

TCEQ Analysis of ITC Water Quality Sampling Data (Final Lab Results)

The Texas Commission on Environmental Quality (TCEQ) assessed final water quality data for 117 constituents at one site. Thirty-five (35) samples were collected from April 12 through April 15, 2019 by Intercontinental Terminal Company (ITC). The constituents consist of organics, chemical oxygen demand (COD), and oil and grease in water. The sampling site was the following:

- Gate 13 Ditch

This assessment is based on final results received from the laboratory. As additional water quality sampling is completed, the data will be assessed, and results made available.

The TCEQ used the Texas Water Quality Standards and the Texas Risk Reduction Program as references for determining the known health protective concentration levels (PCLs) in surface water. PCLs are very conservative and below levels where we would expect any health impacts. The TCEQ is using these PCLs to evaluate impacts to aquatic life and human health. No public drinking water system draws its source water from the Houston Ship Channel. This methodology was also used for previously reviewed data from samples collected by ITC. The TCEQ used the PCLs listed in the tables below to assess the surface water quality data

Table 1. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 12, 2019 at 9:00 AM	Gate 13 Ditch on April 12, 2019 at 11:00 AM	Gate 13 Ditch on April 12, 2019 at 1:00 PM	Gate 13 Ditch on April 12, 2019 at 3:00 PM	Gate 13 Ditch on April 12, 2019 at 5:00 PM	Gate 13 Ditch on April 12, 2019 at 7:00 PM	Gate 13 Ditch on April 12, 2019 at 9:00 PM
Number of Constituents	117	117	117	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	107	107	108	108	107	107	107
Number of constituents detected above the method detection limit or quantitation limit	10	10	9	9	10	10	10
Number of constituents detected but below their known PCLs	5	6	5	6	7	7	8
Number of constituents that exceeded their known PCLs	5	4	4	3	3	3	2
Number of constituents that are still pending further TCEQ evaluation	0	0	0	0	0	0	0
Number of constituents that do not have a PCL or are assessed with other constituents	0	0	0	0	0	0	0

Table 1 continued. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 12, 2019 at 11:00 PM	Gate 13 Ditch on April 13, 2019 at 1:00 AM	Gate 13 Ditch on April 13, 2019 at 3:00 AM	Gate 13 Ditch on April 13, 2019 at 5:00 AM	Gate 13 Ditch on April 13, 2019 at 7:00 AM	Gate 13 Ditch on April 13, 2019 at 9:00 AM	Gate 13 Ditch on April 13, 2019 at 11:00 AM
Number of Constituents	117	117	117	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	110	109	110	110	111	112	112
Number of constituents detected above the method detection limit or quantitation limit	7	8	7	7	6	5	5
Number of constituents detected but below their known PCLs	5	6	5	5	4	3	3
Number of constituents that exceeded their known PCLs	2	2	2	2	2	2	2
Number of constituents that are still pending further TCEQ evaluation	0	0	0	0	0	0	0
Number of constituents that do not have a PCL or are assessed with other constituents	0	0	0	0	0	0	0

Table 1 continued. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 13, 2019 at 1:00 PM	Gate 13 Ditch on April 13, 2019 at 3:00 PM	Gate 13 Ditch on April 13, 2019 at 5:00 PM	Gate 13 Ditch on April 13, 2019 at 7:00 PM	Gate 13 Ditch on April 13, 2019 at 9:00 PM	Gate 13 Ditch on April 13, 2019 at 11:00 PM	Gate 13 Ditch on April 14, 2019 at 1:00 AM
Number of Constituents	117	117	117	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	111	109	107	110	108	109	108
Number of constituents detected above the method detection limit or quantitation limit	6	8	10	7	9	8	9
Number of constituents detected but below their known PCLs	3	6	7	5	6	6	7
Number of constituents that exceeded their known PCLs	3	2	3	2	3	2	2
Number of constituents that are still pending further TCEQ evaluation	0	0	0	0	0	0	0
Number of constituents that do not have a PCL or are assessed with other constituents	0	0	0	0	0	0	0

Table 1 continued. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 14, 2019 at 3:00 AM	Gate 13 Ditch on April 14, 2019 at 5:00 AM	Gate 13 Ditch on April 14, 2019 at 7:00 AM	Gate 13 Ditch on April 14, 2019 at 9:00 AM	Gate 13 Ditch on April 14, 2019 at 11:00 AM	Gate 13 Ditch on April 14, 2019 at 1:00 PM	Gate 13 Ditch on April 14, 2019 at 3:00 PM
Number of Constituents	117	117	117	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	108	108	108	108	106	108	108
Number of constituents detected above the method detection limit or quantitation limit	9	9	9	9	11	9	9
Number of constituents detected but below their known PCLs	7	6	6	6	6	5	5
Number of constituents that exceeded their known PCLs	2	3	3	3	5	4	4
Number of constituents that are still pending further TCEQ evaluation	0	0	0	0	0	0	0
Number of constituents that do not have a PCL or are assessed with other constituents	0	0	0	0	0	0	0

Table 1 continued. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 14, 2019 at 5:00 PM	Gate 13 Ditch on April 14, 2019 at 7:00 PM	Gate 13 Ditch on April 14, 2019 at 9:00 PM	Gate 13 Ditch on April 14, 2019 at 11:00 PM	Gate 13 Ditch on April 15, 2019 at 1:00 AM	Gate 13 Ditch on April 15, 2019 at 3:00 AM	Gate 13 Ditch on April 15, 2019 at 5:00 AM
Number of Constituents	117	117	117	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	108	108	108	108	108	108	108
Number of constituents detected above the method detection limit or quantitation limit	9	9	9	9	9	9	9
Number of constituents detected but below their known PCLs	5	5	5	5	6	6	5
Number of constituents that exceeded their known PCLs	4	4	4	4	3	3	4
Number of constituents that are still pending further TCEQ evaluation	0	0	0	0	0	0	0
Number of constituents that do not have a PCL or are assessed with other constituents	0	0	0	0	0	0	0

Below are tables of constituents that exceeded their known PCLs at each of the sampling times.

Table 2. Summary of Constituents Exceeding PCLs for April 12, 2019 at 9:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	6900	581
Xylenes, Total	7200	850
Toluene	2000	1000
COD	160000	150000*
Styrene	480	455

Table 3. Summary of Constituents Exceeding PCLs for April 12, 2019 at 11:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	7900	581
Xylenes, Total	6900	850
Toluene	2000	1000
Styrene	470	455

Table 4. Summary of Constituents Exceeding PCLs for April 12, 2019 at 1:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	7500	581
Xylenes, Total	7000	850
Toluene	2000	1000
Styrene	480	455

Table 5. Summary of Constituents Exceeding PCLs for April 12, 2019 at 3:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	7200	581
Xylenes, Total	6400	850
Toluene	1800	1000

Table 6. Summary of Constituents Exceeding PCLs for April 12, 2019 at 5:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	6800	581
Xylenes, Total	6300	850
Toluene	1800	1000

Table 7. Summary of Constituents Exceeding PCLs for April 12, 2019 at 7:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	7600	581
Xylenes, Total	5400	850
Toluene	1800	1000

Table 8. Summary of Constituents Exceeding PCLs for April 12, 2019 at 9:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4400	581
Xylenes, Total	3500	850

Table 9. Summary of Constituents Exceeding PCLs for April 12, 2019 at 11:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	2000	581
Xylenes, Total	1400	850

Table 10. Summary of Constituents Exceeding PCLs for April 13, 2019 at 1:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3000	581
Xylenes, Total	1700	850

Table 11. Summary of Constituents Exceeding PCLs for April 13, 2019 at 3:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3000	581
Xylenes, Total	1400	850

Table 12. Summary of Constituents Exceeding PCLs for April 13, 2019 at 5:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3000	581
Xylenes, Total	1400	850

Table 13. Summary of Constituents Exceeding PCLs for April 13, 2019 at 7:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	2400	581
Xylenes, Total	1200	850

Table 14. Summary of Constituents Exceeding PCLs for April 13, 2019 at 9:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	2100	581
Xylenes, Total	1100	850

Table 15. Summary of Constituents Exceeding PCLs for April 13, 2019 at 11:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	2200	581
Xylenes, Total	1200	850

Table 16. Summary of Constituents Exceeding PCLs for April 13, 2019 at 1:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
2,6-Dinitrotoluene	140	30
Benzene	2600	581
Xylenes, Total	1500	850

Table 17. Summary of Constituents Exceeding PCLs for April 13, 2019 at 3:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3400	581
Xylenes, Total	1900	850

Table 18. Summary of Constituents Exceeding PCLs for April 13, 2019 at 5:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3500	581
2,6-Dinitrotoluene	140	30
Xylenes, Total	1900	850

Table 19. Summary of Constituents Exceeding PCLs for April 13, 2019 at 7:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3400	581
Xylenes, Total	1800	850

Table 20. Summary of Constituents Exceeding PCLs for April 13, 2019 at 9:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3800	581
2,6-Dinitrotoluene	140	30
Xylenes, Total	2000	850

Table 21. Summary of Constituents Exceeding PCLs for April 13, 2019 at 11:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3800	581
Xylenes, Total	2000	850

Table 22. Summary of Constituents Exceeding PCLs for April 14, 2019 at 1:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4000	581
Xylenes, Total	2100	850

Table 23. Summary of Constituents Exceeding PCLs for April 14, 2019 at 3:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4000	581
Xylenes, Total	2200	850

Table 24. Summary of Constituents Exceeding PCLs for April 14, 2019 at 5:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4100	581
Xylenes, Total	2300	850
COD	225000	150000*

Table 25. Summary of Constituents Exceeding PCLs for April 14, 2019 at 7:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4200	581
Xylenes, Total	2400	850
COD	295000	150000*

Table 26. Summary of Constituents Exceeding PCLs for April 14, 2019 at 9:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4200	581
Xylenes, Total	2400	850
COD	305000	150000*

Table 27. Summary of Constituents Exceeding PCLs for April 14, 2019 at 11:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4400	581
Xylenes, Total	2600	850
2-Methylnaphthalene	82	30
COD	295000	150000*
Toluene	1100	1000

Table 28. Summary of Constituents Exceeding PCLs for April 14, 2019 at 1:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4400	581
Xylenes, Total	2600	850
COD	390000	150000*
Toluene	1100	1000

Table 29. Summary of Constituents Exceeding PCLs for April 14, 2019 at 3:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4400	581
Xylenes, Total	2500	850
COD	430000	150000*
Toluene	1100	1000

Table 30. Summary of Constituents Exceeding PCLs for April 14, 2019 at 5:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4700	581
COD	475000	150000*
Xylenes, Total	2500	850
Toluene	1100	1000

Table 31. Summary of Constituents Exceeding PCLs for April 14, 2019 at 7:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4700	581
COD	490000	150000*
Xylenes, Total	2500	850
Toluene	1100	1000

Table 32. Summary of Constituents Exceeding PCLs for April 14, 2019 at 9:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4900	581
COD	550000	150000*
Xylenes, Total	2500	850
Toluene	1200	1000

Table 33. Summary of Constituents Exceeding PCLs for April 14, 2019 at 11:00 PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4100	581
COD	600000	150000*
Xylenes, Total	2500	850
Toluene	1200	1000

Table 34. Summary of Constituents Exceeding PCLs for April 15, 2019 at 1:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4300	581
COD	600000	150000*
Xylenes, Total	2000	850

Table 35. Summary of Constituents Exceeding PCLs for April 15, 2019 at 3:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4200	581
COD	555000	150000*
Xylenes, Total	1900	850

Table 36. Summary of Constituents Exceeding PCLs for April 15, 2019 at 5:00 AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4500	581
COD	565000	150000*
Xylenes, Total	2100	850
Toluene	1100	1000

Footnote:

*COD is a measure of the oxygen demand exerted by chemical constituents in water. There was not a known PCL for COD, therefore the permitted technology-based limit was used for comparison purposes. Although COD levels for treated process wastewater vary 150000 micrograms/L for noncontact stormwater was provided for comparison purposes.