

## Port of Tauranga Methyl Bromide Fumigation Monitoring – Interim Report 20

Fumigation and venting details can be found in Table 1.

Table 1: Monitoring details

Date	28/01/2021
Fumigation Type	Log stacks
Fumigation amount (kg) – during 1hr sampling	159
Fumigation Location	C Block
Venting Time	10:26-10:30
*Sample time (1hour)	10:26-11:26
*Predominant wind direction over 1 hour sample	SW/W/NW
*Average wind speed over 1 hour period	0.1 m/s
Sample date (24 hour)	28/01/2021-29/01/2021
Sample time/s (24 hour)	10:18-10:23 (location 57) and 10:16-10:16 (location 58)
Other venting in the 24 hour period	C26, C27, E1 and E2

\*1 hour Sample times differ from the total venting time i.e. venting was shorter than the 1 hour sample period


\*From observations at the time of sampling, measured met data is provided in a separate document.

Table 2: Fumigation and Venting Details 28/01/2021

Row	Log Volume (JAS)	Covered Volume (m <sup>3</sup> )	Methyl Bromide used (kg)	Pre-vent Concentration (ppm)	Methyl Bromide Released (kg)
C17	1145	1980	159	14733	49.2

Map 1: Fumigation and Sampling Locations 28/01/2021

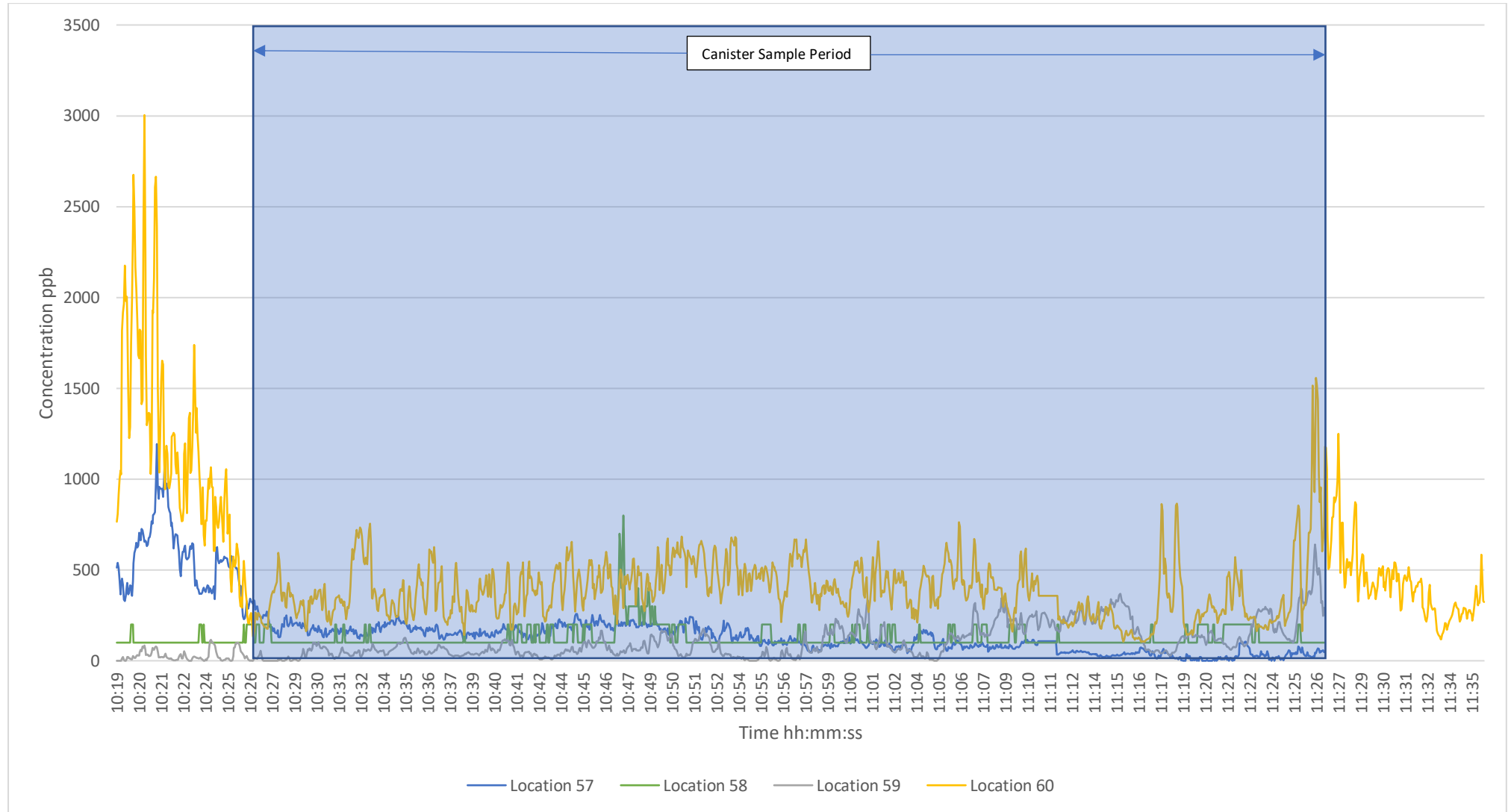


 Log stack venting (please note locations are only approximate)

 Sample locations

1-hour canister sampling and TVOC monitoring was undertaken at locations 57, 58, 59 and 60 from 10:26-11:26. 24-hour canister sampling was also undertaken at location 57 and 58. The average and peak TVOC measurements for the sampling period are shown below in Table 3 and Graphs 1-5. Canister sampling results can be found in Table 4.

Graph 1: Real-time Total Volatile Organic Compound (TVOC) measurements at all 1-hour sampling locations on the 28/01/2021



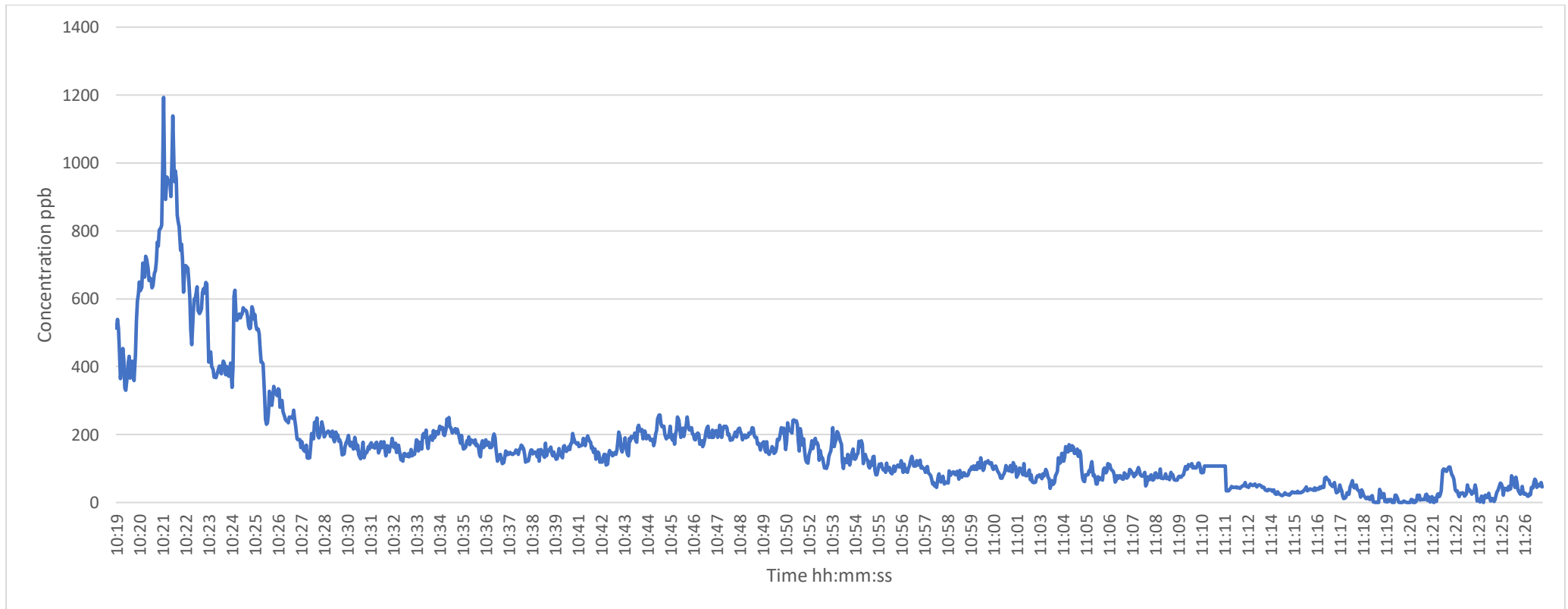
Notes: concentrations have not been corrected for methyl bromide and measurements will account for all VOC's including methyl bromide

Table 3: Average and peak real-time TVOC measurements on the 28/01/2021 (10:26-11:26)

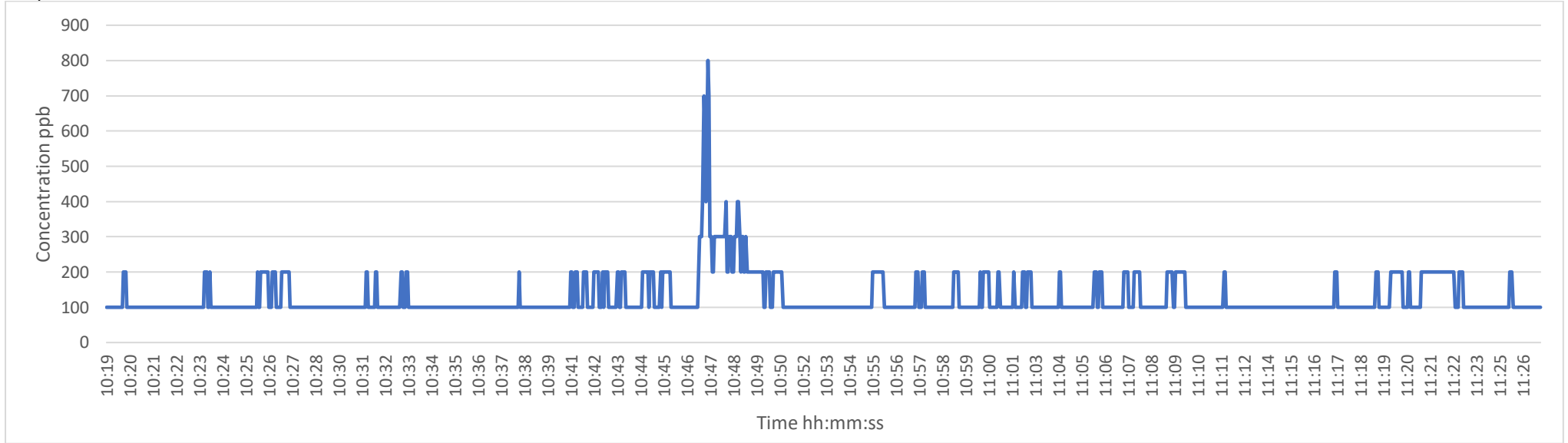
Location (as shown on Map 1)		Average TVOC measured over sampling period (ppb)*	Peak TVOC measured over sampling period (ppb)*
57	NIF Fence	119	408
58	Isuzu Cal	128	800
59	Astrolabe Street	108	640
60	Tasman Quay ISO yard	389	1557

\*Concentrations have not been corrected for methyl bromide

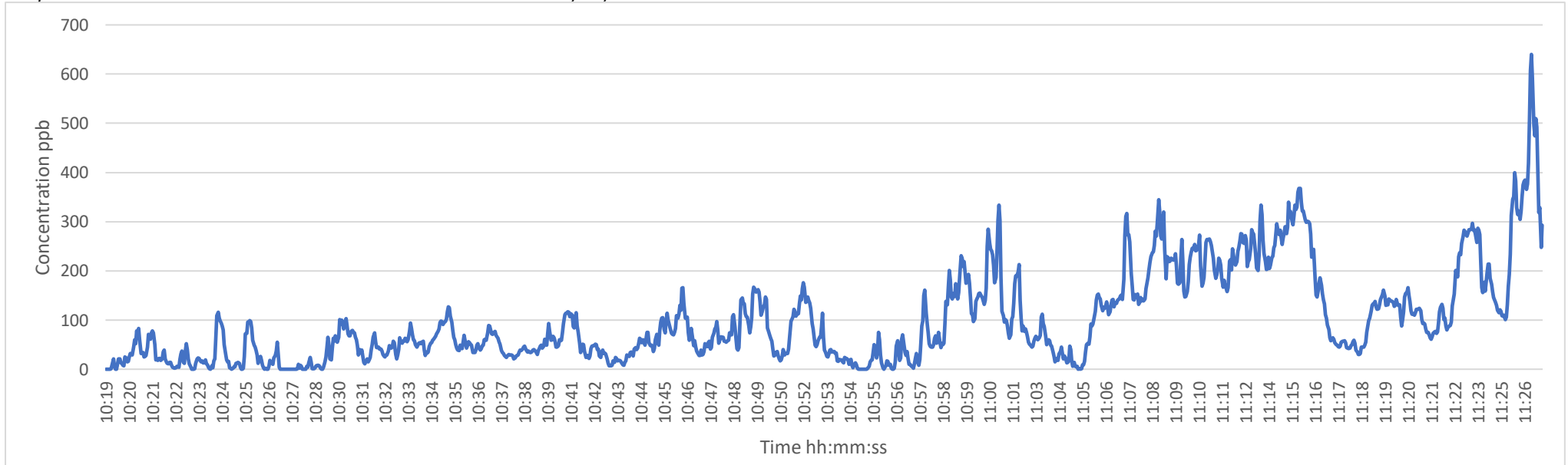
Graph 2: TVOC concentrations measured at Location 57 – 28/01/2021



Graph 3: TVOC concentrations measured at Location 58 – 28/01/2021



Graph 4: TVOC concentrations measured at Location 59 – 28/01/2021



Graph 5: TVOC concentrations measured at Location 60 – 28/01/2021

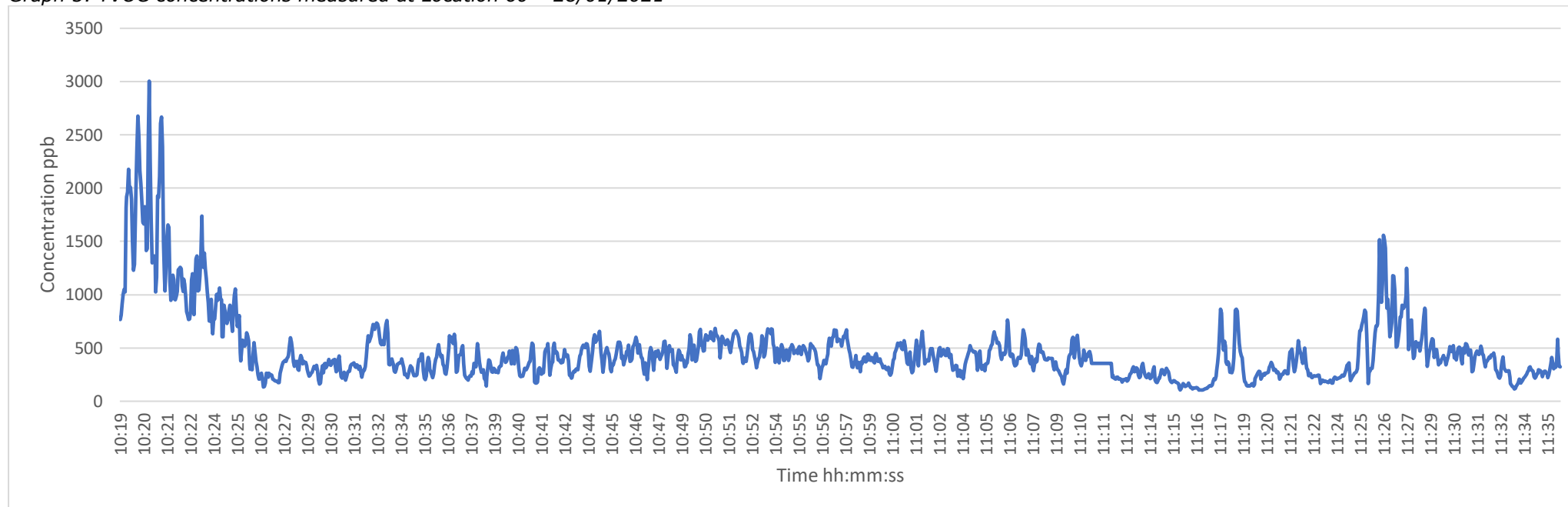


Table 4: 1-hour and 24-hour Canister Sampling Results 28/01/2021

Location (as shown on map above)		Sample Number	Sample length	Sample Time	Canister size	Methyl bromide Concentration (ppbv)
57	NIF Fence	19827-2801-57	1 hour	10:26-11:26	1.4L	38.6 ± 5.9
57A		19827-2801-57A	24 hours	10:18-10:26*	6L	14.1 ± 2.2
58	Isuzu Cal	19827-2801-58	1 hour	10:26-11:26	1.4L	9.7 ± 1.5
58A		19827-2801-58A	24 hours	10:16-10:16	6L	2.6 ± 0.5
59	Astrolabe Street	19827-2801-59	1 hour	10:26-11:26	1.4L	11.1 ± 1.7
60	Tasman Quay ISO yard	19827-2801-60	1 hour	10:26-11:35*	1.4L	130 ± 20

\* Sample times over the 24 hour and 1 hour sample periods.