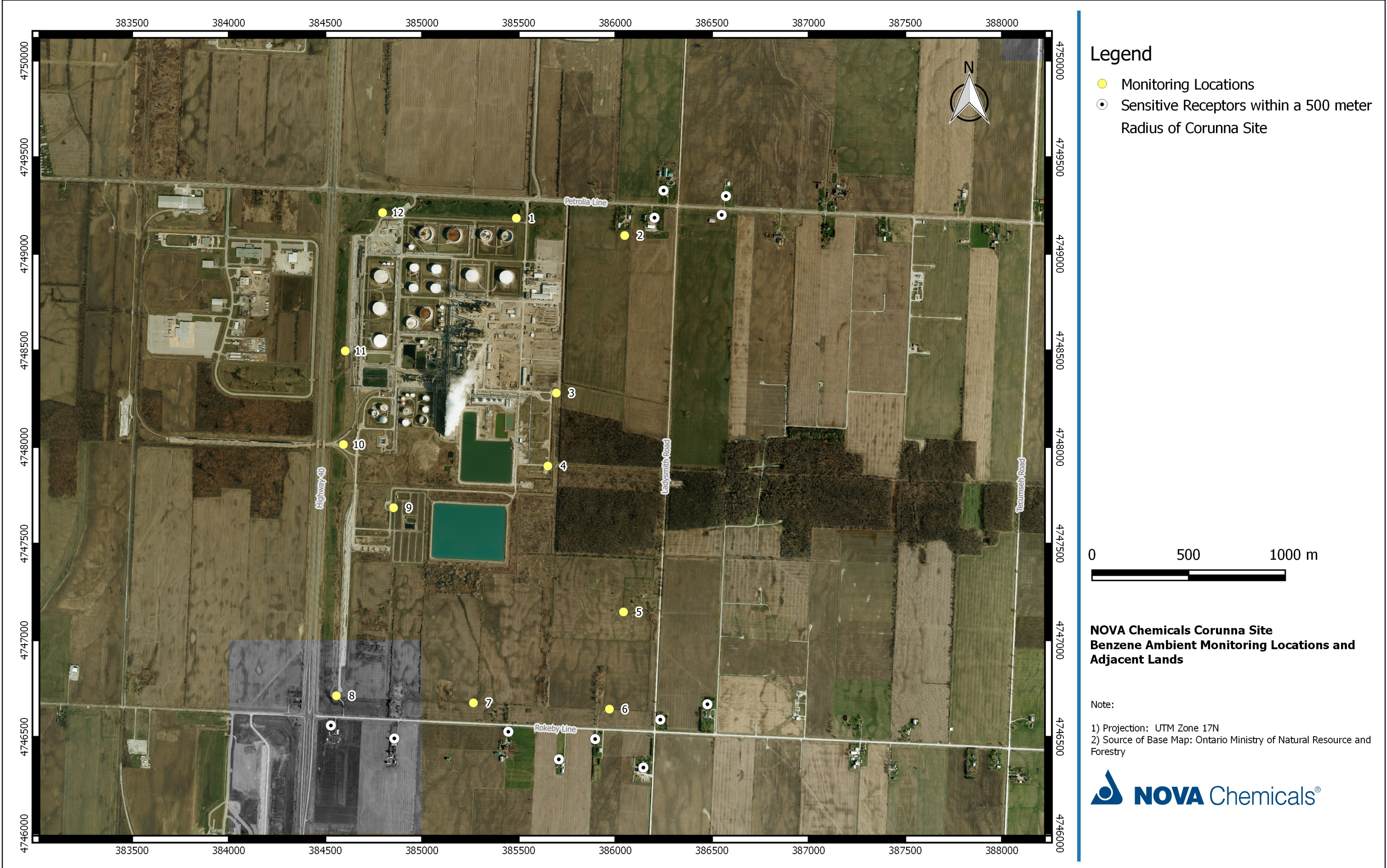




Legend

- Monitoring Locations
- Sensitive Receptors within a 500 meter Radius of Corunna Site



NOVA Chemicals Corunna Site  
Benzene Ambient Monitoring Locations and  
Adjacent Lands

Note:  
1) Projection: UTM Zone 17N  
2) Source of Base Map: Ontario Ministry of Natural Resource and Forestry



## NOVA Chemicals Corunna Site Benzene Ambient Monitoring Results - 2022

| Ambient Monitoring Location ID                                                                               |                      | 1       | 2       | 3       | 4       | 5       | 6       | 7               | 8       | 9       | 10      | 11      | 12      |
|--------------------------------------------------------------------------------------------------------------|----------------------|---------|---------|---------|---------|---------|---------|-----------------|---------|---------|---------|---------|---------|
| Location<br>(UTM Coordinates)                                                                                | Easting (m) →        | 385487  | 386047  | 385694  | 385650  | 386041  | 385968  | 385265          | 384556  | 384852  | 384592  | 384602  | 384795  |
|                                                                                                              | Northing (m) →       | 4749184 | 4749094 | 4748280 | 4747902 | 4747146 | 4746643 | 4746676         | 4746713 | 4747686 | 4748013 | 4748497 | 4749212 |
| Two-Week Measured Benzene<br>Concentration (µg/m <sup>3</sup> )<br>2022 Monitoring<br>(MM/DD/YY to MM/DD/YY) | Date Range ↓         |         |         |         |         |         |         |                 |         |         |         |         |         |
|                                                                                                              | 12/22/21 to 01/05/22 | 2.09    | 1.05    | 1.09    | 0.87    | 0.86    | 0.84    | 0.81            | 0.83    | 3.36    | 0.72    | 2.55    | 2.15    |
|                                                                                                              | 01/05/22 to 01/19/22 | 2.06    | 1.21    | 1.01    | 1.70    | 0.74    | 0.74    | 0.81            | 0.69    | 1.84    | 1.53    | 1.11    | 1.26    |
|                                                                                                              | 01/19/22 to 02/02/22 | 1.58    | 0.83    | 0.87    | 1.05    | 1.02    | 0.86    | 0.82            | 0.70    | 0.97    | 0.78    | 1.22    | 3.51    |
|                                                                                                              | 02/02/22 to 02/16/22 | 2.72    | 0.95    | 1.67    | 1.44    | 1.09    | 0.77    | 0.79            | 0.78    | 2.58    | 0.84    | 1.21    | 2.56    |
|                                                                                                              | 02/16/22 to 03/02/22 | 2.87    | 1.07    | 1.12    | 1.25    | 0.74    | 0.63    | 0.98            | 0.76    | 2.53    | 1.41    | 1.08    | 1.77    |
|                                                                                                              | 03/02/22 to 03/16/22 | 2.10    | 0.80    | 0.97    | 1.08    | 0.97    | 0.81    | 0.76            | 0.80    | 1.57    | 1.13    | 1.78    | 3.02    |
|                                                                                                              | 03/16/22 to 03/30/22 | 2.13    | 0.77    | 1.11    | 1.53    | 0.97    | 0.63    | 0.70            | 0.61    | 2.44    | 0.86    | 2.00    | 2.13    |
|                                                                                                              | 03/30/22 to 04/13/22 | 0.98    | 0.62    | 0.84    | 0.68    | 0.51    | 0.60    | 0.66            | 0.55    | 0.84    | 0.60    | 1.86    | 2.47    |
|                                                                                                              | 04/13/22 to 04/27/22 | 2.66    | 1.10    | 2.92    | 1.48    | 0.51    | 0.37    | 0.49            | 0.55    | 1.06    | 1.79    | 2.09    | 3.10    |
|                                                                                                              | 04/27/22 to 05/11/22 | 0.77    | 0.64    | 0.83    | 0.56    | 0.47    | 0.42    | 0.36            | 1.12    | 5.38    | 3.48    | 6.46    | 1.95    |
|                                                                                                              | 05/11/22 to 05/25/22 | 1.14    | 0.56    | 1.30    | 1.42    | 0.56    | 0.52    | 0.72            | 0.96    | 4.48    | 1.73    | 4.52    | 2.85    |
|                                                                                                              | 05/25/22 to 06/08/22 | 2.36    | 1.07    | 1.54    | 0.95    | 0.47    | 0.43    | 0.76            | 0.91    | 3.59    | 1.24    | 2.75    | 2.37    |
|                                                                                                              | 06/08/22 to 06/22/22 | 2.83    | 0.99    | 2.22    | 1.84    | 0.37    | 0.30    | 0.69            | 0.85    | 2.17    | 1.16    | 2.12    | 2.58    |
|                                                                                                              | 06/22/22 to 07/06/22 | 1.84    | 0.68    | 0.66    | 0.91    | 0.30    | 0.30    | NR <sup>4</sup> | 0.46    | 2.18    | 0.93    | 1.40    | 1.95    |
|                                                                                                              | 07/06/22 to 07/20/22 | 1.73    | 0.63    | 0.98    | 0.80    | 0.39    | 0.39    | 0.58            | 0.77    | 4.49    | 2.37    | 2.99    | 2.98    |
|                                                                                                              | 07/20/22 to 08/03/22 | 2.79    | 1.18    | 2.18    | 1.26    | 0.39    | 0.32    | 0.30            | 0.30    | 0.45    | 0.51    | 0.55    | 1.64    |
|                                                                                                              | 08/03/22 to 08/17/22 | 2.28    | 0.82    | 0.98    | 0.78    | 0.81    | 0.63    | 0.74            | 1.13    | 3.87    | 2.18    | 1.99    | 2.05    |
|                                                                                                              | 08/17/22 to 08/31/22 | 2.53    | 1.17    | 1.45    | 1.14    | 0.82    | 0.74    | 0.68            | 0.79    | 2.27    | 0.83    | 1.87    | 2.64    |
|                                                                                                              | 08/31/22 to 09/14/22 | 1.95    | 0.74    | 1.68    | 0.86    | 0.65    | 0.49    | 0.60            | 1.04    | 0.33    | 1.22    | 2.53    | 4.77    |
|                                                                                                              | 09/14/22 to 09/28/22 | 3.11    | 0.93    | 2.25    | 1.79    | 1.04    | 0.62    | 0.53            | 0.54    | 1.45    | 0.87    | 1.01    | 5.19    |
|                                                                                                              | 09/28/22 to 10/12/22 | 2.78    | 1.34    | 1.17    | 1.31    | 0.71    | 0.51    | 0.47            | 0.63    | 2.17    | 1.46    | 1.63    | 2.88    |
|                                                                                                              | 10/12/22 to 10/26/22 | 1.70    | 0.89    | 1.01    | 1.22    | 0.42    | 0.33    | 0.52            | 0.30    | 0.36    | 0.30    | 1.72    | 5.29    |
|                                                                                                              | 10/26/22 to 11/09/22 | 1.59    | 0.67    | 0.69    | 0.65    | 0.62    | 0.44    | 0.48            | 0.39    | 0.52    | 0.93    | 1.48    | 0.47    |
|                                                                                                              | 11/09/22 to 11/23/22 | 4.22    | 2.68    | 1.96    | 1.19    | 0.72    | 0.59    | 0.51            | 0.39    | 0.47    | 0.87    | 0.64    | 2.51    |
|                                                                                                              | 11/23/22 to 12/07/22 | 4.13    | 1.46    | 2.23    | 1.85    | 0.87    | 0.74    | 0.75            | 0.69    | 1.32    | 1.04    | 2.16    | 5.59    |
|                                                                                                              | 12/07/22 to 12/21/22 | 1.45    | 0.89    | 1.00    | 0.79    | 0.62    | 0.59    | 0.48            | 0.55    | 0.77    | 1.61    | 1.89    | 1.59    |
|                                                                                                              |                      |         |         |         |         |         |         |                 |         |         |         |         |         |
|                                                                                                              | 2022 Average         | 2.25    | 0.99    | 1.37    | 1.17    | 0.68    | 0.56    | 0.64            | 0.70    | 2.06    | 1.25    | 2.02    | 2.74    |
|                                                                                                              |                      |         |         |         |         |         |         |                 |         |         |         |         |         |

<sup>4</sup> The results were not reportable due to sample contamination from pesticide use at the sample location to remove wasps

## NOVA Chemicals Corunna Site Benzene Ambient Monitoring Results - 2021

| Ambient Monitoring Location ID                                                                               |                      | 1       | 2       | 3       | 4       | 5       | 6               | 7               | 8       | 9       | 10      | 11      | 12      |
|--------------------------------------------------------------------------------------------------------------|----------------------|---------|---------|---------|---------|---------|-----------------|-----------------|---------|---------|---------|---------|---------|
| Location<br>(UTM Coordinates)                                                                                | Easting (m) →        | 385487  | 386047  | 385694  | 385650  | 386041  | 385968          | 385265          | 384556  | 384852  | 384592  | 384602  | 384795  |
|                                                                                                              | Northing (m) →       | 4749184 | 4749094 | 4748280 | 4747902 | 4747146 | 4746643         | 4746676         | 4746713 | 4747686 | 4748013 | 4748497 | 4749212 |
| Two-Week Measured Benzene<br>Concentration (µg/m <sup>3</sup> )<br>2021 Monitoring<br>(MM/DD/YY to MM/DD/YY) | Date Range ↓         |         |         |         |         |         |                 |                 |         |         |         |         |         |
|                                                                                                              | 12/22/20 to 01/06/21 | 1.23    | 0.87    | 1.29    | 0.91    | 0.70    | 0.72            | 0.55            | 0.50    | 0.69    | 0.96    | 0.93    | 2.22    |
|                                                                                                              | 01/06/21 to 01/20/21 | 2.34    | 1.15    | 1.35    | 0.93    | 0.85    | 0.76            | 0.84            | 0.84    | 2.58    | 0.89    | 1.31    | 2.23    |
|                                                                                                              | 01/20/21 to 02/03/21 | 1.14    | 0.70    | 1.01    | 1.11    | 0.98    | 0.71            | 0.64            | 0.68    | 2.02    | 1.33    | 1.07    | 1.51    |
|                                                                                                              | 02/03/21 to 02/17/21 | 1.50    | 1.05    | 0.93    | 0.79    | 0.82    | 0.83            | 0.59            | 0.75    | 1.68    | 1.34    | 1.46    | 2.62    |
|                                                                                                              | 02/17/21 to 03/03/21 | 2.39    | 1.04    | 1.33    | 1.01    | 0.88    | 0.72            | 0.59            | 0.61    | 0.72    | 0.94    | 1.72    | 6.69    |
|                                                                                                              | 03/03/21 to 03/17/21 | 1.08    | 0.70    | 0.99    | 0.93    | 0.79    | 0.69            | 0.71            | 0.72    | 2.17    | 0.96    | 1.39    | 1.60    |
|                                                                                                              | 03/17/21 to 03/31/21 | 1.58    | 0.59    | 0.79    | 0.80    | 0.64    | 0.55            | 0.49            | 0.79    | 3.44    | 0.88    | 1.73    | 3.90    |
|                                                                                                              | 03/31/21 to 04/14/21 | 1.49    | 0.67    | 0.88    | 0.83    | 0.79    | 0.62            | 0.58            | 0.63    | 1.30    | 0.77    | 3.31    | 3.89    |
|                                                                                                              | 04/14/21 to 04/28/21 | 2.37    | 0.73    | 1.03    | 0.96    | 0.67    | 0.59            | 0.57            | 0.53    | 1.61    | 0.75    | 1.28    | 2.05    |
|                                                                                                              | 04/28/21 to 05/12/21 | 2.03    | 0.67    | 1.14    | 1.52    | 0.75    | 0.63            | 0.64            | 0.73    | 3.21    | 1.13    | 1.76    | 1.87    |
|                                                                                                              | 05/12/21 to 05/26/21 | 2.66    | 0.61    | 1.01    | 0.95    | 0.47    | 0.40            | 0.50            | 0.54    | 1.30    | 0.47    | 0.57    | 1.86    |
|                                                                                                              | 05/26/21 to 06/09/21 | 6.60    | 1.04    | 0.44    | 0.40    | 0.30    | 0.30            | 0.41            | 0.63    | 2.00    | 0.70    | 0.68    | 1.53    |
|                                                                                                              | 06/09/21 to 06/23/21 | 1.57    | 0.68    | 0.71    | 0.62    | 0.75    | 0.58            | 0.53            | 0.60    | 1.82    | 0.83    | 1.37    | 1.76    |
|                                                                                                              | 06/23/21 to 07/07/21 | 2.79    | 1.00    | 0.83    | 0.76    | 0.56    | 0.54            | 0.80            | 0.70    | 1.47    | 0.75    | 0.74    | 2.61    |
|                                                                                                              | 07/07/21 to 07/21/21 | 1.51    | 0.80    | 1.17    | 0.71    | 0.55    | 0.55            | 0.76            | 0.82    | 2.85    | 2.02    | 2.04    | 2.26    |
|                                                                                                              | 07/21/21 to 08/04/21 | 1.94    | 1.01    | 1.76    | 1.02    | 0.64    | 0.54            | 0.59            | 0.66    | 2.39    | 0.81    | 0.98    | 2.00    |
|                                                                                                              | 08/04/21 to 08/18/21 | 1.99    | 0.77    | 0.66    | 0.48    | 0.33    | 0.33            | 0.38            | 0.59    | 1.24    | 1.56    | 1.37    | 3.49    |
|                                                                                                              | 08/18/21 to 09/01/21 | 3.66    | 0.95    | 1.65    | 0.94    | 0.64    | 0.60            | 0.68            | 0.81    | 2.66    | 1.86    | 1.93    | 2.31    |
|                                                                                                              | 09/01/21 to 09/15/21 | 3.45    | 1.32    | 2.97    | 1.54    | 0.61    | 0.69            | 0.67            | 0.84    | 1.84    | 1.99    | 1.96    | 3.88    |
|                                                                                                              | 09/15/21 to 09/29/01 | 1.80    | 0.63    | 0.42    | 0.36    | 0.30    | 0.34            | 0.30            | 0.82    | 3.07    | 1.13    | 2.21    | 2.85    |
|                                                                                                              | 09/28/21 to 10/13/21 | 1.11    | 0.36    | 0.31    | 0.30    | 0.32    | 0.31            | 0.31            | 0.35    | 0.56    | 1.26    | 2.25    | 2.38    |
|                                                                                                              | 10/13/21 to 10/27/21 | 2.15    | 0.97    | 0.96    | 0.99    | 0.49    | 0.51            | 0.42            | 0.58    | 1.05    | 0.97    | 0.88    | 1.74    |
|                                                                                                              | 10/27/21 to 11/10/21 | 2.11    | 0.68    | 0.91    | 0.65    | 0.55    | 0.42            | 0.42            | 0.48    | 1.20    | 0.96    | 1.07    | 1.75    |
|                                                                                                              | 11/10/21 to 11/24/21 | 1.31    | 0.74    | 1.41    | 0.52    | 0.39    | NR <sup>3</sup> | NR <sup>3</sup> | 0.31    | 0.31    | 0.31    | 0.97    | 2.46    |
|                                                                                                              | 11/24/21 to 12/08/21 | 1.96    | 0.95    | 1.67    | 1.24    | 0.77    | 0.48            | 0.37            | 0.41    | 0.48    | 0.45    | 1.74    | 1.53    |
|                                                                                                              | 12/08/21 to 12/22/21 | 6.85    | 2.44    | 1.24    | 1.33    | 0.72    | 0.55            | 0.47            | 0.51    | 1.30    | 2.14    | 3.05    | 1.89    |
|                                                                                                              |                      |         |         |         |         |         |                 |                 |         |         |         |         |         |
|                                                                                                              | 2021 Avg.            | 2.33    | 0.89    | 1.11    | 0.87    | 0.63    | 0.56            | 0.55            | 0.63    | 1.73    | 1.08    | 1.53    | 2.50    |
|                                                                                                              |                      |         |         |         |         |         |                 |                 |         |         |         |         |         |

<sup>3</sup> During the November 10 -24 sampling period, there is no reportable data for Locations 6 and 7 due to an error made during sample collection

## NOVA Chemicals Corunna Site Benzene Ambient Monitoring Results - 2020

| Ambient Monitoring Location ID                                                                  |                      | 1         | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | 11      | 12      |      |
|-------------------------------------------------------------------------------------------------|----------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|
| Location<br>(UTM Coordinates)                                                                   | Easting (m) →        | 385487    | 386047  | 385694  | 385650  | 386041  | 385968  | 385265  | 384556  | 384852  | 384592  | 384602  | 384795  |      |
|                                                                                                 | Northing (m) →       | 4749184   | 4749094 | 4748280 | 4747902 | 4747146 | 4746643 | 4746676 | 4746713 | 4747686 | 4748013 | 4748497 | 4749212 |      |
| Two-Week Measured Benzene<br>Concentration (µg/m³)<br>2020 Monitoring<br>(MM/DD/YY to MM/DD/YY) | Date Range ↓         |           |         |         |         |         |         |         |         |         |         |         |         |      |
|                                                                                                 | 12/24/19 to 01/08/20 | 3.88      | 1.10    | 1.32    | 0.83    | 0.78    | 0.65    | 0.49    | 0.59    | 0.71    | 0.59    | 2.06    | 2.67    |      |
|                                                                                                 | 01/08/20 to 01/22/20 | 2.02      | 0.80    | 1.32    | 1.04    | 1.39    | 0.81    | 0.63    | 0.67    | 1.73    | 0.64    | 2.00    | 2.30    |      |
|                                                                                                 | 01/22/20 to 02/05/20 | 2.13      | 0.83    | 1.34    | 1.15    | 0.89    | 0.79    | 0.78    | 0.75    | 1.77    | 0.99    | 1.52    | 2.98    |      |
|                                                                                                 | 02/05/20 to 02/19/20 | 1.92      | 0.80    | 0.88    | 0.86    | 0.65    | 0.70    | 0.86    | 0.55    | 1.46    | 0.81    | 1.34    | 3.63    |      |
|                                                                                                 | 02/19/20 to 03/04/20 | 3.44      | 1.37    | 1.95    | 1.69    | 1.21    | 0.93    | 0.91    | 1.27    | 3.08    | 1.40    | 1.69    | 2.79    |      |
|                                                                                                 | 03/04/20 to 03/18/20 | 2.23      | 0.77    | 1.14    | 1.10    | 0.73    | 0.64    | 0.85    | 0.67    | 3.05    | 0.97    | 1.50    | 4.58    |      |
|                                                                                                 | 03/18/20 to 04/02/20 | 1.50      | 0.95    | 1.26    | 1.10    | 1.12    | 0.79    | 1.08    | 1.32    | 4.12    | 1.87    | 3.19    | 3.57    |      |
|                                                                                                 | 04/02/20 to 04/15/20 | 1.09      | 0.88    | 1.60    | 1.22    | 0.80    | 0.74    | 0.94    | 0.91    | 2.57    | 0.95    | 1.70    | 2.47    |      |
|                                                                                                 | 04/15/20 to 04/29/20 | 1.36      | 0.58    | 0.72    | 0.66    | 0.57    | 0.38    | 0.33    | 0.71    | 3.32    | 0.78    | 2.06    | 3.00    |      |
|                                                                                                 | 04/29/20 to 05/13/20 | 1.91      | 0.74    | 1.18    | 1.12    | 0.70    | 0.74    | 0.99    | 1.10    | 7.10    | 1.10    | 1.88    | 2.59    |      |
|                                                                                                 | 05/13/20 to 05/27/20 | 1.27      | 0.51    | 0.49    | 0.37    | 0.39    | 0.45    | 0.38    | 0.53    | 1.85    | 2.12    | 4.59    | 4.44    |      |
|                                                                                                 | 05/27/20 to 06/10/20 | 2.13      | 0.76    | 0.87    | 0.72    | 0.49    | 0.34    | 0.67    | 0.85    | 3.38    | 0.86    | 1.44    | 2.89    |      |
|                                                                                                 | 06/10/20 to 06/24/20 | 1.40      | 0.62    | 1.35    | 0.42    | 0.37    | 0.30    | 0.61    | 0.93    | 3.00    | 1.23    | 1.63    | 2.41    |      |
|                                                                                                 | 06/24/20 to 07/08/20 | 1.79      | 0.84    | 1.17    | 0.71    | 0.36    | 0.3     | 0.62    | 0.8     | 3.99    | 0.99    | 1.03    | 1.22    |      |
|                                                                                                 | 07/08/20 to 07/22/20 | 3.04      | 0.87    | 1.34    | 1.38    | 0.75    | 0.44    | 0.59    | 0.39    | 2.68    | 2.53    | 2.63    | 3.64    |      |
|                                                                                                 | 07/22/20 to 08/05/20 | 2.21      | 0.88    | 1.42    | 0.82    | 0.61    | 0.6     | 0.57    | 0.87    | 3.31    | 1.01    | 1.29    | 1.02    |      |
|                                                                                                 | 08/05/20 to 08/19/20 | 1.7       | 0.41    | 1.25    | 0.83    | 0.48    | 0.3     | 0.3     | 0.4     | 1.5     | 1.45    | 1.52    | 1.75    |      |
|                                                                                                 | 08/19/20 to 09/02/20 | 3.72      | 1.27    | 1.28    | 0.97    | 0.77    | 0.50    | 0.62    | 0.58    | 1.08    | 0.76    | 1.15    | 3.65    |      |
|                                                                                                 | 09/02/20 to 09/16/20 | 1.86      | 0.53    | 0.89    | 0.62    | 0.37    | 0.32    | 0.49    | 0.49    | 2.85    | 1.19    | 1.38    | 2.27    |      |
|                                                                                                 | 09/16/20 to 09/30/20 | 2.19      | 0.80    | 0.66    | 0.48    | 0.40    | 0.48    | 0.58    | 0.55    | 1.89    | 0.57    | 1.05    | 2.79    |      |
|                                                                                                 | 09/30/20 to 10/14/20 | 2.36      | 0.81    | 0.99    | 0.85    | 0.75    | 0.49    | 0.37    | 0.41    | 0.90    | 0.68    | 1.03    | 1.33    |      |
|                                                                                                 | 10/14/20 to 10/28/20 | 1.50      | 0.58    | 0.89    | 0.64    | 0.56    | 0.58    | 0.53    | 0.52    | 1.03    | 0.98    | 0.98    | 1.56    |      |
|                                                                                                 | 10/28/20 to 11/11/20 | 3.43      | 0.69    | 0.96    | 0.78    | 0.65    | 0.62    | 0.58    | 0.64    | 1.45    | 0.54    | 0.55    | 3.52    |      |
|                                                                                                 | 11/11/20 to 11/25/20 | 1.92      | 0.91    | 1.55    | 0.98    | 0.77    | 0.76    | 0.64    | 0.57    | 0.80    | 0.88    | 1.37    | 1.69    |      |
|                                                                                                 | 11/25/20 to 12/9/20  | 2.61      | 1.02    | 1.29    | 1.13    | 1.06    | 0.90    | 0.72    | 0.64    | 0.78    | 0.59    | 0.85    | 1.88    |      |
|                                                                                                 | 12/9/20 to 12/22/20  | 2.42      | 0.85    | 0.94    | 0.94    | 0.82    | 0.58    | 0.6     | 0.60    | 1.15    | 1.34    | 1.38    | 3.65    |      |
|                                                                                                 |                      |           |         |         |         |         |         |         |         |         |         |         |         |      |
|                                                                                                 |                      | 2020 Avg. | 2.19    | 0.81    | 1.16    | 0.90    | 0.71    | 0.58    | 0.64    | 0.70    | 2.33    | 1.07    | 1.65    | 2.70 |
|                                                                                                 |                      |           |         |         |         |         |         |         |         |         |         |         |         |      |

## NOVA Chemicals Corunna Site Benzene Ambient Monitoring Results - 2019

| Ambient Monitoring Location ID                                                                               |                                   | 1       | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | 11      | 12      |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Location<br>(UTM Coordinates)                                                                                | Easting (m) →                     | 385487  | 386047  | 385694  | 385650  | 386041  | 385968  | 385265  | 384556  | 384852  | 384592  | 384602  | 384795  |
|                                                                                                              | Northing (m) →                    | 4749184 | 4749094 | 4748280 | 4747902 | 4747146 | 4746643 | 4746676 | 4746713 | 4747686 | 4748013 | 4748497 | 4749212 |
| Two-Week Measured Benzene<br>Concentration (µg/m <sup>3</sup> )<br>2019 Monitoring<br>(MM/DD/YY to MM/DD/YY) | Date Range ↓                      |         |         |         |         |         |         |         |         |         |         |         |         |
|                                                                                                              | 12/27/18 to 01/09/19              | 3.04    | 1.03    | 1.44    | 1.21    | 1.17    | 0.83    | 0.97    | 0.68    | 1.64    | 0.93    | 3.30    | 6.66    |
|                                                                                                              | 01/09/19 to 01/23/19              | 1.25    | 1.03    | 1.40    | 1.25    | 1.68    | 1.25    | 1.02    | 0.85    | 1.78    | 1.93    | 1.47    | 2.08    |
|                                                                                                              | 01/23/19 to 02/06/19              | 3.89    | 1.69    | 1.71    | 1.20    | 0.97    | 0.88    | 0.89    | 0.67    | 1.11    | 1.05    | 1.37    | 2.28    |
|                                                                                                              | 02/06/19 to 02/20/19 <sup>2</sup> | 1.08    | 0.85    | 1.50    | 0.84    | 0.88    |         | 0.86    | 0.97    | 1.47    | 1.78    | 1.50    | 1.60    |
|                                                                                                              | 02/20/19 to 03/06/19              | 1.20    | 0.96    | 1.74    | 1.48    | 0.95    | 0.88    | 0.86    | 0.68    | 1.48    | 1.17    | 2.44    | 2.21    |
|                                                                                                              | 03/06/19 to 03/20/19              | 2.61    | 1.47    | 1.95    | 1.34    | 0.75    | 0.70    | 0.55    | 0.53    | 0.54    | 0.58    | 2.12    | 5.57    |
|                                                                                                              | 03/20/19 to 04/03/19              | 3.50    | 0.78    | 1.11    | 0.97    | 1.11    | 0.74    | 1.23    | 0.69    | 3.48    | 0.95    | 1.06    | 2.86    |
|                                                                                                              | 04/03/19 to 04/17/19              | 0.80    | 0.60    | 1.05    | 0.70    | 0.55    | 0.50    | 0.53    | 0.62    | 3.10    | 2.26    | 2.45    | 1.51    |
|                                                                                                              | 04/17/19 to 05/01/19              | 0.78    | 0.40    | 0.74    | 0.87    | 0.59    | 0.55    | 0.99    | 0.76    | 5.39    | 1.48    | 2.72    | 4.12    |
|                                                                                                              | 05/01/19 to 05/15/19              | 1.51    | 0.55    | 0.93    | 0.47    | 0.37    | 0.35    | 0.92    | 1.00    | 5.44    | 1.92    | 1.52    | 1.17    |
|                                                                                                              | 05/15/19 to 05/29/19              | 3.09    | 1.70    | 2.81    | 1.99    | 0.91    | 0.70    | 0.81    | 1.34    | 4.16    | 2.34    | 3.57    | 6.07    |
|                                                                                                              | 05/29/19 to 06/12/19              | 2.92    | 0.86    | 1.85    | 1.03    | 0.73    | 0.74    | 0.87    | 0.96    | 3.26    | 1.55    | 2.77    | 4.05    |
|                                                                                                              | 06/12/19 to 06/26/19              | 2.20    | 0.62    | 0.93    | 0.57    | 0.36    | 0.47    | 0.68    | 1.27    | 4.43    | 1.18    | 2.15    | 3.02    |
|                                                                                                              | 06/26/19 to 07/10/19              | 1.54    | 0.64    | 0.92    | 0.79    | 0.51    | 0.54    | 0.81    | 1.23    | 5.08    | 1.44    | 1.78    | 3.34    |
|                                                                                                              | 07/10/19 to 07/24/19              | 3.37    | 0.76    | 1.17    | 0.81    | 0.75    | 0.73    | 0.7     | 0.71    | 2.52    | 0.88    | 0.9     | 4.98    |
|                                                                                                              | 07/24/19 to 08/07/19              | 3.9     | 0.94    | 1.39    | 0.91    | 0.69    | 0.62    | 0.58    | 0.87    | 3.71    | 0.91    | 1.03    | 5.15    |
|                                                                                                              | 08/07/19 to 08/21/19              | 1.58    | 0.72    | 1.34    | 1.59    | 0.56    | 0.5     | 0.43    | 0.55    | 2.53    | 1.04    | 1.42    | 5.79    |
|                                                                                                              | 08/21/19 to 09/04/19              | 1.28    | 0.72    | 0.89    | 0.77    | 0.37    | 0.49    | 0.40    | 0.52    | 2.22    | 1.42    | 1.92    | 1.79    |
|                                                                                                              | 09/04/19 to 09/18/09              | 1.74    | 0.74    | 0.75    | 0.55    | 0.52    | 0.50    | 0.50    | 0.57    | 2.12    | 1.49    | 2.62    | 3.00    |
|                                                                                                              | 9/18/19 to 10/02/19               | 2.69    | 0.60    | 1.00    | 0.76    | 0.40    | 0.32    | 0.33    | 0.38    | 1.31    | 0.77    | 2.47    | 13.00   |
|                                                                                                              | 10/02/19 to 10/16/19              | 1.26    | 0.46    | 1.53    | 0.58    | <0.31   | <0.31   | <0.31   | 0.39    | 1.54    | 1.00    | 4.32    | 1.44    |
|                                                                                                              | 10/16/19 to 10/30/19              | 1.82    | 0.99    | 0.90    | 0.92    | 1.01    | 0.64    | 0.55    | 0.55    | 0.89    | 0.81    | 2.46    | 2.64    |
|                                                                                                              | 10/30/19 to 11/13/19              | 4.40    | 0.81    | 2.72    | 1.97    | 0.89    | 0.63    | 0.81    | 0.60    | 1.62    | 1.14    | 0.74    | 2.58    |
|                                                                                                              | 11/13/19 to 11/27/19              | 2.03    | 1.14    | 0.96    | 1.03    | 0.77    | 0.63    | 0.55    | 0.62    | 0.93    | 1.31    | 1.93    | 2.75    |
|                                                                                                              | 11/27/19 to 12/11/19              | 1.50    | 0.90    | 1.08    | 1.05    | 0.77    | 0.79    | 0.66    | 0.57    | 1.17    | 0.71    | 0.97    | 1.88    |
|                                                                                                              | 12/11/19 to 12/24/19              | 2.51    | 0.89    | 1.25    | 0.97    | 0.79    | 0.79    | 0.62    | 0.67    | 1.27    | 1.67    | 1.52    | 3.68    |
|                                                                                                              |                                   |         |         |         |         |         |         |         |         |         |         |         |         |
|                                                                                                              | 2019 Average                      | 2.21    | 0.88    | 1.35    | 1.02    | 0.76    | 0.66    | 0.72    | 0.74    | 2.47    | 1.30    | 2.02    | 3.66    |
|                                                                                                              |                                   |         |         |         |         |         |         |         |         |         |         |         |         |

<sup>2</sup> During the February 6-20, 2019 sampling period, there was no reportable data for Location 6 due to a technical issue with the laboratory analysis of the sample

## NOVA Chemicals Corunna Site Benzene Ambient Monitoring Results - 2018

| Ambient Monitoring Location ID                                                                               |                                   | 1       | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | 11      | 12      |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Location<br>(UTM Coordinates)                                                                                | Easting (m) →                     | 385487  | 386047  | 385694  | 385650  | 386041  | 385968  | 385265  | 384556  | 384852  | 384592  | 384602  | 384795  |
|                                                                                                              | Northing (m) →                    | 4749184 | 4749094 | 4748280 | 4747902 | 4747146 | 4746643 | 4746676 | 4746713 | 4747686 | 4748013 | 4748497 | 4749212 |
| Two-Week Measured Benzene<br>Concentration (µg/m <sup>3</sup> )<br>2018 Monitoring<br>(MM/DD/YY to MM/DD/YY) | Date Range ↓                      |         |         |         |         |         |         |         |         |         |         |         |         |
|                                                                                                              | 12/27/17 to 01/10/18              | 4.03    | 2.04    | 3.74    | 2.54    | 1.60    | 0.89    | 0.83    | 0.67    | 0.87    | 0.89    | 1.17    | 3.60    |
|                                                                                                              | 01/10/18 to 01/24/18 <sup>1</sup> | 14.80   | 3.73    | 2.60    | 2.19    | 1.61    | 1.27    | 3.84    | 2.50    | 6.94    | 10.20   | 19.50   | 118.00  |
|                                                                                                              | 01/24/18 to 02/07/18              | 4.29    | 1.15    | 1.76    | 1.61    | 1.01    | 0.87    | 0.89    | 0.78    | 2.05    | 1.19    | 1.44    | 5.98    |
|                                                                                                              | 02/07/18 to 02/21/18              | 4.34    | 1.09    | 1.61    | 0.97    | 0.72    | 0.73    | 0.95    | 0.82    | 3.35    | 1.22    | 1.52    | 6.54    |
|                                                                                                              | 02/21/18 to 03/07/18              | 2.78    | 0.91    | 0.79    | 0.73    | 0.65    | 0.77    | 0.93    | 1.07    | 5.14    | 1.59    | 2.22    | 2.85    |
|                                                                                                              | 03/07/18 to 03/21/18              | 1.71    | 1.02    | 2.40    | 2.24    | 1.95    | 0.92    | 0.66    | 0.81    | 3.39    | 1.32    | 1.21    | 1.17    |
|                                                                                                              | 03/21/18 to 04/04/18              | 2.17    | 0.81    | 1.87    | 2.49    | 1.08    | 0.82    | 1.07    | 1.10    | 5.02    | 1.59    | 4.30    | 1.95    |
|                                                                                                              | 04/04/18 to 04/18/18              | 5.49    | 1.62    | 5.24    | 2.87    | 0.80    | 0.76    | 0.83    | 1.12    | 4.81    | 5.42    | 4.92    | 2.25    |
|                                                                                                              | 04/18/18 to 05/02/18              | 2.20    | 0.87    | 1.07    | 1.15    | 0.78    | 0.76    | 1.13    | 1.24    | 6.65    | 1.53    | 2.14    | 4.12    |
|                                                                                                              | 05/02/18 to 05/16/18              | 2.79    | 0.66    | 0.76    | 0.69    | 0.51    | 0.49    | 0.70    | 1.08    | 2.73    | 1.59    | 1.44    | 3.08    |
|                                                                                                              | 05/16/18 to 05/30/18              | 3.42    | 0.70    | 0.64    | 0.51    | 0.46    | 0.46    | 0.74    | 0.50    | 3.67    | 1.62    | 2.51    | 2.41    |
|                                                                                                              | 05/30/18 to 06/13/18              | 1.14    | 0.57    | 1.03    | 0.69    | 0.39    | 0.37    | 0.66    | 0.91    | 3.89    | 1.87    | 2.09    | 2.02    |
|                                                                                                              | 06/13/18 to 06/27/18              | 1.54    | 0.65    | 1.11    | 1.03    | 0.78    | 0.63    | 0.83    | 1.35    | 5.68    | 1.64    | 3.16    | 2.52    |
|                                                                                                              | 6/27/18 to 07/11/18               | 2.48    | 0.52    | 0.77    | 0.58    | 0.45    | 0.41    | 0.82    | 0.78    | 3.41    | 1.05    | 1.64    | 3.49    |
|                                                                                                              | 07/11/18 to 07/25/18              | 2.00    | 0.88    | 1.06    | 0.78    | 0.60    | 0.50    | 0.65    | 0.81    | 3.00    | 1.32    | 3.37    | 5.15    |
|                                                                                                              | 07/25/18 to 08/08/18              | 2.32    | 0.60    | 1.12    | 0.68    | 0.38    | 0.33    | 0.40    | 0.47    | 1.05    | 0.78    | 1.04    | 2.87    |
|                                                                                                              | 08/08/18 to 08/22/18              | 1.51    | 0.86    | 1.51    | 0.91    | 0.53    | 0.46    | 0.66    | 0.61    | 1.63    | 1.07    | 2.12    | 1.96    |
|                                                                                                              | 08/22/18 to 09/05/18              | 4.12    | 0.69    | 1.33    | 0.62    | 0.5     | 0.47    | 0.47    | 0.52    | 1.02    | 0.69    | 1.01    | 4.59    |
|                                                                                                              | 09/05/18 to 09/19/18              | 0.95    | 0.41    | 0.44    | 0.42    | 0.44    | 0.41    | 0.56    | 0.93    | 6.16    | 4.18    | 2.01    | 1.17    |
|                                                                                                              | 09/19/18 to 10/03/18              | 2.33    | 0.63    | 0.99    | 0.65    | 0.43    | 0.44    | 0.37    | 0.48    | 1.3     | 1.39    | 2.09    | 2.91    |
|                                                                                                              | 10/03/18 to 10/17/18              | 2.16    | 0.63    | 1.61    | 0.89    | 0.4     | 0.43    | 0.37    | 0.58    | 2.26    | 0.63    | 1.06    | 2.94    |
|                                                                                                              | 10/17/18 to 10/31/18              | 2.02    | 0.86    | 1.17    | 1.12    | 0.85    | 0.55    | 0.48    | 0.43    | 0.7     | 1.52    | 0.66    | 1.67    |
|                                                                                                              | 10/31/18 to 11/14/18              | 1.64    | 0.88    | 2.05    | 1.14    | 0.68    | 0.85    | 0.59    | 0.61    | 1.43    | 1.07    | 1.98    | 2.08    |
|                                                                                                              | 11/14/18 to 11/28/18              | 1.43    | 0.81    | 1.15    | 1.00    | 0.84    | 0.6     | 0.51    | 0.54    | 0.87    | 0.8     | 1.08    | 1.07    |
|                                                                                                              | 11/28/18 to 12/12/18              | 2.15    | 1.12    | 1.54    | 1.15    | 0.97    | 0.83    | 0.69    | 0.68    | 0.71    | 0.76    | 1.33    | 1.83    |
|                                                                                                              | 12/12/18 to 12/27/18              | 1.88    | 1.14    | 2.05    | 1.31    | 1.06    | 1.05    | 0.96    | 0.87    | 1.88    | 1.01    | 2.29    | 4.26    |
|                                                                                                              |                                   |         |         |         |         |         |         |         |         |         |         |         |         |
|                                                                                                              | 2018 Average                      | 2.99    | 0.99    | 1.59    | 1.19    | 0.79    | 0.66    | 0.83    | 0.86    | 3.06    | 1.84    | 2.67    | 7.40    |
|                                                                                                              |                                   |         |         |         |         |         |         |         |         |         |         |         |         |

<sup>1</sup> On January 11, 2018 a drain line froze and cracked due to extreme weather temperatures. The incident resulted in a release of benzene. Once identified, the release was immediately isolated. The incident was reported to the Ministry of Environment and Climate Change, St. Clair Township Fire Department, Aamjiwnaang First Nation Emergency Response and the CAER Information Line. The incident location was closest to monitor 12 and elevated the sample results for the two-week reporting period.

## Summary of Annual Average Benzene Concentrations

| Ambient Monitoring Location ID                  |                | 1       | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | 11      | 12      |
|-------------------------------------------------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Location<br>(UTM Coordinates)                   | Easting (m) →  | 385487  | 386047  | 385694  | 385650  | 386041  | 385968  | 385265  | 384556  | 384852  | 384592  | 384602  | 384795  |
|                                                 | Northing (m) → | 4749184 | 4749094 | 4748280 | 4747902 | 4747146 | 4746643 | 4746676 | 4746713 | 4747686 | 4748013 | 4748497 | 4749212 |
| Annual Average Benzene<br>Concentration (µg/m3) | 2018           | 2.99    | 0.99    | 1.59    | 1.19    | 0.79    | 0.66    | 0.83    | 0.86    | 3.06    | 1.84    | 2.67    | 7.40    |
|                                                 | 2019           | 2.21    | 0.88    | 1.35    | 1.02    | 0.76    | 0.66    | 0.72    | 0.74    | 2.47    | 1.30    | 2.02    | 3.66    |
|                                                 | 2020           | 2.19    | 0.81    | 1.16    | 0.90    | 0.71    | 0.58    | 0.64    | 0.70    | 2.33    | 1.07    | 1.65    | 2.70    |
|                                                 | 2021           | 2.33    | 0.89    | 1.11    | 0.87    | 0.63    | 0.56    | 0.55    | 0.63    | 1.73    | 1.08    | 1.53    | 2.50    |
|                                                 | 2022           | 2.25    | 0.99    | 1.37    | 1.17    | 0.68    | 0.56    | 0.64    | 0.70    | 2.06    | 1.25    | 2.02    | 2.74    |

## 2022 Annual Average Benzene Concentrations vs. 3-Year Baseline

| Monitor ID | 3-Yr Baseline | S2 of Baseline | S2 of Reporting Year | Test Statistic | Degrees of Freedom | Test Statistic (p=0.0005) | Statistically Significant Increase |
|------------|---------------|----------------|----------------------|----------------|--------------------|---------------------------|------------------------------------|
| 1          | 2019-2021     | 0.191          | 0.158                | -0.538         | 23                 | 3.745                     | No                                 |
| 2          | 2019-2021     | 0.105          | 0.067                | 0.658          | 26                 | 3.707                     | No                                 |
| 3          | 2019-2021     | 0.153          | 0.170                | 0.786          | 21                 | 3.819                     | No                                 |
| 4          | 2019-2021     | 0.147          | 0.115                | 2.646          | 24                 | 3.745                     | No                                 |
| 5          | 2019-2021     | 0.144          | 0.172                | -0.701         | 20                 | 3.819                     | No                                 |
| 6          | 2019-2021     | 0.126          | 0.146                | -0.686         | 21                 | 3.819                     | No                                 |
| 7          | 2019-2021     | 0.111          | 0.104                | 0.917          | 20                 | 3.819                     | No                                 |
| 8          | 2019-2021     | 0.091          | 0.102                | 0.723          | 21                 | 3.819                     | No                                 |
| 9          | 2019-2021     | 0.426          | 0.468                | 0.807          | 21                 | 3.819                     | No                                 |
| 10         | 2019-2021     | 0.178          | 0.262                | 0.743          | 19                 | 3.85                      | No                                 |
| 11         | 2019-2021     | 0.203          | 0.355                | 1.152          | 19                 | 3.883                     | No                                 |
| 12         | 2019-2021     | 0.212          | 0.073                | -1.484         | 36                 | 3.551                     | No                                 |