

12 August 2019

Julie Thomas  
Environmental Superintendent  
Muswellbrook Coal Company Ltd

Dear Julie,

## **Ambient Air Monitoring - Muscle Creek Rd - July 2019**

### **1.0 Introduction**

AECOM Australia Pty Ltd (AECOM) was appointed by Muswellbrook Coal Company Ltd (MCC) to provide static real time atmospheric monitoring for Hydrogen Sulfide (H<sub>2</sub>S) and Sulfur Dioxide (SO<sub>2</sub>) at one location on Muscle Creek Road, Muswellbrook.

Monitoring is conducted using a GrayWolf TG-501 Toxic Gas Probe with Hydrogen Sulfide and Sulfur Dioxide sensors capable of reading in the parts per billion range. Data is recorded as 5 minute average concentrations on a tablet computer with live data then transmitted to an online account at regular intervals where it can be viewed and downloaded for further analysis by MCC and AECOM staff.

Meteorology data is obtained from the onsite MCC weather station, located approximately 6km to the northwest of the monitoring location. Wind data will be analysed each month with the aim of identifying any trends or relationships between the wind data and monitoring results. Results are reported on a monthly basis with this report presenting results for the period 1 July to 31 July 2019.

### **2.0 Site Location**

The monitoring location on Muscle Creek Rd was chosen due to it being downwind of the mine site during the prevailing north westerly winds. Siting was performed in accordance with AS 3580.1.1 2016.



**Figure 1 Muswellbrook Coal Company**

### 3.0 Assessment Criteria

The gaseous ambient air quality criteria in **Table 1** and **Table 2** are reproduced from the MCC Development Consent (DA 205/2002, Condition 28).

**Table 1 H<sub>2</sub>S Assessment Criteria**

Analyte Averaging Period	Criteria	Unit
H <sub>2</sub> S 1 Hour Average	500	ppb
H <sub>2</sub> S 24 Hour Average	100	ppb

**Table 2 SO<sub>2</sub> Assessment Criteria**

Analyte Averaging Period	Criteria	Unit
SO <sub>2</sub> 1 Hour Average	200	ppb
SO <sub>2</sub> 24 Hour Average	80	ppb

### 4.0 Methodology

Monitoring is performed by a GrayWolf TG-501 Toxic Gas Probe fitted with H<sub>2</sub>S and SO<sub>2</sub> sensors. The unit is enclosed in a weatherproof case with the sensor at a height of approximately 1.8m above the ground. While the sensor is designed as a passive sampler, a small fan has been installed to generate airflow past the sensor ensuring adequate air movement to provide a representative atmosphere for gas analysis.

The GrayWolf monitor measures gasses in parts per million (ppm) with the following limits of detection (LOD).

- H<sub>2</sub>S: 0.01 ppm; and
- SO<sub>2</sub>: 0.01 ppm.

Readings are logged in parts per million (ppm) and are converted to parts per billion (ppb) for reporting purposes, with the LOD's being 10 ppb for both H<sub>2</sub>S and SO<sub>2</sub>. For the calculation of 1hr and 24hr averages, where the instrument returns a zero reading, half the instrument LOD value is used (5 ppb).

### 5.0 Results

A summary of the H<sub>2</sub>S and SO<sub>2</sub> results for July 2019 is presented in **Table 3**. **Table 4** provides a summary of 24hr (midnight to midnight) averages along with maximum 1hr averages for each day. Data is shown graphically against the relevant criteria in **Figure 2** and **Figure 3** with 1 hour data attached in **Tables 5** and **6**. It should be noted that the plots present 1 hour rolling averages calculated from raw data.

**Table 3 Gaseous Monitoring Results – July 2019**

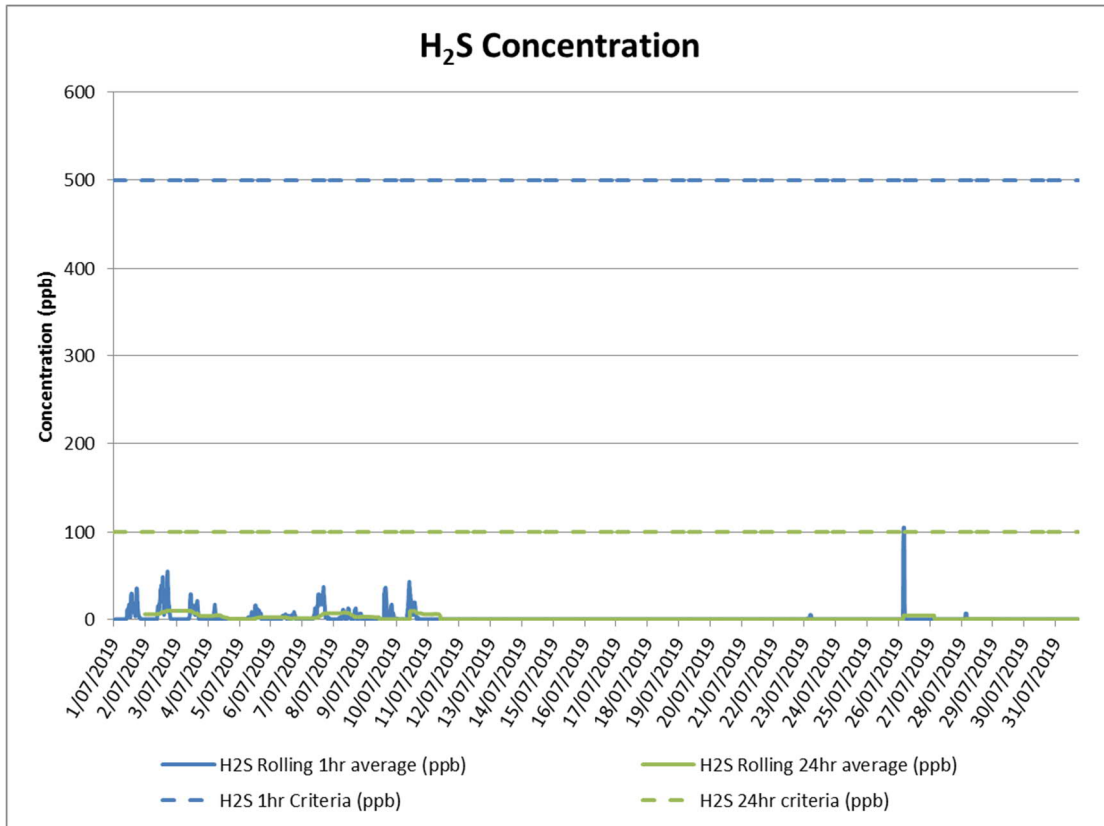
Parameter	Units	Hydrogen Sulfide (H <sub>2</sub> S)	Sulfur Dioxide (SO <sub>2</sub> )
Maximum 1 Hour Average	ppb	107.1	76.7
Maximum 24 Hour Average	ppb	13.3	25.6
Number of Exceedances – 1 Hour	-	0	0
Number of Exceedances – 24 Hour	-	0	0

There were no exceedances of the applicable criteria for either H<sub>2</sub>S or SO<sub>2</sub> for the July 2019 monitoring period. The data capture rates for July 2019 were 74.53% for both H<sub>2</sub>S and SO<sub>2</sub>. Approximately six days of data were not logged after the tablet failed and had to be replaced.

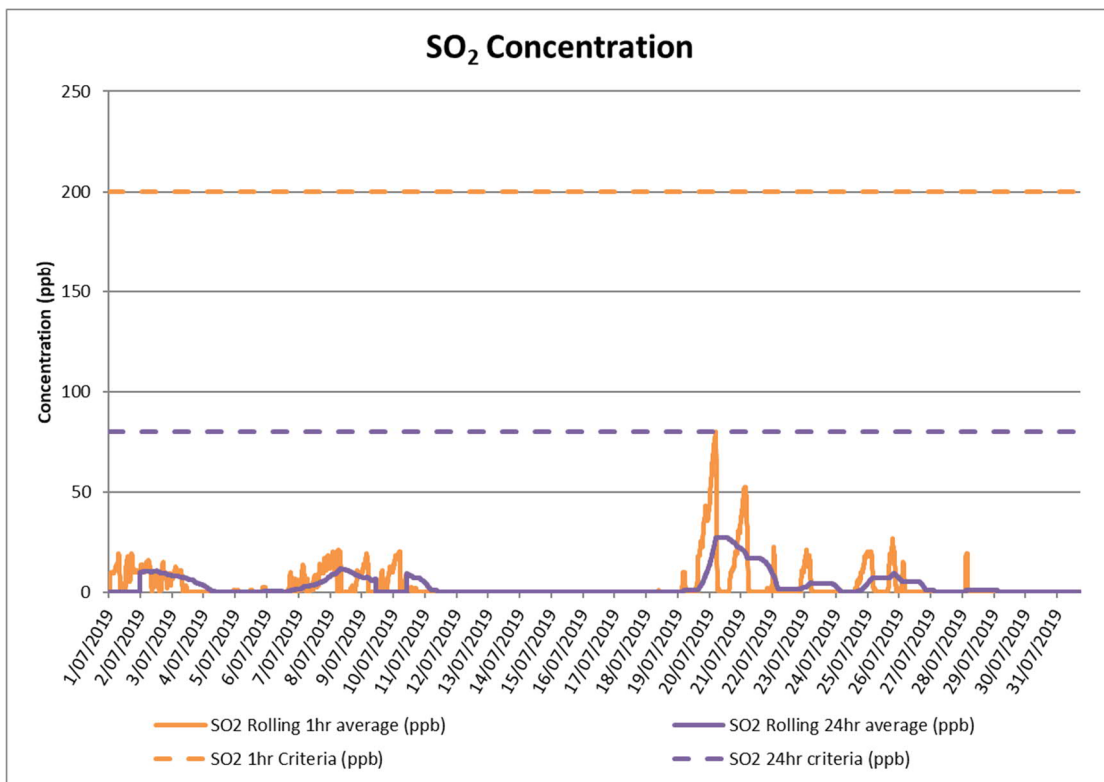
**Table 4 24hr Averages (Midnight to Midnight) and Maximum 1hr Averages – July 2019**

Date	Hydrogen Sulfide (H <sub>2</sub> S) (ppb)		Sulfur Dioxide (SO <sub>2</sub> ) (ppb)	
	24hr Average	Maximum 1hr Average	24hr Average	Maximum 1hr Average
1/07/2019	9.7	31.7	10.9	18.3
2/07/2019	13.3	38.3	9.9	15.0
3/07/2019	7.8	25.0	6.8	11.7
4/07/2019	5.5	16.7	5.0	5.4
5/07/2019	6.7	17.5	5.1	6.3
6/07/2019	5.8	10.0	5.6	9.6
7/07/2019	10.5	28.8	9.3	18.3
8/07/2019	6.8	14.6	9.8	20.8
9/07/2019	Insufficient Data	35.0	Insufficient Data	16.7
10/07/2019	9.6	35.8	8.5	19.2
11/07/2019	Insufficient Data	5*	Insufficient Data	5*
12/07/2019	No Data	No Data	No Data	No Data
13/07/2019	No Data	No Data	No Data	No Data
14/07/2019	No Data	No Data	No Data	No Data
15/07/2019	No Data	No Data	No Data	No Data
16/07/2019	No Data	No Data	No Data	No Data
17/07/2019	No Data	No Data	No Data	No Data
18/07/2019	Insufficient Data	5*	Insufficient Data	5*
19/07/2019	5*	5*	10.4	36.7
20/07/2019	5*	5*	25.6	76.7
21/07/2019	5*	5*	17.1	50.9
22/07/2019	5*	5*	5.9	21.7
23/07/2019	5.2	8.8	7.9	19.2
24/07/2019	5*	5*	5.5	9.6
25/07/2019	5*	5*	11.2	25.0
26/07/2019	9.3	107.1	6.6	20.0
27/07/2019	5*	5*	5*	5*
28/07/2019	5.2	10.0	5.7	22.5
29/07/2019	5*	5*	5*	5*
30/07/2019	5*	5*	5*	5*
31/07/2019	5*	5*	5*	5*
<b>Criteria</b>	<b>100</b>	<b>500</b>	<b>80</b>	<b>200</b>
<b>Capture Rate</b>	<b>74.53%</b>		<b>74.53%</b>	

\* All raw data returned less than the instrument limit of detection. Half of the LOD value reported. Refer **Section 4.0**.



**Figure 2 H<sub>2</sub>S Concentrations – July 2019**



**Figure 3 SO<sub>2</sub> Concentrations – July 2019**

## 5.1 Meteorology

Meteorology data sourced from MCC's onsite meteorology station for July indicated winds were predominately from the North West quadrant as well as having a South East component. The average wind speed for the month was 2.9 m/s.

When winds are from the North West, the monitoring location is generally down wind of the mine site. A wind rose for this monitoring period can be found attached as **Figure 4**.

## 6.0 Conclusion

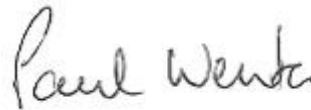
AECOM commenced ambient air quality monitoring on Muscle Creek Rd on 26 July 2017. Monitoring results for the period 1 to 31 July 2019 returned no exceedances of either the 1hr or 24hr criteria for H<sub>2</sub>S or SO<sub>2</sub>. Wind data obtained from the MCC meteorology station indicates that winds for this period were predominantly from the North West quadrant as well as having a South East component placing the monitoring location generally down wind of the mine site for a significant period of July 2019.

Yours faithfully,



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encl: Hourly Monitoring Data, Wind Rose

AECOM in Australia and New Zealand is certified to ISO9001, ISO14001 AS/NZS4801 and OHSAS18001.

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Table 5 H<sub>2</sub>S 1hr Data (ppb) – July 2019

Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average
1/07/2019	0	5	2/07/2019	0	5	3/07/2019	0	5	4/07/2019	0	5	5/07/2019	0	5
1/07/2019	1	5	2/07/2019	1	5	3/07/2019	1	5	4/07/2019	1	5	5/07/2019	1	5
1/07/2019	2	5	2/07/2019	2	5	3/07/2019	2	5	4/07/2019	2	5	5/07/2019	2	5
1/07/2019	3	5	2/07/2019	3	5	3/07/2019	3	5	4/07/2019	3	5	5/07/2019	3	5
1/07/2019	4	5	2/07/2019	4	5	3/07/2019	4	5	4/07/2019	4	5	5/07/2019	4	5
1/07/2019	5	5	2/07/2019	5	5	3/07/2019	5	5	4/07/2019	5	16.7	5/07/2019	5	5
1/07/2019	6	5	2/07/2019	6	5	3/07/2019	6	5	4/07/2019	6	5	5/07/2019	6	5
1/07/2019	7	5	2/07/2019	7	5	3/07/2019	7	5	4/07/2019	7	5	5/07/2019	7	6.3
1/07/2019	8	5	2/07/2019	8	5	3/07/2019	8	5	4/07/2019	8	5.4	5/07/2019	8	5
1/07/2019	9	5.8	2/07/2019	9	14.6	3/07/2019	9	5.4	4/07/2019	9	5	5/07/2019	9	6.3
1/07/2019	10	13.3	2/07/2019	10	15.4	3/07/2019	10	25.0	4/07/2019	10	5	5/07/2019	10	8.8
1/07/2019	11	16.7	2/07/2019	11	32.1	3/07/2019	11	13.8	4/07/2019	11	5	5/07/2019	11	5.8
1/07/2019	12	20.4	2/07/2019	12	38.3	3/07/2019	12	15.4	4/07/2019	12	5	5/07/2019	12	17.5
1/07/2019	13	21.3	2/07/2019	13	32.5	3/07/2019	13	10.4	4/07/2019	13	5	5/07/2019	13	5.8
1/07/2019	14	14.2	2/07/2019	14	14.6	3/07/2019	14	7.9	4/07/2019	14	5.4	5/07/2019	14	14.2
1/07/2019	15	14.6	2/07/2019	15	20.4	3/07/2019	15	17.9	4/07/2019	15	5.4	5/07/2019	15	11.3
1/07/2019	16	15.0	2/07/2019	16	36.7	3/07/2019	16	12.5	4/07/2019	16	5	5/07/2019	16	9.6
1/07/2019	17	31.7	2/07/2019	17	35.8	3/07/2019	17	5	4/07/2019	17	5	5/07/2019	17	5
1/07/2019	18	8.3	2/07/2019	18	9.2	3/07/2019	18	5	4/07/2019	18	5	5/07/2019	18	5
1/07/2019	19	6.3	2/07/2019	19	5.4	3/07/2019	19	5	4/07/2019	19	5	5/07/2019	19	5
1/07/2019	20	5	2/07/2019	20	5	3/07/2019	20	5	4/07/2019	20	5	5/07/2019	20	5.4
1/07/2019	21	5	2/07/2019	21	5	3/07/2019	21	5	4/07/2019	21	5	5/07/2019	21	5
1/07/2019	22	5	2/07/2019	22	5	3/07/2019	22	5	4/07/2019	22	5	5/07/2019	22	5
1/07/2019	23	5	2/07/2019	23	5	3/07/2019	23	5	4/07/2019	23	5	5/07/2019	23	5
<b>Maximum</b>		<b>31.7</b>			<b>38.3</b>			<b>25.0</b>			<b>16.7</b>			<b>17.5</b>

Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average
6/07/2019	0	5	7/07/2019	0	5	8/07/2019	0	5	9/07/2019	0	5	10/07/2019	0	5
6/07/2019	1	5	7/07/2019	1	5	8/07/2019	1	5	9/07/2019	1	5	10/07/2019	1	5.4
6/07/2019	2	5	7/07/2019	2	5	8/07/2019	2	5	9/07/2019	2	5	10/07/2019	2	5
6/07/2019	3	5	7/07/2019	3	5	8/07/2019	3	5	9/07/2019	3	5	10/07/2019	3	5
6/07/2019	4	5	7/07/2019	4	5	8/07/2019	4	5	9/07/2019	4	5	10/07/2019	4	5
6/07/2019	5	5	7/07/2019	5	5	8/07/2019	5	5.8	9/07/2019	5	5	10/07/2019	5	5
6/07/2019	6	5	7/07/2019	6	5	8/07/2019	6	No Data	9/07/2019	6	No Data	10/07/2019	6	No Data
6/07/2019	7	5	7/07/2019	7	5	8/07/2019	7	7.5	9/07/2019	7	No Data	10/07/2019	7	No Data
6/07/2019	8	5	7/07/2019	8	5	8/07/2019	8	10.4	9/07/2019	8	No Data	10/07/2019	8	No Data
6/07/2019	9	5.8	7/07/2019	9	5.8	8/07/2019	9	6.7	9/07/2019	9	No Data	10/07/2019	9	8.3
6/07/2019	10	7.1	7/07/2019	10	12.9	8/07/2019	10	5	9/07/2019	10	No Data	10/07/2019	10	23.3
6/07/2019	11	7.5	7/07/2019	11	8.3	8/07/2019	11	5.4	9/07/2019	11	No Data	10/07/2019	11	35.8
6/07/2019	12	7.1	7/07/2019	12	17.9	8/07/2019	12	14.6	9/07/2019	12	No Data	10/07/2019	12	22.9
6/07/2019	13	5.8	7/07/2019	13	21.3	8/07/2019	13	8.3	9/07/2019	13	No Data	10/07/2019	13	8.3
6/07/2019	14	6.3	7/07/2019	14	27.9	8/07/2019	14	5.4	9/07/2019	14	No Data	10/07/2019	14	8.8
6/07/2019	15	5	7/07/2019	15	20.4	8/07/2019	15	5	9/07/2019	15	No Data	10/07/2019	15	20.0
6/07/2019	16	7.1	7/07/2019	16	28.8	8/07/2019	16	7.5	9/07/2019	16	35.0	10/07/2019	16	7.5
6/07/2019	17	5.8	7/07/2019	17	26.7	8/07/2019	17	10.0	9/07/2019	17	24.2	10/07/2019	17	5.8
6/07/2019	18	10.0	7/07/2019	18	8.3	8/07/2019	18	10.0	9/07/2019	18	5.4	10/07/2019	18	5
6/07/2019	19	5.4	7/07/2019	19	7.5	8/07/2019	19	5	9/07/2019	19	5	10/07/2019	19	5
6/07/2019	20	5.4	7/07/2019	20	5	8/07/2019	20	6.3	9/07/2019	20	5	10/07/2019	20	5
6/07/2019	21	5	7/07/2019	21	5.8	8/07/2019	21	9.6	9/07/2019	21	17.9	10/07/2019	21	5
6/07/2019	22	5	7/07/2019	22	5	8/07/2019	22	5	9/07/2019	22	9.6	10/07/2019	22	5
6/07/2019	23	5	7/07/2019	23	5	8/07/2019	23	5	9/07/2019	23	5.4	10/07/2019	23	5
<b>Maximum</b>		<b>10.0</b>			<b>28.8</b>			<b>14.6</b>			<b>35.0</b>			<b>35.8</b>

Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average
11/07/2019	0	5	12/07/2019	0	No Data	13/07/2019	0	No Data	14/07/2019	0	No Data	15/07/2019	0	No Data
11/07/2019	1	5	12/07/2019	1	No Data	13/07/2019	1	No Data	14/07/2019	1	No Data	15/07/2019	1	No Data
11/07/2019	2	5	12/07/2019	2	No Data	13/07/2019	2	No Data	14/07/2019	2	No Data	15/07/2019	2	No Data
11/07/2019	3	5	12/07/2019	3	No Data	13/07/2019	3	No Data	14/07/2019	3	No Data	15/07/2019	3	No Data
11/07/2019	4	5	12/07/2019	4	No Data	13/07/2019	4	No Data	14/07/2019	4	No Data	15/07/2019	4	No Data
11/07/2019	5	No Data	12/07/2019	5	No Data	13/07/2019	5	No Data	14/07/2019	5	No Data	15/07/2019	5	No Data
11/07/2019	6	No Data	12/07/2019	6	No Data	13/07/2019	6	No Data	14/07/2019	6	No Data	15/07/2019	6	No Data
11/07/2019	7	No Data	12/07/2019	7	No Data	13/07/2019	7	No Data	14/07/2019	7	No Data	15/07/2019	7	No Data
11/07/2019	8	No Data	12/07/2019	8	No Data	13/07/2019	8	No Data	14/07/2019	8	No Data	15/07/2019	8	No Data
11/07/2019	9	No Data	12/07/2019	9	No Data	13/07/2019	9	No Data	14/07/2019	9	No Data	15/07/2019	9	No Data
11/07/2019	10	No Data	12/07/2019	10	No Data	13/07/2019	10	No Data	14/07/2019	10	No Data	15/07/2019	10	No Data
11/07/2019	11	No Data	12/07/2019	11	No Data	13/07/2019	11	No Data	14/07/2019	11	No Data	15/07/2019	11	No Data
11/07/2019	12	No Data	12/07/2019	12	No Data	13/07/2019	12	No Data	14/07/2019	12	No Data	15/07/2019	12	No Data
11/07/2019	13	No Data	12/07/2019	13	No Data	13/07/2019	13	No Data	14/07/2019	13	No Data	15/07/2019	13	No Data
11/07/2019	14	No Data	12/07/2019	14	No Data	13/07/2019	14	No Data	14/07/2019	14	No Data	15/07/2019	14	No Data
11/07/2019	15	No Data	12/07/2019	15	No Data	13/07/2019	15	No Data	14/07/2019	15	No Data	15/07/2019	15	No Data
11/07/2019	16	No Data	12/07/2019	16	No Data	13/07/2019	16	No Data	14/07/2019	16	No Data	15/07/2019	16	No Data
11/07/2019	17	No Data	12/07/2019	17	No Data	13/07/2019	17	No Data	14/07/2019	17	No Data	15/07/2019	17	No Data
11/07/2019	18	No Data	12/07/2019	18	No Data	13/07/2019	18	No Data	14/07/2019	18	No Data	15/07/2019	18	No Data
11/07/2019	19	No Data	12/07/2019	19	No Data	13/07/2019	19	No Data	14/07/2019	19	No Data	15/07/2019	19	No Data
11/07/2019	20	No Data	12/07/2019	20	No Data	13/07/2019	20	No Data	14/07/2019	20	No Data	15/07/2019	20	No Data
11/07/2019	21	No Data	12/07/2019	21	No Data	13/07/2019	21	No Data	14/07/2019	21	No Data	15/07/2019	21	No Data
11/07/2019	22	No Data	12/07/2019	22	No Data	13/07/2019	22	No Data	14/07/2019	22	No Data	15/07/2019	22	No Data
11/07/2019	23	No Data	12/07/2019	23	No Data	13/07/2019	23	No Data	14/07/2019	23	No Data	15/07/2019	23	No Data
<b>Maximum</b>		<b>5*</b>			<b>No Data</b>			<b>No Data</b>			<b>No Data</b>			<b>No Data</b>



Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average
16/07/2019	0	No Data	17/07/2019	0	No Data	18/07/2019	0	No Data	19/07/2019	0	5	20/07/2019	0	5
16/07/2019	1	No Data	17/07/2019	1	No Data	18/07/2019	1	No Data	19/07/2019	1	5	20/07/2019	1	5
16/07/2019	2	No Data	17/07/2019	2	No Data	18/07/2019	2	No Data	19/07/2019	2	5	20/07/2019	2	5
16/07/2019	3	No Data	17/07/2019	3	No Data	18/07/2019	3	No Data	19/07/2019	3	5	20/07/2019	3	5
16/07/2019	4	No Data	17/07/2019	4	No Data	18/07/2019	4	No Data	19/07/2019	4	5	20/07/2019	4	5
16/07/2019	5	No Data	17/07/2019	5	No Data	18/07/2019	5	No Data	19/07/2019	5	5	20/07/2019	5	5
16/07/2019	6	No Data	17/07/2019	6	No Data	18/07/2019	6	No Data	19/07/2019	6	5	20/07/2019	6	5
16/07/2019	7	No Data	17/07/2019	7	No Data	18/07/2019	7	No Data	19/07/2019	7	5	20/07/2019	7	5
16/07/2019	8	No Data	17/07/2019	8	No Data	18/07/2019	8	No Data	19/07/2019	8	5	20/07/2019	8	5
16/07/2019	9	No Data	17/07/2019	9	No Data	18/07/2019	9	No Data	19/07/2019	9	5	20/07/2019	9	5
16/07/2019	10	No Data	17/07/2019	10	No Data	18/07/2019	10	No Data	19/07/2019	10	5	20/07/2019	10	5
16/07/2019	11	No Data	17/07/2019	11	No Data	18/07/2019	11	No Data	19/07/2019	11	5	20/07/2019	11	5
16/07/2019	12	No Data	17/07/2019	12	No Data	18/07/2019	12	5	19/07/2019	12	5	20/07/2019	12	5
16/07/2019	13	No Data	17/07/2019	13	No Data	18/07/2019	13	5	19/07/2019	13	5	20/07/2019	13	5
16/07/2019	14	No Data	17/07/2019	14	No Data	18/07/2019	14	5	19/07/2019	14	5	20/07/2019	14	5
16/07/2019	15	No Data	17/07/2019	15	No Data	18/07/2019	15	5	19/07/2019	15	5	20/07/2019	15	5
16/07/2019	16	No Data	17/07/2019	16	No Data	18/07/2019	16	5	19/07/2019	16	5	20/07/2019	16	5
16/07/2019	17	No Data	17/07/2019	17	No Data	18/07/2019	17	5	19/07/2019	17	5	20/07/2019	17	5
16/07/2019	18	No Data	17/07/2019	18	No Data	18/07/2019	18	5	19/07/2019	18	5	20/07/2019	18	5
16/07/2019	19	No Data	17/07/2019	19	No Data	18/07/2019	19	5	19/07/2019	19	5	20/07/2019	19	5
16/07/2019	20	No Data	17/07/2019	20	No Data	18/07/2019	20	5	19/07/2019	20	5	20/07/2019	20	5
16/07/2019	21	No Data	17/07/2019	21	No Data	18/07/2019	21	5	19/07/2019	21	5	20/07/2019	21	5
16/07/2019	22	No Data	17/07/2019	22	No Data	18/07/2019	22	5	19/07/2019	22	5	20/07/2019	22	5
16/07/2019	23	No Data	17/07/2019	23	No Data	18/07/2019	23	5	19/07/2019	23	5	20/07/2019	23	5
<b>Maximum</b>		<b>No Data</b>			<b>No Data</b>			<b>5*</b>			<b>5*</b>			<b>5*</b>

Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average
21/07/2019	0	5	22/07/2019	0	5	23/07/2019	0	5	24/07/2019	0	5	25/07/2019	0	5
21/07/2019	1	5	22/07/2019	1	5	23/07/2019	1	5	24/07/2019	1	5	25/07/2019	1	5
21/07/2019	2	5	22/07/2019	2	5	23/07/2019	2	5	24/07/2019	2	5	25/07/2019	2	5
21/07/2019	3	5	22/07/2019	3	5	23/07/2019	3	5	24/07/2019	3	5	25/07/2019	3	5
21/07/2019	4	5	22/07/2019	4	5	23/07/2019	4	5	24/07/2019	4	5	25/07/2019	4	5
21/07/2019	5	5	22/07/2019	5	5	23/07/2019	5	5	24/07/2019	5	5	25/07/2019	5	5
21/07/2019	6	5	22/07/2019	6	5	23/07/2019	6	5.4	24/07/2019	6	5	25/07/2019	6	5
21/07/2019	7	5	22/07/2019	7	5	23/07/2019	7	5	24/07/2019	7	5	25/07/2019	7	5
21/07/2019	8	5	22/07/2019	8	5	23/07/2019	8	8.8	24/07/2019	8	5	25/07/2019	8	5
21/07/2019	9	5	22/07/2019	9	5	23/07/2019	9	5	24/07/2019	9	5	25/07/2019	9	5
21/07/2019	10	5	22/07/2019	10	5	23/07/2019	10	5	24/07/2019	10	5	25/07/2019	10	5
21/07/2019	11	5	22/07/2019	11	5	23/07/2019	11	5	24/07/2019	11	5	25/07/2019	11	5
21/07/2019	12	5	22/07/2019	12	5	23/07/2019	12	5	24/07/2019	12	5	25/07/2019	12	5
21/07/2019	13	5	22/07/2019	13	5	23/07/2019	13	5	24/07/2019	13	5	25/07/2019	13	5
21/07/2019	14	5	22/07/2019	14	5	23/07/2019	14	5	24/07/2019	14	5	25/07/2019	14	5
21/07/2019	15	5	22/07/2019	15	5	23/07/2019	15	5	24/07/2019	15	5	25/07/2019	15	5
21/07/2019	16	5	22/07/2019	16	5	23/07/2019	16	5	24/07/2019	16	5	25/07/2019	16	5
21/07/2019	17	5	22/07/2019	17	5	23/07/2019	17	5	24/07/2019	17	5	25/07/2019	17	5
21/07/2019	18	5	22/07/2019	18	5	23/07/2019	18	5	24/07/2019	18	5	25/07/2019	18	5
21/07/2019	19	5	22/07/2019	19	5	23/07/2019	19	5	24/07/2019	19	5	25/07/2019	19	5
21/07/2019	20	5	22/07/2019	20	5	23/07/2019	20	5	24/07/2019	20	5	25/07/2019	20	5
21/07/2019	21	5	22/07/2019	21	5	23/07/2019	21	5	24/07/2019	21	5	25/07/2019	21	5
21/07/2019	22	5	22/07/2019	22	5	23/07/2019	22	5	24/07/2019	22	5	25/07/2019	22	5
21/07/2019	23	5	22/07/2019	23	5	23/07/2019	23	5	24/07/2019	23	5	25/07/2019	23	5
<b>Maximum</b>		<b>5*</b>			<b>5*</b>			<b>8.8</b>			<b>5*</b>			<b>5*</b>

Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average
26/07/2019	0	5	27/07/2019	0	5	28/07/2019	0	5	29/07/2019	0	5	30/07/2019	0	5
26/07/2019	1	5	27/07/2019	1	5	28/07/2019	1	5	29/07/2019	1	5	30/07/2019	1	5
26/07/2019	2	5	27/07/2019	2	5	28/07/2019	2	5	29/07/2019	2	5	30/07/2019	2	5
26/07/2019	3	5	27/07/2019	3	5	28/07/2019	3	5	29/07/2019	3	5	30/07/2019	3	5
26/07/2019	4	5	27/07/2019	4	5	28/07/2019	4	5	29/07/2019	4	5	30/07/2019	4	5
26/07/2019	5	5	27/07/2019	5	5	28/07/2019	5	5	29/07/2019	5	5	30/07/2019	5	5
26/07/2019	6	5	27/07/2019	6	5	28/07/2019	6	5	29/07/2019	6	5	30/07/2019	6	5
26/07/2019	7	5	27/07/2019	7	5	28/07/2019	7	5	29/07/2019	7	5	30/07/2019	7	5
26/07/2019	8	107.1	27/07/2019	8	5	28/07/2019	8	10.0	29/07/2019	8	No Data	30/07/2019	8	5
26/07/2019	9	5	27/07/2019	9	5	28/07/2019	9	5	29/07/2019	9	5	30/07/2019	9	5
26/07/2019	10	5	27/07/2019	10	5	28/07/2019	10	5	29/07/2019	10	5	30/07/2019	10	5
26/07/2019	11	5	27/07/2019	11	5	28/07/2019	11	5	29/07/2019	11	5	30/07/2019	11	5
26/07/2019	12	5	27/07/2019	12	5	28/07/2019	12	5	29/07/2019	12	5	30/07/2019	12	5
26/07/2019	13	5	27/07/2019	13	5	28/07/2019	13	5	29/07/2019	13	5	30/07/2019	13	5
26/07/2019	14	5	27/07/2019	14	5	28/07/2019	14	5	29/07/2019	14	5	30/07/2019	14	5
26/07/2019	15	5	27/07/2019	15	5	28/07/2019	15	5	29/07/2019	15	5	30/07/2019	15	5
26/07/2019	16	5	27/07/2019	16	5	28/07/2019	16	5	29/07/2019	16	5	30/07/2019	16	5
26/07/2019	17	5	27/07/2019	17	5	28/07/2019	17	5	29/07/2019	17	5	30/07/2019	17	5
26/07/2019	18	5	27/07/2019	18	5	28/07/2019	18	5	29/07/2019	18	5	30/07/2019	18	5
26/07/2019	19	5	27/07/2019	19	5	28/07/2019	19	5	29/07/2019	19	5	30/07/2019	19	5
26/07/2019	20	5	27/07/2019	20	5	28/07/2019	20	5	29/07/2019	20	5	30/07/2019	20	5
26/07/2019	21	5	27/07/2019	21	5	28/07/2019	21	5	29/07/2019	21	5	30/07/2019	21	5
26/07/2019	22	5	27/07/2019	22	5	28/07/2019	22	5	29/07/2019	22	5	30/07/2019	22	5
26/07/2019	23	5	27/07/2019	23	5	28/07/2019	23	5	29/07/2019	23	5	30/07/2019	23	5
<b>Maximum</b>		<b>107.1</b>			<b>5*</b>			<b>10.0</b>			<b>5*</b>			<b>5*</b>

Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average	Date	Hour	H <sub>2</sub> S 1hr Average
31/07/2019	0	5												
31/07/2019	1	5												
31/07/2019	2	5												
31/07/2019	3	5												
31/07/2019	4	5												
31/07/2019	5	5												
31/07/2019	6	5												
31/07/2019	7	5												
31/07/2019	8	5												
31/07/2019	9	5												
31/07/2019	10	5												
31/07/2019	11	5												
31/07/2019	12	5												
31/07/2019	13	5												
31/07/2019	14	5												
31/07/2019	15	5												
31/07/2019	16	5												
31/07/2019	17	5												
31/07/2019	18	5												
31/07/2019	19	5												
31/07/2019	20	5												
31/07/2019	21	5												
31/07/2019	22	5												
31/07/2019	23	5												
<b>Maximum</b>		<b>5*</b>												

**Table 6 SO<sub>2</sub> 1hr Data (ppb) – July 2019**

Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average
1/07/2019	0	9.2	2/07/2019	0	13.3	3/07/2019	0	8.3	4/07/2019	0	5	5/07/2019	0	5
1/07/2019	1	10.0	2/07/2019	1	11.7	3/07/2019	1	9.6	4/07/2019	1	5	5/07/2019	1	5
1/07/2019	2	9.6	2/07/2019	2	10.8	3/07/2019	2	11.7	4/07/2019	2	5	5/07/2019	2	5.4
1/07/2019	3	9.6	2/07/2019	3	10.8	3/07/2019	3	10.8	4/07/2019	3	5	5/07/2019	3	5
1/07/2019	4	11.7	2/07/2019	4	13.3	3/07/2019	4	10.0	4/07/2019	4	5	5/07/2019	4	5
1/07/2019	5	13.3	2/07/2019	5	15.0	3/07/2019	5	10.0	4/07/2019	5	5	5/07/2019	5	5
1/07/2019	6	13.6	2/07/2019	6	14.5	3/07/2019	6	10.5	4/07/2019	6	5	5/07/2019	6	5
1/07/2019	7	18.3	2/07/2019	7	10.4	3/07/2019	7	9.2	4/07/2019	7	5	5/07/2019	7	5
1/07/2019	8	5.4	2/07/2019	8	6.3	3/07/2019	8	5	4/07/2019	8	5	5/07/2019	8	5
1/07/2019	9	5.8	2/07/2019	9	10.8	3/07/2019	9	6.7	4/07/2019	9	5	5/07/2019	9	5
1/07/2019	10	6.7	2/07/2019	10	6.7	3/07/2019	10	7.1	4/07/2019	10	5	5/07/2019	10	5
1/07/2019	11	5.8	2/07/2019	11	8.8	3/07/2019	11	5	4/07/2019	11	5	5/07/2019	11	5
1/07/2019	12	9.6	2/07/2019	12	10.0	3/07/2019	12	5	4/07/2019	12	5	5/07/2019	12	5.4
1/07/2019	13	15.8	2/07/2019	13	8.8	3/07/2019	13	5	4/07/2019	13	5	5/07/2019	13	5
1/07/2019	14	15.0	2/07/2019	14	6.7	3/07/2019	14	5	4/07/2019	14	5	5/07/2019	14	5
1/07/2019	15	11.3	2/07/2019	15	7.1	3/07/2019	15	5	4/07/2019	15	5	5/07/2019	15	5
1/07/2019	16	12.1	2/07/2019	16	11.7	3/07/2019	16	5	4/07/2019	16	5	5/07/2019	16	5
1/07/2019	17	17.5	2/07/2019	17	10.8	3/07/2019	17	5	4/07/2019	17	5	5/07/2019	17	5
1/07/2019	18	10.0	2/07/2019	18	10.0	3/07/2019	18	5	4/07/2019	18	5	5/07/2019	18	5
1/07/2019	19	10.0	2/07/2019	19	8.8	3/07/2019	19	5	4/07/2019	19	5	5/07/2019	19	5
1/07/2019	20	10.8	2/07/2019	20	6.3	3/07/2019	20	5	4/07/2019	20	5	5/07/2019	20	5
1/07/2019	21	10.0	2/07/2019	21	8.3	3/07/2019	21	5	4/07/2019	21	5	5/07/2019	21	5.8
1/07/2019	22	10.0	2/07/2019	22	8.8	3/07/2019	22	5	4/07/2019	22	5	5/07/2019	22	6.3
1/07/2019	23	10.0	2/07/2019	23	7.9	3/07/2019	23	5	4/07/2019	23	5.4	5/07/2019	23	5.4
<b>Maximum</b>		<b>18.3</b>			<b>15.0</b>			<b>11.7</b>			<b>5.4</b>			<b>6.3</b>

Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average
6/07/2019	0	5	7/07/2019	0	7.9	8/07/2019	0	13.3	9/07/2019	0	9.6	10/07/2019	0	10.0
6/07/2019	1	5	7/07/2019	1	5.4	8/07/2019	1	15.0	9/07/2019	1	10.0	10/07/2019	1	13.3
6/07/2019	2	5	7/07/2019	2	5.8	8/07/2019	2	16.7	9/07/2019	2	12.5	10/07/2019	2	15.8
6/07/2019	3	5	7/07/2019	3	9.6	8/07/2019	3	18.3	9/07/2019	3	14.2	10/07/2019	3	17.5
6/07/2019	4	5	7/07/2019	4	12.9	8/07/2019	4	10.0	9/07/2019	4	16.7	10/07/2019	4	16.7
6/07/2019	5	5	7/07/2019	5	9.2	8/07/2019	5	15.0	9/07/2019	5	15.4	10/07/2019	5	19.2
6/07/2019	6	5	7/07/2019	6	5.5	8/07/2019	6	No Data	9/07/2019	6	No Data	10/07/2019	6	No Data
6/07/2019	7	5	7/07/2019	7	8.3	8/07/2019	7	20.8	9/07/2019	7	No Data	10/07/2019	7	No Data
6/07/2019	8	5	7/07/2019	8	5	8/07/2019	8	20.0	9/07/2019	8	No Data	10/07/2019	8	No Data
6/07/2019	9	5	7/07/2019	9	5.4	8/07/2019	9	8.8	9/07/2019	9	No Data	10/07/2019	9	6.1
6/07/2019	10	5	7/07/2019	10	6.3	8/07/2019	10	5	9/07/2019	10	No Data	10/07/2019	10	9.2
6/07/2019	11	5	7/07/2019	11	5.8	8/07/2019	11	5	9/07/2019	11	No Data	10/07/2019	11	8.3
6/07/2019	12	5	7/07/2019	12	8.3	8/07/2019	12	5	9/07/2019	12	No Data	10/07/2019	12	5.8
6/07/2019	13	5	7/07/2019	13	8.3	8/07/2019	13	5	9/07/2019	13	No Data	10/07/2019	13	5.4
6/07/2019	14	5	7/07/2019	14	8.3	8/07/2019	14	5	9/07/2019	14	No Data	10/07/2019	14	5.4
6/07/2019	15	5	7/07/2019	15	7.5	8/07/2019	15	5	9/07/2019	15	No Data	10/07/2019	15	5.8
6/07/2019	16	5.4	7/07/2019	16	10.0	8/07/2019	16	5.8	9/07/2019	16	10.4	10/07/2019	16	5
6/07/2019	17	5	7/07/2019	17	12.5	8/07/2019	17	5.8	9/07/2019	17	7.9	10/07/2019	17	5.4
6/07/2019	18	9.6	7/07/2019	18	9.6	8/07/2019	18	5.8	9/07/2019	18	5	10/07/2019	18	5.4
6/07/2019	19	8.8	7/07/2019	19	11.3	8/07/2019	19	5.4	9/07/2019	19	5	10/07/2019	19	5
6/07/2019	20	6.3	7/07/2019	20	14.6	8/07/2019	20	6.7	9/07/2019	20	5	10/07/2019	20	5
6/07/2019	21	8.3	7/07/2019	21	13.3	8/07/2019	21	9.2	9/07/2019	21	10.0	10/07/2019	21	5
6/07/2019	22	6.7	7/07/2019	22	14.2	8/07/2019	22	9.6	9/07/2019	22	12.1	10/07/2019	22	5
6/07/2019	23	5.4	7/07/2019	23	18.3	8/07/2019	23	10.0	9/07/2019	23	10.0	10/07/2019	23	5
<b>Maximum</b>		<b>9.6</b>			<b>18.3</b>			<b>20.8</b>			<b>16.7</b>			<b>19.2</b>

Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average
11/07/2019	0	5	12/07/2019	0	No Data	13/07/2019	0	No Data	14/07/2019	0	No Data	15/07/2019	0	No Data
11/07/2019	1	5	12/07/2019	1	No Data	13/07/2019	1	No Data	14/07/2019	1	No Data	15/07/2019	1	No Data
11/07/2019	2	5	12/07/2019	2	No Data	13/07/2019	2	No Data	14/07/2019	2	No Data	15/07/2019	2	No Data
11/07/2019	3	5	12/07/2019	3	No Data	13/07/2019	3	No Data	14/07/2019	3	No Data	15/07/2019	3	No Data
11/07/2019	4	5	12/07/2019	4	No Data	13/07/2019	4	No Data	14/07/2019	4	No Data	15/07/2019	4	No Data
11/07/2019	5	No Data	12/07/2019	5	No Data	13/07/2019	5	No Data	14/07/2019	5	No Data	15/07/2019	5	No Data
11/07/2019	6	No Data	12/07/2019	6	No Data	13/07/2019	6	No Data	14/07/2019	6	No Data	15/07/2019	6	No Data
11/07/2019	7	No Data	12/07/2019	7	No Data	13/07/2019	7	No Data	14/07/2019	7	No Data	15/07/2019	7	No Data
11/07/2019	8	No Data	12/07/2019	8	No Data	13/07/2019	8	No Data	14/07/2019	8	No Data	15/07/2019	8	No Data
11/07/2019	9	No Data	12/07/2019	9	No Data	13/07/2019	9	No Data	14/07/2019	9	No Data	15/07/2019	9	No Data
11/07/2019	10	No Data	12/07/2019	10	No Data	13/07/2019	10	No Data	14/07/2019	10	No Data	15/07/2019	10	No Data
11/07/2019	11	No Data	12/07/2019	11	No Data	13/07/2019	11	No Data	14/07/2019	11	No Data	15/07/2019	11	No Data
11/07/2019	12	No Data	12/07/2019	12	No Data	13/07/2019	12	No Data	14/07/2019	12	No Data	15/07/2019	12	No Data
11/07/2019	13	No Data	12/07/2019	13	No Data	13/07/2019	13	No Data	14/07/2019	13	No Data	15/07/2019	13	No Data
11/07/2019	14	No Data	12/07/2019	14	No Data	13/07/2019	14	No Data	14/07/2019	14	No Data	15/07/2019	14	No Data
11/07/2019	15	No Data	12/07/2019	15	No Data	13/07/2019	15	No Data	14/07/2019	15	No Data	15/07/2019	15	No Data
11/07/2019	16	No Data	12/07/2019	16	No Data	13/07/2019	16	No Data	14/07/2019	16	No Data	15/07/2019	16	No Data
11/07/2019	17	No Data	12/07/2019	17	No Data	13/07/2019	17	No Data	14/07/2019	17	No Data	15/07/2019	17	No Data
11/07/2019	18	No Data	12/07/2019	18	No Data	13/07/2019	18	No Data	14/07/2019	18	No Data	15/07/2019	18	No Data
11/07/2019	19	No Data	12/07/2019	19	No Data	13/07/2019	19	No Data	14/07/2019	19	No Data	15/07/2019	19	No Data
11/07/2019	20	No Data	12/07/2019	20	No Data	13/07/2019	20	No Data	14/07/2019	20	No Data	15/07/2019	20	No Data
11/07/2019	21	No Data	12/07/2019	21	No Data	13/07/2019	21	No Data	14/07/2019	21	No Data	15/07/2019	21	No Data
11/07/2019	22	No Data	12/07/2019	22	No Data	13/07/2019	22	No Data	14/07/2019	22	No Data	15/07/2019	22	No Data
11/07/2019	23	No Data	12/07/2019	23	No Data	13/07/2019	23	No Data	14/07/2019	23	No Data	15/07/2019	23	No Data
<b>Maximum</b>		<b>5*</b>			<b>No Data</b>			<b>No Data</b>			<b>No Data</b>			<b>No Data</b>

Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average
16/07/2019	0	No Data	17/07/2019	0	No Data	18/07/2019	0	No Data	19/07/2019	0	5	20/07/2019	0	42.5
16/07/2019	1	No Data	17/07/2019	1	No Data	18/07/2019	1	No Data	19/07/2019	1	5	20/07/2019	1	36.7
16/07/2019	2	No Data	17/07/2019	2	No Data	18/07/2019	2	No Data	19/07/2019	2	5	20/07/2019	2	40.0
16/07/2019	3	No Data	17/07/2019	3	No Data	18/07/2019	3	No Data	19/07/2019	3	5	20/07/2019	3	48.3
16/07/2019	4	No Data	17/07/2019	4	No Data	18/07/2019	4	No Data	19/07/2019	4	5	20/07/2019	4	56.7
16/07/2019	5	No Data	17/07/2019	5	No Data	18/07/2019	5	No Data	19/07/2019	5	5	20/07/2019	5	65.8
16/07/2019	6	No Data	17/07/2019	6	No Data	18/07/2019	6	No Data	19/07/2019	6	7.0	20/07/2019	6	72.7
16/07/2019	7	No Data	17/07/2019	7	No Data	18/07/2019	7	No Data	19/07/2019	7	10.0	20/07/2019	7	76.7
16/07/2019	8	No Data	17/07/2019	8	No Data	18/07/2019	8	No Data	19/07/2019	8	7.1	20/07/2019	8	55.8
16/07/2019	9	No Data	17/07/2019	9	No Data	18/07/2019	9	No Data	19/07/2019	9	5	20/07/2019	9	5.4
16/07/2019	10	No Data	17/07/2019	10	No Data	18/07/2019	10	No Data	19/07/2019	10	5	20/07/2019	10	5.4
16/07/2019	11	No Data	17/07/2019	11	No Data	18/07/2019	11	No Data	19/07/2019	11	5	20/07/2019	11	5
16/07/2019	12	No Data	17/07/2019	12	No Data	18/07/2019	12	5	19/07/2019	12	5	20/07/2019	12	5
16/07/2019	13	No Data	17/07/2019	13	No Data	18/07/2019	13	5	19/07/2019	13	5	20/07/2019	13	5
16/07/2019	14	No Data	17/07/2019	14	No Data	18/07/2019	14	5	19/07/2019	14	5	20/07/2019	14	5
16/07/2019	15	No Data	17/07/2019	15	No Data	18/07/2019	15	5	19/07/2019	15	5	20/07/2019	15	5
16/07/2019	16	No Data	17/07/2019	16	No Data	18/07/2019	16	5	19/07/2019	16	5.4	20/07/2019	16	5
16/07/2019	17	No Data	17/07/2019	17	No Data	18/07/2019	17	5	19/07/2019	17	7.1	20/07/2019	17	5
16/07/2019	18	No Data	17/07/2019	18	No Data	18/07/2019	18	5	19/07/2019	18	13.3	20/07/2019	18	6.3
16/07/2019	19	No Data	17/07/2019	19	No Data	18/07/2019	19	5	19/07/2019	19	18.3	20/07/2019	19	9.6
16/07/2019	20	No Data	17/07/2019	20	No Data	18/07/2019	20	5	19/07/2019	20	25.0	20/07/2019	20	10.8
16/07/2019	21	No Data	17/07/2019	21	No Data	18/07/2019	21	5	19/07/2019	21	22.5	20/07/2019	21	11.7
16/07/2019	22	No Data	17/07/2019	22	No Data	18/07/2019	22	5	19/07/2019	22	32.5	20/07/2019	22	15.8
16/07/2019	23	No Data	17/07/2019	23	No Data	18/07/2019	23	5	19/07/2019	23	36.7	20/07/2019	23	19.2
<b>Maximum</b>		<b>No Data</b>			<b>No Data</b>			<b>5*</b>			<b>36.7</b>			<b>76.7</b>



Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average
21/07/2019	0	23.3	22/07/2019	0	5	23/07/2019	0	6.3	24/07/2019	0	5	25/07/2019	0	10.0
21/07/2019	1	31.7	22/07/2019	1	5	23/07/2019	1	7.9	24/07/2019	1	5	25/07/2019	1	11.7
21/07/2019	2	29.2	22/07/2019	2	5	23/07/2019	2	10.0	24/07/2019	2	5	25/07/2019	2	17.5
21/07/2019	3	38.3	22/07/2019	3	6.7	23/07/2019	3	10.8	24/07/2019	3	5	25/07/2019	3	19.2
21/07/2019	4	44.2	22/07/2019	4	21.7	23/07/2019	4	15.8	24/07/2019	4	5	25/07/2019	4	19.2
21/07/2019	5	50.0	22/07/2019	5	8.3	23/07/2019	5	19.2	24/07/2019	5	5	25/07/2019	5	17.5
21/07/2019	6	50.9	22/07/2019	6	5	23/07/2019	6	15.8	24/07/2019	6	5	25/07/2019	6	19.1
21/07/2019	7	46.7	22/07/2019	7	5	23/07/2019	7	17.5	24/07/2019	7	5	25/07/2019	7	19.2
21/07/2019	8	19.2	22/07/2019	8	5	23/07/2019	8	10.4	24/07/2019	8	5	25/07/2019	8	8.8
21/07/2019	9	5.4	22/07/2019	9	5	23/07/2019	9	5.4	24/07/2019	9	5	25/07/2019	9	5.8
21/07/2019	10	5	22/07/2019	10	5	23/07/2019	10	5	24/07/2019	10	5	25/07/2019	10	5.4
21/07/2019	11	5	22/07/2019	11	5	23/07/2019	11	5	24/07/2019	11	5	25/07/2019	11	5
21/07/2019	12	5	22/07/2019	12	5	23/07/2019	12	5	24/07/2019	12	5	25/07/2019	12	5
21/07/2019	13	5	22/07/2019	13	5	23/07/2019	13	5	24/07/2019	13	5	25/07/2019	13	5
21/07/2019	14	5	22/07/2019	14	5	23/07/2019	14	5	24/07/2019	14	5	25/07/2019	14	5
21/07/2019	15	5	22/07/2019	15	5	23/07/2019	15	5	24/07/2019	15	5	25/07/2019	15	5
21/07/2019	16	5	22/07/2019	16	5	23/07/2019	16	5	24/07/2019	16	5	25/07/2019	16	5
21/07/2019	17	5	22/07/2019	17	5	23/07/2019	17	5	24/07/2019	17	5	25/07/2019	17	5
21/07/2019	18	5	22/07/2019	18	5	23/07/2019	18	5	24/07/2019	18	5	25/07/2019	18	5
21/07/2019	19	5	22/07/2019	19	5	23/07/2019	19	5	24/07/2019	19	5.8	25/07/2019	19	5
21/07/2019	20	5	22/07/2019	20	5	23/07/2019	20	5	24/07/2019	20	7.1	25/07/2019	20	6.3
21/07/2019	21	5	22/07/2019	21	5	23/07/2019	21	5	24/07/2019	21	7.1	25/07/2019	21	19.2
21/07/2019	22	5	22/07/2019	22	5	23/07/2019	22	5	24/07/2019	22	7.9	25/07/2019	22	19.2
21/07/2019	23	5.8	22/07/2019	23	5	23/07/2019	23	5	24/07/2019	23	9.6	25/07/2019	23	25.0
<b>Maximum</b>		<b>50.9</b>			<b>21.7</b>			<b>19.2</b>			<b>9.6</b>			<b>25.0</b>

Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average
26/07/2019	0	20.0	27/07/2019	0	5	28/07/2019	0	5	29/07/2019	0	5	30/07/2019	0	5
26/07/2019	1	12.9	27/07/2019	1	5	28/07/2019	1	5	29/07/2019	1	5	30/07/2019	1	5
26/07/2019	2	5	27/07/2019	2	5	28/07/2019	2	5	29/07/2019	2	5	30/07/2019	2	5
26/07/2019	3	5.8	27/07/2019	3	5	28/07/2019	3	5	29/07/2019	3	5	30/07/2019	3	5
26/07/2019	4	5	27/07/2019	4	5	28/07/2019	4	5	29/07/2019	4	5	30/07/2019	4	5
26/07/2019	5	5.4	27/07/2019	5	5	28/07/2019	5	5	29/07/2019	5	5	30/07/2019	5	5
26/07/2019	6	5.9	27/07/2019	6	5	28/07/2019	6	5	29/07/2019	6	5	30/07/2019	6	5
26/07/2019	7	12.5	27/07/2019	7	5	28/07/2019	7	5	29/07/2019	7	5	30/07/2019	7	5
26/07/2019	8	10.4	27/07/2019	8	5	28/07/2019	8	22.5	29/07/2019	8	No Data	30/07/2019	8	5
26/07/2019	9	5	27/07/2019	9	5	28/07/2019	9	5	29/07/2019	9	5	30/07/2019	9	5
26/07/2019	10	5	27/07/2019	10	5	28/07/2019	10	5	29/07/2019	10	5	30/07/2019	10	5
26/07/2019	11	5	27/07/2019	11	5	28/07/2019	11	5	29/07/2019	11	5	30/07/2019	11	5
26/07/2019	12	5	27/07/2019	12	5	28/07/2019	12	5	29/07/2019	12	5	30/07/2019	12	5
26/07/2019	13	5	27/07/2019	13	5	28/07/2019	13	5	29/07/2019	13	5	30/07/2019	13	5
26/07/2019	14	5	27/07/2019	14	5	28/07/2019	14	5	29/07/2019	14	5	30/07/2019	14	5
26/07/2019	15	5	27/07/2019	15	5	28/07/2019	15	5	29/07/2019	15	5	30/07/2019	15	5
26/07/2019	16	5	27/07/2019	16	5	28/07/2019	16	5	29/07/2019	16	5	30/07/2019	16	5
26/07/2019	17	5	27/07/2019	17	5	28/07/2019	17	5	29/07/2019	17	5	30/07/2019	17	5
26/07/2019	18	5	27/07/2019	18	5	28/07/2019	18	5	29/07/2019	18	5	30/07/2019	18	5
26/07/2019	19	5	27/07/2019	19	5	28/07/2019	19	5	29/07/2019	19	5	30/07/2019	19	5
26/07/2019	20	5	27/07/2019	20	5	28/07/2019	20	5	29/07/2019	20	5	30/07/2019	20	5
26/07/2019	21	5	27/07/2019	21	5	28/07/2019	21	5	29/07/2019	21	5	30/07/2019	21	5
26/07/2019	22	5	27/07/2019	22	5	28/07/2019	22	5	29/07/2019	22	5	30/07/2019	22	5
26/07/2019	23	5	27/07/2019	23	5	28/07/2019	23	5	29/07/2019	23	5	30/07/2019	23	5
<b>Maximum</b>		<b>20.0</b>			<b>5*</b>			<b>22.5</b>			<b>5*</b>			<b>5*</b>

Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average	Date	Hour	SO <sub>2</sub> 1hr Average
31/07/2019	0	5												
31/07/2019	1	5												
31/07/2019	2	5												
31/07/2019	3	5												
31/07/2019	4	5												
31/07/2019	5	5												
31/07/2019	6	5												
31/07/2019	7	5												
31/07/2019	8	5												
31/07/2019	9	5												
31/07/2019	10	5												
31/07/2019	11	5												
31/07/2019	12	5												
31/07/2019	13	5												
31/07/2019	14	5												
31/07/2019	15	5												
31/07/2019	16	5												
31/07/2019	17	5												
31/07/2019	18	5												
31/07/2019	19	5												
31/07/2019	20	5												
31/07/2019	21	5												
31/07/2019	22	5												
31/07/2019	23	5												
<b>Maximum</b>		<b>5*</b>												

## July 2019

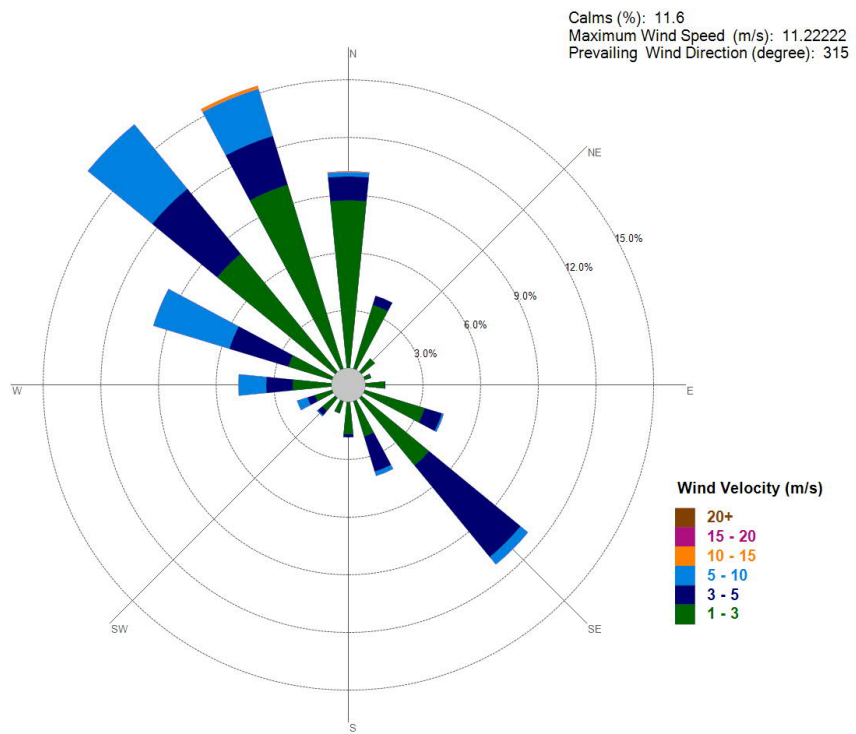


Figure 4 MCC July 2019 Meteorology Data