

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. Fourteen (14) samples were collected from April 15 through April 16, 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 and will be used to review samples from the TCEQ contractor. 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 15, 2019 at 7:00AM	Gate 13 Ditch on April 15, 2019 at 9:00AM	Gate 13 Ditch on April 15, 2019 at 11:00AM	Gate 13 Ditch on April 15, 2019 at 1:00PM	Gate 13 Ditch on April 15, 2019 at 3:00PM
Number of Constituents	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	107	107
Number of constituents detected above the method detection limit or quantitation limit	9	9	9	10	10
Number of constituents detected but below their known PCLs	6	6	6	6	6
Number of constituents that exceeded their known PCLs	3	3	3	4	4
Number of constituents that are still pending further TCEQ evaluation	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

Table 1 continued. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 15, 2019 at 5:00PM	Gate 13 Ditch on April 15, 2019 at 7:00PM	Gate 13 Ditch on April 15, 2019 at 9:00PM	Gate 13 Ditch on April 15, 2019 at 11:00PM	Gate 13 Ditch on April 16, 2019 at 1:00 AM
Number of Constituents	117	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	107	107	107	107	108
Number of constituents detected above the method detection limit or quantitation limit	10	10	10	10	9
Number of constituents detected but below their known PCLs	6	6	5	6	6
Number of constituents that exceeded their known PCLs	4	4	5	4	3
Number of constituents that are still pending further TCEQ evaluation	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

Table 1 continued. Assessment of Final Laboratory Results

	Gate 13 Ditch on April 16, 2019 at 3:00AM	Gate 13 Ditch on April 16, 2019 at 5:00AM	Gate 13 Ditch on April 16, 2019 at 7:00AM	Gate 13 Ditch on April 16, 2019 at 9:00AM
Number of Constituents	117	117	117	117
Number of constituents analyzed but not detected (not detected above the method detection limit or quantitation limit)	107	106	109	108
Number of constituents detected above the method detection limit or quantitation limit	10	11	8	9
Number of constituents detected but below their known PCLs	7	7	5	6
Number of constituents that exceeded their known PCLs	3	4	3	3
Number of constituents that are still pending further TCEQ evaluation	0	0	0	0
Number of constituents that do not have a PCL or are assessed with other constituents	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 15, 2019 at 7:00AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4200	581
COD	600000	150000*
Xylenes, Total	1900	850

Table 3. Summary of Constituents Exceeding PCLs for April 15, 2019 at 9:00AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4400	581
COD	570000	150000*
Xylenes, Total	2000	850

Table 4. Summary of Constituents Exceeding PCLs for April 15, 2019 at 11:00AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4400	581
COD	580000	150000*
Xylenes, Total	2000	850

Table 5. Summary of Constituents Exceeding PCLs for April 15, 2019 at 1:00PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4700	581
COD	420000	150000*
Xylenes, Total	2200	850
Toluene	1100	1000

Table 6. Summary of Constituents Exceeding PCLs for April 15, 2019 at 3:00PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4900	581
COD	460000	150000*
Xylenes, Total	2300	850
Toluene	1100	1000

Table 7. Summary of Constituents Exceeding PCLs for April 15, 2019 at 5:00PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	5100	581
COD	440000	150000*
Xylenes, Total	2300	850
Toluene	1200	1000

Table 8. Summary of Constituents Exceeding PCLs for April 15, 2019 at 7:00PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4900	581
COD	410000	150000*
Xylenes, Total	2200	850
Toluene	1100	1000

Table 9. Summary of Constituents Exceeding PCLs for April 15, 2019 at 9:00PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	5300	581
2,6-Dinitrotoluene	140	30
Xylenes, Total	2400	850
COD	410000	150000*
Toluene	1200	1000

Table 10. Summary of Constituents Exceeding PCLs for April 15, 2019 at 11:00PM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	5000	581
Xylenes, Total	2200	850
COD	335000	150000*
Toluene	1100	1000

Table 11. Summary of Constituents Exceeding PCLs for April 16, 2019 at 1:00AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	4200	581
COD	290000	150000*
Xylenes, Total	1900	850

Table 12. Summary of Constituents Exceeding PCLs for April 16, 2019 at 3:00AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3700	581
COD	305000	150000*
Xylenes, Total	1700	850

Table 13. Summary of Constituents Exceeding PCLs for April 16, 2019 at 5:00AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3400	581
2,6-Dinitrotoluene	140	30
COD	300000	150000*
Xylenes, Total	1600	850

Table 14. Summary of Constituents Exceeding PCLs for April 16, 2019 at 7:00AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3300	581
COD	305000	150000*
Xylenes, Total	1500	850

Table 15. Summary of Constituents Exceeding PCLs for April 16, 2019 at 9:00AM Sample

Constituent	Maximum (micrograms/L)	PCL (micrograms/L)
Benzene	3400	581
COD	300000	150000*
Xylenes, Total	1500	850

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.