2017 Hurricane Harvey Deployment
Arkema Site and Rapid Needs Assessment Chemical Detections
9/7/2017 6:06:38 PM

Date	Flight #	Primary Mission	Compound	Limit of Detection (ppm)	Detections*
8/29	1	Systems Check			
8/30	2	Arkema Site	No Detections		
8/31	3	Arkema Site	No Detections		
8/31	4	Arkema Site	Peroxide* (Arkema)	5.3	Trace (6.3*)
8/31	5	Arkema Site	Peroxide* (Arkema)	5.3	Trace (6.3*)
9/1	6	Arkema Site	No Detections		
9/1	7	Arkema Site & Zone 5 RNA	Peroxide* (Arkema)	5.3	Trace (6.3*), multiple passes
9/1	8	Arkema Site (Fires)	Peroxide* (Arkema)	5.3	Trace (6.3*), multiple passes
9/2	9	Arkema Site & Zones 5 & 6 RNA	No Detections		
9/2	10	Arkema Site & Zone 6 RNA	Peroxide* (Arkema)	5.3	Trace (6.3*), multiple passes
9/2	11	Arkema Site	Peroxide* (Arkema)	5.3	Trace (6.3*)
9/3	12	Arkema Site Zone 6 & 7 RNA	Arkema: Peroxide Zone 6: 1-butene	5.3 12.0	Trace (6.3*) Trace (13*)
9/3	13	Arkema Site	Peroxide	5.3	7.7 ppm (max)
9/4	14	Zone 7 RNA	No Detections		
9/4	15	Zone 4 RNA	1-butene	12.0	Trace (13*)
9/5	16	Zone 4 RNA	No Detections		
9/5	17	Zone 4 RNA	No Detections		
9/6	18	Zone 10 RNA	No Detections		
9/6	19	Zone 8 RNA	1-butene	12.0	Trace (13*)

* "Trace" detection represents a value slightly above (about 1 ppm) the limit of detection. Peroxide measurements are being reported as requested by the Environmental Unit. These measurements are associated with the Arkema site and were obtained before, during, and after the trailers burned.

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The table below lists the chemical compounds that are included in the TCEQ short-term AMCV spreadsheet and in the ASPECT automated detection library. The ASPECT automated processing chemical detection algorithms look for every compound listed in the table but only report positive detections.

Chemical Compounds	Short-term AMCV (ppm)	ASPECT Dection Limit (ppm)*
1,1-dichloroethane	1.0	0.8
1-butene	27	12
acetone	11	5.6
dichlorodifluoromethane	10	0.7
ethyl acetate	4	0.8
ethylene	500	5
isobutane	33	15
methyl ethyl ketone	20	7.5
methylene chloride	3.4	1.1
n-butyl acetate	7.4	3.8
n-propyl acetate	2	0.7
propylene	Simple Asphyxiant	3.7
vinyl chloride	27	0.6

* The concentration limits are derived using a 10 meter plume path length.

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