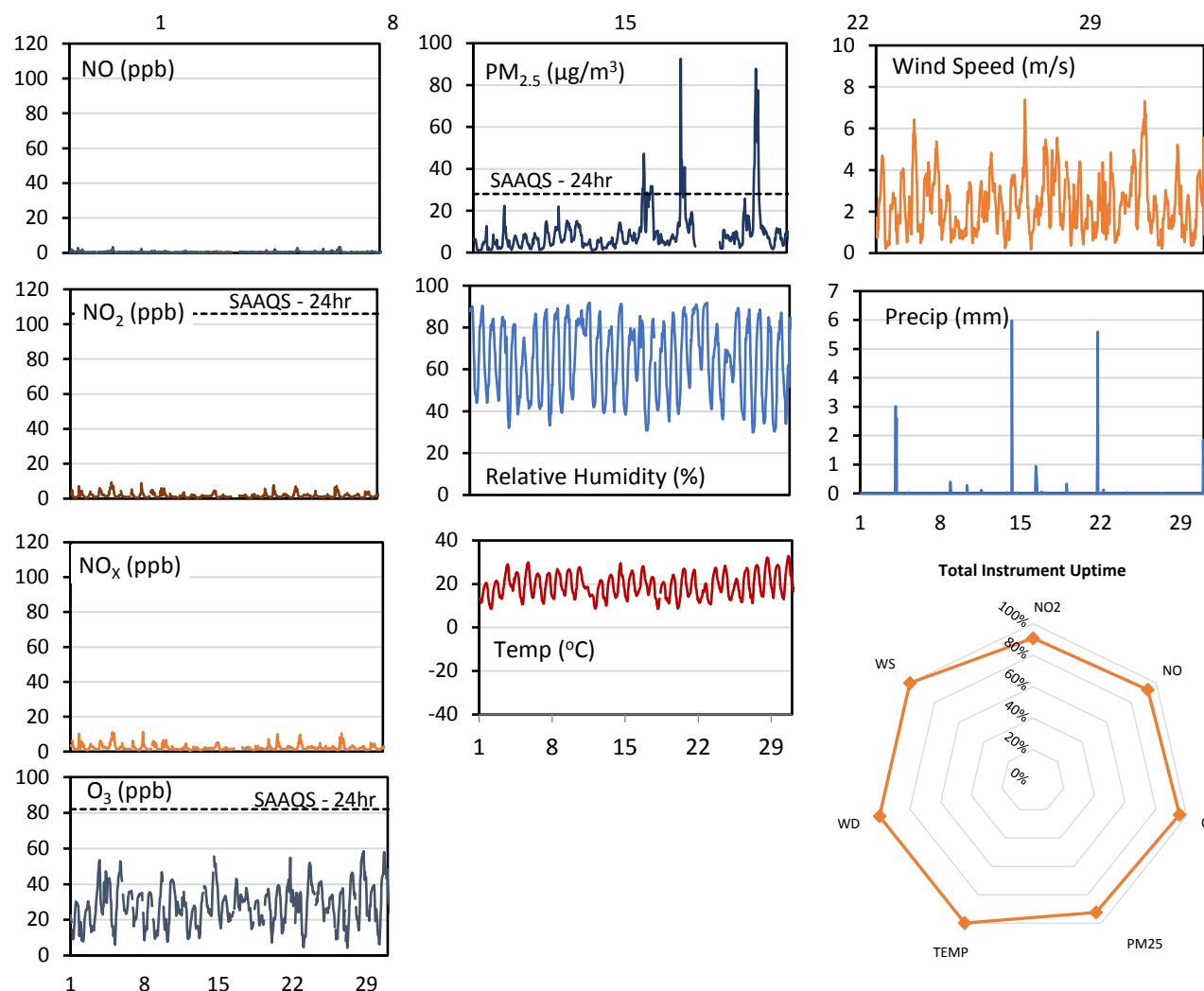
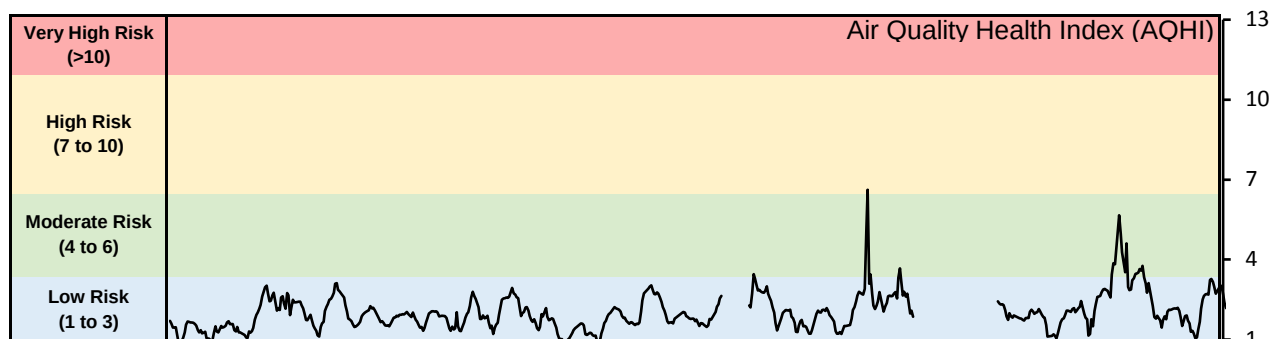


# SESAA Esterhazy Station - July 2017 Summary Report

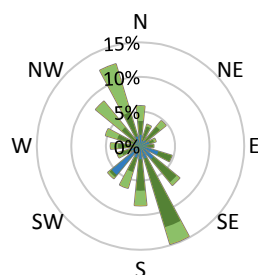
| Pollutants        |                   | Month Records |              | 24-Hour Records |        |                |             | 1-Hour Records |              |                |              |
|-------------------|-------------------|---------------|--------------|-----------------|--------|----------------|-------------|----------------|--------------|----------------|--------------|
| Name              | Conc. Unit        | Avg. Conc.    | Total Uptime | Maximum         |        | SAAQS Standard | Exceed Days | Maximum        |              | SAAQS Standard | Exceed Hours |
|                   |                   |               |              | Conc.           | Time   |                |             | Conc.          | Time         |                |              |
| NO                | ppb               | 0.5           | 93%          | 0.9             | Jul-01 | -              | -           | 3.4            | Jul-27 05:00 | -              | -            |
| NO <sub>2</sub>   | ppb               | 1.7           | 91%          | 3.2             | Jul-05 | 106            | 0           | 9.3            | Jul-05 01:00 | 159            | 0            |
| NO <sub>x</sub>   | ppb               | 2.3           | 91%          | 4.1             | Jul-05 | -              | -           | 11.2           | Jul-07 23:00 | -              | -            |
| O <sub>3</sub>    | ppb               | 28.4          | 95%          | 37.6            | Jul-28 | -              | -           | 58.5           | Jul-28 17:00 | 82             | 0            |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | 9.1           | 92%          | 31.5            | Jul-28 | 28             | 1           | 92.6           | Jul-20 21:00 | -              | -            |

SAAQS: Saskatchewan Ambient Air Quality Standards

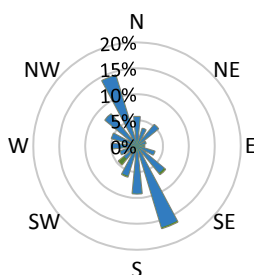


# SESAA Esterhazy Station - July 2017 Summary Report

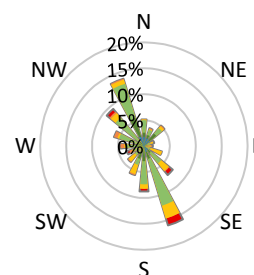
Wind Rose



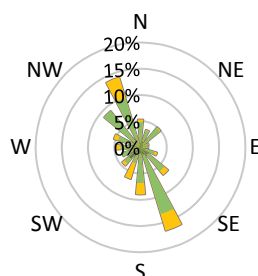
NO<sub>2</sub> Pollutant Rose



PM<sub>2.5</sub> Pollutant Rose



O<sub>3</sub> Pollutant Rose



| Parameters        | Unit              | Color Code for Wind Speed and Pollution Concentration Class |                |                |                 |                  |           |  |
|-------------------|-------------------|-------------------------------------------------------------|----------------|----------------|-----------------|------------------|-----------|--|
| Wind Speed        | m/s               | 0.3 ≤ WS < 1.4                                              | 1.4 ≤ WS < 3.1 | 3.1 ≤ WS < 7.8 | 7.8 ≤ WS < 10.8 | 10.8 ≤ WS < 13.6 | WS ≥ 13.6 |  |
| O <sub>3</sub>    | ppb               | 0 ≤ C < 10                                                  | 10 ≤ C < 20    | 20 ≤ C < 40    | 40 ≤ C < 60     | 60 ≤ C < 82      | C ≥ 82    |  |
| NO <sub>2</sub>   | ppb               | 0 ≤ C < 5                                                   | 5 ≤ C < 15     | 15 ≤ C < 30    | 30 ≤ C < 100    | 100 ≤ C < 212    | C ≥ 212   |  |
| PM <sub>2.5</sub> | ug/m <sup>3</sup> | 0 ≤ C < 2                                                   | 2 ≤ C < 4      | 4 ≤ C < 10     | 10 ≤ C < 20     | 20 ≤ C < 30      | C ≥ 30    |  |

## Monthly Update

- Achieved >95% of scheduled uptime for all parameters except PM<sub>2.5</sub> (92%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- Particulate downtime due to instrument issues

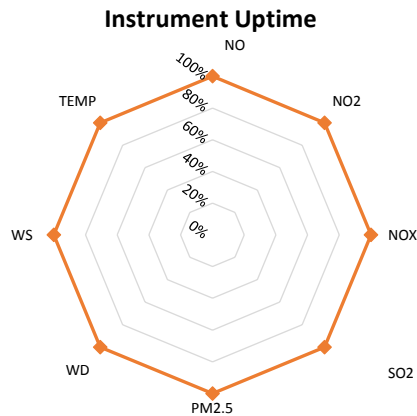
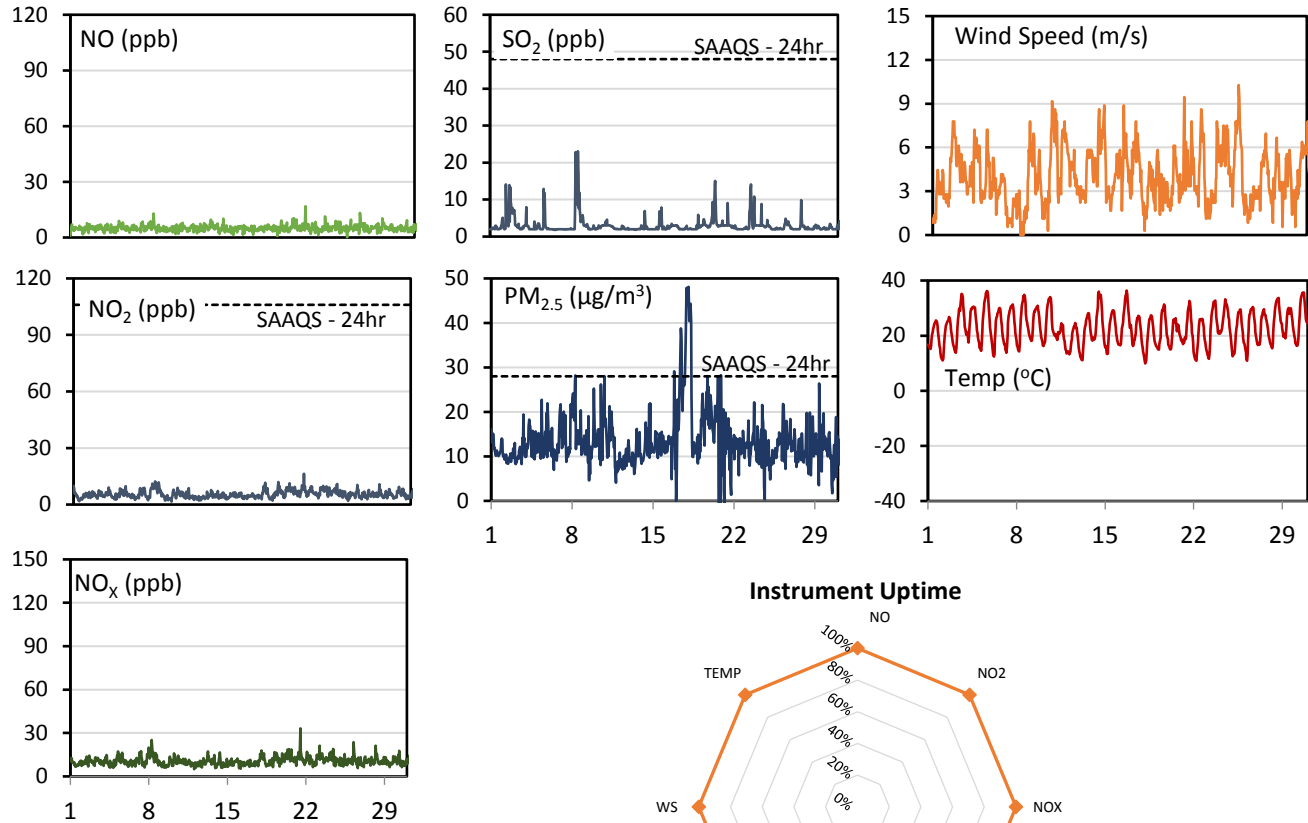
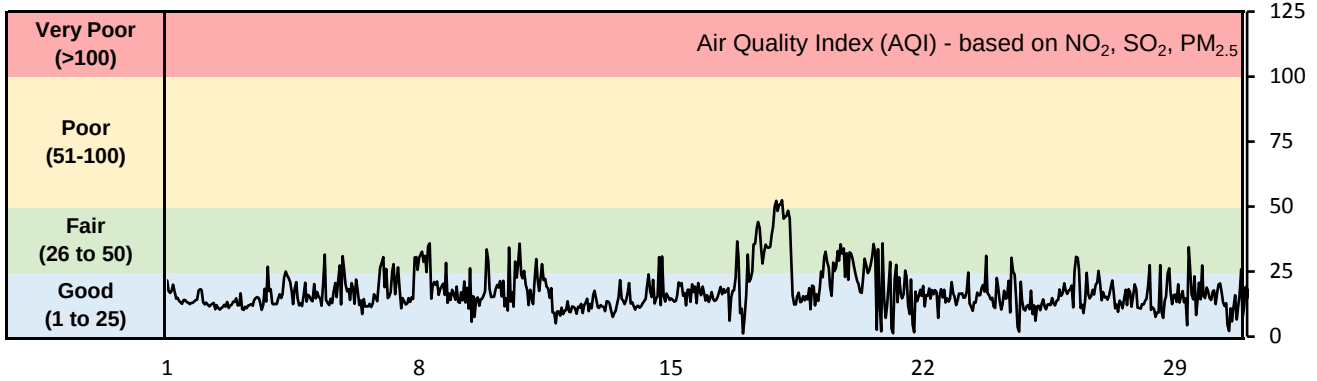
## Exceedance Summary (24- Hour Average - Exceedances Highlighted)

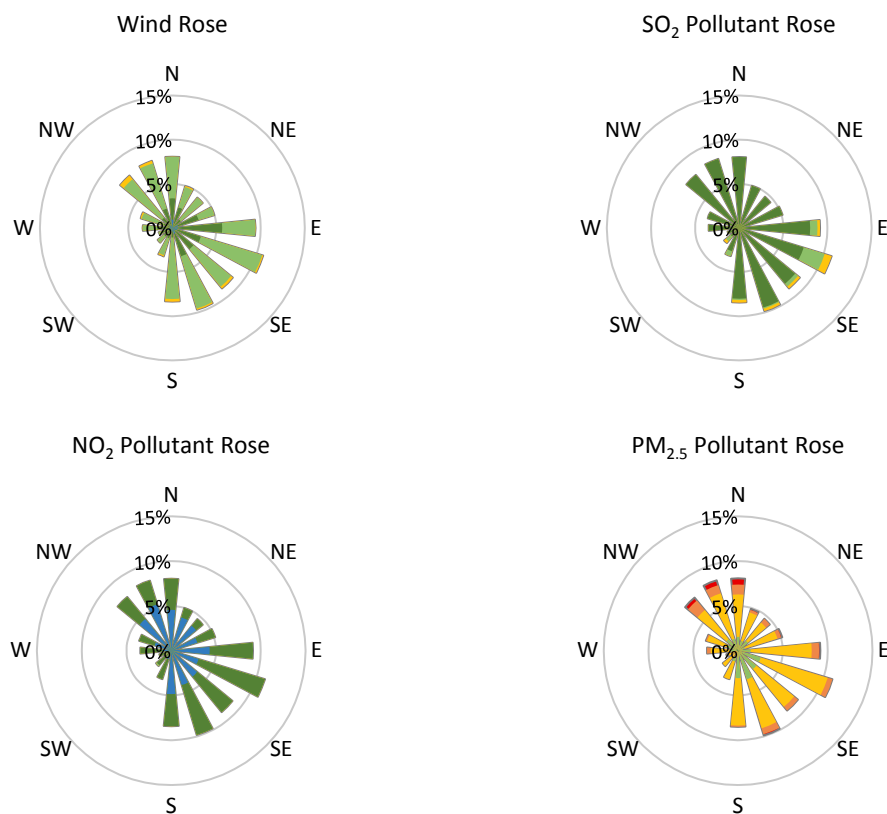
| Exceedance | AQI | NO <sub>2</sub> | NO  | O <sub>3</sub> | PM <sub>2.5</sub> | NO <sub>x</sub> | Temp | WD    | WS  |
|------------|-----|-----------------|-----|----------------|-------------------|-----------------|------|-------|-----|
| Time       | -   | ppb             | ppb | ppb            | ug/m <sup>3</sup> | ppb             | C    | deg   | m/s |
| Jul-28     | 3.6 | 1.6             | 0.4 | 37.6           | <b>31.5</b>       | 2.0             | 23.3 | 190.4 | 2.7 |

# SESAA Estevan Station - July 2017 Summary Report

| Pollutants        |                   | Month Records |      | 24-Hour Records |        |                |             | 1-Hour Records |              |                |              |
|-------------------|-------------------|---------------|------|-----------------|--------|----------------|-------------|----------------|--------------|----------------|--------------|
|                   |                   |               |      | Maximum         |        | SAAQS Standard | Exceed Days | Maximum        |              | SAAQS Standard | Exceed Hours |
|                   |                   |               |      | Conc.           | Time   |                |             | Conc.          | Time         |                |              |
| NO                | ppb               | 5.1           | 100% | 5.7             | Jul-20 | -              | -           | 16.8           | Jul-21 12:00 | -              | -            |
| NO <sub>2</sub>   | ppb               | 5.5           | 100% | 8.2             | Jul-08 | 106            | 0           | 16.3           | Jul-21 12:00 | 159            | 0            |
| NO <sub>x</sub>   | ppb               | 10.5          | 100% | 13.6            | Jul-08 | -              | -           | 33.2           | Jul-21 12:00 | -              | -            |
| SO <sub>2</sub>   | ppb               | 3.0           | 100% | 7.9             | Jul-08 | 48             | 0           | 23.1           | Jul-08 14:00 | 172            | 0            |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | 13.7          | 100% | 26.7            | Jul-17 | 28             | 0           | 48.1           | Jul-18 02:00 | -              | -            |

SAAQS: Saskatchewan Ambient Air Quality Standards





| Parameters        | Unit                     | Color Code for Wind Speed and Pollution Concentration Class |                     |                     |                      |                       |                |  |
|-------------------|--------------------------|-------------------------------------------------------------|---------------------|---------------------|----------------------|-----------------------|----------------|--|
| Wind Speed        | m/s                      | $0.3 \leq WS < 1.4$                                         | $1.4 \leq WS < 3.1$ | $3.1 \leq WS < 7.8$ | $7.8 \leq WS < 10.8$ | $10.8 \leq WS < 13.6$ | $WS \geq 13.6$ |  |
| NO <sub>2</sub>   | ppb                      | $0 \leq C < 5$                                              | $5 \leq C < 15$     | $15 \leq C < 30$    | $30 \leq C < 100$    | $100 \leq C < 212$    | $C \geq 212$   |  |
| SO <sub>2</sub>   | ppb                      | $1 \leq C < 5$                                              | $6 \leq C < 15$     | $16 \leq C < 30$    | $31 \leq C < 100$    | $101 \leq C < 212$    | $C \geq 213$   |  |
| PM <sub>2.5</sub> | $\mu\text{g}/\text{m}^3$ | $0 \leq C < 2$                                              | $2 \leq C < 4$      | $4 \leq C < 10$     | $10 \leq C < 20$     | $20 \leq C < 30$      | $C \geq 30$    |  |

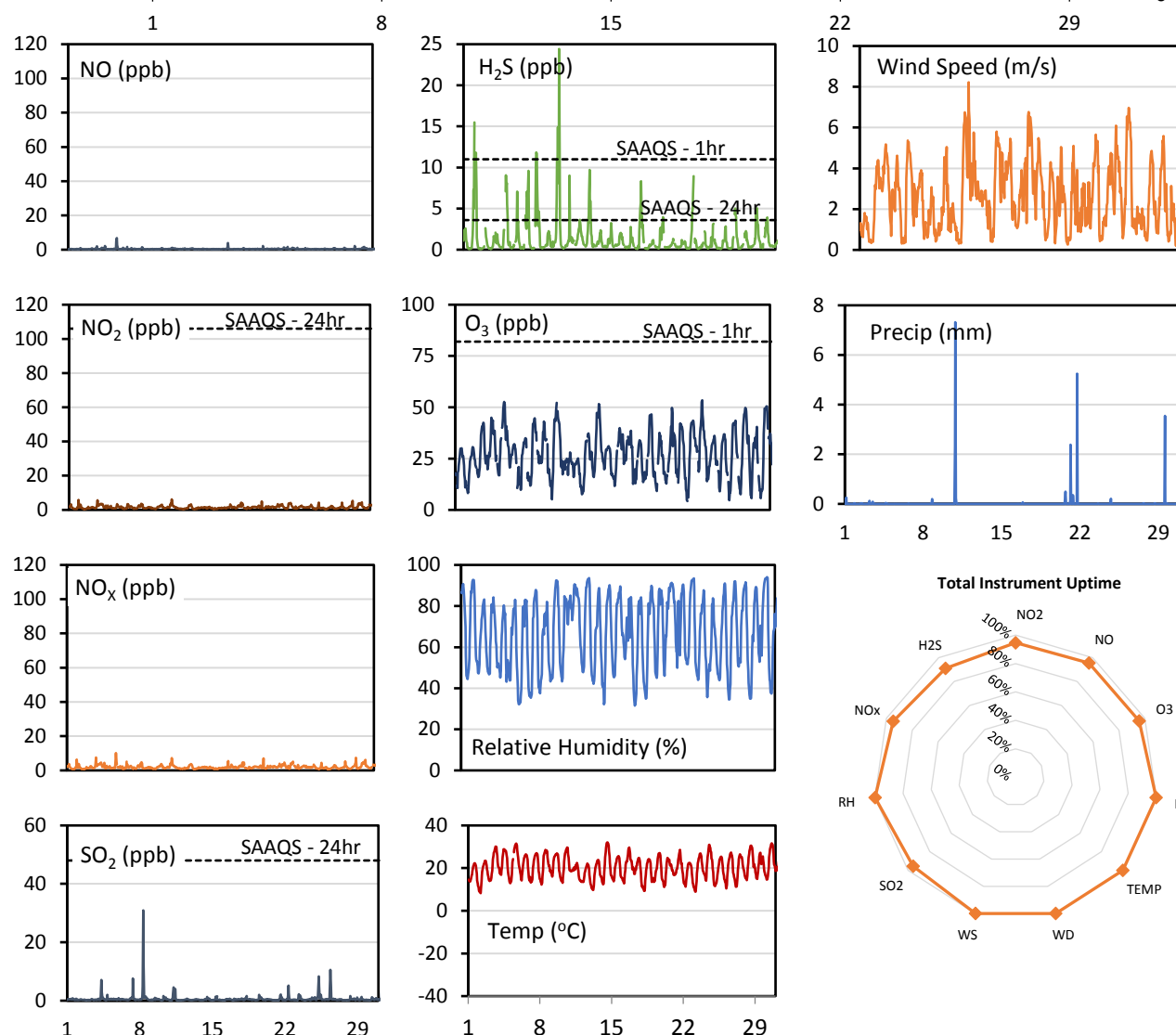
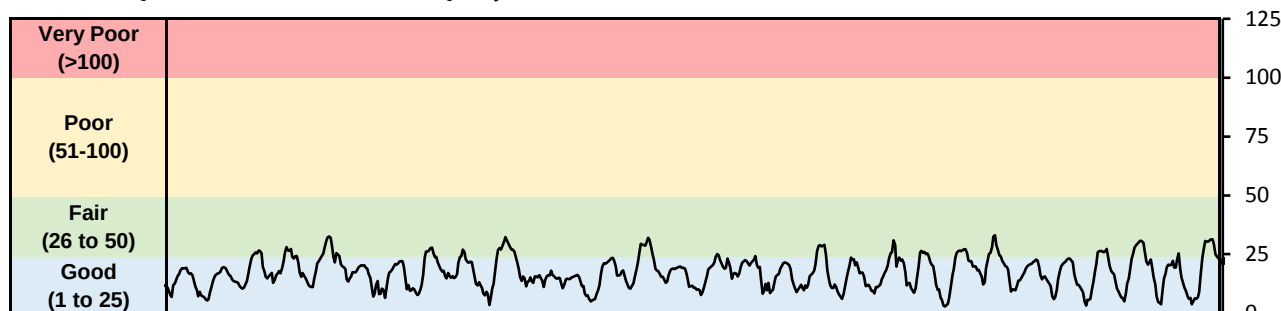
### Monthly Update

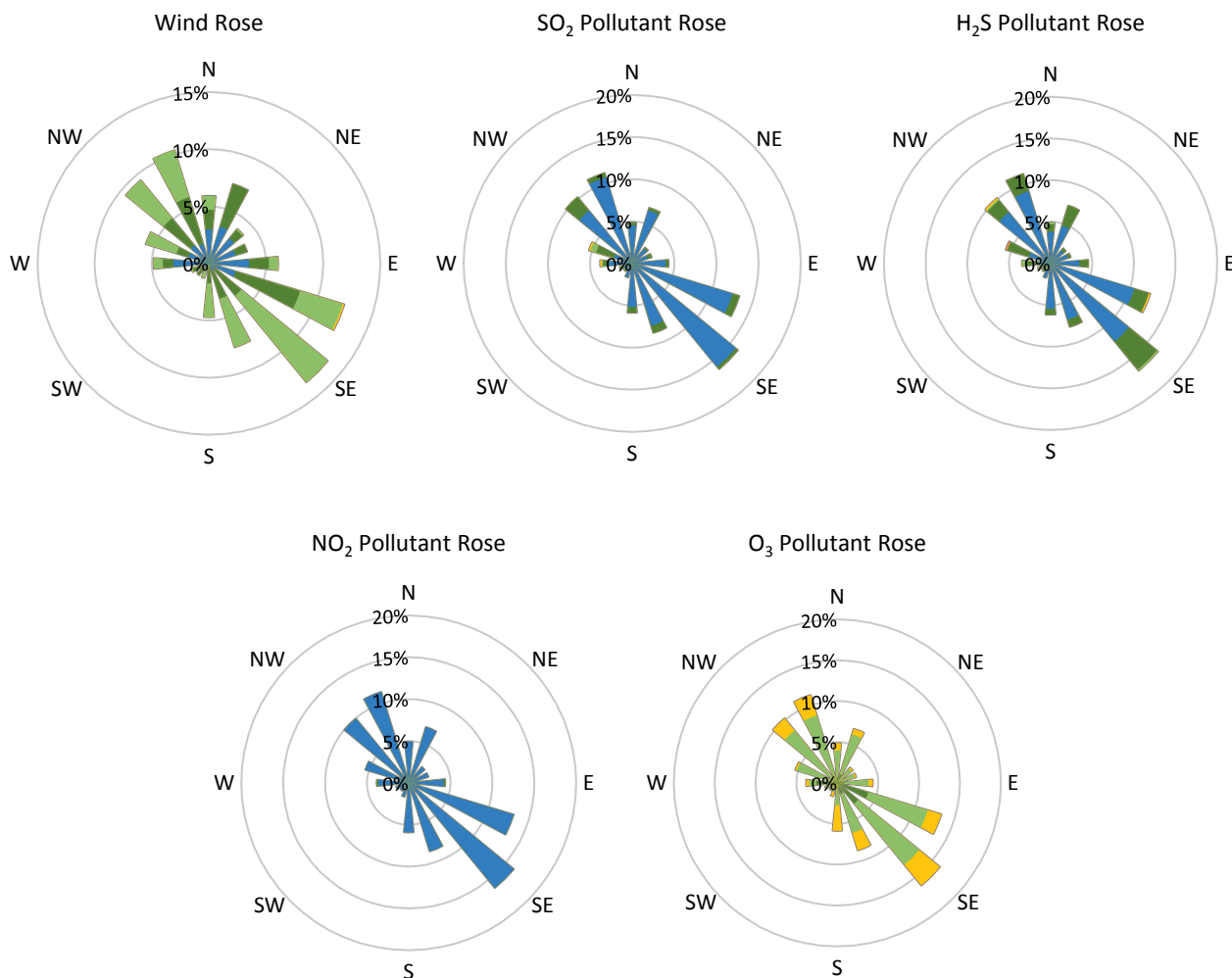
- Achieved 100% uptime for all parameters
- Wind speed and wind direction taken from Estevan station (Climate ID 4012410)

# SESAA Glen Ewen Station - July 2017 Summary Report

| Pollutants       |            | Month Records |              | 24-Hour Records |        |                |             | 1-Hour Records |              |                |              |
|------------------|------------|---------------|--------------|-----------------|--------|----------------|-------------|----------------|--------------|----------------|--------------|
| Name             | Conc. Unit | Avg. Conc.    | Total Uptime | Maximum         |        | SAAQS Standard | Exceed Days | Maximum        |              | SAAQS Standard | Exceed Hours |
|                  |            |               |              | Conc.           | Time   |                |             | Conc.          | Time         |                |              |
| NO               | ppb        | 0.4           | 95%          | 0.9             | Jul-05 | -              | -           | 6.8            | Jul-05 19:00 | -              | -            |
| NO <sub>2</sub>  | ppb        | 1.5           | 95%          | 2.3             | Jul-04 | 106            | 0           | 6.2            | Jul-11 06:00 | 159            | 0            |
| NO <sub>x</sub>  | ppb        | 2.0           | 95%          | 3.0             | Jul-04 | -              | -           | 10.1           | Jul-05 19:00 | -              | -            |
| SO <sub>2</sub>  | ppb        | 0.6           | 95%          | 2.8             | Jul-08 | 48             | 0           | 30.9           | Jul-08 08:00 | 172            | 0            |
| H <sub>2</sub> S | ppb        | 1.4           | 91%          | 4.5             | Jul-10 | 3.6            | 1           | 24.4           | Jul-10 05:00 | 11             | 8            |
| O <sub>3</sub>   | ppb        | 27.4          | 95%          | 34.5            | Jul-24 | -              | -           | 53.4           | Jul-24 13:00 | 82             | 0            |

SAAQS: Saskatchewan Ambient Air Quality Standards





| Parameters       | Unit | Color Code for Wind Speed and Pollution Concentration Class |                     |                     |                      |                       |                |
|------------------|------|-------------------------------------------------------------|---------------------|---------------------|----------------------|-----------------------|----------------|
| Wind Speed       | m/s  | $0.3 \leq WS < 1.4$                                         | $1.4 \leq WS < 3.1$ | $3.1 \leq WS < 7.8$ | $7.8 \leq WS < 10.8$ | $10.8 \leq WS < 13.6$ | $WS \geq 13.6$ |
| SO <sub>2</sub>  | ppb  | $0 \leq C < 1$                                              | $1 \leq C < 5$      | $5 \leq C < 10$     | $10 \leq C < 57$     | $57 \leq C < 172$     | $C \geq 172$   |
| NO <sub>2</sub>  | ppb  | $0 \leq C < 5$                                              | $5 \leq C < 15$     | $15 \leq C < 30$    | $30 \leq C < 100$    | $100 \leq C < 212$    | $C \geq 212$   |
| H <sub>2</sub> S | ppb  | $0 \leq C < 1$                                              | $1 \leq C < 3.6$    | $3.6 \leq C < 5$    | $5 \leq C < 8$       | $8 \leq C < 10.8$     | $C \geq 10.8$  |
| O <sub>3</sub>   | ppb  | $0 \leq C < 10$                                             | $10 \leq C < 20$    | $20 \leq C < 40$    | $40 \leq C < 60$     | $60 \leq C < 82$      | $C \geq 82$    |

### Monthly Update

- Achieved >98% of scheduled uptime for all parameters
- Downtime of 4% results from routine daily Internal Zeroes and Spans (8% for H<sub>2</sub>S)

## SESAA Glen Ewen Station - July 2017 Summary Report

### Exceedance Summary (1- Hour Average - Exceedances Highlighted)

| Exceedance Time | AQI  | NO <sub>2</sub> | NO  | SO <sub>2</sub> | O <sub>3</sub> | NO <sub>x</sub> | H <sub>2</sub> S | Temp | WD    | WS  |
|-----------------|------|-----------------|-----|-----------------|----------------|-----------------|------------------|------|-------|-----|
|                 | -    | ppb             | ppb | ppb             | ppb            | ppb             | ppb              | °C   | deg   | m/s |
| Jul-02 01:00    | 7.5  | 1.3             | 0.4 | 0.3             | 11.5           | 1.7             | <b>15.5</b>      | 9.7  | 346.7 | 0.3 |
| Jul-02 05:00    | 5.3  | 1.5             | 0.6 | 0.3             | 8.2            | 2.1             | <b>11.8</b>      | 8.3  | 30.6  | 0.4 |
| Jul-08 00:00    | 9.7  | 2.1             | 0.3 | 0.5             | 14.9           | 2.4             | <b>11.9</b>      | 14.9 | 320.7 | 0.5 |
| Jul-08 01:00    | 10.5 | 1.9             | 0.4 | 0.3             | 16.1           | 2.3             | <b>11.7</b>      | 14.6 | 284.9 | 0.6 |
| Jul-10 00:00    | 10.6 | 1.9             | 0.3 | 0.2             | 16.3           | 2.3             | <b>11.0</b>      | 15.8 | 304.1 | 0.5 |
| Jul-10 02:00    | 7.6  | 2.1             | 0.4 | 0.1             | 11.6           | 2.5             | <b>14.9</b>      | 14.1 | 300.6 | 0.5 |
| Jul-10 05:00    | 3.4  | 2.9             | 0.9 | 0.1             | 5.2            | 3.8             | <b>24.4</b>      | 13.2 | 15.7  | 0.3 |
| Jul-10 06:00    | 6.1  | 3.0             | 0.6 | 0.3             | 9.4            | 3.6             | <b>11.7</b>      | 15.8 | 332.8 | 0.7 |

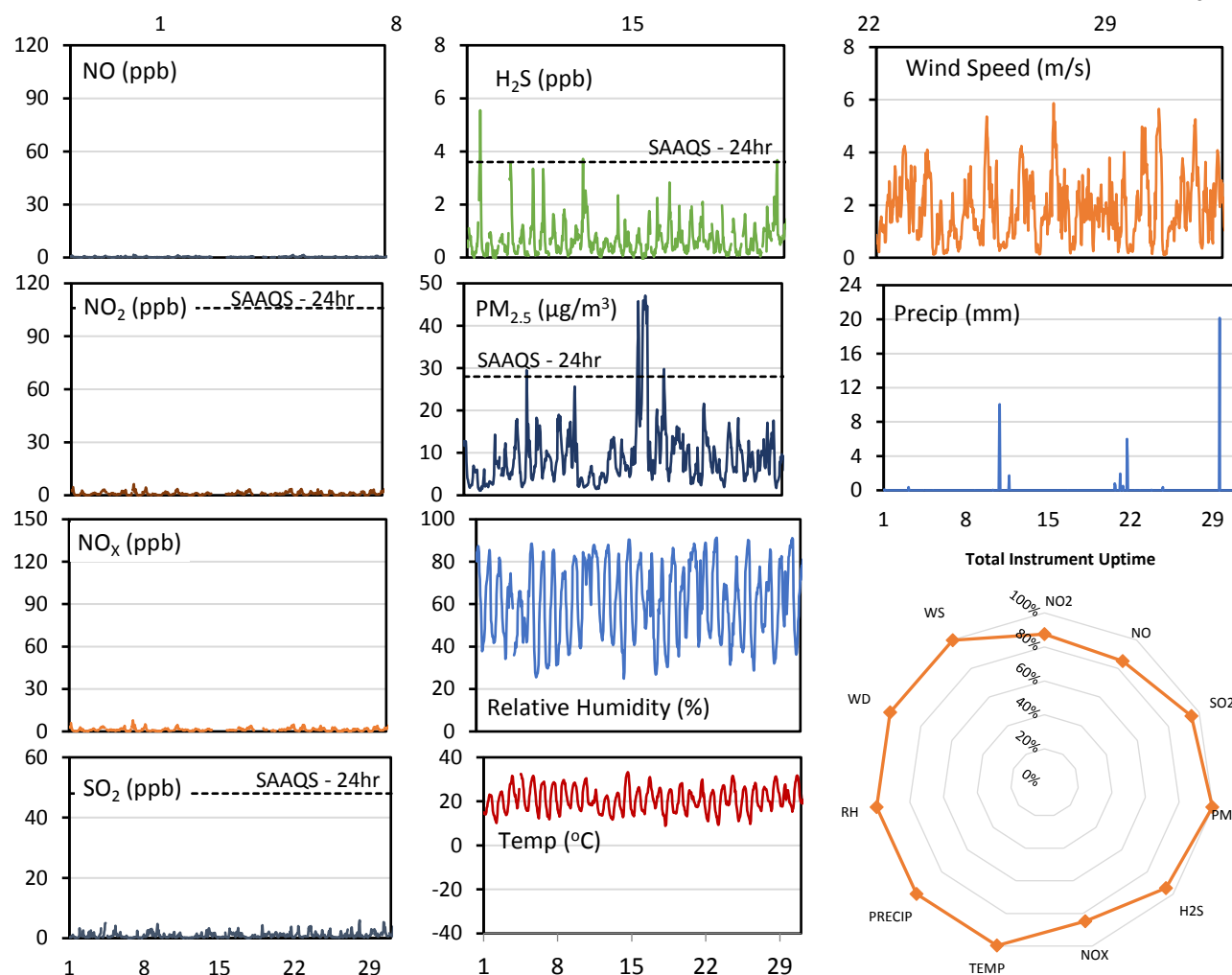
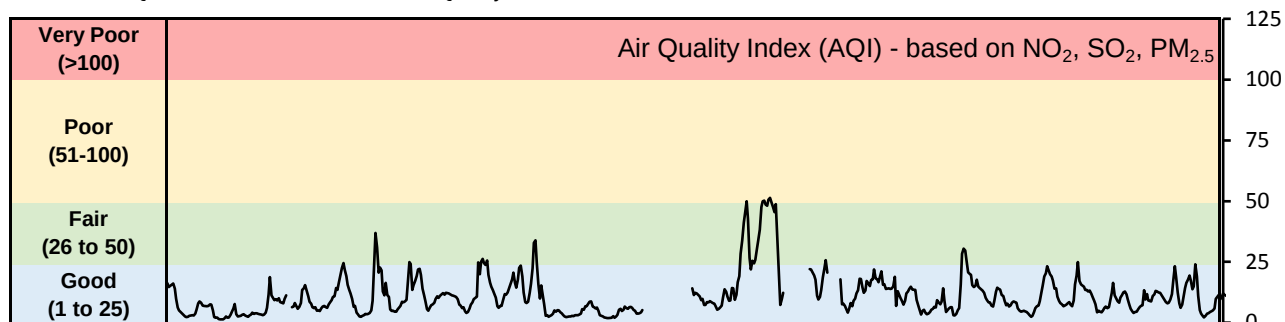
### Exceedance Summary (24- Hour Average - Exceedances Highlighted)

| Exceedance Time | AQI  | NO <sub>2</sub> | NO  | SO <sub>2</sub> | O <sub>3</sub> | NO <sub>x</sub> | H <sub>2</sub> S | Temp | WD    | WS  |
|-----------------|------|-----------------|-----|-----------------|----------------|-----------------|------------------|------|-------|-----|
|                 | -    | ppb             | ppb | ppb             | ppb            | ppb             | ppb              | °C   | deg   | m/s |
| Jul-10          | 19.9 | 1.7             | 0.4 | 0.5             | 31.3           | 2.1             | <b>4.5</b>       | 21.7 | 168.2 | 3.7 |

# SESAA Oxbow Station - July 2017 Summary Report

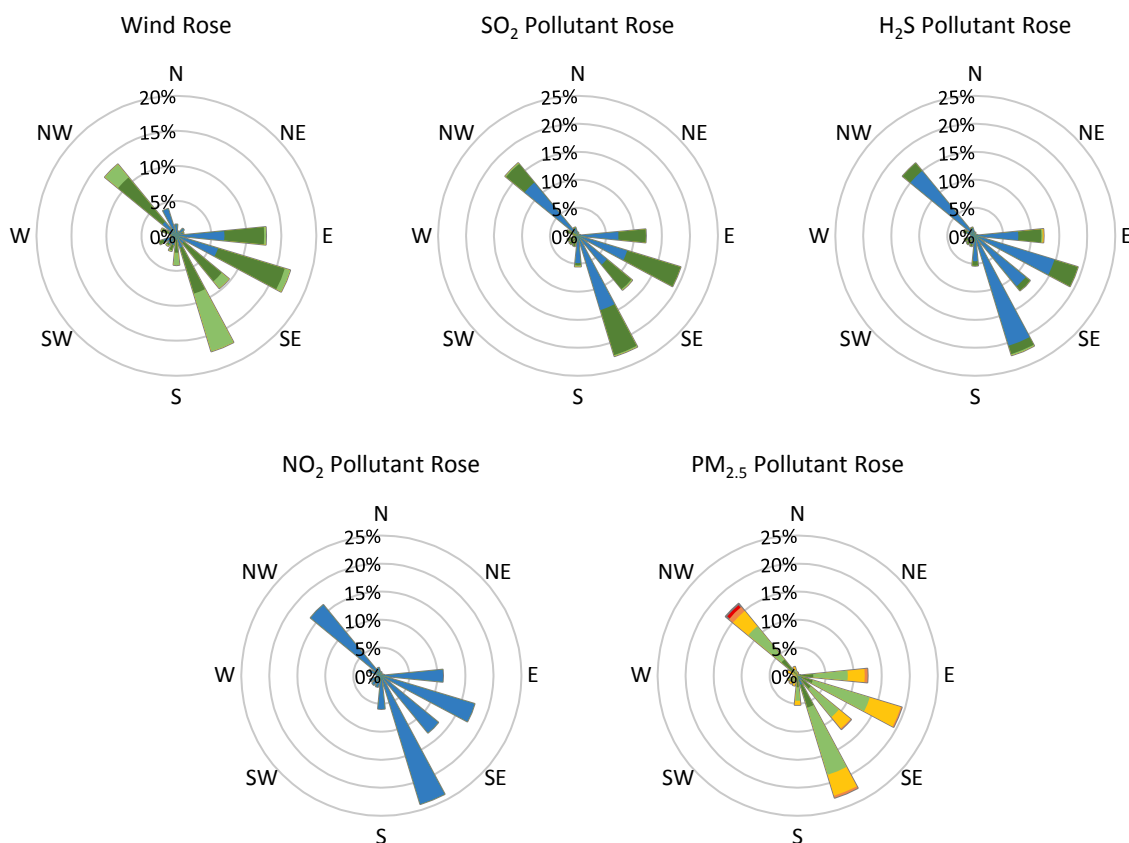
| Pollutants        |                   | Month Records |              | 24-Hour Records |        |                |             | 1-Hour Records |              |                |              |
|-------------------|-------------------|---------------|--------------|-----------------|--------|----------------|-------------|----------------|--------------|----------------|--------------|
| Name              | Conc. Unit        | Avg. Conc.    | Total Uptime | Maximum         |        | SAAQS Standard | Exceed Days | Maximum        |              | SAAQS Standard | Exceed Hours |
|                   |                   |               |              | Conc.           | Time   |                |             | Conc.          | Time         |                |              |
| NO                | ppb               | 0.3           | 85%          | 0.6             | Jul-22 | -              | -           | 1.6            | Jul-07 01:00 | -              | -            |
| NO <sub>2</sub>   | ppb               | 1.0           | 88%          | 2.0             | Jul-18 | 106            | 0           | 6.3            | Jul-07 01:00 | 159            | 0            |
| NO <sub>x</sub>   | ppb               | 1.3           | 85%          | 2.5             | Jul-18 | -              | -           | 7.9            | Jul-07 01:00 | -              | -            |
| SO <sub>2</sub>   | ppb               | 1.0           | 95%          | 1.7             | Jul-30 | 48             | 0           | 5.9            | Jul-28 02:00 | 172            | 0            |
| H <sub>2</sub> S  | ppb               | 0.7           | 94%          | 1.3             | Jul-30 | 3.6            | 0           | 5.6            | Jul-02 06:00 | 11             | 0            |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | 9.1           | 100%         | 24.1            | Jul-17 | 28             | 0           | 47.1           | Jul-18 03:00 | -              | -            |

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# SESAA Oxbow Station - July 2017 Summary Report



| Parameters        | Unit              | Color Code for Wind Speed and Pollution Concentration Class |                |                |                 |                  |           |  |
|-------------------|-------------------|-------------------------------------------------------------|----------------|----------------|-----------------|------------------|-----------|--|
| Wind Speed        | m/s               | 0.3 ≤ WS < 1.4                                              | 1.4 ≤ WS < 3.1 | 3.1 ≤ WS < 7.8 | 7.8 ≤ WS < 10.8 | 10.8 ≤ WS < 13.6 | WS ≥ 13.6 |  |
| SO <sub>2</sub>   | ppb               | 0 ≤ C < 1                                                   | 1 ≤ C < 5      | 5 ≤ C < 10     | 10 ≤ C < 57     | 57 ≤ C < 172     | C ≥ 172   |  |
| NO <sub>2</sub>   | ppb               | 0 ≤ C < 5                                                   | 5 ≤ C < 15     | 15 ≤ C < 30    | 30 ≤ C < 100    | 100 ≤ C < 212    | C ≥ 212   |  |
| H <sub>2</sub> S  | ppb               | 0 ≤ C < 1                                                   | 1 ≤ C < 3.6    | 3.6 ≤ C < 5    | 5 ≤ C < 8       | 8 ≤ C < 10.8     | C ≥ 10.8  |  |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | 0 ≤ C < 2                                                   | 2 ≤ C < 4      | 4 ≤ C < 10     | 10 ≤ C < 20     | 20 ≤ C < 30      | C ≥ 30    |  |

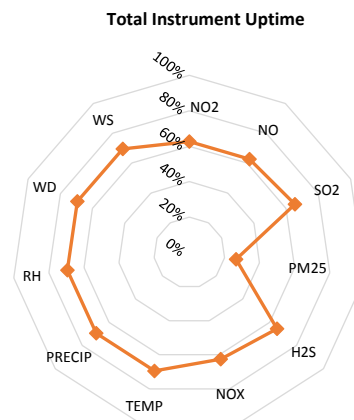
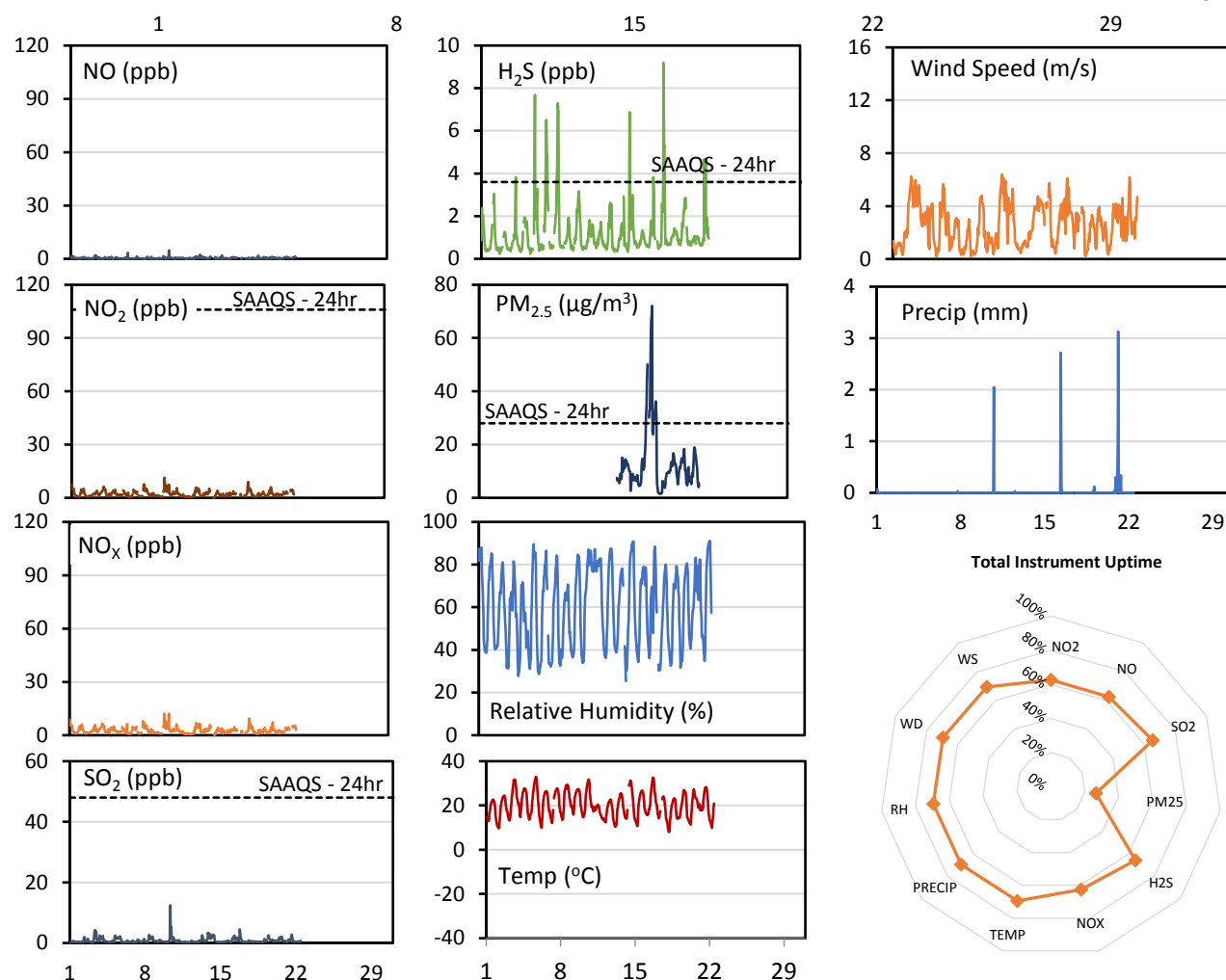
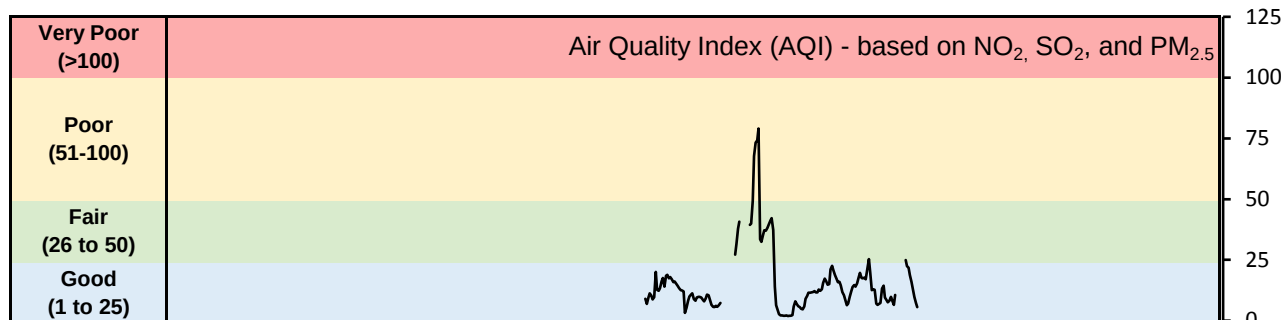
## Monthly Update

- Achieved >90% of scheduled uptime for all parameters except NO/NO<sub>x</sub> (89%)
- Downtime of 4% results from routine daily internal zeroes and spans

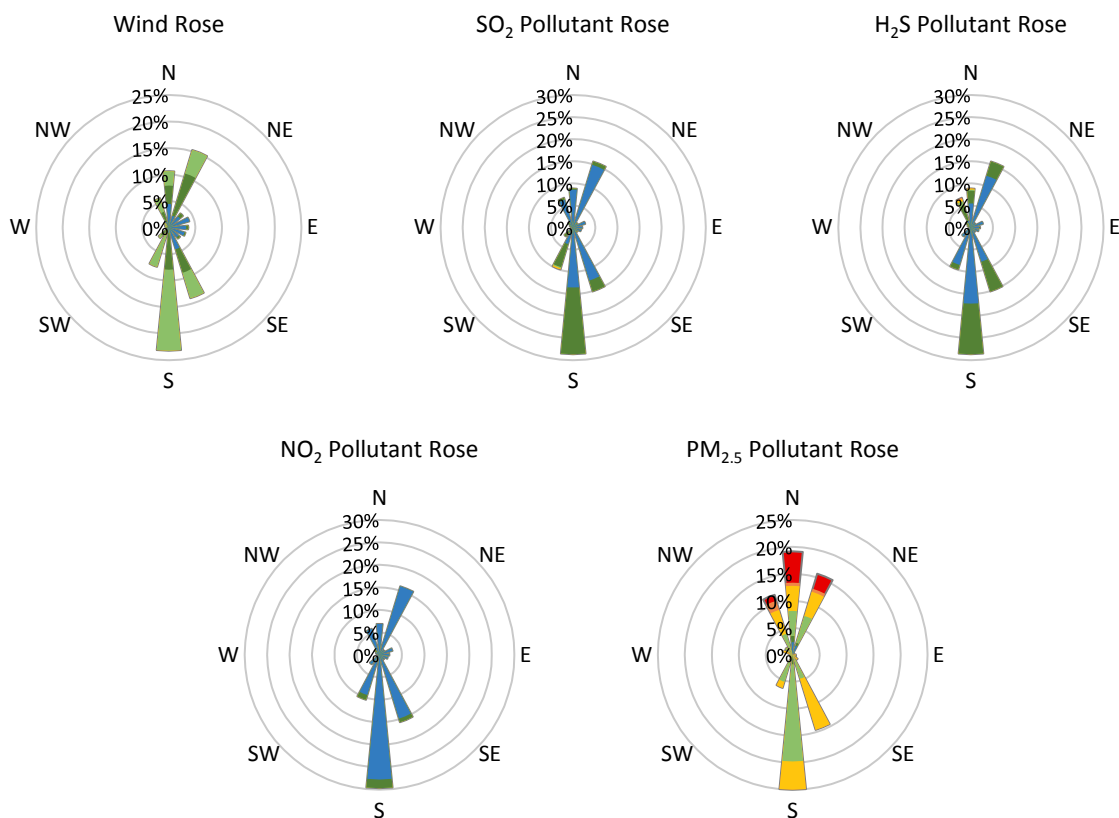
# SESAA Stoughton Station - July 2017 Summary Report

| Pollutants        |                   | Month Records |              | 24-Hour Records |        |                |             | 1-Hour Records |              |                |              |
|-------------------|-------------------|---------------|--------------|-----------------|--------|----------------|-------------|----------------|--------------|----------------|--------------|
| Name              | Conc. Unit        | Avg. Conc.    | Total Uptime | Maximum         |        | SAAQS Standard | Exceed Days | Maximum        |              | SAAQS Standard | Exceed Hours |
|                   |                   |               |              | Conc.           | Time   |                |             | Conc.          | Time         |                |              |
| NO                | ppb               | 0.5           | 63%          | 0.8             | Jul-22 | -              | -           | 4.8            | Jul-10 08:00 | -              | -            |
| NO <sub>2</sub>   | ppb               | 2.2           | 63%          | 3.7             | Jul-22 | 106            | 0           | 11.4           | Jul-09 22:00 | 159            | 0            |
| NO <sub>x</sub>   | ppb               | 2.7           | 63%          | 4.4             | Jul-22 | -              | -           | 12.1           | Jul-10 08:00 | -              | -            |
| SO <sub>2</sub>   | ppb               | 0.8           | 65%          | 1.7             | Jul-10 | 48             | 0           | 12.4           | Jul-10 08:00 | 172            | 0            |
| H <sub>2</sub> S  | ppb               | 1.2           | 65%          | 2.9             | Jul-31 | 3.6            | 0           | 9.2            | Jul-18 04:00 | 11             | 0            |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | 13.3          | 27%          | 35.0            | Jul-17 | 28             | 1           | 72.0           | Jul-17 20:00 | -              | -            |

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# SESAA Stoughton Station - July 2017 Summary Report



| Parameters        | Unit                     | Color Code for Wind Speed and Pollution Concentration Class |                     |                     |                      |                       |                |  |
|-------------------|--------------------------|-------------------------------------------------------------|---------------------|---------------------|----------------------|-----------------------|----------------|--|
| Wind Speed        | m/s                      | $0.3 \leq WS < 1.4$                                         | $1.4 \leq WS < 3.1$ | $3.1 \leq WS < 7.8$ | $7.8 \leq WS < 10.8$ | $10.8 \leq WS < 13.6$ | $WS \geq 13.6$ |  |
| SO <sub>2</sub>   | ppb                      | $0 \leq C < 1$                                              | $1 \leq C < 5$      | $5 \leq C < 10$     | $10 \leq C < 57$     | $57 \leq C < 172$     | $C \geq 172$   |  |
| NO <sub>2</sub>   | ppb                      | $0 \leq C < 5$                                              | $5 \leq C < 15$     | $15 \leq C < 30$    | $30 \leq C < 100$    | $100 \leq C < 212$    | $C \geq 212$   |  |
| H <sub>2</sub> S  | ppb                      | $0 \leq C < 1$                                              | $1 \leq C < 3.6$    | $3.6 \leq C < 5$    | $5 \leq C < 8$       | $8 \leq C < 10.8$     | $C \geq 10.8$  |  |
| PM <sub>2.5</sub> | $\mu\text{g}/\text{m}^3$ | $0 \leq C < 2$                                              | $2 \leq C < 4$      | $4 \leq C < 10$     | $10 \leq C < 20$     | $20 \leq C < 30$      | $C \geq 30$    |  |

## Monthly Update

- Airpointer downtime due to instrument issues
- Downtime of 4% due to routine daily internal zeroes and spans

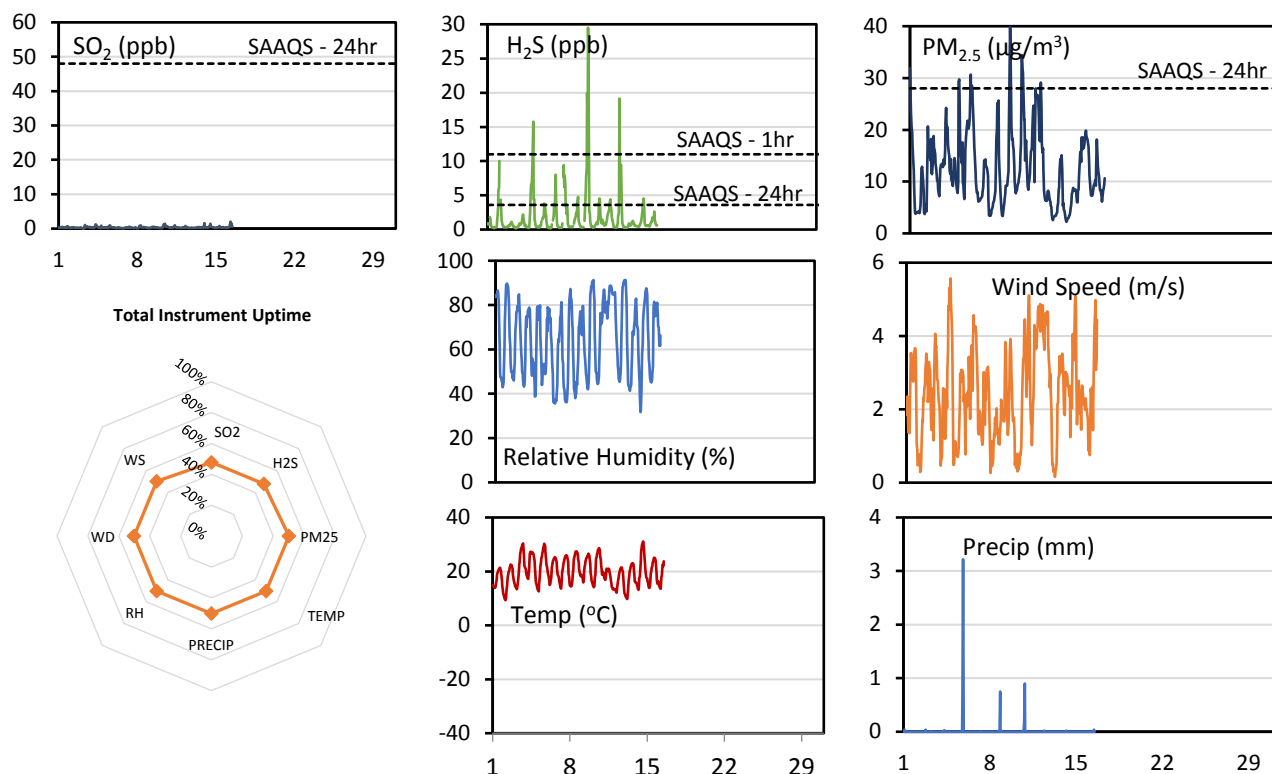
## Exceedance Summary (24- Hour Average - Exceedances Highlighted)

| Exceedance Day | AQI  | NO <sub>2</sub> | NO  | SO <sub>2</sub> | PM <sub>2.5</sub>        | NO <sub>X</sub> | H <sub>2</sub> S | TEMP | WD   | WS  |
|----------------|------|-----------------|-----|-----------------|--------------------------|-----------------|------------------|------|------|-----|
|                |      | ppb             | ppb | ppb             | $\mu\text{g}/\text{m}^3$ | ppb             | ppb              | C    | deg  | m/s |
| Jul-17         | 41.1 | 2.7             | 0.3 | 0.5             | <b>35.0</b>              | 3.0             | 1.1              | 18.7 | 61.6 | 2.6 |

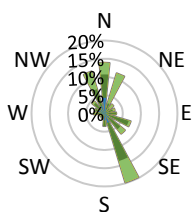
# SESAA Wauchope Station - July 2017 Summary Report

| Pollutants        |                   | Month Records |              | 24-Hour Records |        |                |             | 1-Hour Records |              |                |              |
|-------------------|-------------------|---------------|--------------|-----------------|--------|----------------|-------------|----------------|--------------|----------------|--------------|
| Name              | Conc. Unit        | Avg. Conc.    | Total Uptime | Maximum         |        | SAAQS Standard | Exceed Days | Maximum        |              | SAAQS Standard | Exceed Hours |
|                   |                   |               |              | Conc.           | Time   |                |             | Conc.          | Time         |                |              |
| SO <sub>2</sub>   | ppb               | 0.4           | 48%          | 0.8             | Jul-16 | 48             | 0           | 2.0            | Jul-16 07:00 | 172            | 0            |
| H <sub>2</sub> S  | ppb               | 1.9           | 48%          | 5.8             | Jul-10 | 3.6            | 1           | 29.5           | Jul-10 04:00 | 11             | 8            |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | 12.5          | 50%          | 18.4            | Jul-05 | 28             | 0           | 39.8           | Jul-08 23:00 | -              | -            |

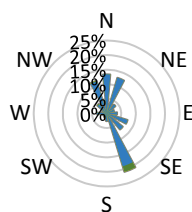
SAAQS: Saskatchewan Ambient Air Quality Standards



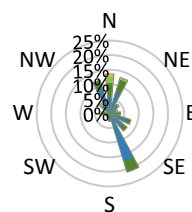
Wind Rose



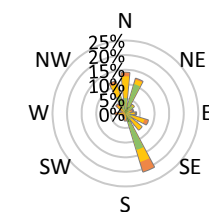
SO<sub>2</sub> Pollutant Rose



H<sub>2</sub>S Pollutant Rose



PM<sub>2.5</sub> Pollutant Rose



| Parameters        | Unit              | Color Code for Wind Speed and Pollution Concentration Class |                |                |                 |                  |           |
|-------------------|-------------------|-------------------------------------------------------------|----------------|----------------|-----------------|------------------|-----------|
| Wind Speed        | m/s               | 0.3 ≤ WS < 1.4                                              | 1.4 ≤ WS < 3.1 | 3.1 ≤ WS < 7.8 | 7.8 ≤ WS < 10.8 | 10.8 ≤ WS < 13.6 | WS ≥ 13.6 |
| SO <sub>2</sub>   | ppb               | 0 ≤ C < 1                                                   | 1 ≤ C < 5      | 5 ≤ C < 10     | 10 ≤ C < 57     | 57 ≤ C < 172     | C ≥ 172   |
| H <sub>2</sub> S  | ppb               | 0 ≤ C < 1                                                   | 1 ≤ C < 3.6    | 3.6 ≤ C < 5    | 5 ≤ C < 8       | 8 ≤ C < 10.8     | C ≥ 10.8  |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | 0 ≤ C < 2                                                   | 2 ≤ C < 4      | 4 ≤ C < 10     | 10 ≤ C < 20     | 20 ≤ C < 30      | C ≥ 30    |

## Monthly Update

- Airpointer downtime due to water found inside the airpointer
- Downtime of 4% results from routine daily Internal Zeroes and Spans

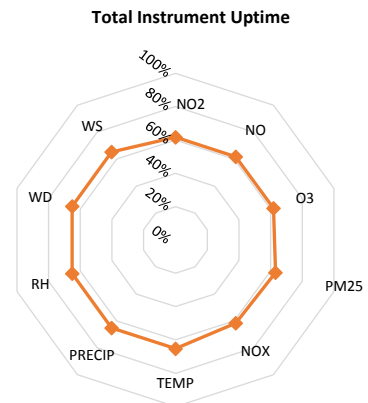
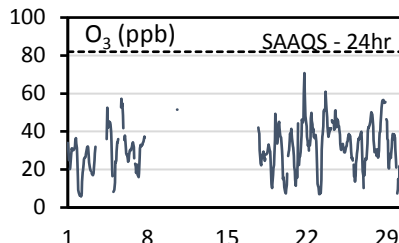
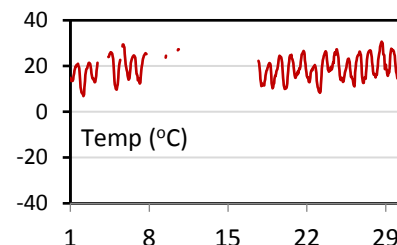
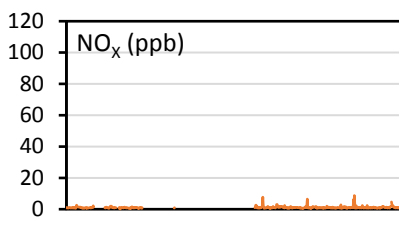
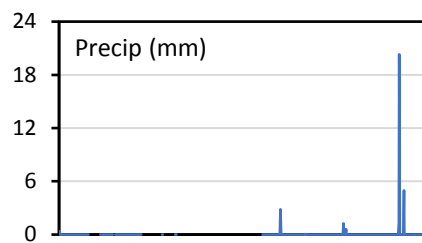
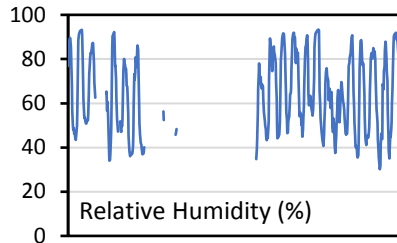
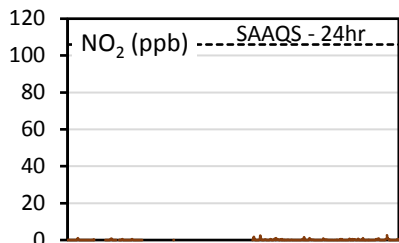
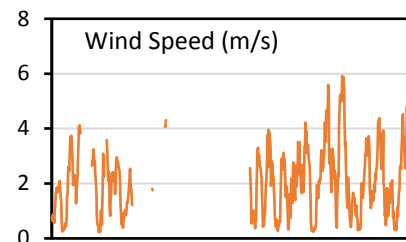
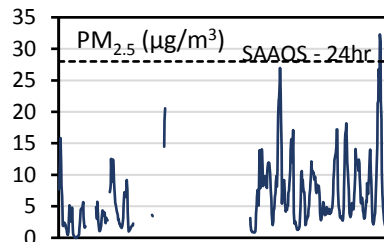
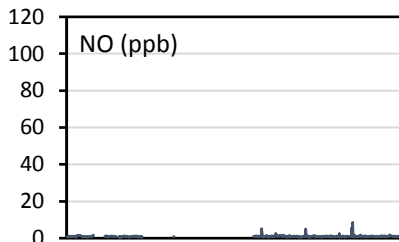
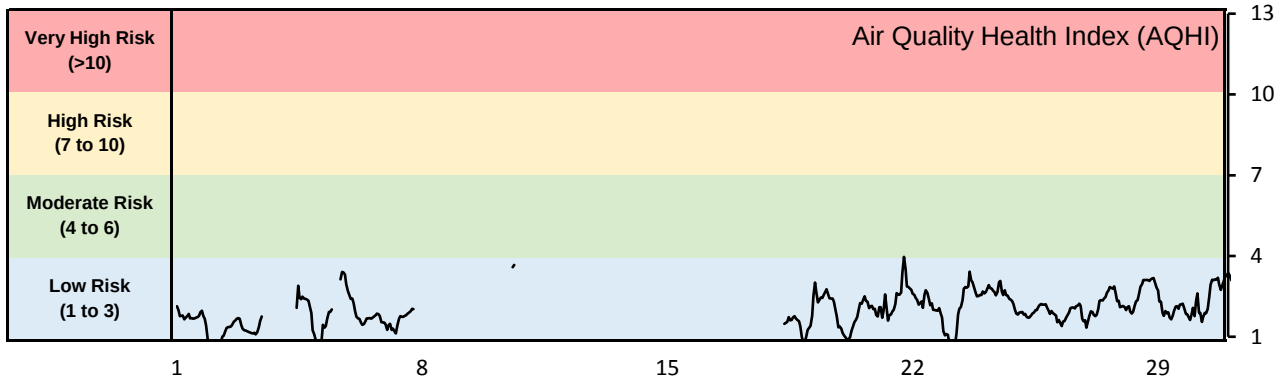
| Exceedance Summary (1- Hour Average - Exceedances Highlighted) |                        |                                        |                         |            |           |           |
|----------------------------------------------------------------|------------------------|----------------------------------------|-------------------------|------------|-----------|-----------|
| Exceedance Time                                                | SO <sub>2</sub><br>ppb | PM <sub>2.5</sub><br>µg/m <sup>3</sup> | H <sub>2</sub> S<br>ppb | Temp<br>°C | WD<br>deg | WS<br>m/s |
| Jul-05 03:00                                                   | 0.4                    | 13.5                                   | <b>11.4</b>             | 13.3       | 1.3       | 0.7       |
| Jul-05 04:00                                                   | 0.2                    | 17.6                                   | <b>15.8</b>             | 12.6       | 140.8     | 0.7       |
| Jul-10 02:00                                                   | 0.2                    | 21.9                                   | <b>19.9</b>             | 15.0       | 358.4     | 0.4       |
| Jul-10 03:00                                                   | 0.2                    | 21.9                                   | <b>16.6</b>             | 14.6       | 338.9     | 0.4       |
| Jul-10 04:00                                                   | 0.2                    | 14.0                                   | <b>29.5</b>             | 14.1       | 15.1      | 0.6       |
| Jul-10 05:00                                                   | 0.2                    | 17.5                                   | <b>25.9</b>             | 14.6       | 344.8     | 0.5       |
| Jul-10 06:00                                                   | 0.3                    | 17.9                                   | <b>11.2</b>             | 17.4       | 303.3     | 0.8       |
| Jul-13 01:00                                                   | 0.2                    | 14.5                                   | <b>19.1</b>             | 10.8       | 146.4     | 0.3       |

| Exceedance Summary (24- Hour Average - Exceedances Highlighted) |                        |                                        |                         |            |           |           |
|-----------------------------------------------------------------|------------------------|----------------------------------------|-------------------------|------------|-----------|-----------|
| Exceedance Time                                                 | SO <sub>2</sub><br>ppb | PM <sub>2.5</sub><br>µg/m <sup>3</sup> | H <sub>2</sub> S<br>ppb | Temp<br>°C | WD<br>deg | WS<br>m/s |
| Jul-10                                                          | 0.5                    | 17.0                                   | <b>5.8</b>              | 21.8       | 189.4     | 2.3       |

# SESAA Wawota Station - July 2017 Summary Report

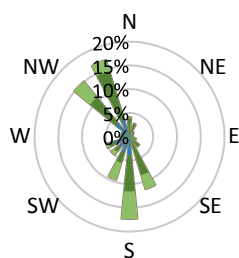
| Pollutants        |                   | Month Records |        | 24-Hour Records |        |                |             | 1-Hour Records |              |                |              |
|-------------------|-------------------|---------------|--------|-----------------|--------|----------------|-------------|----------------|--------------|----------------|--------------|
| Name              | Conc. Unit        | Avg. Conc.    | Uptime | Maximum         |        | SAAQS Standard | Exceed Days | Maximum        |              | SAAQS Standard | Exceed Hours |
|                   |                   |               |        | Conc.           | Time   |                |             | Conc.          | Time         |                |              |
| NO                | ppb               | 1.0           | 62%    | 1.6             | Jul-09 | -              | -           | 8.6            | Jul-26 15:00 | -              | -            |
| NO <sub>2</sub>   | ppb               | 0.1           | 62%    | 0.7             | Jul-17 | 106            | 0           | 2.6            | Jul-29 22:00 | 159            | 0            |
| NO <sub>x</sub>   | ppb               | 1.1           | 62%    | 1.7             | Jul-17 | -              | -           | 8.7            | Jul-26 15:00 | -              | -            |
| O <sub>3</sub>    | ppb               | 32.9          | 62%    | 51.5            | Jul-10 | -              | -           | 70.8           | Jul-21 18:00 | 82             | 0            |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | 6.7           | 63%    | 17.9            | Jul-10 | 28             | 0           | 32.3           | Jul-30 02:00 | -              | -            |

SAAQS: Saskatchewan Ambient Air Quality Standards

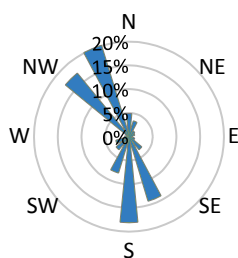


## SESAA Wawota Station - July 2017 Summary Report

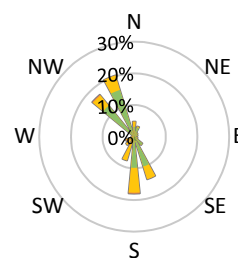
Wind Rose



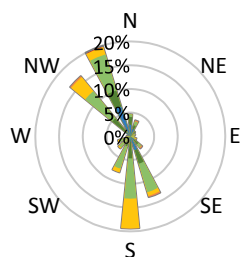
NO<sub>2</sub> Pollutant Rose



O<sub>3</sub> Pollutant Rose



PM<sub>2.5</sub> Pollutant Rose



| Parameters        | Unit              | Color Code for Wind Speed and Pollution Concentration Class |                     |                     |                      |                       |                |  |
|-------------------|-------------------|-------------------------------------------------------------|---------------------|---------------------|----------------------|-----------------------|----------------|--|
| Wind Speed        | m/s               | $0.3 \leq WS < 1.4$                                         | $1.4 \leq WS < 3.1$ | $3.1 \leq WS < 7.8$ | $7.8 \leq WS < 10.8$ | $10.8 \leq WS < 13.6$ | $WS \geq 13.6$ |  |
| O <sub>3</sub>    | ppb               | $0 \leq C < 10$                                             | $10 \leq C < 20$    | $20 \leq C < 40$    | $40 \leq C < 60$     | $60 \leq C < 82$      | $C \geq 82$    |  |
| NO <sub>2</sub>   | ppb               | $0 \leq C < 5$                                              | $5 \leq C < 15$     | $15 \leq C < 30$    | $30 \leq C < 100$    | $100 \leq C < 212$    | $C \geq 212$   |  |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | $0 \leq C < 2$                                              | $2 \leq C < 4$      | $4 \leq C < 10$     | $10 \leq C < 20$     | $20 \leq C < 30$      | $C \geq 30$    |  |

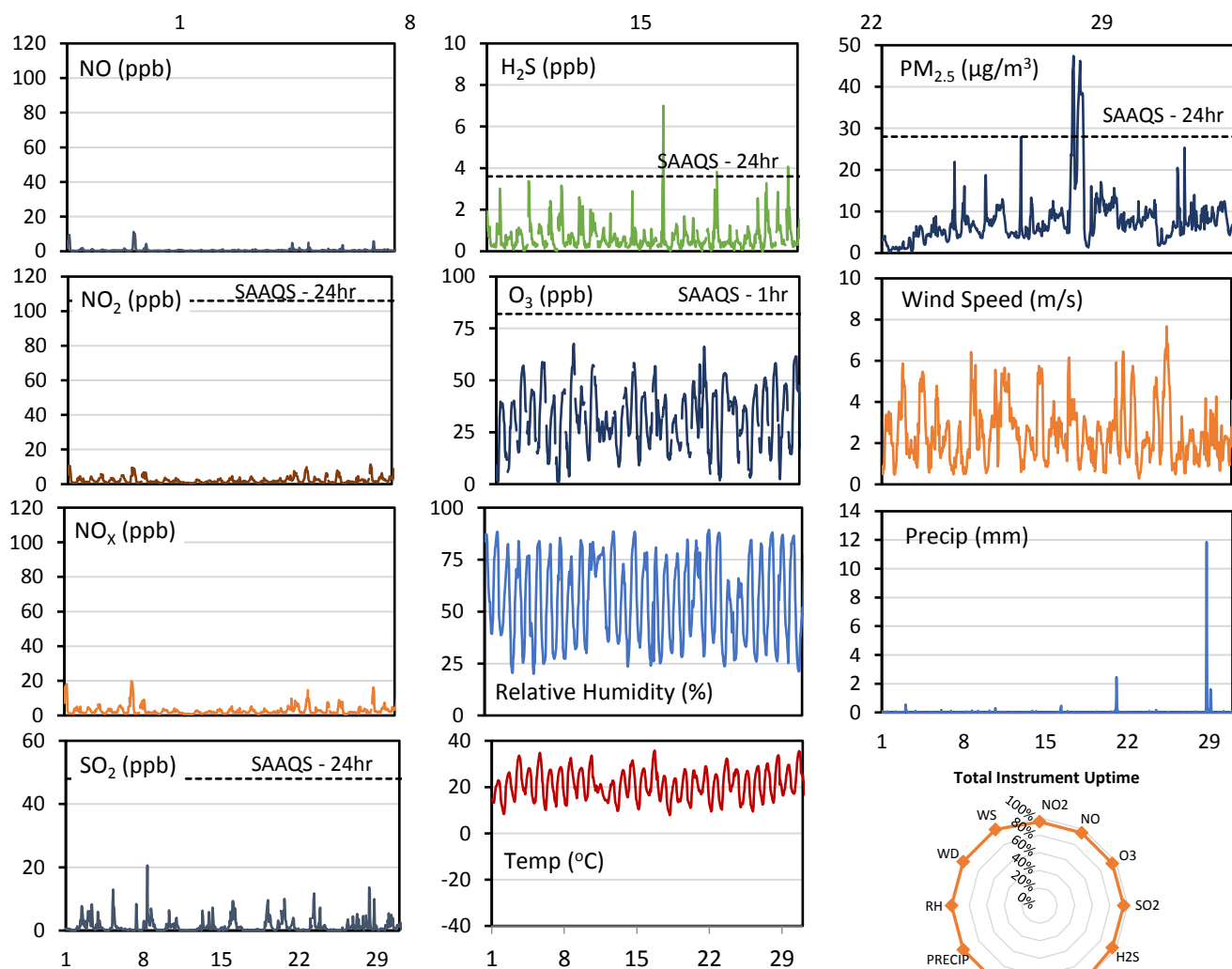
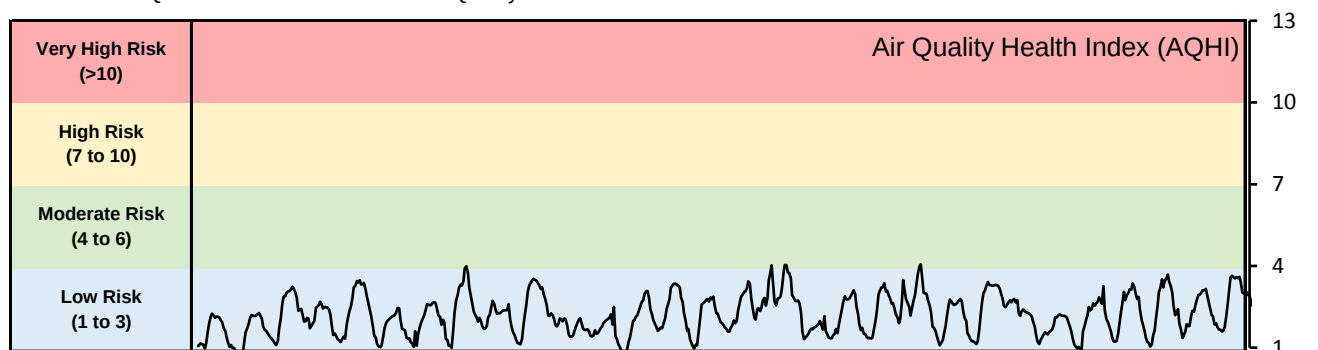
### Monthly Update

- Downtime due to electrical issues
- Downtime of 4% results from daily Internal Zeroes and Spans

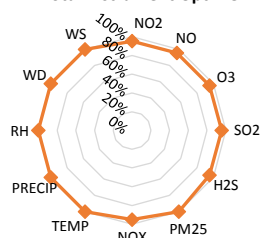
# SESAA Weyburn Station - July 2017 Summary Report

| Pollutants        |                   | Month Records |        | 24-Hour Records |        |                |             | 1-Hour Records |              |                |              |
|-------------------|-------------------|---------------|--------|-----------------|--------|----------------|-------------|----------------|--------------|----------------|--------------|
| Name              | Conc. Unit        | Avg. Conc.    | Uptime | Maximum         |        | SAAQS Standard | Exceed Days | Maximum        |              | SAAQS Standard | Exceed Hours |
|                   |                   |               |        | Conc.           | Time   |                |             | Conc.          | Time         |                |              |
| NO                | ppb               | 0.6           | 95%    | 2.6             | Jul-07 | -              | -           | 17.6           | Jul-31 23:00 | -              | -            |
| NO <sub>2</sub>   | ppb               | 2.3           | 95%    | 4.7             | Jul-31 | 106            | 0           | 16.3           | Jul-31 22:00 | 159            | 0            |
| NO <sub>x</sub>   | ppb               | 2.9           | 95%    | 6.6             | Jul-31 | -              | -           | 33.3           | Jul-31 23:00 | -              | -            |
| SO <sub>2</sub>   | ppb               | 1.4           | 96%    | 3.6             | Jul-08 | 48             | 0           | 20.6           | Jul-08 08:00 | 172            | 0            |
| H <sub>2</sub> S  | ppb               | 0.7           | 96%    | 1.0             | Jul-08 | 3.6            | 0           | 7.0            | Jul-18 01:00 | 11             | 0            |
| O <sub>3</sub>    | ppb               | 31.9          | 96%    | 42.7            | Jul-21 | -              | -           | 67.6           | Jul-08 16:00 | 82             | 0            |
| PM <sub>2.5</sub> | µg/m <sup>3</sup> | 7.9           | 100%   | 28.0            | Jul-17 | 28             | 0           | 47.4           | Jul-17 09:00 | -              | -            |

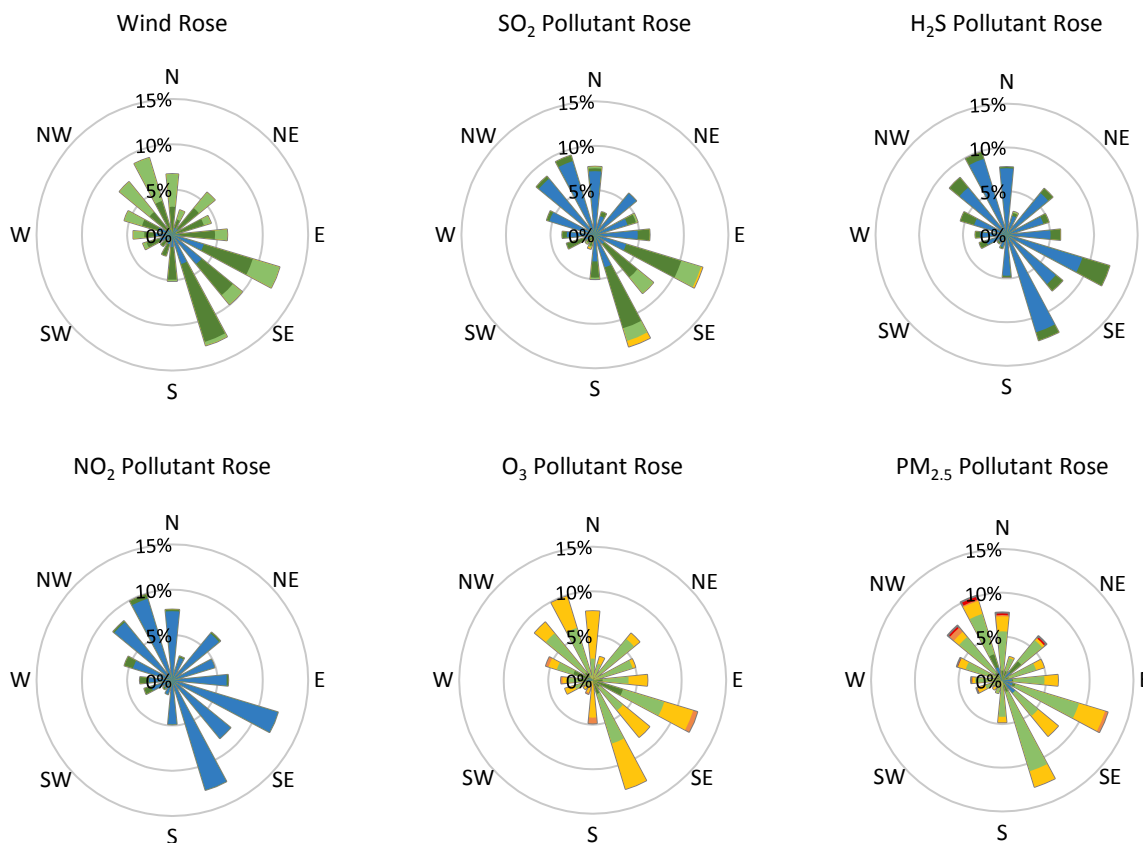
SAAQS: Saskatchewan Ambient Air Quality Standards



Total Instrument Uptime







| Parameters        | Unit                     | Color Code for Wind Speed and Pollution Concentration Class |                     |                     |                      |                       |                |
|-------------------|--------------------------|-------------------------------------------------------------|---------------------|---------------------|----------------------|-----------------------|----------------|
| Wind Speed        | m/s                      | $0.3 \leq WS < 1.4$                                         | $1.4 \leq WS < 3.1$ | $3.1 \leq WS < 7.8$ | $7.8 \leq WS < 10.8$ | $10.8 \leq WS < 13.6$ | $WS \geq 13.6$ |
| SO <sub>2</sub>   | ppb                      | $0 \leq C < 1$                                              | $1 \leq C < 5$      | $5 \leq C < 10$     | $10 \leq C < 57$     | $57 \leq C < 172$     | $C \geq 172$   |
| NO <sub>2</sub>   | ppb                      | $0 \leq C < 5$                                              | $5 \leq C < 15$     | $15 \leq C < 30$    | $30 \leq C < 100$    | $100 \leq C < 212$    | $C \geq 212$   |
| H <sub>2</sub> S  | ppb                      | $0 \leq C < 1$                                              | $1 \leq C < 3.6$    | $3.6 \leq C < 5$    | $5 \leq C < 8$       | $8 \leq C < 10.8$     | $C \geq 10.8$  |
| O <sub>3</sub>    | ppb                      | $0 \leq C < 10$                                             | $10 \leq C < 20$    | $20 \leq C < 40$    | $40 \leq C < 60$     | $60 \leq C < 82$      | $C \geq 82$    |
| PM <sub>2.5</sub> | $\mu\text{g}/\text{m}^3$ | $0 \leq C < 2$                                              | $2 \leq C < 4$      | $4 \leq C < 10$     | $10 \leq C < 20$     | $20 \leq C < 30$      | $C \geq 30$    |

### Monthly Update

- Achieved >99% of scheduled uptime for all parameters