Air Quality

in and around the Fore River Basin

24-hour testing at three sites near the Basin showed high levels of pollutants.

VOC	Cotton Ave. (Braintree)	Evans St. (Wey)	Bridge St. (Wey)	MassDEP 24 hour guideline (TEL)
	(in ppb)***	(in ppb)	(in ppb)	(in ppb)
Acetone	439	12.3	9.84	68.03
Benzene	0.883	0.57	0.43	0.2
Total alkanes^^^	326	9.11		95.24
Toluene	5.16	110.69	7.33	21.23
Total xylenes	1.65	4.47	1.91	2.72
Ethanol	46.3		5.85	24.21
Carbon disulfide			1.83	0.032
2-butanone (MEK)	151		3.51	67.82
1,2-dichloropropane	0.482			0.19
2-hexanone (MBK)	39.6			2.66
Methylene chloride	997			30

*** All values in parts per billion (ppb) except total alkanes, in micrograms per cubic meter to match units for the MassDEP TEL guideline

^^^ At Braintree, analysis included hexane and heptane only. In Weymouth, analysis included heptane only

Some conclusions based on analysis of the data:

1. Air quality in Braintree and Weymouth already violates the benzene guideline, even before the compressor station is built. This includes a sample collected at the proposed site itself.
2. Three of four tests had concentrations of xylenes and toluene that were higher than the maximum reading at MassDEP testing sites in Boston and Lynn (113 times more toluene in North Weymouth than in Boston).
3. In the small sample, 75% of testing days had benzene violations and 50% were higher than the maximum reading in Boston.
4. Three of the HAPs that are in violation of the MassDEP TEL guideline would also be released by Spectra's compressor station and make these violations worse: Benzene, xylenes, & toluene.

Some of the toxins were measured at levels nearly 2x to more than 57x the MassDEP 24-hour guideline.

Fold Violations

VOC Measured	Fold-violation		
	Cotton	Evans	Bridge
Acetone	6.45		
Benzene	4.42	2.85	2.15
Total alkanes^^^	3.42		
Toluene		5.21	
Total xylenes		1.64	
Ethanol	1.91		
Carbon disulfide			57.2
2-butanone (MEK)	2.23		
1,2-dichloropropane	2.54		
2-hexanone (MBK)	14.9		
Methylene chloride	33.2		

Results Compared to Boston

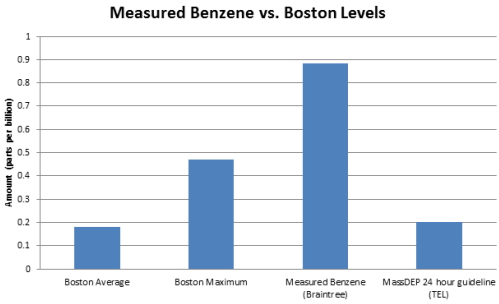
	Boston 2015 data		Fore River data
	Average	Maximum	Maximum
Benzene	0.181	0.47	0.883
Toluene	0.355	0.979	110.69
Xylenes	0.21	0.767	4.47

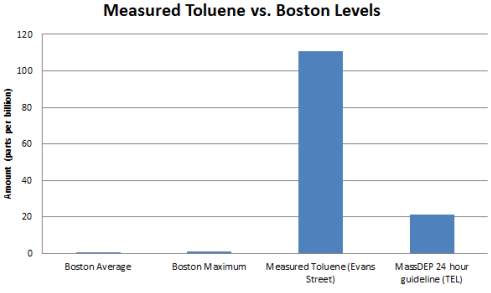
Analysis of the data was completed by Environmental Analytical Service, Inc., a certified lab in California.

For more info, visit: NoCompressor.com

Benzene

A volatile organic compound (VOC), found in gasoline, oil, and natural gas, as well as exhaust from burning these fuels, was **measured at levels that violate MassDEP 24-hour guidelines at three sites.**



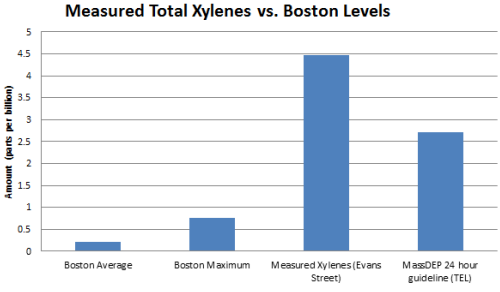


Toluene

Naturally occurring in crude oil and is a byproduct in the process of making gasoline and other fuels. Also often used in the making of paints, nylon, plastics, and more. Can cause headaches, dizziness, unconsciousness, and more. It was **measured at levels more than 5 times the MassDEP 24-hour guideline**, at the Evans street location.

Total Xylenes

They are petrochemicals and are often found in crude oil. They have the potential to cause damage to the central nervous system, liver, and kidneys.They were **measured at levels nearly 2 times the MassDEP 24-hour guidelines,** at the Evans street location.



Analysis of the data was completed by Environmental Analytical Service, Inc., a certified lab in California.

For more info, visit: NoCompressor.com