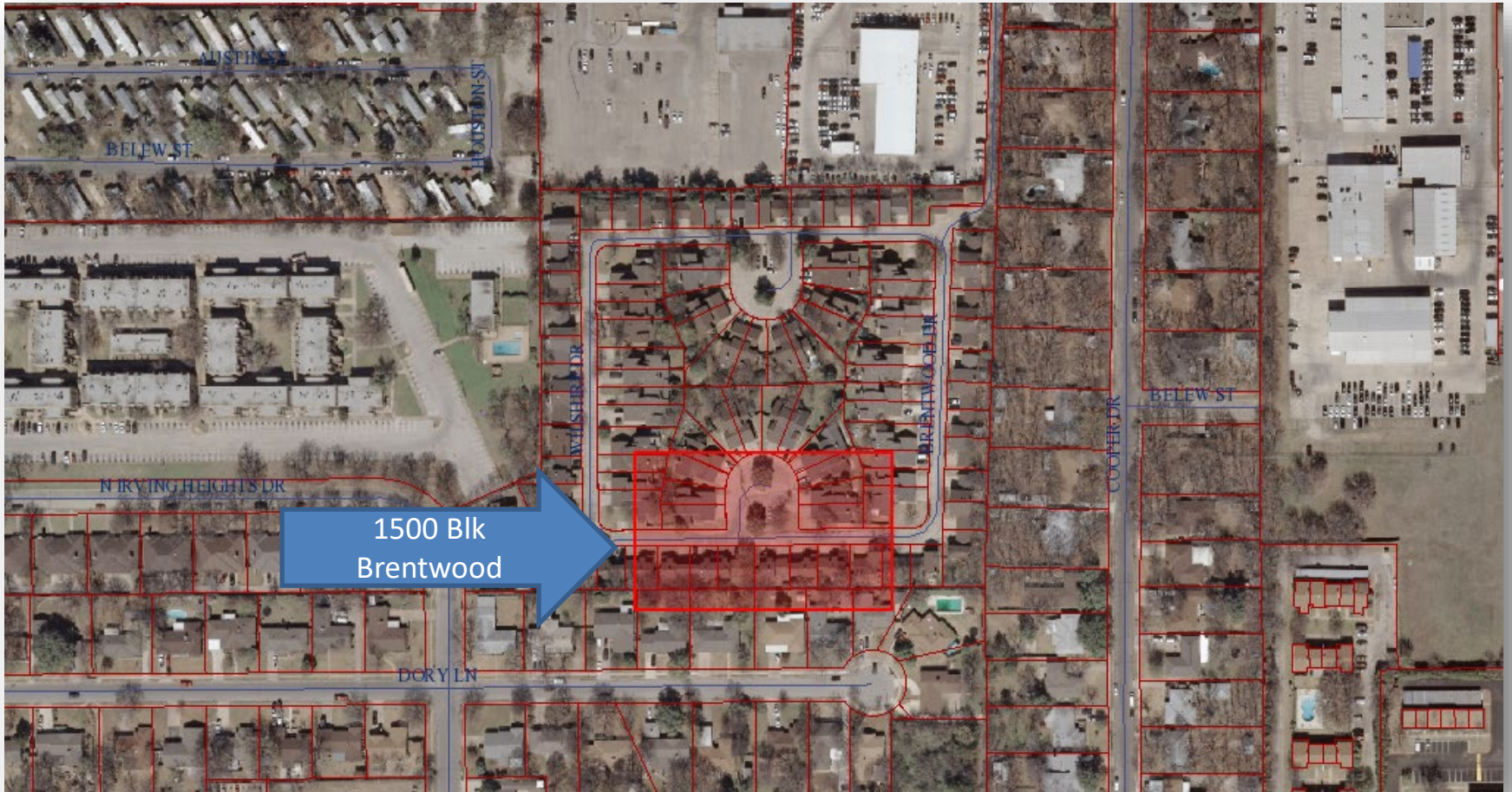
# IDDE

- Received a call from the Irving Fire Department about a heavy ammonia smell coming from a storm drain inlet box at the 1500 blk of Brentwood Dr.



- This is a residential area with some light commercial North of the neighborhood.

# IDDE



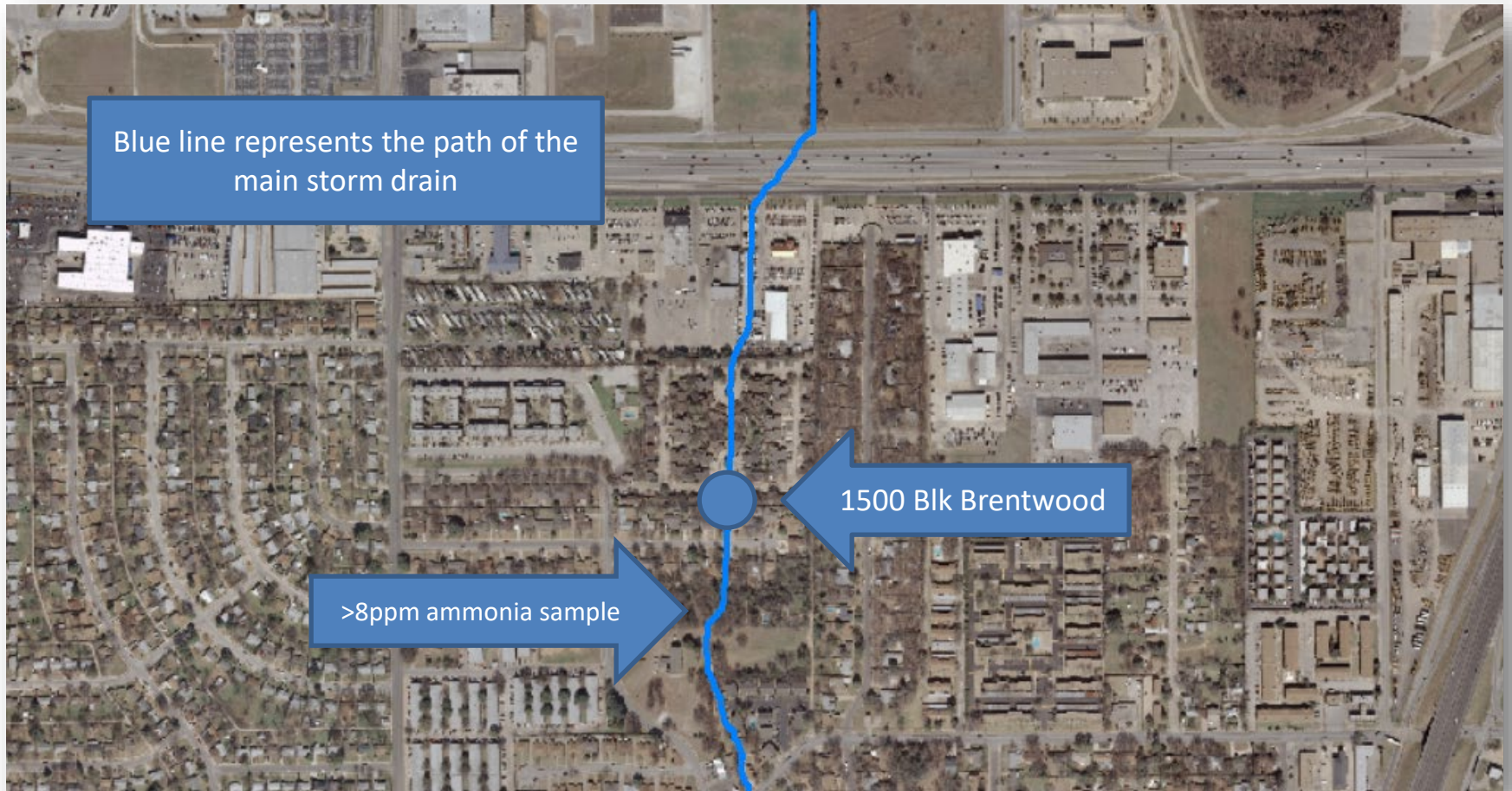
# IDDE

- Upon arrival, we noticed a smell that smelled just like smelling salts.
- We referred to our storm drainage maps to determine where it could be coming from.
- South of the neighborhood, the creek is accessible so we took a ammonia test with a HACH test kit and the results were off the charts.  
>8ppm





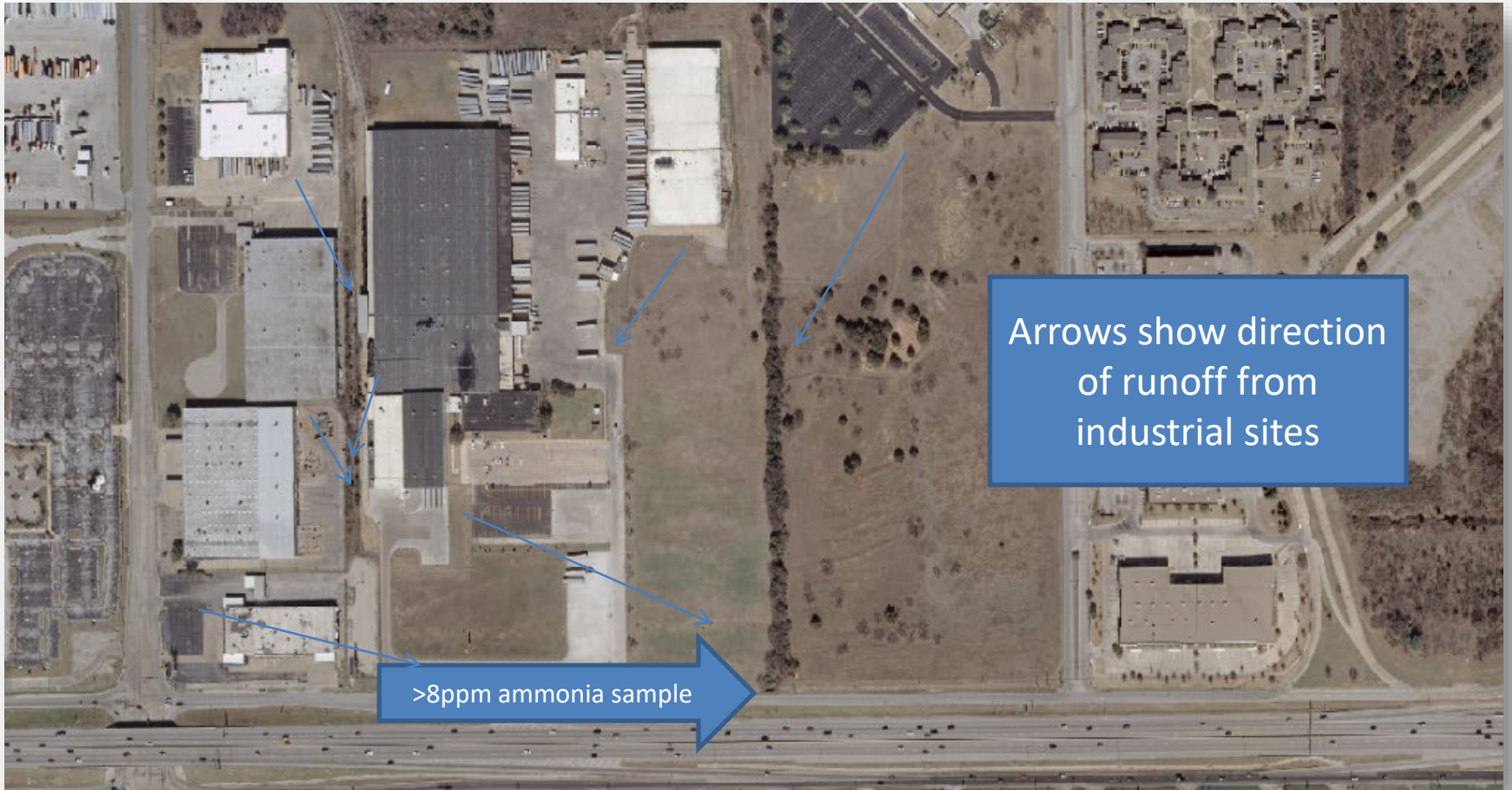
# IDDE



# IDDE

- We began to trace upstream following our maps, and noses, popping manholes looking for the source.
- On the North side of Airport Frwy, we found a area where the runoff from several industrial complexes enters the main stem of this storm drain system.
- Ammonia readings were taken at this location with off the chart readings.

# IDDE



Arrows show direction of runoff from industrial sites

>8ppm ammonia sample

# IDDE

- The source of the ammonia was quickly traced to a beverage company.
- Irving FD was called to our location and Irving's FD Hazmat team responded.
- Contact was made with employees of the Industry and the Hazmat team made entry to find a source.



# IDDE

- There was also a heavy ammonia smell in the sanitary sewer system so members of Irving's pretreatment team responded to the scene.
- While the hazmat team searched inside, we searched the perimeter of the industry and this is what we found.

# IDDE





# IDDE



# IDDE

- The Industry was doing maintenance on their refrigerant system and had to empty the ammonia from the system.
- Failed procedures caused a drum to overflow and enter the MS4.



# IDDE



# IDDE

- The Industry had a environmental cleanup company clean the spill. The spill was contained and remediated throughout the night.
- A citation and a compliance order was issued to the Industry.

# Questions?



Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning.

(Winston Churchill)

izquotes.com

# Links about NH<sub>3</sub>

- [https://www.epa.gov/sites/production/files/2015-05/documents/accident\\_prevention\\_ammonia\\_refrigeration\\_5-20-15.pdf](https://www.epa.gov/sites/production/files/2015-05/documents/accident_prevention_ammonia_refrigeration_5-20-15.pdf)
- <https://www.tceq.texas.gov/assets/public/implementation/tox/dsd/final/ammonia.pdf>
- <https://agrilifeextension.tamu.edu/library/farming/preventing-theft-of-anhydrous-ammonia/>





The background is a light blue gradient with several realistic water droplets of various sizes scattered across the surface. The droplets have highlights and shadows, giving them a three-dimensional appearance.

# COMPLAINT ABOUT OIL SPILL

FIRE DEPARTMENT FIRST ON THE SCENE

# OIL SPILL?





# OIL SPILL?





# FIRE DEPARTMENT TEST STRIPS SHOWED NO HYDROCARBONS

- PH TEST STRIPS SHOWED A LOW PH AROUND 6
- VISCOSITY WAS VERY THIN UNLIKE OIL
- SMELLED UNLIKE OIL AND MORE LIKE DECAYING ORGANIC MATTER

**BUT FROM WHERE?**





# UNDER THE PLAYGROUND?





**RAIN CAUSED? YES!  
A STORM POURED .45" OF RAIN THAT MORNING**

**FRESH NEWLY PLACED MULCH HAD TOO MUCH TO DRINK  
AND LEACHED ALL THE DYE IN THE MULCH**





**WE VACUUMED UP ALL THE RUNOFF JUST ABOVE A  
STORM INLET. CASE STUDY CLOSED. NICE FISH!**

