



Sample Deployment Date	24-Dec-18	8-Jan-19	22-Jan-19	5-Feb-19	19-Feb-19	5-Mar-19	19-Mar-19	2-Apr-19	16-Apr-19	30-Apr-19	14-May-19	28-May-19	11-Jun-19	
Sample Retrieval Date	8-Jan-19	22-Jan-19	5-Feb-19	19-Feb-19	5-Mar-19	19-Mar-19	2-Apr-19	16-Apr-19	30-Apr-19	14-May-19	28-May-19	11-Jun-19	25-Jun-19	
UTM Coordinates	Location	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	
384557mE, 4755365mN	Station #1	3.29	3.27	9.26	3.34	3.25	5.23	6.03	4.13	4.34	1.94	3.98	3.48	3.41
384977mE, 4755264mN	Station #2	5.75	4.48	67.90	2.83	3.83	4.53	5.73	3.18	2.43	2.83	3.97	3.83	3.91
384802mE, 4754965mN	Station #3	27.50	14.10	>80	12.60	21.30	22.10	32.30	14.90	14.30	15.60	25.20	22.30	18.90
384601mE, 4754820mN	Station #4	3.83	4.34	3.55	12.20	10.40	6.21	8.08	9.03	8.34	12.80	8.63	7.61	6.75
384425mE, 4754949mN	Station #5	3.33	4.75	7.43	10.50	9.46	9.09	4.56	7.52	4.84	8.20	4.98	4.67	2.38
384471mE, 4755177mN	Station #6	4.87	4.86	4.79	5.12	7.05	6.67	3.73	4.82	5.67	8.70	5.42	4.05	3.95
383689mE, 4755204mN	Station #7	2.08	1.46	11.40	3.37	2.85	13.30	10.60	3.28	6.37	1.86	2.64	3.27	3.58
383812mE, 4755079mN	Station #8	1.39	1.31	53.00	5.30	7.49	17.30	14.30	5.08	3.61	3.56	4.51	6.37	5.63
383796mE, 4754993mN	Station #9	1.33	1.30	>80	10.20	15.90	38.50	18.30	10.10	5.32	5.68	6.70	10.20	8.99
383676mE, 4754870mN	Station #10	1.50	1.05	3.47	65.60	28.60	2.15	29.40	93.70	77.30	61.30	16.70	20.70	9.77
383547mE, 4754954mN	Station #11	2.13	1.59	8.70	8.36	15.20	27.30	3.23	20.50	15.40	5.85	8.16	6.68	4.32
383581mE, 4755077mN	Station #12	12.20	1.84	5.25	5.97	6.73	33.30	7.79	8.42	13.40	2.19	4.03	2.90	4.04

Field QA/QC Data

Field Blank #1	Location	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2
	Value (ug/m3)	<0.29	<0.32	<0.32	<0.32	<0.32	<0.31	<0.31	<0.31	<0.31	<0.29	<0.31	<0.30	<0.30
Field Duplicate	Location	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2
	Value (ug/m3)	5.79	13.40	3.39	10.90	7.18	5.25	5.60	13.90	8.37	8.30	5.22	3.55	3.88
	RPD (%)	0.70%	4.96%	4.51%	3.81%	1.84%	0.38%	2.27%	6.71%	0.36%	1.22%	3.69%	2.01%	0.77%
Field Blank #2	Location	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8
	Value (ug/m3)	<0.29	<0.32	<0.32	<0.32	<0.32	<0.31	<0.31	<0.31	<0.31	<0.29	<0.31	<0.30	<0.30
Field Duplicate	Location	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8
	Value (ug/m3)	1.36	1.31	3.54	8.43	6.83	12.70	13.80	9.48	75.50	5.76	3.99	3.55	5.27
	RPD (%)	2.16%	0.77%	2.02%	0.84%	1.49%	4.51%	3.50%	6.14%	2.33%	1.54%	0.99%	8.56%	6.39%

Notes:

- 1) RPD is Relative Percent Difference (Difference / Mean expressed as a percent). Used as the default precision evaluation.
- 2) Event 3 Stations 8 & 9: January 27 to January 28, 2019, during the re-filling of a benzene storage tank (after inspection), INEOS Styrolution Sarnia Site received. grab sample analysis indicating increased levels of benzene at Styrene 1. The Ministry of the Environment, Conservation & Parks (MECP) Spills Action Centre was notified and subsequent updates were provided. A portable thermal oxidizer to control emissions was utilized during tank filling. According to the CASA air quality monitoring data website, the winds were from the west during this time. Air quality results from the station were in the "good" range.
- 3) Event 3 Station 2 & 3, Event 7 Station 3: INEOS Styrolution Sarnia Site is investigating potential sources of emissions affecting Stations 2 and 3.
- 4) Event 4, 5 & 7 Station 10, Event 6 Station 9: During the January tank refill at Styrene 1 it was discovered that a flange was a source of benzene emissions. Repairs were attempted and have been confirmed successful.
- 5) Event 6 Stations 11 & 12: Demolition of obsolete non-benzene containing storage tanks in close proximity to stations 11 and 12 was occurring during this time. INEOS Styrolution Sarnia Site is investigating potential sources of emissions.
- 6) Event 8, 9 & 10: INEOS Styrolution is investigating potential sources of emissions affecting Station 10.
- 7) Event 14 Station 3: INEOS Styrolution is investigating potential sources of emissions affecting Station 3.



Sample Deployment Date		25-Jun-19	9-Jul-19	23-Jul-19	6-Aug-19	20-Aug-19	3-Sep-19	17-Sep-19	1-Oct-19	15-Oct-19	29-Oct-19	12-Nov-19	10-Dec-19
Sample Retrieval Date		9-Jul-19	23-Jul-19	6-Aug-19	20-Aug-19	3-Sep-19	17-Sep-19	1-Oct-19	15-Oct-19	29-Oct-19	12-Nov-19	26-Nov-19	24-Dec-19
UTM Coordinates	Location	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
384557mE, 4755365mN	Station #1	5.04											
384977mE, 4755264mN	Station #2	5.81											
384802mE, 4754965mN	Station #3	36.30											
384601mE, 4754820mN	Station #4	7.68											
384425mE, 4754949mN	Station #5	3.70											
384471mE, 4755177mN	Station #6	4.34											
383689mE, 4755204mN	Station #7	6.36											
383812mE, 4755079mN	Station #8	11.80											
383796mE, 4754993mN	Station #9	19.40											
383676mE, 4754870mN	Station #10	15.50											
383547mE, 4754954mN	Station #11	5.14											
383581mE, 4755077mN	Station #12	6.40											

Field QA/QC Data

Field Blank #1		Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2
Location	Value (ug/m3)	<0.30											
Field Duplicate		Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2
Location	Value (ug/m3)	36.60											
	RPD (%)	0.83%											
Field Blank #2		Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8
Location	Value (ug/m3)	<0.30											
Field Duplicate		Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8
Location	Value (ug/m3)	18.50											
	RPD (%)	4.64%											



Sample Deployment Date		9-Jan-18	23-Jan-18	6-Feb-18	20-Feb-18	6-Mar-18	20-Mar-18	3-Apr-18	17-Apr-18	1-May-18	15-May-18	29-May-18	12-Jun-18	26-Jun-18
Sample Retrieval Date		23-Jan-18	6-Feb-18	20-Feb-18	6-Mar-18	20-Mar-18	3-Apr-18	17-Apr-18	1-May-18	15-May-18	29-May-18	12-Jun-18	26-Jun-18	10-Jul-18
UTM Coordinates	Location	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
384557mE, 4755365mN	Station #1	6.86	11.70	12.80	6.67	2.69	4.61	2.77	3.93	6.49	4.80	3.77	5.50	8.98
384977mE, 4755264mN	Station #2	10.40	9.51	5.16	6.45	3.57	2.25	2.54	4.44	5.05	6.76	2.98	5.04	4.89
384802mE, 4754965mN	Station #3	56.80	58.50	40.80	20.80	26.70	14.60	17.40	18.80	31.30	28.80	23.40	22.10	38.70
384601mE, 4754820mN	Station #4	6.97	8.57	8.11	13.20	6.02	11.00	9.89	13.60	6.83	11.00	15.90	15.40	6.37
384425mE, 4754949mN	Station #5	6.09	23.70	15.60	30.40	9.02	9.26	8.84	6.45	5.86	9.02	36.30	29.60	9.55
384471mE, 4755177mN	Station #6	8.38	8.54	19.90	5.92	3.76	6.00	3.87	5.15	3.65	5.23	8.86	7.94	9.13
383689mE, 4755204mN	Station #7	6.80	4.03	5.84	4.51	2.16	2.42	2.89	6.49	7.95	7.04	5.79	3.10	5.58
383812mE, 4755079mN	Station #8	13.50	11.80	9.51	6.36	4.81	2.50	4.26	7.14	10.80	11.30	4.96	3.16	2.77
383796mE, 4754993mN	Station #9	24.10	22.20	13.80	10.50	8.36	3.02	6.83	10.40	18.50	16.50	6.88	4.68	2.41
383676mE, 4754870mN	Station #10	6.16	11.10	12.40	26.70	18.70	37.90	28.10	7.84	17.40	16.60	>1000	5.87	1.96
383547mE, 4754954mN	Station #11	10.90	2.50	6.84	7.15	5.65	9.29	6.04	7.85	3.49	7.23	34.70	3.58	2.54
383581mE, 4755077mN	Station #12	15.50	5.33	5.82	2.96	2.87	3.46	5.69	5.39	3.19	5.20	8.28	4.37	5.68

Field QA/QC Data

Field Blank #1	Location	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1
	Value (ug/m3)	<0.32	<0.32	<0.32	<0.31	<0.32	<0.31	<0.31	<0.31	<0.31	<0.30	<0.30	<0.30	<0.30
Field Duplicate	Location	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1
	Value (ug/m3)	6.64	9.46	39.40	12.20	8.80	6.29	2.67	4.03	30.50	10.70	35.70	7.83	9.24
	RPD (%)	3.21%	0.53%	3.43%	7.58%	2.44%	4.83%	3.61%	9.23%	2.56%	2.73%	1.65%	1.39%	2.90%
Field Blank #2	Location	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7
	Value (ug/m3)	<0.32	<0.32	<0.32	<0.31	<0.32	<0.31	<0.31	<0.31	<0.31	<0.30	<0.30	<0.30	<0.30
Field Duplicate	Location	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7
	Value (ug/m3)	6.91	10.70	13.50	27.80	5.72	3.46	3.12	7.33	17.90	12.30	34.50	4.36	5.46
	RPD (%)	1.62%	9.32%	2.17%	4.12%	1.24%	0.00%	7.96%	2.66%	3.24%	25.90%	0.58%	0.23%	2.15%

Notes:

1) RPD is Relative Percent Difference (Difference / Mean expressed as a percent). Used as the default precision evaluation.

2) On June 10, 2018 during the cleaning of a decommissioned benzene storage tank (to prepare tank for inspection), INEOS Styrolution Sarnia Site received grab sample analyses indicating increased levels of benzene at Styrene I (located on Vidal St). The Ministry of Environment and Climate Change (MOECC Spills Action Centre) was notified and subsequent updates were provided to the MOECC (SAC) from June 10, 2018 to June 15, 2018. The third party consultant continued taking grab samples twice daily and results indicated a decrease in benzene levels. The tank of concern is located on the Southeast corner of Styrene I, directly adjacent to Ambient Monitoring Station #10 and collected elevated sample results for the two-week period occurring May 29, 2018 – June 12, 2018.



Sample Deployment Date		10-Jul-18	24-Jul-18	7-Aug-18	21-Aug-18	4-Sep-18	18-Sep-18	2-Oct-18	16-Oct-18	30-Oct-18	13-Nov-18	26-Nov-18	10-Dec-18
Sample Retrieval Date		24-Jul-18	7-Aug-18	21-Aug-18	4-Sep-18	18-Sep-18	2-Oct-18	16-Oct-18	30-Oct-18	13-Nov-18	26-Nov-18	10-Dec-18	24-Dec-18
UTM Coordinates	Location	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
384557mE, 4755365mN	Station #1	6.77	4.79	3.87	5.41	3.55	2.65	3.46	1.91	3.20	2.59	2.25	5.69
384977mE, 4755264mN	Station #2	4.01	3.76	3.79	5.19	2.97	2.03	2.84	6.63	3.54	3.43	4.57	3.91
384802mE, 4754965mN	Station #3	25.80	30.50	15.20	37.70	10.10	13.70	17.00	23.90	12.90	13.70	14.00	23.80
384601mE, 4754820mN	Station #4	9.59	2.73	7.19	2.82	10.50	6.09	1.98	3.70	4.55	3.61	3.84	3.56
384425mE, 4754949mN	Station #5	12.30	3.32	6.55	4.51	16.60	5.41	2.15	3.72	4.07	3.63	2.43	3.34
384471mE, 4755177mN	Station #6	11.40	3.77	6.67	6.23	5.07	3.33	4.65	1.27	3.03	3.91	2.56	5.86
383689mE, 4755204mN	Station #7	4.19	4.97	2.62	4.97	2.88	2.97	3.09	2.23	1.45	0.97	0.99	2.11
383812mE, 4755079mN	Station #8	2.61	2.76	3.24	3.21	1.86	1.75	1.65	2.07	1.47	0.96	1.06	1.73
383796mE, 4754993mN	Station #9	2.83	2.60	2.25	2.03	2.02	1.66	1.44	1.56	1.70	1.45	1.27	1.82
383676mE, 4754870mN	Station #10	2.27	1.44	2.30	1.49	2.69	1.72	1.02	0.89	1.13	0.96	0.95	1.58
383547mE, 4754954mN	Station #11	2.74	1.54	1.78	1.91	3.60	2.79	1.52	1.11	1.71	1.34	1.73	2.23
383581mE, 4755077mN	Station #12	3.14	2.74	3.44	2.76	6.14	3.69	1.33	2.28	1.55	1.29	1.04	5.01

Field QA/QC Data

Field Blank #1	Location	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1
	Value (ug/m3)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.31	<0.31	<0.31	<0.31	<0.34	<0.31	<0.31
Field Duplicate	Location	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1
	Value (ug/m3)	4.00	29.50	7.67	4.36	4.89	2.38	2.75	23.30	4.48	3.56	2.49	5.48
	RPD (%)	0.25%	3.28%	6.68%	3.33%	3.55%	10.19%	3.17%	2.51%	1.54%	1.93%	2.73%	3.69%
Field Blank #2	Location	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7
	Value (ug/m3)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.31	<0.31	<0.31	<0.31	<0.34	<0.31	<0.31
Field Duplicate	Location	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7
	Value (ug/m3)	2.78	2.63	2.27	1.96	6.18	2.95	1.16	1.52	1.20	1.26	1.01	2.22
	RPD (%)	6.51%	1.15%	1.30%	2.62%	0.65%	0.67%	29.70%	2.56%	6.19%	5.97%	2.88%	5.21%