

TCEQ Handheld Monitoring Equipment Data

ITC Fire – March 2019

Shortly after receiving notification of the Deer Park fire at Intercontinental Terminals Company that began on March 17, 2019, TCEQ Regional staff initiated handheld monitoring surveys in the area. MultiRaes with various sensors were used for all survey activities. This instrument provides instantaneous readings for various compounds that may include the lower explosive limit (LEL), volatile organic compounds (VOC), hydrogen sulfide (H₂S), carbon monoxide (CO), sulfur dioxide (SO₂), radiation (Gamma), chlorine (CL₂), ammonia (NH₃), and oxygen levels (O₂). UltraRAEs were used to monitor for benzene and Toxic Vapor Analyzers (TVA) were also used, when appropriate. This instrument measures most organic and inorganic gases.

Sample results from TCEQ's handheld monitoring equipment are listed below, including observations of odor and potential alternate sources for odor or instrument readings. Please note that all TVA results reported are recorded in parts per million (ppm) and negative readings are acceptable when they are within the acceptable range of error. Some normal levels, also known as background levels, of VOCs were noted to be between 2.3 ppm and 2.4 ppm. Data is updated as information becomes available.

Date	Location	Time (Approx.)	Instrument	Parameters	Survey Results	Other Notes/Observations
Saturday, April 6, 2019						
4/6/2019	6147 Rockfoul Dr. (Houston)	11:10 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	6606 Hawthorne Falls Ln. (Houston)	11:30 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	Sheldon Ridge Way and Dahlia Vale Walk (Houston)	2:25 PM	TVA; MultiRAE	VOC; LEL, VOC, H2S, CO, O2	0.51 - 2.25 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Macedonia Baptist Church, 1230 Maxine St. (Houston)	2:28 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.03 - 0.56 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Holland Middle School, 1600 Gellhorn Dr. (Houston)	2:55 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.19 - 0.68 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	W. Jacinto Dr. and E. Jacinto Dr. (Houston)	2:59 PM	TVA; MultiRAE	VOC; LEL, VOC, H2S, CO, O2	1.50 - 1.79 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Capilla La Divins Providencia, 7913 Munn St. (Houston)	3:21 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.32 - 1.12 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Rambler Dr. and Avalon Ct. (Houston)	3:24 PM	TVA; MultiRAE	VOC; LEL, VOC, H2S, CO, O2	1.89 - 2.07 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Reservoir Dr. and Nickel Plank Rd. (Houston)	3:50 PM	TVA; MultiRAE	VOC; LEL, VOC, H2S, CO, O2	2.12 - 2.25 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	McReynolds Middle School, 5910 Market St. (Houston)	4:02 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.56 - 0.98 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Church of God Prophecy, 222 Crown, St. (Houston)	4:31 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.34 - 0.89 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Fellowship Missionary Baptist Church, 2432 Chew St. (Houston)	5:05 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.23 - 1.21 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Community Baptist Church, 4005 Kress St. (Houston)	5:30 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.78 - 1.15 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Hutcheson Park, 5400 Lockwood Dr. (Houston)	5:57 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.84 - 1.36 ppm; 0 ppm, oxygen normal	No odor

Date	Location	Time (Approx.)	Instrument	Parameters	Survey Results	Other Notes/Observations
Saturday, April 6, 2019						
4/6/2019	Independence Pkwy. N. and Center St. (Lynchburg)	6:10 PM	TVA; OGIC; UltraRAE; MultiRAE	VOC; VOC; Benzene; LEL, VOC, H2S, CO, O2	1.97 - 2.12 ppm; No fugitive emissions detected; 0 ppm; 0 ppm, oxygen normal	Moderate Crude oil odor noted upon arrival in the area off of Hwy I10 and Monmouth St, Channelview (29.7917115, -95.0793331). This odor was noted as we were on route to Independence Pkwy N. The optical gas imaging camera (OGIC) was used during this odor survey. No VOC emissions or odors were noted throughout the survey at this location.
4/6/2019	Bethel Temple, 6911 Homestead Rd. (Houston)	6:33 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.76 - 1.32 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	1109 1st St. (Galena Park)	7:00 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	5800 Clinton Dr. (Houston)	7:00 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	Philippians Community Baptist Church, 7588 Angus St. (Houston)	7:09 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.84 - 1.48 ppm; 0 ppm, oxygen normal	30 minute odor survey conducted, very light odor detected, intermittent for 16 minutes, hot plastic/asphalt, tar-like odor detected
4/6/2019	173350 Market St. (Channelview)	7:10 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	1125 15th St. (Galena Park)	7:15 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Loltowski/Clinton Dr. (Houston)	7:15 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	Market St. and Monmouth St. (Channelview)	7:17 PM	TVA; OGIC; UltraRAE; MultiRAE	VOC; VOC; Benzene; LEL, VOC, H2S, CO, O2	1.97 - 2.12 ppm; No fugitive emissions detected; 0 ppm; 0 ppm, oxygen normal	Moderate Crude Oil odor noted upon arrival at Monmouth St, Channelview (29.7917115, -95.0793331) again. Very light (3 minutes) crude oil odor noted throughout survey. Due to the proximity of Hwy I10, it was difficult to determine the frequency of this odor. The OGIC was used during this odor survey. Potential VOC emissions were noted from a source that could not be determined.
4/6/2019	18001 East Fwy. (Channelview)	7:30 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor

Date	Location	Time (Approx.)	Instrument	Parameters	Survey Results	Other Notes/Observations
Saturday, April 6, 2019						
4/6/2019	1302 Wolfe St. (Galena Park)	7:30 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	2323 Daugherty St. (Houston)	7:30 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	6310 S. Lake Houston Pkwy. (Houston)	7:37 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	1508 3rd St. (Galena Park)	7:45 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Dorsett/Filmore (Houston)	7:45 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	18003 Market St. (Channelview)	7:50 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	Strong smell of fuel in the air, think it was from barges in the yard over the fence
4/6/2019	Transthod, 8905 Spikewood Dr. (Houston)	7:55 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	1.04 - 1.43 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	1710 14th St. (Galena Park)	8:00 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	6535 Turtlewood St. (Houston)	8:00 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Tilgham/Labco (Houston)	8:00 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	17433 River Rd. (Channelview)	8:10 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	1707 Westway St. (Galena Park)	8:15 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Lyons/McCarty St. (Houston)	8:15 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	6415 Lake Houston Pkwy. (Houston)	8:18 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Cravens Early Childhood Academy (Houston)	8:20 PM	TVA; MultiRAE	VOC; LEL, VOC, H2S, CO, O2	2.47 - 2.59 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	Pine Tree Forrest Trail and Pine Tree Glenn (Houston)	8:27 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	0.84 - 1.62 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	17123 Forest Trail Dr. (Channelview)	8:30 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor

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Saturday, April 6, 2019						
4/6/2019	2207 10th St. (Galena Park)	8:30 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Market/90 (Houston)	8:30 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	7010 S. Lake Houston Pkwy. (Houston)	8:35 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	110 Graham Dr. (Galena Park)	8:45 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Market/Henke (Houston)	8:45 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	Fonwood Early Childhood Center (Houston)	8:50 PM	TVA; MultiRAE	VOC; LEL, VOC, H2S, CO, O2	2.55 - 2.72 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	1010 Woodlawn St. (Channelview)	8:50 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	8006 C. E. King Pkwy. (Houston)	8:50 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Blessed Hope Baptist Church, 3741 Colvin St. (Houston)	9:00 PM	TVA; MultiRAE	VOC; O2, LEL, CO, H2S, VOC, SO2	1.03 - 1.54 ppm; 0 ppm, oxygen normal	No odor
4/6/2019	406 Gans St. (Houston)	9:00 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Lockwood/Stonewall (Houston)	9:00 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	16828 Bear Bayou Dr. (Channelview)	9:10 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	8909 Ley Rd. (Houston)	9:10 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	406 Tite St. (Houston)	9:15 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Lyons/Woolworth (Houston)	9:15 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	7600 E. Houston Rd. (Houston)	9:25 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	W. Tyson St. (Channelview)	9:30 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	234 Bolden St. (Houston)	9:30 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor

Date	Location	Time (Approx.)	Instrument	Parameters	Survey Results	Other Notes/Observations
Saturday, April 6, 2019						
4/6/2019	Wallisville/Kress (Houston)	9:30 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	8535 Green River (Houston)	9:40 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	9526 Rhode Island St. (Houston)	9:45 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Alderson/Port (Houston)	9:45 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	1802 Amie Michele Ln. (Channelview)	9:50 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	9635 Seeker Rd. (Houston)	9:55 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	713 Defender St. (Houston)	10:00 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Laredo/Harris (Houston)	10:00 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	Old River Courts (Channelview)	10:10 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	9905 Mesa Dr. (Houston)	10:10 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	9818 Pelsey St. (Houston)	10:15 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	N. Wayside/Alderson (Houston)	10:15 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	9709 Mesa Dr. (Houston)	10:25 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	700 Grey Stone St. (Channelview)	10:30 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	9715 Masterson St. (Houston)	10:30 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	N. Wayside/Hershe (Houston)	10:30 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	8146 E. Houston Rd. (Houston)	10:40 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	9902 Cargill St. (Houston)	10:45 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Hershe/90 (Houston)	10:45 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor

Date	Location	Time (Approx.)	Instrument	Parameters	Survey Results	Other Notes/Observations
Saturday, April 6, 2019						
4/6/2019	Hidden Park Dr. (Houston)	10:50 PM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/6/2019	8115 East Houston (Houston)	10:52 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	10125 Palestine St. (Houston)	11:00 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Wallisville/McCarty (Houston)	11:00 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	9606 Mesa Dr. (Houston)	11:10 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	10238 Fairfax St. (Houston)	11:15 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	8870 North Loop East (Houston)	11:15 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	10104 Valley Club Dr. (Houston)	11:25 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	10509 Wiggins St. (Houston)	11:30 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	Hanna St./Bacher (Houston)	11:30 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/6/2019	10142 Valley Breeze Dr. (Houston)	11:40 PM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	10725 Chadwick St. (Houston)	11:45 PM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/6/2019	North Loop/Kirkpatrick (Houston)	11:45 PM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
Sunday, April 7, 2019						
4/7/2019	12017 Garrett Rd. (Houston)	12:00 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Lockwood/McGee (Houston)	12:00 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	14623 Twisted Cedar Ct. (Houston)	12:10 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	12117 Garrett Rd. (Houston)	12:13 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	1325 Sheryl St. (Houston)	12:15 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor

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Sunday, April 7, 2019						
4/7/2019	14000 McNair St. (Houston)	12:30 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	1730 Casperson Dr. (Houston)	12:30 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	21199 C. E. King Pkwy. (Houston)	12:30 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	6900 Wileyvale Rd. (Houston)	12:30 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	11621 Tilia St. (Houston)	12:45 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Camway/Banyan (Houston)	12:45 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	11550 East Sam Houston Pkwy. (Houston)	12:48 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	14299 Muscatine St. (Houston)	12:50 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	12438 Dorwayne Ct. (Houston)	1:00 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Kirkpatrick/Banyan (Houston)	1:00 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	14801 Picardy Ln. (Houston)	1:05 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	13701 McNair St. (Houston)	1:10 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	539 Wood Vista Dr. (Houston)	1:15 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	N. Wayside/Ley (Houston)	1:15 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	Junction and Winding Boardwalk Way (Houston)	1:20 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	13509 Corpus Christi St. (Houston)	1:30 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	12806 Coolgreen (Houston)	1:30 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Furray/E. Houston (Houston)	1:30 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor

Date	Location	Time (Approx.)	Instrument	Parameters	Survey Results	Other Notes/Observations
Sunday, April 7, 2019						
4/7/2019	11035 Vanilla Ridge Ct. (Houston)	1:35 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	12846 Green Dolphin (Houston)	1:45 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Eastland/Betty Boop (Houston)	1:45 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	13437 Force St. (Houston)	1:50 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	10317 Sheldon Rd. (Houston)	1:50 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	14033 Callahan Dr. (Houston)	2:00 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Kenton/Bacher (Houston)	2:00 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	17203 Hall Shepperd Rd. (Houston)	2:05 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	13723 Longview St. (Houston)	2:10 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	14119 Edenglen Dr. (Houston)	2:15 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Mesa/Ley (Houston)	2:15 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	17134 Flaring Rd. (Houston)	2:20 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	14535 Anderson St. (Houston)	2:30 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	14667 Flair Dr. (Houston)	2:30 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Oates/Beaumont Hwy. (Houston)	2:30 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	17225 Crosby Fwy. (Houston)	2:35 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	6030 Lansdown Dr. (Houston)	2:45 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	John Ralston/Spicewood (Houston)	2:45 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	13924 Round Stone Dr. (Houston)	2:50 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor

Date	Location	Time (Approx.)	Instrument	Parameters	Survey Results	Other Notes/Observations
Sunday, April 7, 2019						
4/7/2019	16434 Beaumont Hwy. (Houston)	2:50 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	5603 Pinerow St. (Houston)	3:00 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	8535 C. E. King Pkwy. (Houston)	3:00 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	9121 Redwing Dr. (Houston)	3:05 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	14602 Turning Point (Houston)	3:10 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	13438 Myrna Ln. (Houston)	3:15 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Heather Row/90 (Houston)	3:15 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	8216 Miller Rd. (Houston)	3:20 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	207 Black Water Ln. (Houston)	3:30 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	359 Breeze Park (Houston)	3:30 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Danshire/526 (Houston)	3:30 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	9396 Pineland Rd. (Houston)	3:35 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	13018 Stillington Dr. (Houston)	3:45 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Barnesworth/526 (Houston)	3:45 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	Northshore Middle School Northeast Houston(Cloverleaf)	3:50 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	St. Dominic Parish Life Center (Houston)	3:50 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	12814 Labelle Ln. (Houston)	4:00 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	12101 Wallisville Rd. (Houston)	4:00 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	8008 Uvalde Rd. (Houston)	4:05 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor

Date	Location	Time (Approx.)	Instrument	Parameters	Survey Results	Other Notes/Observations
Sunday, April 7, 2019						
4/7/2019	Dr. Shirley J. Neeley Williams Elementary (Houston)	4:10 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	594 La Riviera Dr. (Houston)	4:15 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	Harris County Cemetery/Oates (Houston)	4:15 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	7902 Ledgewood Dr. (Houston)	4:20 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	6823 Latchmore Ln. (Houston)	4:30 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	12826 Joliet St. (Houston)	4:30 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	12738 Flagstaff Ln. (Houston)	4:35 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	830 Rosewick St. (Houston)	4:45 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	NRG Energy Greens Bayou Plant (Houston)	4:45 AM	MultiRAE Lite; UltraRAE 3000	Cl2, NH3, LEL, O2, VOC; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	4008 N. McCarty (Houston)	4:45 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	16207 Darrian Ln. (Houston)	4:50 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	13229 Berwick St. (Houston)	5:00 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor
4/7/2019	402 Dividend St. (Houston)	5:00 AM	MultiRAE Benzene	Benzene, O2, H2S, CO, LEL, VOC	0 ppm, oxygen normal	No odor
4/7/2019	Kress Lyon Park, Denver Harbor Park, 6200 Lyon Ave. (Houston)	6:49 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-0.13 - 0.2 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	La Roca Pentecostal Church, 6022 - 6079 Glenarm St. (Houston)	7:14 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-0.37 to -0.18 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	Houston Independent School District, 5900-5902 Market St. (Houston)	7:37 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-0.53 to -0.41 ppm; 0 ppm, oxygen normal	No odor

Date	Location	Time (Approx.)	Instrument	Parameters	Survey Results	Other Notes/Observations
Sunday, April 7, 2019						
4/7/2019	Houston Garden Park (Houston)	8:09 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-0.67 to -0.5 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	Hobart Taylor Park, 8100 Kenton St. (Houston)	8:39 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-0.84 to -0.70 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	Herman Brown Park, 400 Mercury Dr. (Houston)	9:25 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-0.93 to -0.70 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	Lost Pines Bend and Wileywood Dr. (Houston)	9:53 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-1.01 to -0.83 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	Port Houston Elementary School, 1800 McCarty St. (Houston)	10:23 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-1.01 to -0.89 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	Judson Robinson Park, 1422 Ledwicke (Houston)	10:49 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-1.01 to -0.88 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	Macedonia Missionary Baptist Church, 1230 Maxine St. (Houston)	11:17 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-1.04 to -0.83 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	Denzer Harbor Park, 900 - 1020 Garzin St. (Houston)	11:49 AM	TVA; MultiRAE	VOC; H2S, LEL, CO, VOC, O2	-0.92 to -0.84 ppm; 0 ppm, oxygen normal	No odor
4/7/2019	14650 Crosby Fwy. (Houston)	11:50 AM	MultiRAE Benzene	LEL, VOC, H2S, CO, O2, Benzene	0 ppm, oxygen normal	No odor
4/7/2019	10924 Lane St. (Houston)	12:00 AM	MultiRAE Lite; UltraRAE 3000	O2, VOC, LEL, H2S, CO; Benzene	0 ppm, oxygen normal; 0 ppm	No odor