

An aerial photograph of an industrial facility, likely a refinery or chemical plant, showing a large fire burning in the center. A massive, dark plume of smoke rises from the fire, obscuring part of the sky. The facility is filled with numerous white storage tanks and various industrial structures. In the background, a body of water is visible with a large red ship docked. The text "ITC DEER PARK DISASTER" is overlaid in white, bold, sans-serif font across the middle of the image.

ITC DEER PARK DISASTER

LONE STAR LEGAL AID

ENVIRONMENTAL JUSTICE TEAM

APRIL 2, 2019

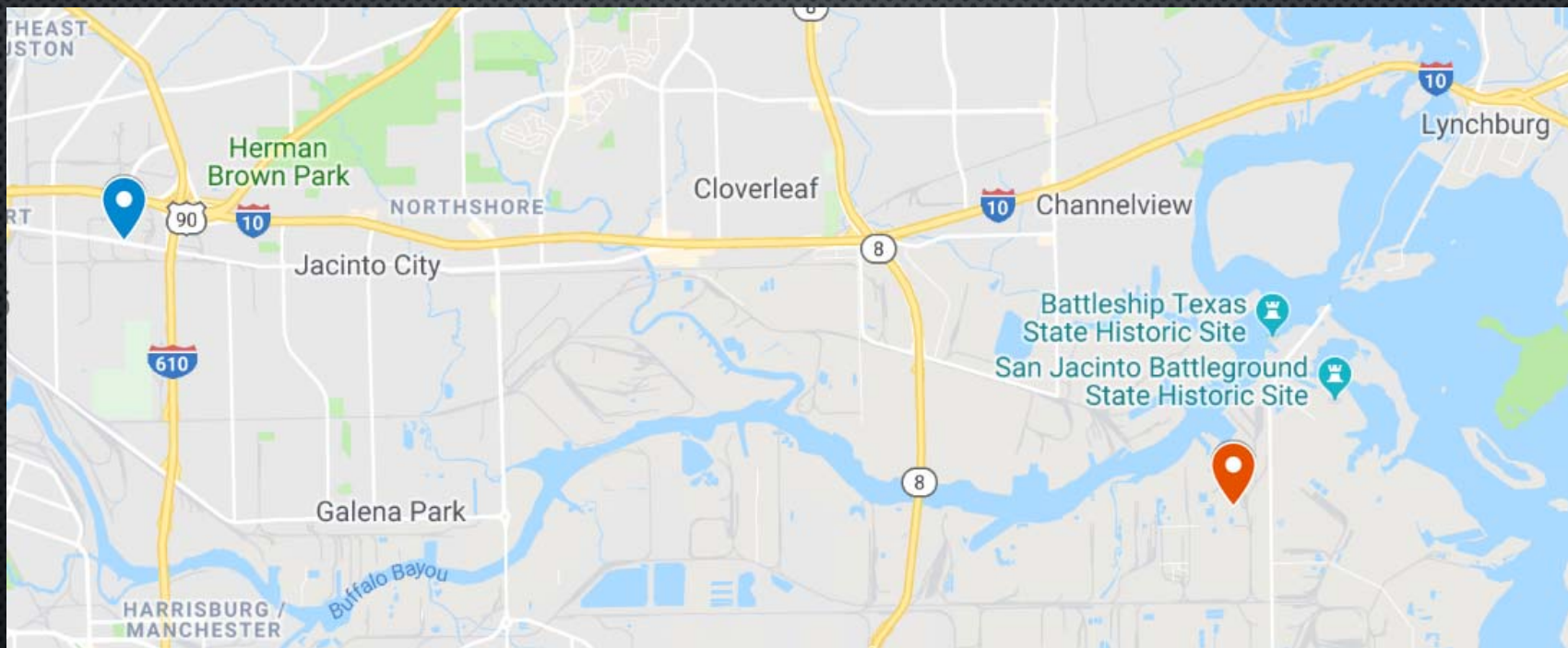
INTERCONTINENTAL TERMINALS COMPANY (ITC) DEER PARK

- The ITC Deer Park terminal started in 1972 and currently has 13.1 million barrels of capacity in 242 tanks.
- It stores all kinds of petrochemical liquids and gases, as well as fuel oil, bunker oil and distillates.
- The terminal has five ship docks and ten barge docks, rail and truck access, as well as multiple pipeline connections.



PLEASANTVILLE: RELATION TO ITC DEER PARK

@16 MILES AWAY



DAY ONE: SUNDAY, MARCH 17

@10:22AM – Fire Starts in one tank: 80-8.

@3:30PM – Naptha is in the tank on Fire; Shelter in place issued for Deer Park.

@7PM – Two tanks with Naptha (80-8) and Xylene (80-5) on fire. Deer Park residents asked to stay indoors.

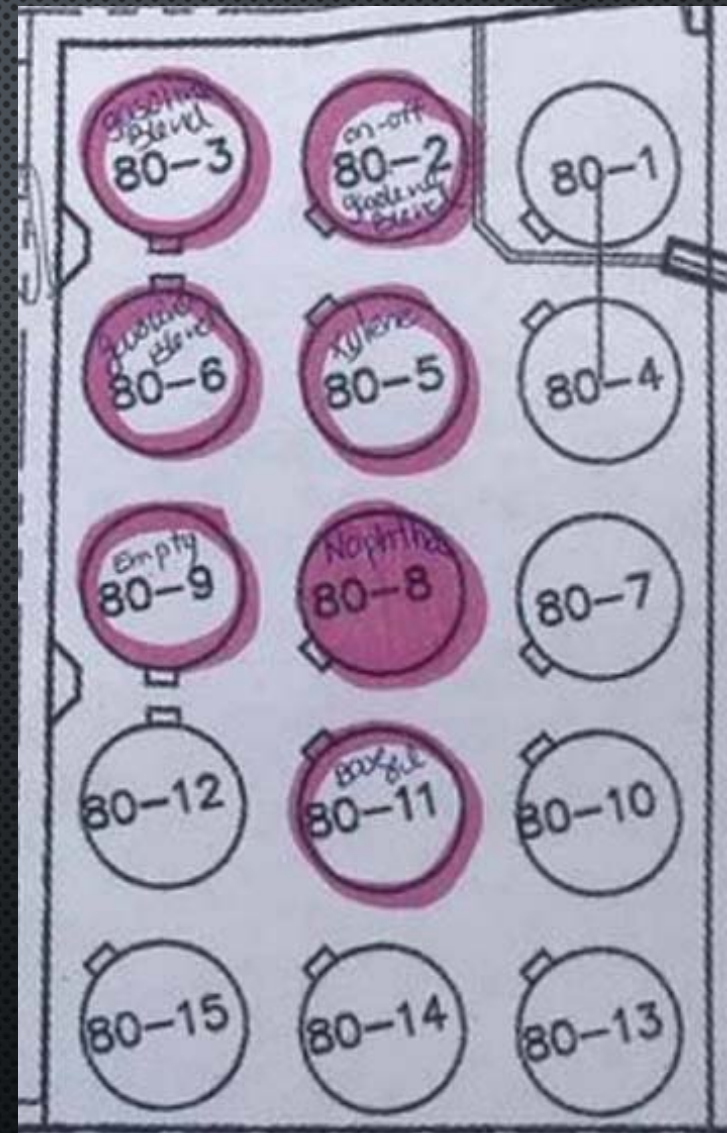
SHELTER IN PLACE #1 ISSUED



March 18

@1:30AM – Fire has spread to 5 more tanks. New tanks contain gas blend stocks (used for gasoline) and base oil used for machine lubricants.

Residents in Deer Park encouraged to stay indoors; Per ITC - chemicals not detected offsite.



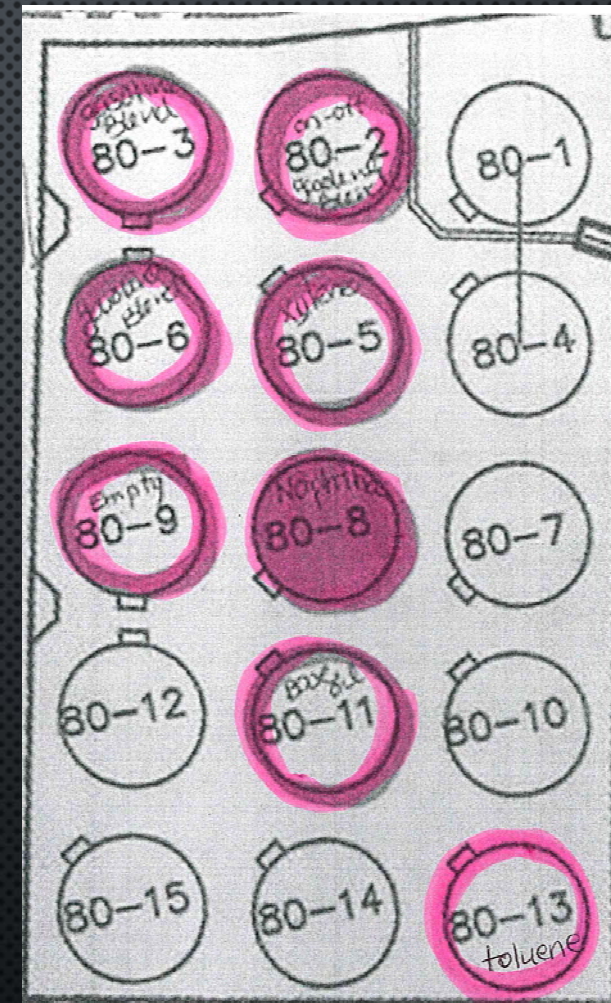
DAY TWO: MONDAY, MARCH 18

@5:30AM – Fire spreads to another tank (#8) containing toluene.

- VOCs detected 6 miles SW of facility
- Low levels of particulate matter

@10AM – ITC issued consultant's report on environmental conditions; states no public health risk based on current readings

@10PM – ITC sets up website to submit claim forms <https://itcclaims.com>.

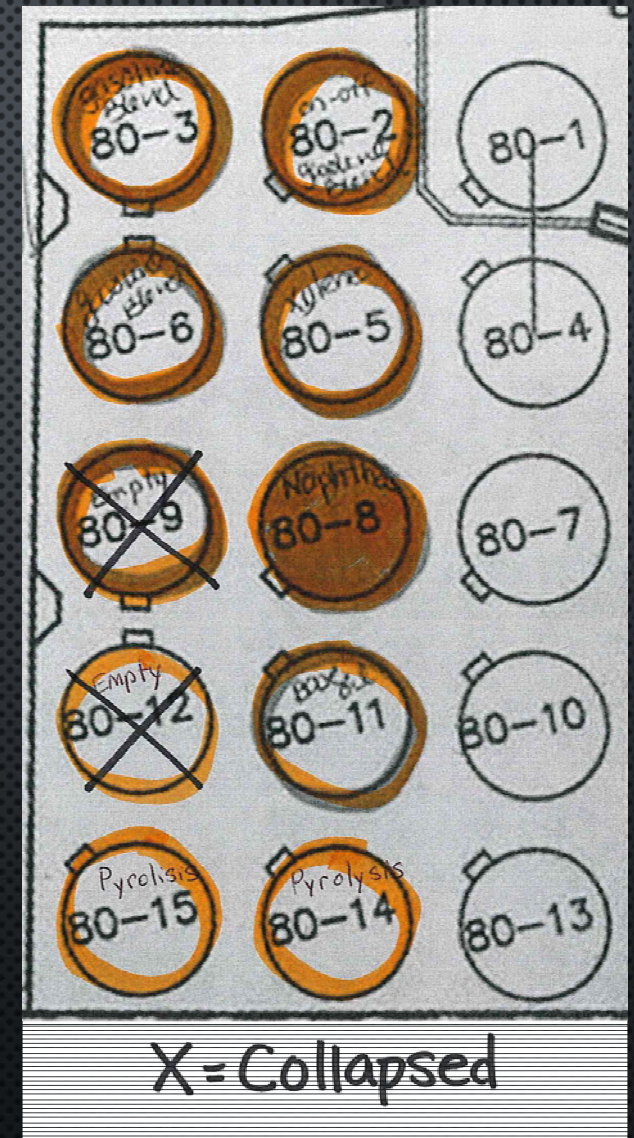


DAY THREE – TUESDAY AM

@2:30AM – Fire in 8 tanks intensifies overnight due to lack of water pressure; ITC still communicates “no risk” to public

@10AM – Fire spreads to 2 more tanks containing Pyrolysis Gasoline or Pygas (10 Tanks). 2 empty tanks collapsed.

- No public health concern
- Contact your health care professional



DAY THREE: TUESDAY, MARCH 19, PM

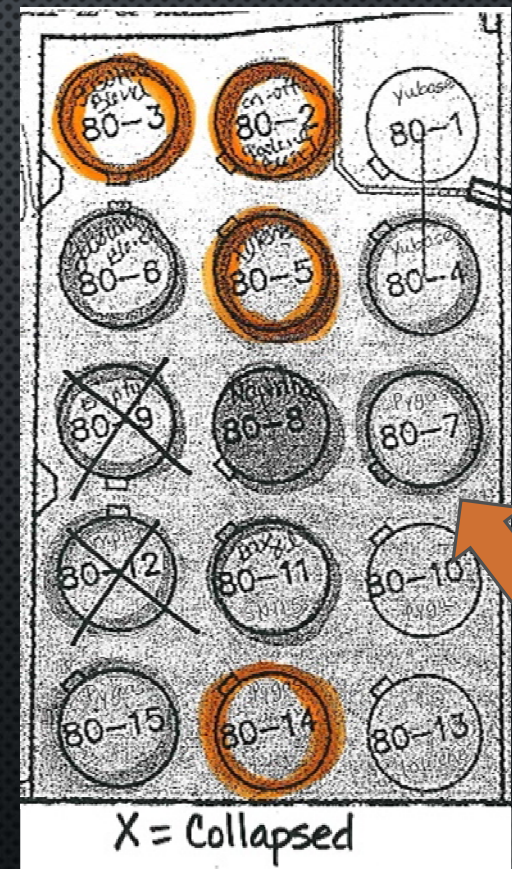
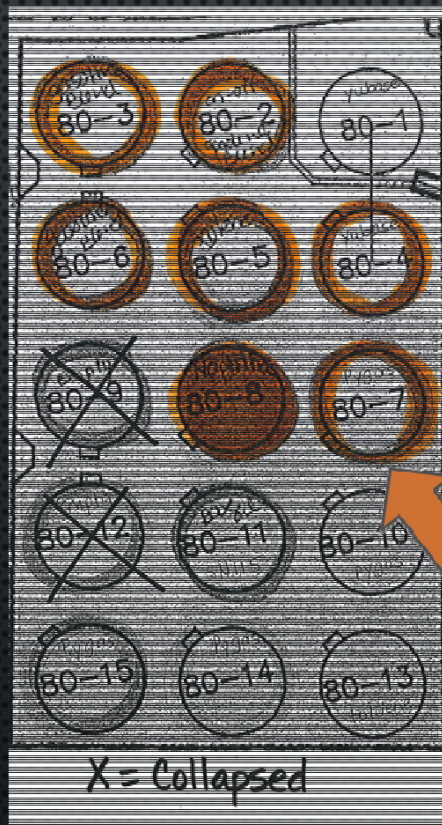
@4pm – 7 Tanks on Fire:

80-2, 80-3, **80-4**, 80-5, 80-6,
80-7, and 80-8.

8 tanks are not on fire: 80-1,
80-9, 80-10, 80-11, 80-12, 80-13,
80-14 and 80-15.

@10pm – 4 Tanks on Fire:

80-2, 80-3, 80-5, and 80-14.
NOT 80-7



DAY FOUR: WEDNESDAY, MARCH 20

@3AM – All fires in all tanks are out.

@10AM - Shell Deer Park - north of the city limits – reports elevated benzene readings.

@5:20PM – One tank reignites, but extinguished by 6:30pm.



DAY FIVE: THURSDAY, MARCH 21

@4:49am - Shelter-in-Place #2 issued for the City of Deer Park following reports of action levels of benzene or other volatile organic compounds (VOCs) within city limits.

ITC: "These levels are below those that represent an immediate risk."



WHERE DID THE BENZENE COME FROM?

- Tank 80-7 was packed with a possible 4.4 million gallons of pyrolysis gas, a fuel blend containing benzene, xylene and toluene, among other compounds.
- ITC says the roof of the tank collapsed during the fire, leaving the 'pygas' exposed to the elements.
- Early Thursday morning, long after the fire was out, there were at least 2.2 million gallons left in the tank.



DAY SIX: FRIDAY, MARCH 22

MARCH 22

10AM – ITC begins moving product from the comprised tanks.

- This process involves submerging a pump under the foam, into the pyrolysis gasoline (pygas) contained within tank 80-7.
- Given the potential for elevated VOCs, it was important to monitor air quality.



DAY SIX: FRIDAY, MARCH 22

@12:15PM – ITC discovers a partial breach of the tank farm secondary containment wall on the northside near Tank 80-7.

- Breach was 10 feet wide
- Foam and Pygas were released into the ditch that runs East to West on Tidal Road.



Shelter-in-place issued for industrial neighbors and the areas adjacent to the Battleship Texas and the San Jacinto Monument State Park.



DAY SIX: FRIDAY, MARCH 22



U.S. Coast Guard closes a portion of the Houston Ship Channel between Tucker Bayou and the San Jacinto Monument because of the breach of the tank farm secondary containment wall on the northside near Tank 80-7.

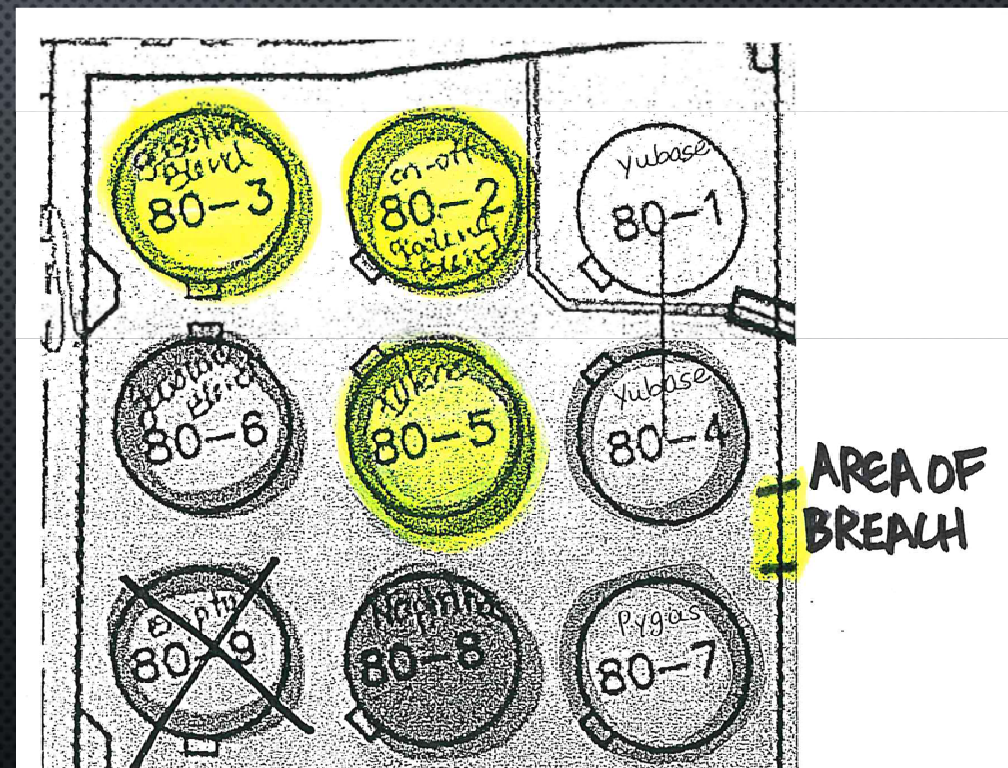
DAY SIX: FRIDAY, MARCH 22

@3:45PM - Fire reignites on tanks 80-2, 80-3 and 80-5.

The fire spread to the liquid that had escaped through the containment wall into the ditch.

Firefighters on scene responded immediately by placing foam on the fires, extinguishing the flames at approximately 4:45 p.m.

High levels of benzene recorded at 207 ppb. Shelter-in-place issued.



DAY SIX: FRIDAY, MARCH 22

@4PM - High levels of benzene recorded at 207 ppb.

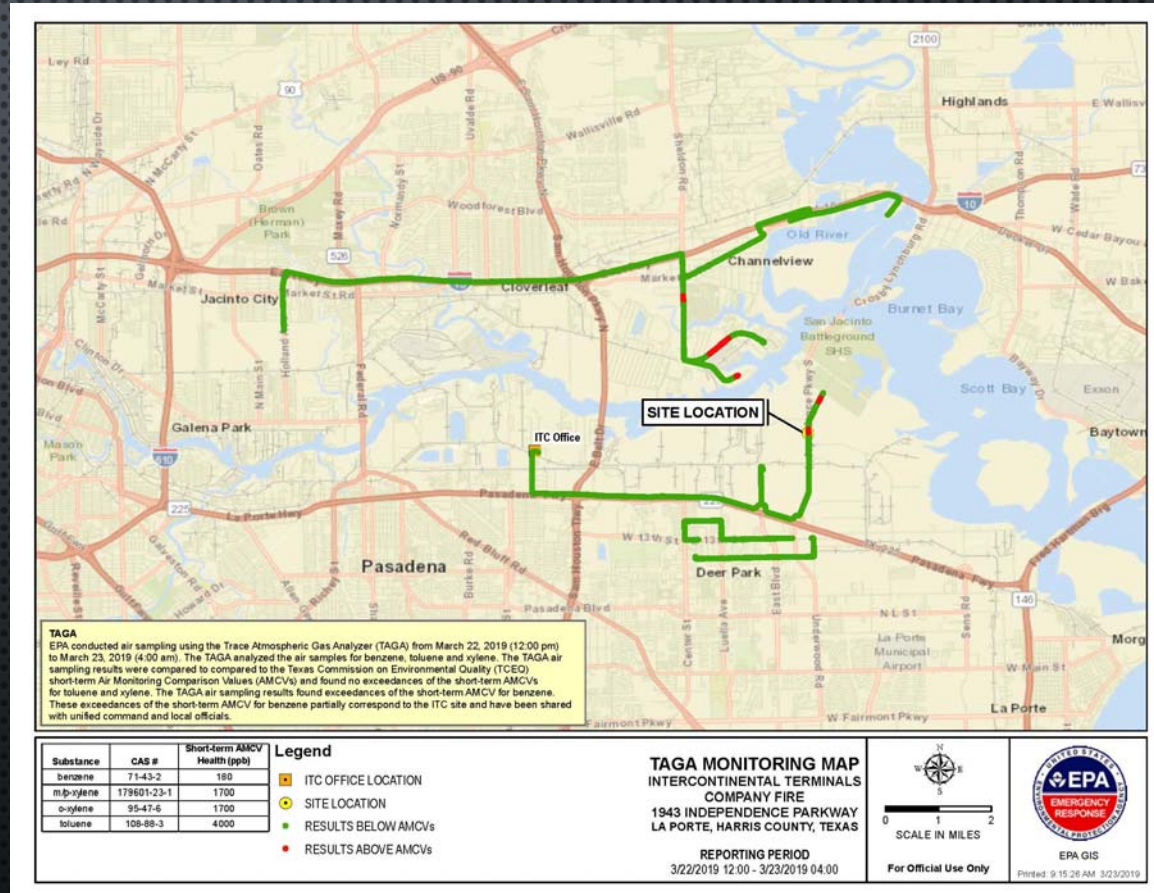
Shelter-in-place issued (#3)

@5PM - Readings of 1,000 ppb of benzene on Peninsula Street near Buffalo Bayou.

@6PM - 26.8 ppb in Channelview.

March 23

@5AM - 70.5 ppb in Channelview.



DAY SEVEN: SATURDAY, MARCH 23

@4AM - The containment wall was secured.

@3:30PM - ITC resumes pumping pyrolysis gasoline (pygas) out of Tank 80-7.

Pumping is at average rate of approximately 1,300 barrels per hour.

Several vacuum trucks continue to remove liquid from inside the ditch on the west side of Tidal Road.



WEEK TWO: CLEANUP BEGINS

From Saturday to Monday, ITC begins removal of Pygas from Tanks 80-7, 80-15, 80-14 and 80-10.

ITC cleanup operations also include:

- Vacuuming ditch adjacent to the tank farm to remove product.
- Removing product from Tucker Bayou.



WEEK TWO: CLEANUP BEGINS

Booms are deployed, covering Tucker Bayou, the ITC docks, Patrick Bayou, Old River, Carpenter Bayou, Battleship Texas, Santa Ana Bayou, the western shore of the mouth of the San Jacinto River, and the oyster beds located in Burnett Bay.



WATER CONTAMINATION FROM MARCH 17 to PRESENT

March 17 – Firefighting foam and industrial wastewater were discharged into storm water leaving ITC facility.

March 22 – Containment dike surrounding tanks breaks, resulting in discharge of foam and industrial waste into ditch and then into Tucker Bayou. Contents of ditch ignited and then burned for 1 hour sending smoke into air.

March 23 - EPA reports oil in Tucker Bayou was contained. Oil now spreads to Buffalo Bayou and the Houston Ship Channel.

March 23 to date – Vacuum truck operations at Tucker Bayou and Outfall ditch ongoing on 24-hour basis

WATER CONTAMINATION FROM MARCH 17 to PRESENT

NINE TOXINS FOUND IN THE WATER NEAR ITC'S FACILITY ON MARCH 23:

- XYLENE
- PYRENE
- ANTHRACENE
- BENZENE
- ETHYLBENZENE
- TOLUENE
- PHENANTHRENE
- FLUORANTHENE
- 2-METHYL NAPHTHALENE

Sampling of surface waters ongoing in

- Tucker Bayou
- Houston Ship Channel



CURRENT CLEANUP STATUS AS OF MARCH 31

Tank Status	Tank No.
Complete	80-2, 80-3, 80-7, 80-10, 80-12, 80-13, 80-14, 80-15
In Process	80-11
Standby	80-1, 80-4, 80-5, 80-6, 80-8, 80-9

ITC had to bring in additional storage capacity in order to empty the tanks

- Two 30,000 bbl barges currently in use
- Additional 57,000-barrel (bbl) liquid waste collection barge arrived on Sunday

CURRENT CLEANUP STATUS AS OF APRIL 1

RECOVERY OF PRODUCT

- 130,000 feet of boom deployed
- 62,557 bbl of product/water recovered from water operations
- 92,222 bbl of product/water recovered from tank farm
- 460,000 gallons of foam concentrate used for fire-fighting suppression and emission suppression recovered

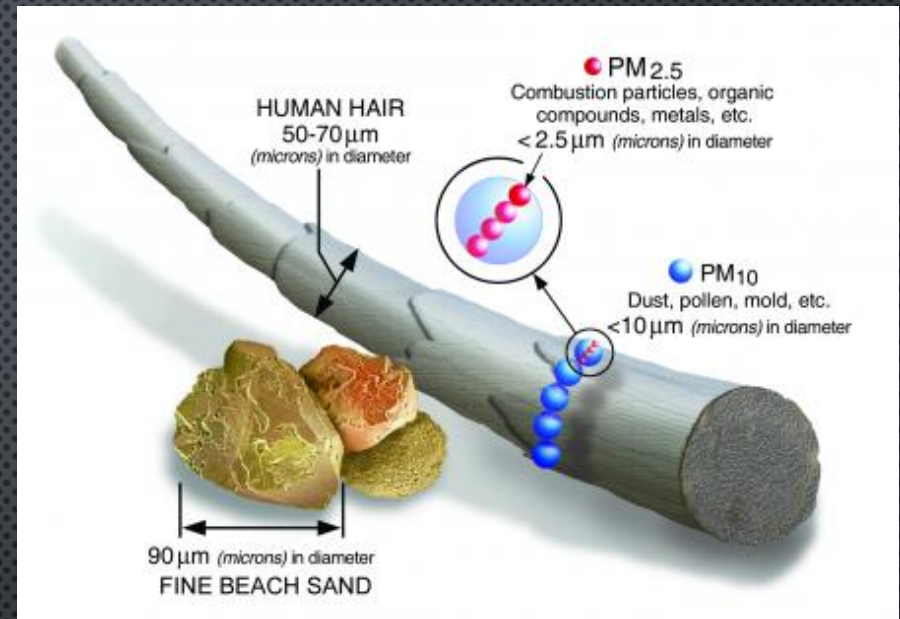
WILDLIFE IMPACTS AS OF APRIL 1

- 25 animals dead related to ITC disaster:
 - 3 red-eared slider turtles
 - 9 birds
 - 13 fish
 - 1 frog
- 10 birds at wildlife recovery center for rehabilitation.
- Recent dolphin issues determined to be unrelated to ITC disaster today.



CONTAMINANTS RELEASED DURING FIRE

PARTICULATE MATTER



PM_{2.5}

- FINE INHALABLE PARTICLES, WITH DIAMETERS THAT ARE GENERALLY 2.5 MICROMETERS AND SMALLER.

PM₁₀

- INHALABLE PARTICLES, WITH DIAMETERS THAT ARE GENERALLY 10 MICROMETERS AND SMALLER

VOLATILE ORGANIC COMPOUNDS (VOC)

- Benzene – known carcinogen
 - OSHA Exposure Limit to benzene vapor one part per million parts of air (1 ppm) for an 8-hour workday.
 - Maximum short-term exposure limit (STEL) is 5 ppm for any 15-minute period.
- Toluene (Nail polish/ Paint thinner)
 - Exposure limits range from 20 ppm to 200 ppm.
- Xylene:
 - Exposure limit is 100 ppm(8-hour workday).
- **SYMPTOMS: Fatigue, dizziness, headaches.**



NO_x - NITROGEN DIOXIDE (NO₂) POLLUTION

- Generated from from the burning of fuel.
- Breathing air with a high concentration of NO₂ can irritate airways in the human respiratory system.
- NO₂ along with other NO_x reacts with other chemicals in the air to form both particulate matter and ozone.



DIRECT IMPACTS TO THE PUBLIC







RELATED SCHOOL CLOSURES AND SHELTER IN PLACE

Impacted	March 18 MONDAY	March 19 TUESDAY	March 20 WED.	March 21 THURS.	March 22 FRIDAY	March 30 SATURDAY
Deer Park ISD	X		X	X		
LaPorte ISD	X		X	X		
Channelview ISD			X	X		
Sheldon ISD			X	X		
Galena Park ISD			X	X		
Pasadena ISD				X		
Industrial Neighbors	X			X	X	X

FISH ADVISORY

- Since 2013, a fish consumption advisory has been in effect for most of the upper Ship Channel.
- **Do not eat any species of fish or crab, especially children and women of childbearing age.**
- Because of ITC Disaster, the advisory is expanded to fish caught in the San Jacinto River.



IMPACTS TO DRINKING WATER

- Currently, there are no known or suspected impacts to drinking water; there are no drinking water intakes on the Houston Ship Channel.
- Deer Park Public Works has confirmed no presence of benzene in the drinking water based on samples taken on March 20.



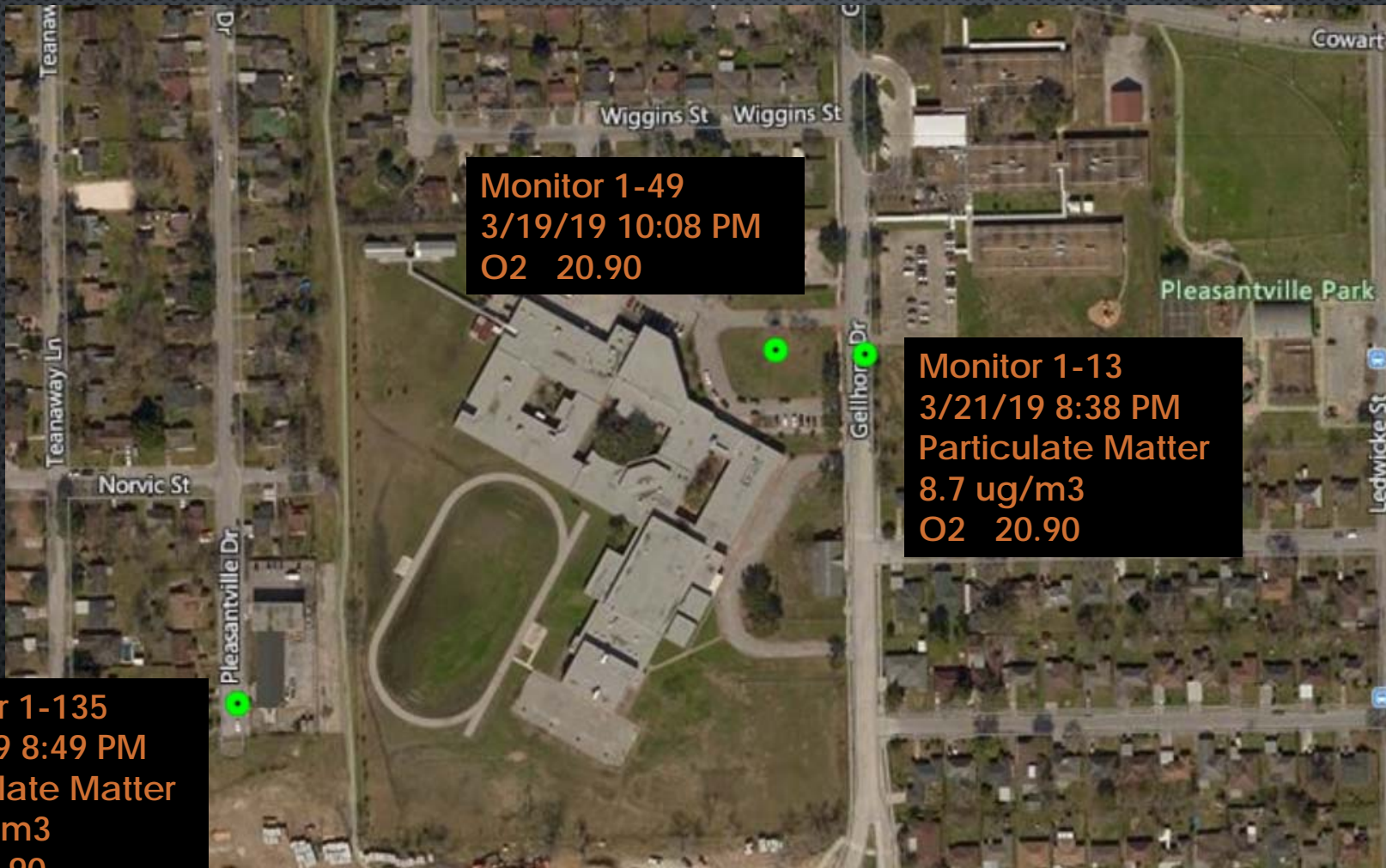
UNRESOLVED CONCERNS ABOUT FIRE-FIGHTING FOAM



- 130,000 gallons of firefighting foam deployed during response.
- Some fire-fighting foam contains Polyfluoroalkyl (PFA), a substance considered extremely hazardous by the EPA.
- Ongoing water sampling by EPA and Galveston Bay Foundation includes tests for PFAs.
- PFAS are very persistent in the environment and in the human body - meaning they don't break down and they can accumulate over time.

STATIONARY AIR MONITORS

IN PLEASANTVILLE, TEXAS



Monitor 1-49
3/19/19 10:08 PM
O2 20.90

Monitor 1-13
3/21/19 8:38 PM
Particulate Matter
8.7 ug/m3
O2 20.90

Monitor 1-135
3/21/19 8:49 PM
Particulate Matter
7.5 ug/m3
O2 20.90

CLOSEST TCEQ AIR MONITOR TO PLEASANTVILLE

PEAK READINGS DURING EVENT

- Benzene (TCEQ short-term limit 180 ppb)
 - March 20 – 12.83 ppb @ 11AM
 - March 27 – 7.00 ppb @ 7am
- Toluene (TCEQ short-term limit 4000 ppb)
 - March 27 – 2.53 ppb @ 6am
- Xylenes (TCEQ short-term limit 1700 ppb)
 - March 30 – 2.31 ppb @ 1pm

9525 1/2 CLINTON DR (77029)



CLOSEST TCEQ AIR MONITOR TO PLEASANTVILLE

PEAK NO_x READINGS DURING EVENT

- March 17 – 57.8 ppb @ 11PM
- **March 18 – 132.8 ppb @ 5AM**
- March 19 – 42.9 ppb @ 7AM
- March 20 – 52.1 ppb @ 5AM
- March 21 – 47.3 ppb @ 6AM
- **March 22 - 138.3 ppb @ 7AM**

NAAQS FOR NITROGEN OXIDES ARE A 1-HOUR STANDARD AT A LEVEL OF 100 PPB

9525 1/2 CLINTON DR (77029)



CLOSEST TCEQ AIR MONITOR TO PLEASANTVILLE

PEAK PM READINGS DURING EVENT

- March 17 – 20.4 $\mu\text{g}/\text{m}^3$ @ 8PM
- March 18 – 27.5 $\mu\text{g}/\text{m}^3$ @ 5AM
- March 19 – 30.8 $\mu\text{g}/\text{m}^3$ @ 1PM
- March 20 – 21.7 $\mu\text{g}/\text{m}^3$ @ 8PM
- March 21 – 20.1 $\mu\text{g}/\text{m}^3$ @ 7AM
- March 22 – 30.7 $\mu\text{g}/\text{m}^3$ @ 8AM

NAAQS FOR $\text{PM}_{2.5}$ IS 35 MG/M^3
(micrograms per cubic meter)

9525 1/2 CLINTON DR (77029)



CLOSEST TCEQ AIR MONITOR TO PLEASANTVILLE

PEAK OZONE READINGS DURING EVENT

- March 17 – 48 ppb @ 2PM
- March 18 – 43 ppb @ 2AM
- March 19 – 56 ppb @ 1PM
- **March 20 – 97 ppb @ Noon**
- March 21 – 64 ppb @ 3PM
- March 22 – 62 ppb @ 3PM

NAAQS FOR OZONE (O₃) IS 70 PPB (0.070 PPM).

9525 1/2 CLINTON DR (77029)



MOBILE AIR MONITORING EFFORTS

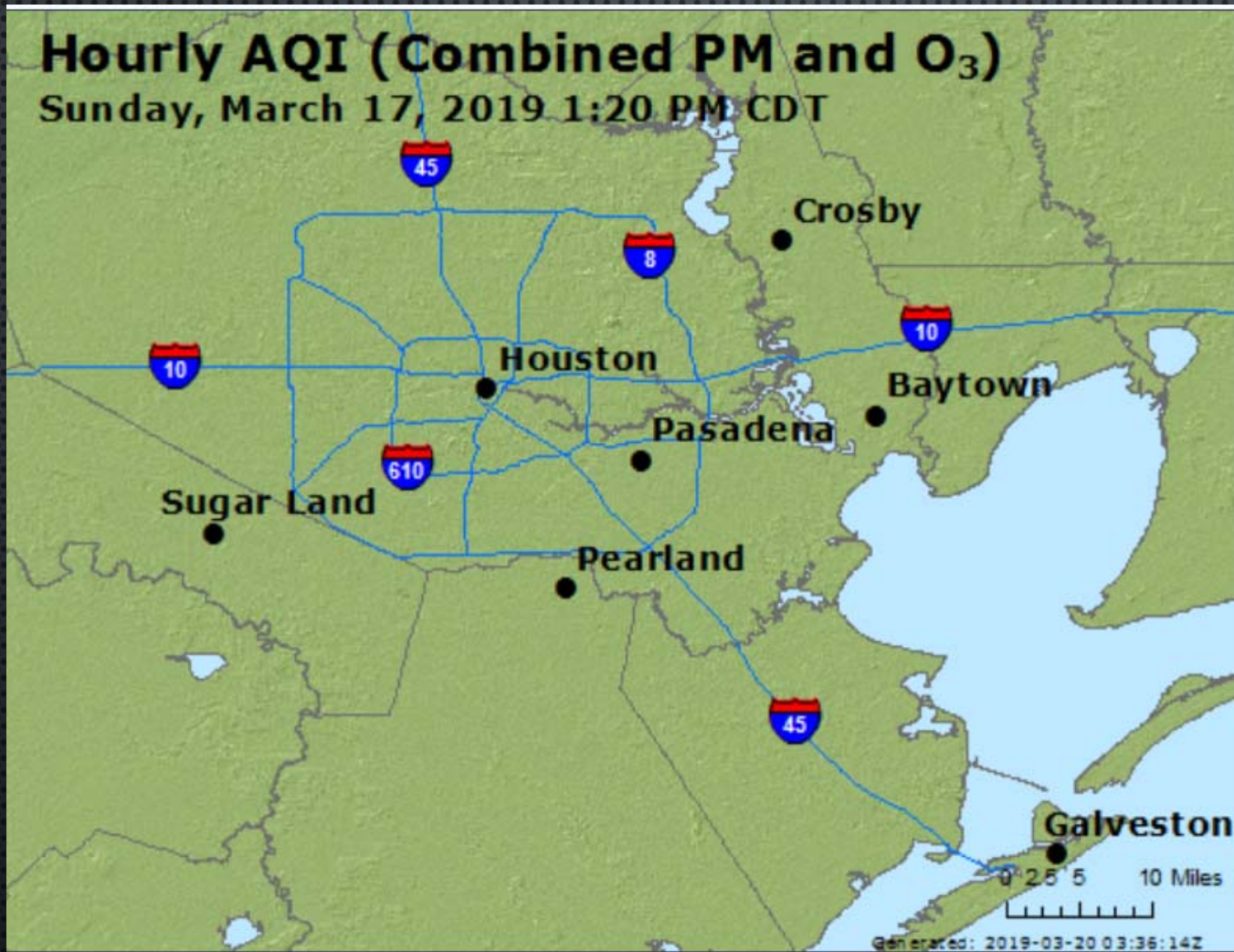
TCEQ AND EPA MOBILE MONITORS

THESE MONITORS PROVIDE REAL-TIME CONCENTRATIONS OF SELECTED GASES INCLUDING HYDROGEN SULFIDE, CARBON MONOXIDE, AND OXYGEN.

ADDITIONALLY, THE TOOL MEASURES TOTAL VOLATILE ORGANIC COMPOUNDS (VOCs) SUCH AS NAPHTHA, BENZENE, XYLENE, AND TOLUENE.

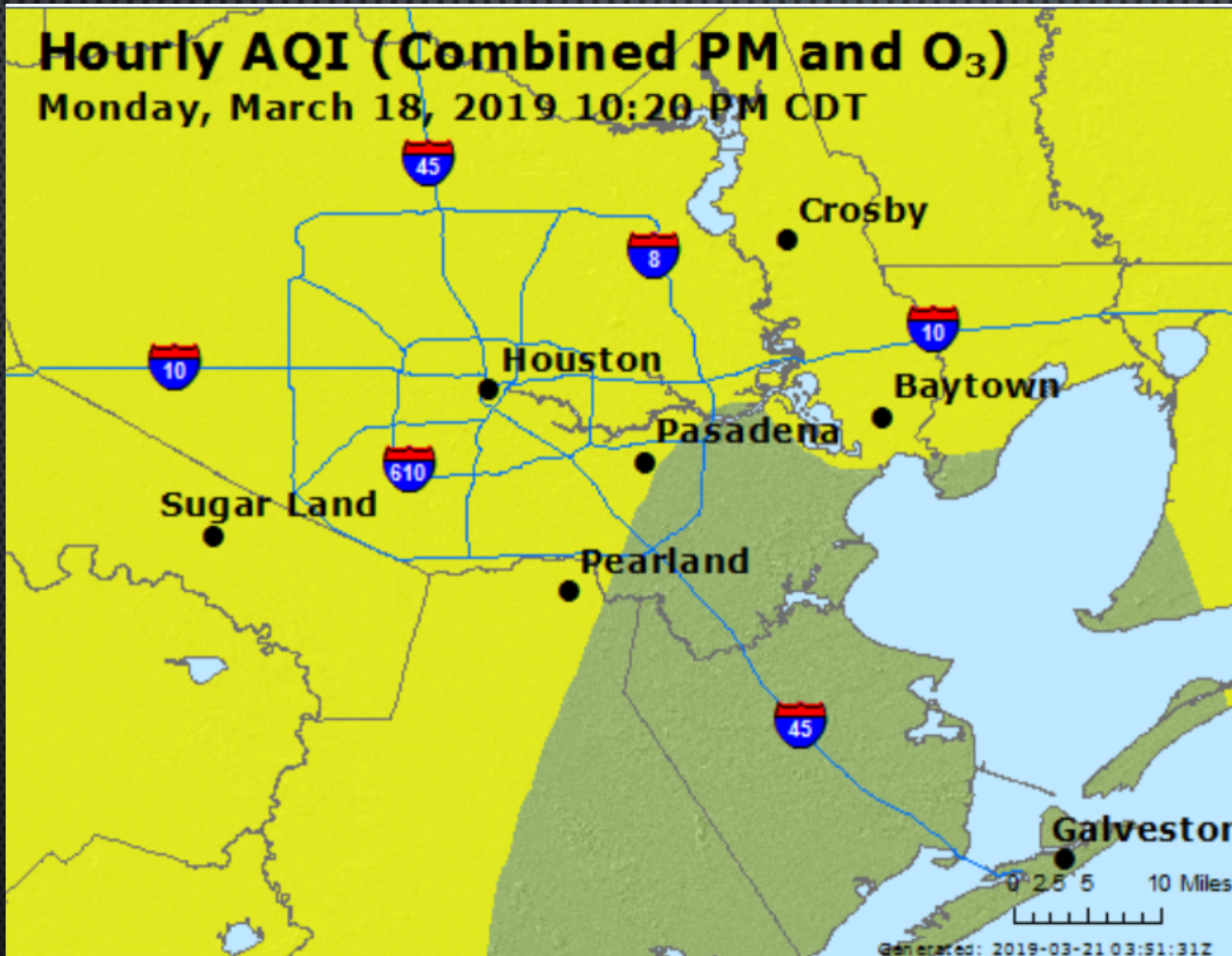
THE MONITORS ALSO CAPTURE THE INSTANTANEOUS LOWER EXPLOSIVE LIMIT OF THE SURROUNDING AREA AND ARE AN INITIAL SCREENING TOOL TO HELP THE FIELD RESPONDERS MAKE INFORMED DECISIONS BASED ON ACTUAL MEASUREMENTS.





TYPICAL
DAY
BEFORE
THE FIRE

AIR
QUALITY
INDEX

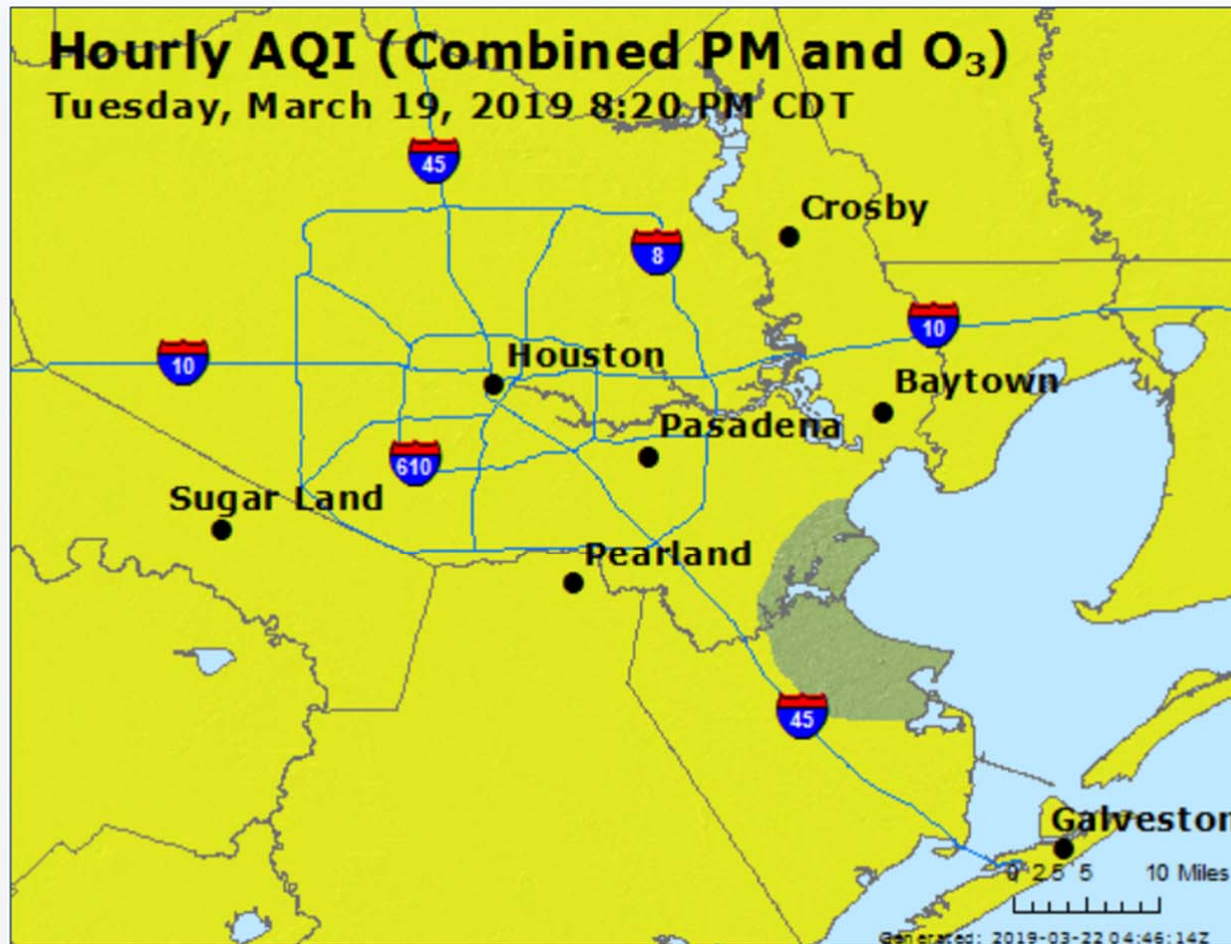


MODERATE:

Unusually sensitive people should consider reducing prolonged or heavy exertion.

Hourly AQI (Combined PM and O₃)

Tuesday, March 19, 2019 8:20 PM CDT



MODERATE:

Unusually sensitive people should consider reducing prolonged or heavy exertion.

Good

Moderate

USG

Unhealthy

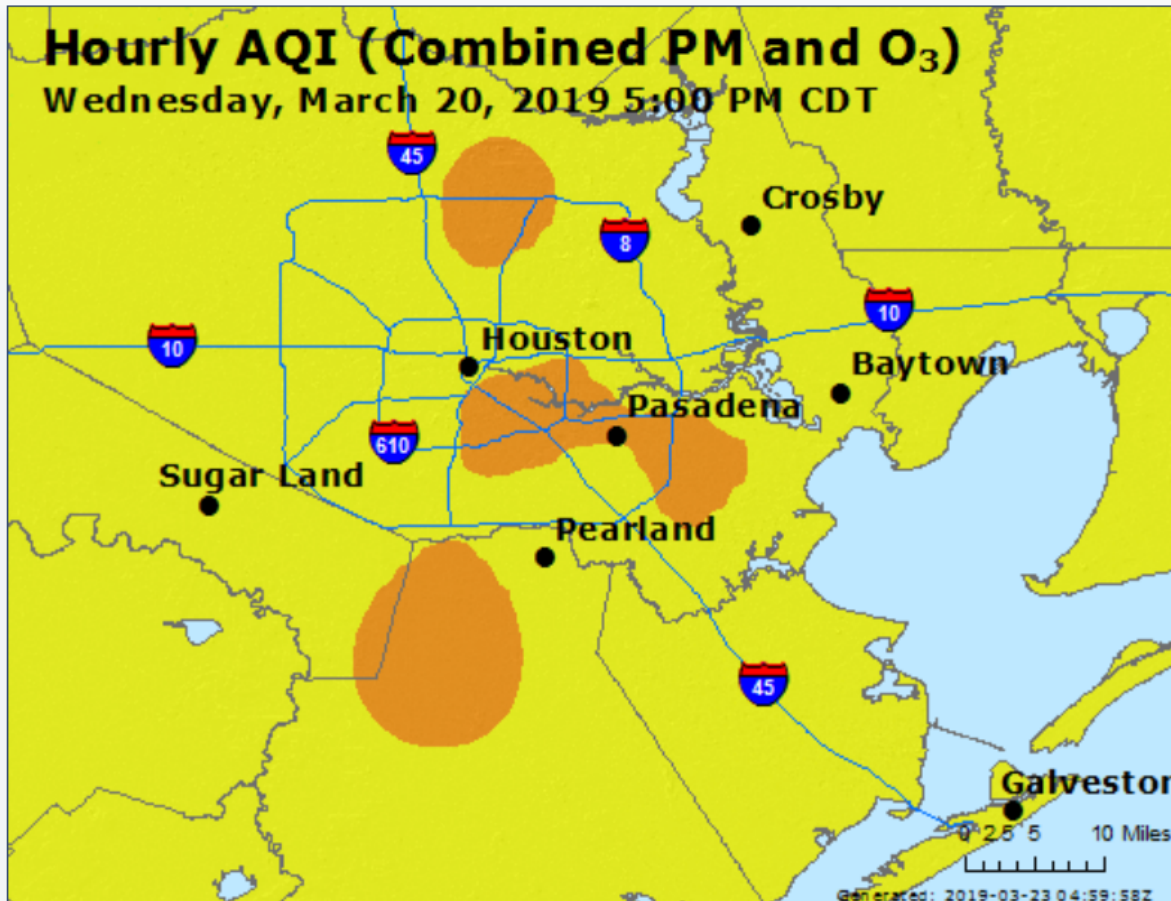
Very Unhealthy

Hazardous

! Action Day

Hourly AQI (Combined PM and O₃)

Wednesday, March 20, 2019 5:00 PM CDT

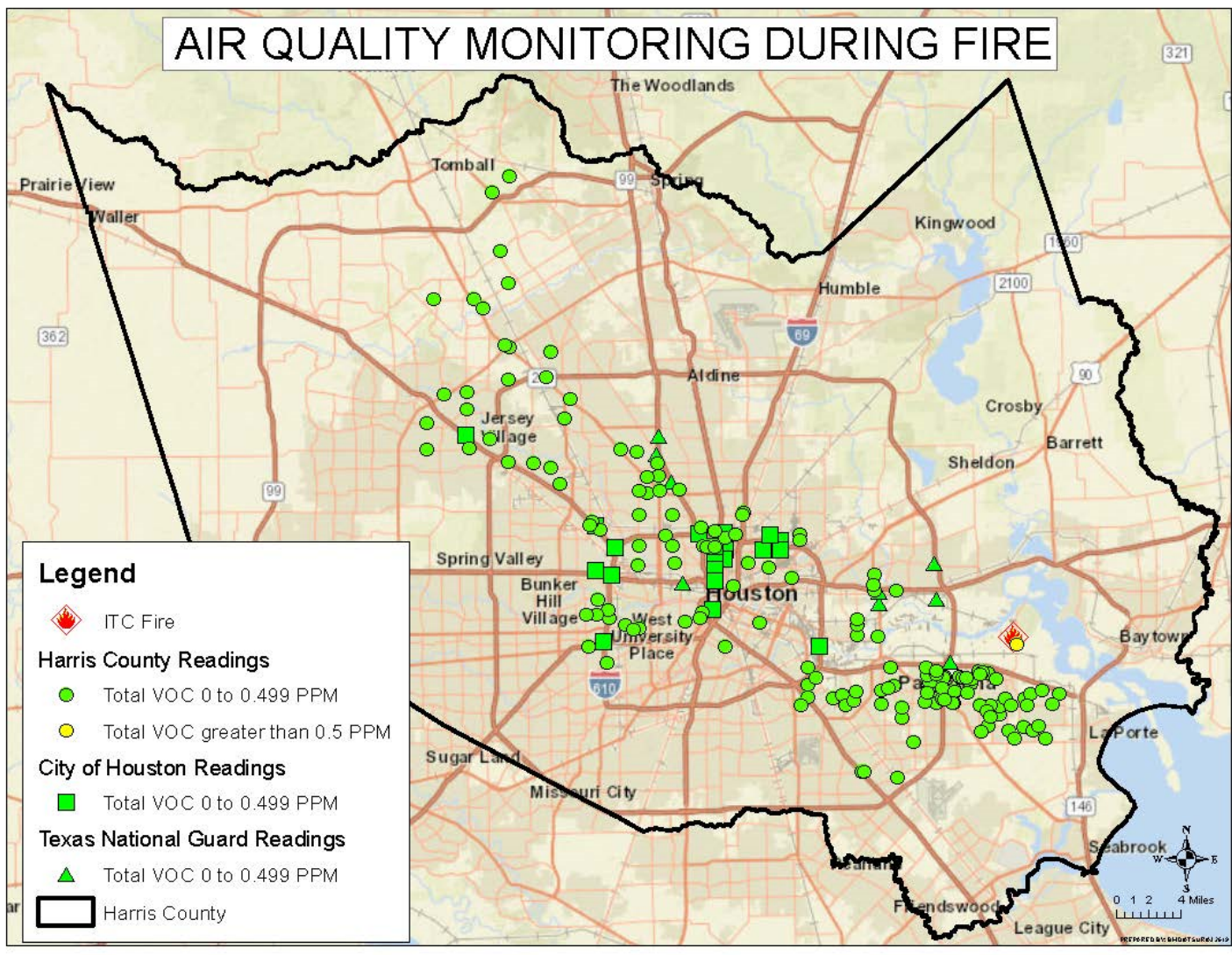


Unhealthy for Sensitive Groups

Health Message: Active children and adults, and people with lung disease, such as asthma, should reduce prolonged or heavy exertion outdoors.



AIR QUALITY MONITORING DURING FIRE



VOLATILE ORGANIC COMPOUNDS (VOC)

Total VOC
0PPM – 0.299 PPM
Green - No Hazard

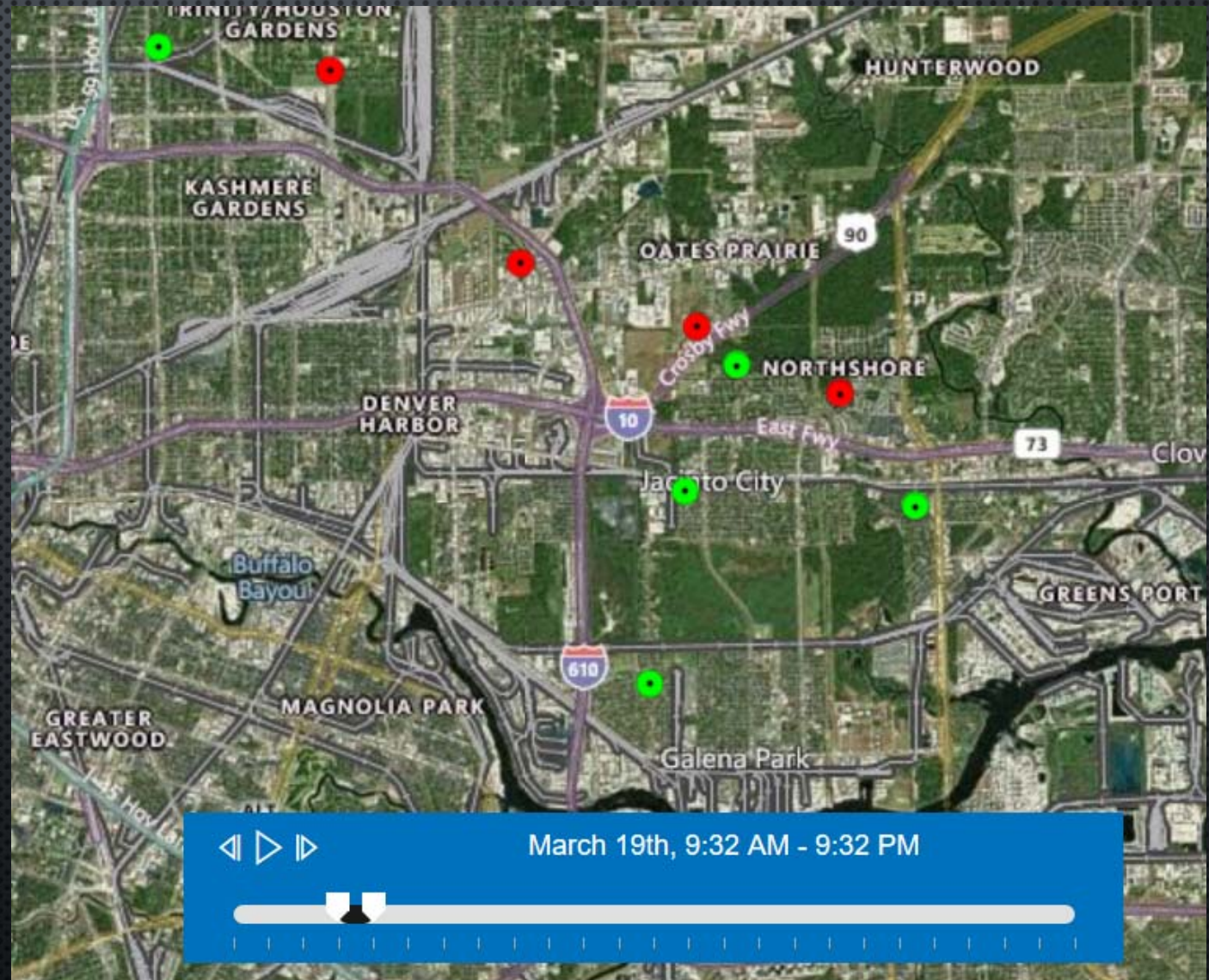
Total VOC
0.3 PPM – 0.499 PPM -
Green - Further
Investigation Needed to
Determine Type of VOC

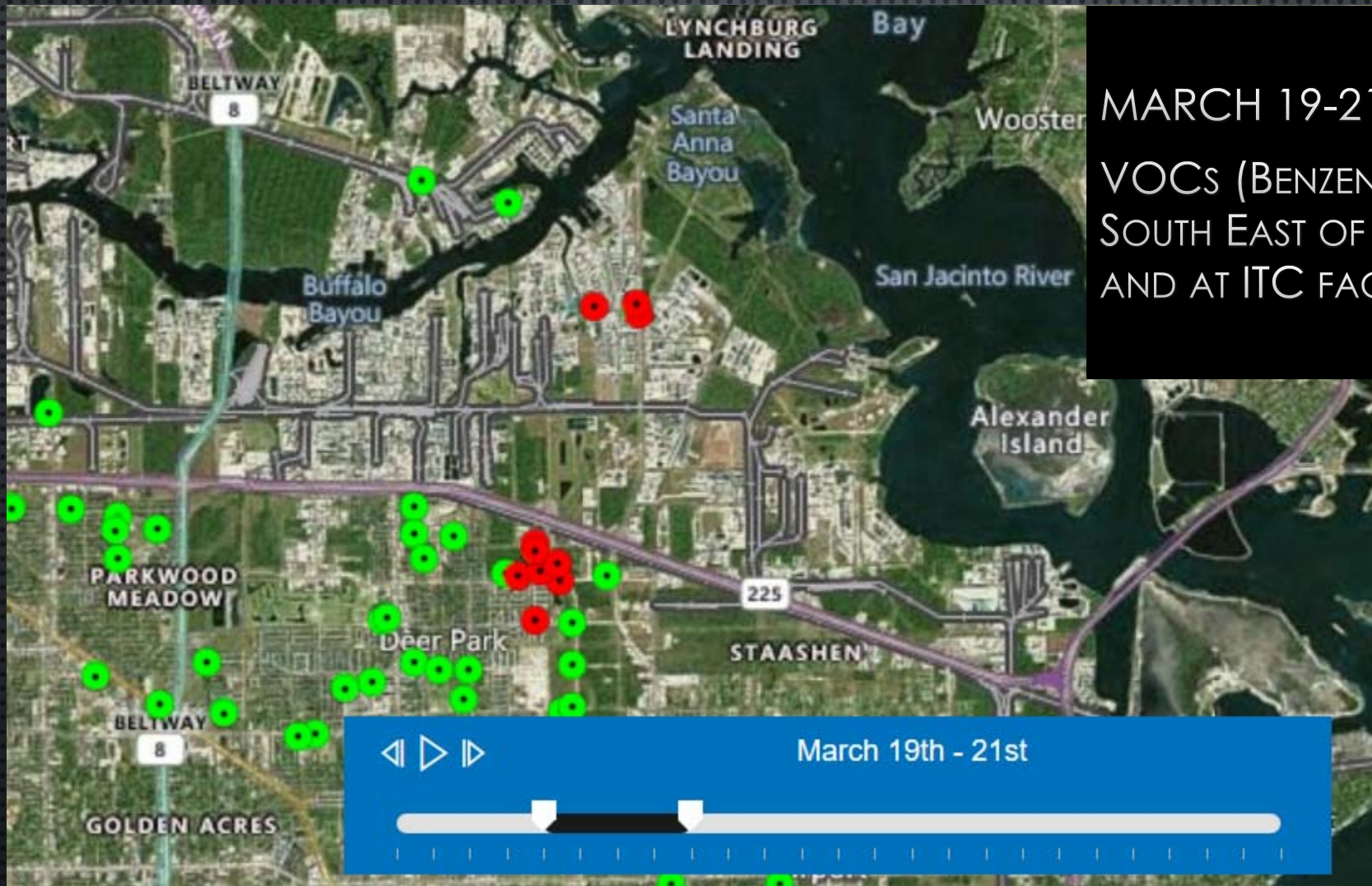
Total VOC
Greater than 0.5 PPM –
Yellow -
Hazardous VOCs will
result in public alert

PPM = Parts per Million

VOCs/ Benzene FIRST Detected

MARCH 19, 2019

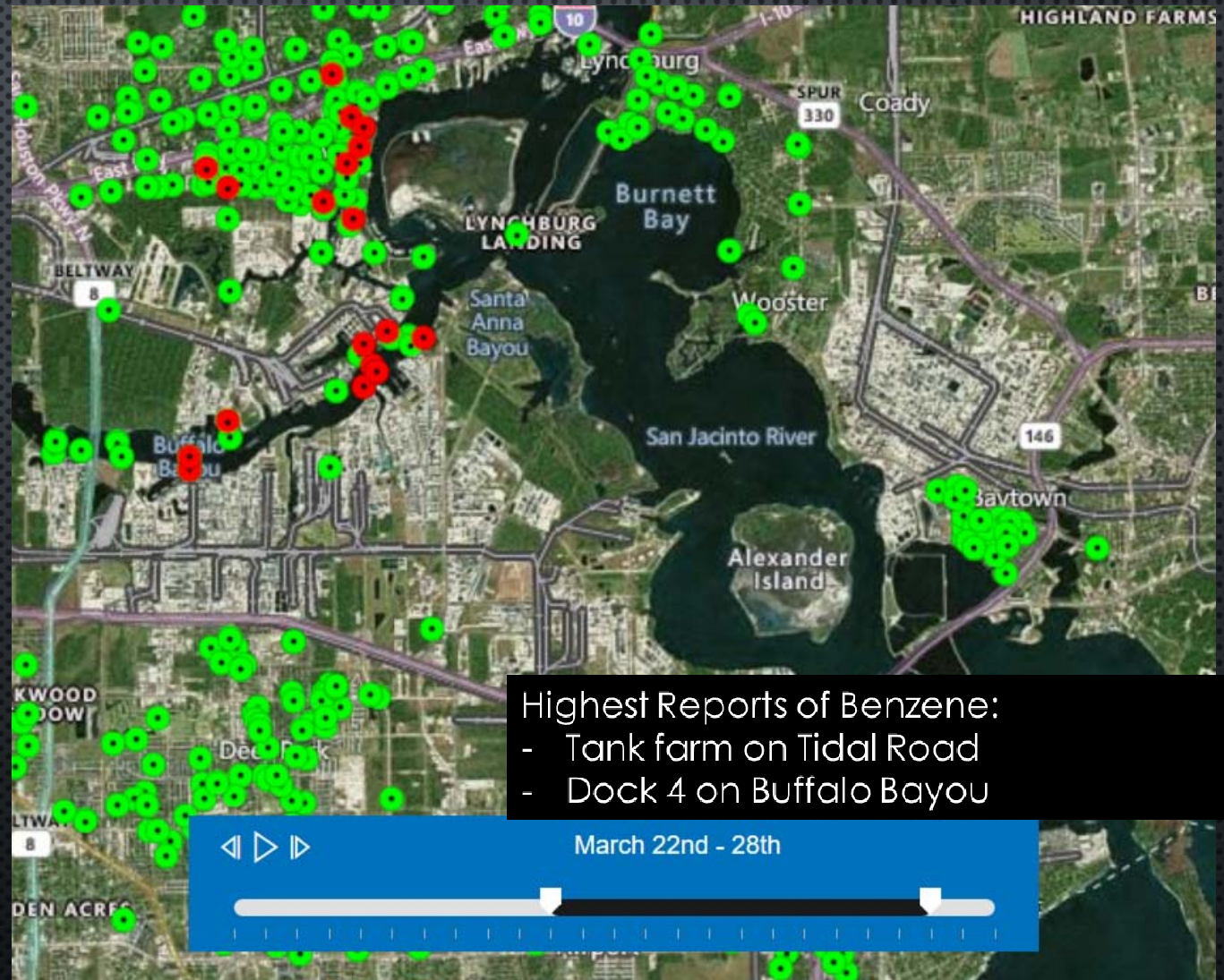




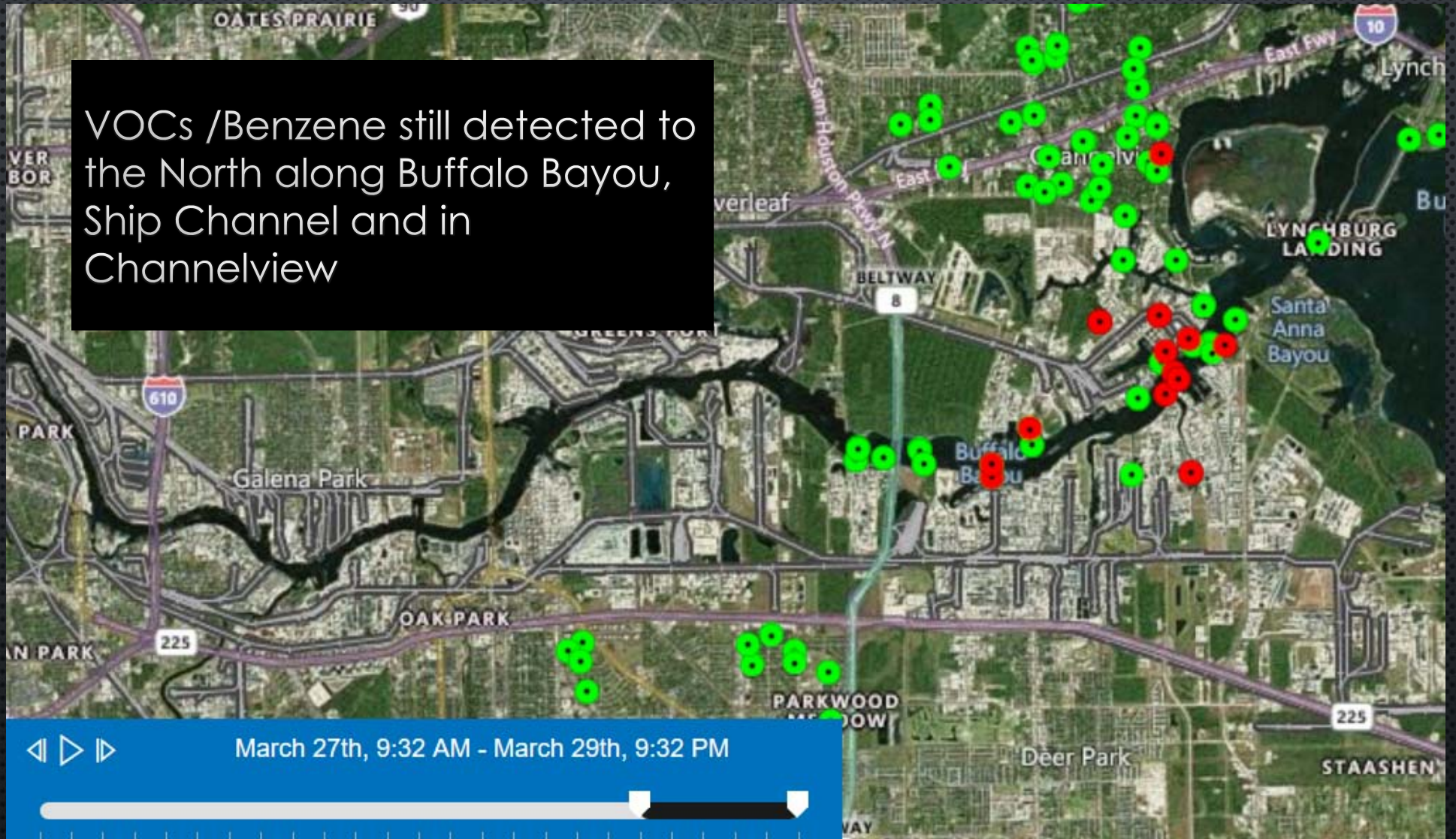
MARCH 19-21ST
VOCs (BENZENE) DETECTED
SOUTH EAST OF ITC'S FACILITY
AND AT ITC FACILITY

MARCH 22nd-28th

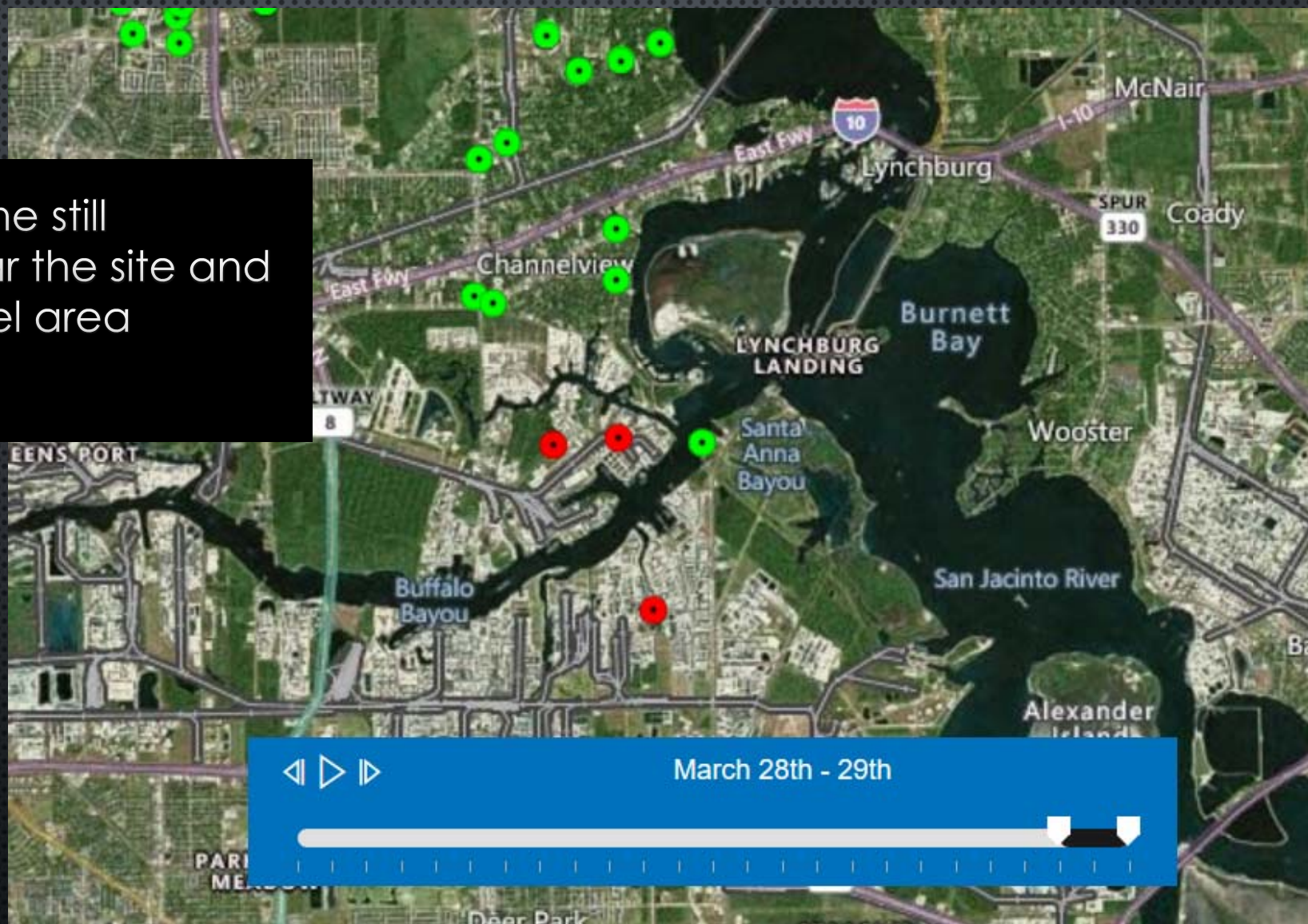
VOCs (Benzene)
detected directly
North of Site in
Channelview Area
and along Buffalo
Bayou



VOCs /Benzene still detected to the North along Buffalo Bayou, Ship Channel and in Channelview



VOCs /Benzene still detected near the site and in ship channel area



**CONTINUED
ELEVATED
READINGS
ON MARCH 31
IN DEER PARK**

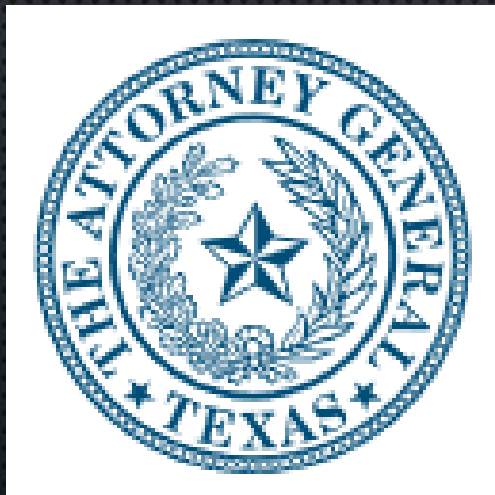
- TAGA READINGS WITH EXCEEDANCES FOR SHORT-TERM BENZENE (0.18 PPM) SOUTHEAST OF ITC SITE.
- HANDHELD AIR MONITORING AT 21 LOCATIONS WERE ABOVE EXPOSURE LEVELS FOR SHORT-TERM BENZENE (0.18 PPM) SOUTHEAST OF ITC SITE.
- ONE SITE ABOVE OCCUPATIONAL LEVEL (1 PPM).

ENFORCEMENT AGAINST ITC

REGULATORY AGENCIES INVOLVED IN RESPONSE



TEXAS ATTORNEY
GENERAL FILED SUIT ON
FRIDAY, MARCH 22 ON
BEHALF OF TCEQ



- Violations of Clean Air Act (Air Pollution)
 - Unauthorized visible emissions
 - Shelter-in-place
 - Nuisance from unauthorized outdoor burning
- Violations of Clean Water Act (Water Pollution)
- Injunctive relief
- Civil Penalties (up to \$25,000 per day x 5 days)
- Suit is pending in Travis County, Texas

HARRIS COUNTY COMMISSIONERS FILES SUIT ON TUESDAY, MARCH 26



- Claims
 - Violations of Clean Air Act (Air Pollution)
 - Violations of Clean Water Act (Water Pollution)
 - Violations of Solid Waste Disposal Act (Industrial Waste)
 - Nuisance / Endangering Public Health
- Injunctive relief
- Damages cap of \$4.3 Million
- Suit pending in Harris County

ITC CLAIMS PROCESS

HOW TO CONTACT ITC

Impacted businesses and Individuals may file a claim:
www.ITCclaims.com (claim forms)

- Email to: Incident31719@itcclaims.com
- Mail to: ITC Claim
March 17, 2019 Incident
PO Box 698,
Deer Park, Texas 77536
- Call: **346-263-9766**, M-F, 8am-6pm

OTHER RESOURCES

EPA AND TCEQ RELEASED STORY MAP

ITC Fire Response

Start Scrolling For More Information



CURRENT RESOURCES FOR YOUR COMMUNITY

ITC Webpage: <https://itcresponse.com/>

Harris County Public Health: <http://www.hcphtx.org/Resources/Public-Health-Emergency>

Harris County OEM: <https://www.readyharris.org/Deer-Park-Fire>

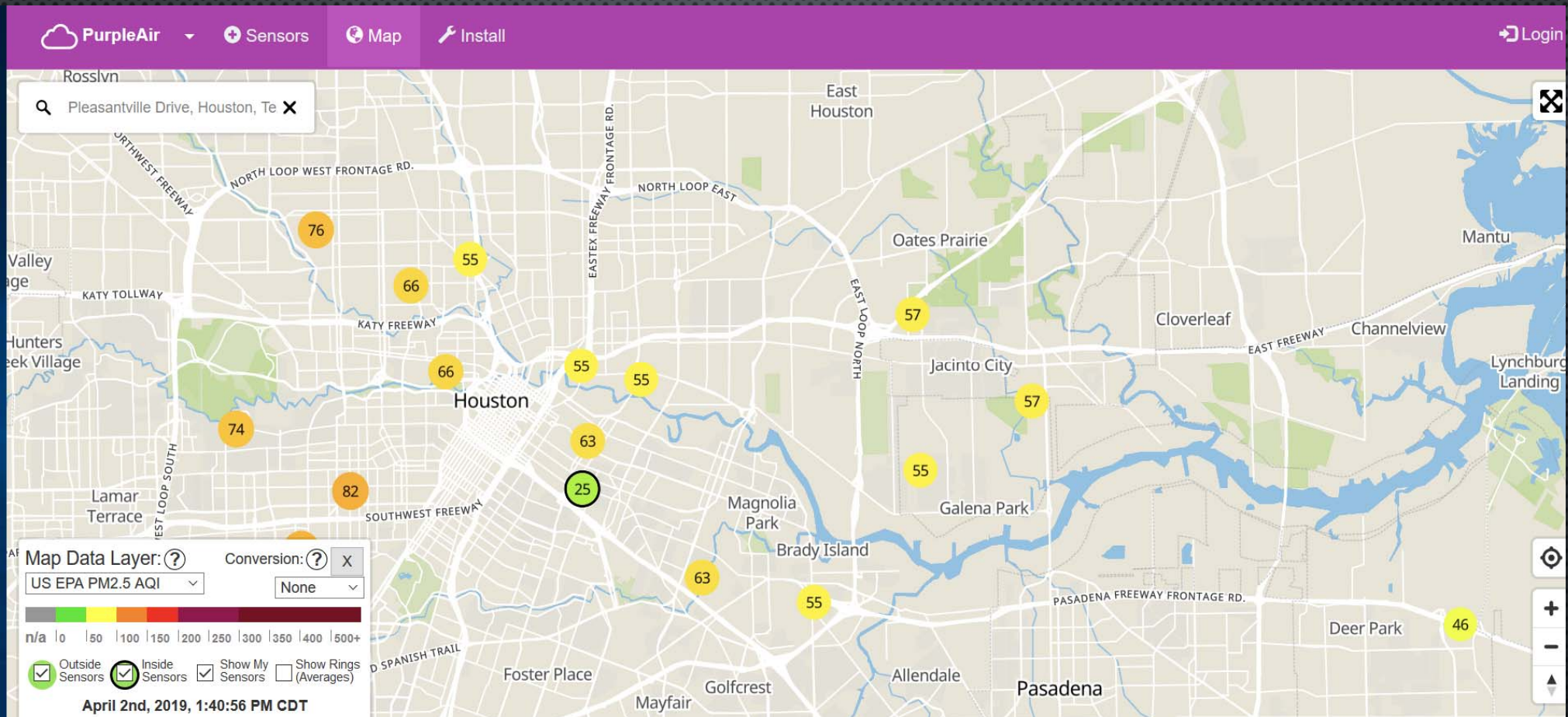
City of Deer Park: <http://www.ci.deer-park.tx.us/1778/ITC-Fire>

Deer Park Water Quality Report: <http://www.deerparktx.gov/1779/ITC-Fire---Deer-Park-Water-Quaility-Repo>

TCEQ: <https://www.tceq.texas.gov/response/itc-terminal-fire-update>

EPA: https://response.epa.gov/site/site_profile.aspx?site_id=14150

<https://www.purpleair.com/> - PARTICULATE MATTER PM 2.5





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NEWSLETTER

TEXT EJUSTICE TO 22828