Our ref: 2022_04_19_535_Kurnell_community_update_ 1_draft_WSP_PS131412-CLM-LTR-101 RevB.docx

19 April 2022

Dear Kurnell resident,

Kurnell overflow incident response 7th April 2022 – Results of the initial sampling round

1. Introduction

On 7th April 2020, the wastewater treatment plant at Ampol's Kurnell terminal overflowed due to heavy rainfall. WSP has produced this document to explain the results of investigations undertaken between 7 to 12 April 2022. WSP has been acting as Ampol's environmental consultant assisting Ampol in its assessment of the overflow.

Emergency services took control of the incident scene after being notified at 1:30 am on 7th April to contain and remove the contaminated stormwater. WSP began sampling on the 7 April, targeting visually impacted surface soil, surface water bodies, and utility pits at the terminal and in the surrounding areas of Captain Cook Drive, Marton Park and Quibray Bay. The estimated area was determined through visual observations and is presented in Figure 1.

2. Sampling

2.1 Chemical analyses

Soil and water samples were tested for compounds present in the petroleum products stored at the terminal. The soil and water results are presented in Tables 1 and 2 for compounds and groups of compounds present in petroleum products. The compounds and groups of compounds targeted in the soil and water for this assessment were:

- total recoverable hydrocarbons (TRH) grouped in the following fractions C_6-C_{10}, C_{10}-C_{16}, C_{16}-C_{34}, and C_{34}-C_{40}
- benzene, toluene, ethylbenzene, xylenes, (BTEX), naphthalene
- polycyclic aromatic hydrocarbons (PAH).

It is important to note that not all visited locations had surface water or soil present, while some had both. This means that water samples were collected at some locations where soil could not be collected (e.g., inside a stormwater pit), or vice versa (e.g., grassy area without pooled surface water nearby).

Furthermore, most surface water samples were of temporarily pooled water in stormwater drains and on grassy areas and road surfaces. Due to the removal of the majority of this contaminated surface water between 7 to 8 April, surface soil samples are likely to be more representative of current conditions in the area.

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2.2 Guidelines used to evaluate the results

The most relevant assessment criteria, which are endorsed by the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPM; as amended 2013) and applicable to the evaluating risk to human health for the impacted area are those presented in the *CRC Contamination Assessment and Remediation of the Environment Technical Report 10: Part 1 2011* (CRC CARE, 2011). CRC CARE (2011) presents health screening levels (HSL) for safe soil concentrations for various site settings. Risks were assessed using the most sensitive category of criteria, i.e., those prescribed residential properties.

2.3 Results of testing

2.3.1 Marton Park area

Seventeen samples were collected for analysis from the Marton Park area, this includes the oval, scout hall and horse-riding areas. Two samples located near the banks of Marton Park, designated MP-E03 an MP-E05 were found to be higher than the criterion for dermal contact. Ampol has advised that the impacted soils from these locations will be removed. All remaining samples had low or non-detected concentrations. Table 1 presents results for the Marton Park area.

2.3.2 Captain Cook Drive area

Nineteen samples were obtained from the Captain Cook Drive area. Table 1 presents results for the Captain Cook Drive area. One sample CC-E03, located along Captain Cook Drive to the south of Solander Street had concentrations higher than the criterion for dermal contact. Ampol has advised that the impacted soils from this location will be removed.

2.3.3 Quibray Bay

Ten samples were obtained from the Quibray Bay area. No sample was found with concentrations above the levels safe for dermal contact. Two samples had low detections of some of the compounds, but at levels well below the relevant criteria.

2.3.4 Surface water

Surface water samples were collected primarily to understand the likely flow paths taken by the diesel like-contaminated surface water during the overflow incident. Surface water testing, as expected showed high concentrations immediately after the incident (see Table 2). The overflow from the wastewater treatment plant was carried in surface water which caused the impacts to soil. The assessment of risk of harm was subsequently made on soil samples taken from the impacted areas. This impacted surface water was removed during the initial response on the 7th and 8th of April and the ongoing clean-up in the following week.

2.3.5 Samples taken outside area of initial impact

Water and soil samples were also collected beyond the visibly impacted areas during WSP's initial inspection to support our visual findings. These samples were collected west of Captain Cook Drive on Torres Street, Bridges Street, and Tasman Street (CC-E12, CC-E16, and TA-E01, respectively). The targeted compounds were not detected in soil samples from these locations, but very low concentrations were detected in water from the road surface on Torres Street and Bridges Street. The proportions of these compounds were inconsistent however with those found near the incident. A soil sample collected to the east of the visual overflow extent on Captain Cook Drive, CC-E10, also contained very low concentrations of the targeted compounds.

The inconsistencies of the very low concentrations of target compounds near road surfaces may be expected from every-day road use (e.g., car traffic, petrol-driven lawn mowing on nature strips, and car washing/waxing). Very low detections of the targeted compounds in samples near road surfaces are therefore not a certain indication of impact from the incident nor do these low detections in soil exceed the safe guideline values used in this assessment.

2.3.6 Private property sampling

Between the 7th and 19th of April, WSP has undertaken sampling at 14 properties as presented in Figure 2. WSP understands that Ampol will communicate these results with individual owners as results come to hand. WSP also understand that Ampol will continue sampling private properties on request.

2.4 Details of soil test results

Soil samples collected from visually impacted areas near the entrance to the terminal at the intersection of Solander Street and Captain Cook Drive (MP-E03, MP-E05 and CC-E03) showed impacts predominantly of hydrocarbons fractions C_{10}-C_{16} and C_{16}-C_{34}. This is interpreted as being largely a diesel impact.

The concentrations of these fractions in samples from this area ranged from 9,800 mg/kg to 15,000 mg/kg for C_{10}-C_{16} and 8,600 mg/kg to 14,000 mg/kg for C_{16}-C_{34}.

Further north and downslope from the terminal entrance, hydrocarbon concentrations of all fractions in soil samples collected near the intersection with Torres Street were approximately ten times lower than those collected near the terminal with fractions C_{10}-C_{16} and C_{16}-C_{34} concentrations up to 2,700 mg/kg (CC-E13B). The relative proportions of these fractions were also consistent with the diesel-like material identified in the samples from the terminal entrance.

Most soil samples collected from locations in Marton Park on 8 April did not contain detectable concentrations of, BTEX, or PAH. Very low concentrations of C_{16}-C_{34} (120 mg/kg to 230 mg/kg) were present in samples collected near the Scout Hall (MP-E07B, MP-E14, MP-E16, MP-E17). However, the composition of hydrocarbons in these samples were inconsistent with those collected near the terminal entrance and at the intersection Captain Cook Drive and Torres Street, where most of the overflow water pooled on 7 April.

Two samples were collected to represent background conditions. This is to provide an indication of the status of soil under normal circumstances. Background samples are usually taken in an area known not to have been impacted by a contamination source or incident. Two background samples collected near the Marton Park wetland within the terminal on 7 April (MP-E01 and MP-E02) contained low or non-detect concentrations of C_{10}-C_{16} and C_{16}-C_{34}.

3. Conclusion

WSP's testing of soil showed that the majority of samples had concentrations less than the criteria for protection of human health. The criteria apply to dermal contact with the soil that has been impacted by the overflow incident. WSP understand that Ampol will continue its sampling program.

Yours sincerely

Nivari Jayasinghe
Principal Environmental Scientist, Contaminated Land Management

Ampol Kurnell Terminal – Flooding Incident Emergency Response

Figure 1
Estimated extent of impacted ground surface and surface water bodies based on visual assessments conducted on 7th and 8th of April 2022

Legend

- Soil and Surface Water Monitoring Locations
- Estimated Initial Impact Area

PRINCE CHARLES PARADE
MAGELLAN WAY
BALBOA STREET
DAMPIER STREET
SILVER BEACH ROAD
TORRES STREET
BRIDGES STREET
TASMAN STREET
HORNING STREET
SOLANDER STREET
CAPTAIN COOK DRIVE
CHISHOLM ROAD

QB-E11 QB-E10 QB-E09 QB-E08 QB-E07 QB-E06 QB-E05 QB-E04 QB-E03 QB-E02 QB-E01
TA-E01
CC-E20 CC-E19 CC-E18 CC-E17 CC-E16 CC-E15 CC-E14 CC-E14A-B CC-E13A-B CC-E12 CC-E11 CC-E10 CC-E09 CC-E08 CC-E07 CC-E04 CC-E03 CC-E02 CC-E01
MP-E17 MP-E16 MP-E15 MP-E14 MP-E13 MP-E12 MP-E11 MP-E10 MP-E09 MP-E08 MP-E07A-B MP-E07A MP-E06 MP-E05 MP-E04 MP-E03 MP-E02 MP-E01

0 0.15 0.3 km

Coordinate system: GDA2020 MGA Zone 56

Scale ratio correct when printed at A1

1:3,500 Date: 19/04/2022

Data sources: - DNRME, TMR, Translink, Geoscience Australia

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Ampol Kurnell Terminal – Flooding Incident Emergency Response

Figure 2
Properties sampled between the 7th and 19th of April 2022

Legend

- Sampled Residential Addresses
- Estimated Initial Impact Area

PRINCE CHARLES PARADE
SILVER BEACH ROAD
CAPTAIN COOK DRIVE
DAMPIER STREET
TORRES STREET
COOK STREET
BRIDGES STREET
TASMAN STREET
SOLANDER STREET
HORNING STREET

0 0.1 0.2 km

Coordinate system: GDA2020 MGA Zone 56

Scale ratio correct when printed at A1

1:2,000 Date: 19/04/2022

Data sources: - DNRME, TMR, Translink, Geoscience Australia

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Kurnell overflow incident response 7th April 2022 – Results of the initial sampling round

Table 1 - Soil Results

			BTEXN							TRH NEPM (2013 Fractions)							
			Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene (Sum)	Naphthalene	C6 - C10	C6 - C10 less BTEX (F1)	C10 - C16	C10 - C16 less Naphthalene (F2)	C16 - C34	C34 - C40	C10 - C40 (Sum)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.1	0.1	0.1	0.2	0.1	0.3	0.5	20	20	50	50	100	100	100
CRC Care 2011 Table 4 HSL-A Low Density Residential (Direct Contact)			100	14,000	4,500			12,000	1,400		4,400	3,300		4,500	6,300	
Monitoring Area	**Field ID**	**Date**														
Captain Cook Dr	CC-E02	7/04/2022	<0.1	0.1	<0.1	0.8	0.4	1.2	1.7	40	39	480	478.3	670	100	1,250
	CC-E03	7/04/2022	<0.1	<0.1	0.4	2.4	1.4	3.8	9.2	260	260	15,000	14,990.8	14,000	120	29,120
	CC-E04	7/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	0.8	26	26	<50	<50	270	<100	270
	CC-E07	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	290	290	360	110	760
	CC-E08	7/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	960	960	1,100	<100	2,060
	CC-E09	7/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	250	250	610	160	1,020
	CC-E10	7/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	130	<100	130
	CC-E11	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<100	<100	440	<200	440
	CC-E12	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<100	<100	<200	<200	<200
	CC-E13A	8/04/2022	<0.1	<0.1	<0.1	0.4	0.3	0.7	8.1	74	73	1,500	1,491.9	1,700	<200	3,200
	CC-E13B	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	2,700	2,700	2,700	<200	5,400
	CC-E14A	8/04/2022	<0.1	<0.1	<0.1	<0.2	0.2	<0.3	4.4	51	51	2,000	1,995.6	2,000	<200	4,000
	CC-E14B	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<100	<100	<200	<200	<200
	CC-E15	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<100	<100	<200	<200	<200
	CC-E16	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<100	<100	<200	<200	<200
	CC-E17	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	100	<100	100
	CC-E18	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	210	<100	210
	CC-E19	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	CC-E20	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	130	130
Marton Park	MP-E01	7/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E02	7/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	2.0	67	67	<50	<50	240	170	410
	MP-E03	7/04/2022	<0.1	0.2	0.2	1.3	0.7	2.0	3.3	200	200	9,800	9,796.7	8,600	<200	18,400
	MP-E04	7/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E05	7/04/2022	<0.1	2.4	3.8	24	13	37	23	1,300	1,300	12,000	11,977	9,200	270	21,470
	MP-E06	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E07A	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E07B	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	230	100	330
	MP-E08	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E09	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E10	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E11	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E13	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E14	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	230	<100	230
	MP-E15	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	MP-E16	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	180	<100	180
	MP-E17	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	120	<100	120
Quibray Bay	QB-E01	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	62	62	630	530	1,222
	QB-E03	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	QB-E04	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	QB-E05	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	QB-E06	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	QB-E07	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	150	<100	150
	QB-E08	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	QB-E09	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	QB-E10	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
	QB-E11	8/04/2022	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	<100	<100	<100
Statistics																
Number of Results			51	51	51	51	51	51	102	51	51	51	51	51	51	51
Number of Detects			0	3	3	5	6	5	15	8	8	11	11	22	9	23
Minimum Concentration			<0.1	0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<20	<20	<50	<50	100	100	100
Minimum Detect			ND	0.1	0.2	0.4	0.2	0.7	0.8	26	26	62	62	100	100	100
Maximum Concentration			<0.1	2.4	3.8	24	13	37	27	1,300	1,300	15,000	14,990.8	14,000	530	29,120
Maximum Detect			ND	2.4	3.8	24	13	37	27	1,300	1,300	15,000	14,990.8	14,000	530	29,120
Average Concentration *			0.05	0.1	0.13	0.66	0.36	1	1.5	48	48	905	904	893	83	1,808
Geometric Average *			0.05	0.056	0.058	0.13	0.069	0.2	0.39	15	15	63	63	154	69	186
Median Concentration *			0.05	0.05	0.05	0.1	0.05	0.15	0.25	10	10	25	25	100	50	100
Standard Deviation *			0	0.33	0.53	3.4	1.8	5.2	4.3	184	184	2,960	2,957	2,574	76	5,561
Geometric Standard Deviation *			1	1.8	2	2.7	2.8	2.7	3.2	2.7	2.7	6.2	6.1	4.7	1.7	6
95% UCL (Student's-t) *			0.05	0.177	0.257	1.444	0.785	2.226	2.242	91.26	91.22	1,600	1,598	1,497	101.1	3,113
% of Detects			0	6	6	10	12	10	15	16	16	22	22	43	18	45
% of Non-Detects			100	94	94	90	88	90	85	84	84	78	78	57	82	55

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

CRC Care, CRC Care 2011 Table 4 HSL-A Low Density Residential (Direct Contact)

Note that the most conservative and applicable assessment criteria for direct contact were applied to this Tier 1 screen

Kurnell overflow incident response 7th April 2022 – Results of the initial sampling round

Table 1 - Soil Results

			PAH																			Misc.
			Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(a)pyrene TEQ (medium bound)	Benzo(a)pyrene TEQ (upper bound)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b&j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	PAHs (Sum)	Naphthalene	% Moisture
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%
EQL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1
CRC Care 2011 Table 4 HSL-A Low Density Residential (Direct Contact)																						1,400	
Monitoring Area	**Field ID**	**Date**																					
Captain Cook Dr	CC-E02	7/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	1.6	59
	CC-E03	7/04/2022	2.8	0.9	0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	1.0	5.7	<0.5	3.4	2.8	35	17	68
	CC-E04	7/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	73
	CC-E07	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	16
	CC-E08	7/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	2.2	1.6	19
	CC-E09	7/04/2022	<0.5	<1	<0.5	<2	<4	<4	5.5	<4	<4	<2	<2	<4	<0.5	<4	<0.5	<1	<0.5	<4	<4	<0.5	27
	CC-E10	7/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	20
	CC-E11	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	19
	CC-E12	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	22
	CC-E13A	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	0.7	0.8	6.6	4.0	23
	CC-E13B	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	35
	CC-E14A	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	0.6	0.7	9.8	7.2	27
	CC-E14B	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	17
	CC-E15	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	20
	CC-E16	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	25
	CC-E17	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	21
	CC-E18	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	35
	CC-E19	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	24
	CC-E20	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	29
Marton Park	MP-E01	7/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	26
	MP-E02	7/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	84
	MP-E03	7/04/2022	1.3	<0.5	0.9	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	4.5	<0.5	2.4	2.2	33	21	40
	MP-E04	7/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	41
	MP-E05	7/04/2022	1.5	<0.5	0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.5	<0.5	1.7	1.5	36	27	85
	MP-E06	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	34
	MP-E07A	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	20
	MP-E07B	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	40
	MP-E08	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	32
	MP-E09	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	69
	MP-E10	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	35
	MP-E11	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	36
	MP-E13	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	17
	MP-E14	8/04/2022	<0.5	<0.5	<0.5	<0.5	0.6	1.0	1.4	0.8	0.7	<0.5	0.7	0.7	<0.5	0.5	<0.5	<0.5	<0.5	0.7	3.9	<0.5	22
	MP-E15	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	16
	MP-E16	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	12
	MP-E17	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	65
Quibray Bay	QB-E01	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	1.0	<0.5	81
	QB-E03	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	23
	QB-E04	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	26
	QB-E05	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	28
	QB-E06	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	43
	QB-E07	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	58
	QB-E08	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	37
	QB-E09	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	38
	QB-E10	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	26
	QB-E11	8/04/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	30

Statistics

Number of Results	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	102	51
Number of Detects	3	1	3	0	1	50	51	1	2	0	1	2	0	3	6	0	5	7	9	15	51
Minimum Concentration	<0.5	<0.5	0.5	<0.5	<0.5	0.6	1.2	<0.5	0.5	<0.5	<0.5	0.5	<0.5	0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	12
Minimum Detect	1.3	0.9	0.5	ND	0.6	0.6	1.2	0.8	0.5	ND	0.7	0.5	ND	0.5	0.6	ND	0.6	0.5	1	0.8	12
Maximum Concentration	2.8	<1	0.9	<2	<4	<4	5.5	<4	<4	<2	<2	<4	<0.5	<4	5.7	<1	3.4	<4	36	27	85
Maximum Detect	2.8	0.9	0.9	ND	0.6	1	5.5	0.8	0.7	ND	0.7	0.7	ND	1	5.7	ND	3.4	2.8	36	27	85
Average Concentration *	0.35	0.27	0.27	0.26	0.29	0.64	1.3	0.3	0.3	0.26	0.27	0.3	0.25	0.31	0.55	0.25	0.4	0.43	2.8	1.5	35
Geometric Average *	0.28	0.26	0.26	0.26	0.26	0.62	1.2	0.27	0.27	0.26	0.26	0.27	0.25	0.28	0.32	0.25	0.3	0.32	0.47	0.39	31
Median Concentration *	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	29
Standard Deviation *	0.42	0.097	0.1	0.11	0.25	0.2	0.6	0.26	0.25	0.11	0.12	0.25	0	0.27	1.1	0.035	0.56	0.53	8.2	4.3	19
Geometric Standard Deviation *	1.6	1.2	1.2	1.2	1.4	1.2	1.2	1.4	1.4	1.2	1.3	1.4	1	1.5	2.1	1.1	1.8	1.9	4.1	3.2	1.6
95% UCL (Student's-t) *	0.443	0.29	0.297	0.289	0.35	0.683	1.43	0.355	0.357	0.289	0.302	0.357	0.25	0.376	0.796	0.263	0.53	0.555	4.703	2.242	39.75
% of Detects	6	2	6	0	2	98	100	2	4	0	2	4	0	6	12	0	10	14	18	15	100
% of Non-Detects	94	98	94	100	98	2	0	98	96	100	98	96	100	94	88	100	90	86	82	85	0

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

CRC Care, CRC Care 2011 Table 4 HSL-A Low Density Residential (Direct Contact)

Note that the most conservative and applicable assessment criteria for direct contact were ap

Kurnell overflow incident response 7th April 2022 – Results of the initial sampling round

Table 2 - Surface water results

			BTEXN							TRH NEPM (2013 Fractions)							
			Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene (Sum)	Naphthalene	C6 - C10	C6 - C10 less BTEX (F1)	C10 - C16	C10 - C16 less Naphthalene (F2)	C16 - C34	C34 - C40	C10 - C40 (Sum)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	1	1	2	1	3	10	20	20	50	50	100	100	100
Location Type	**Field ID**	**Date**														
Captain Cook Drive	CC-E02	7/04/2022	<1	12	2	10	6	15	10	220	190	2,000	1,990	3,700	<100	5,700
	CC-E03	7/04/2022	<1	21	<1	3	2	5	30	110	80	480,000	479,970	470,000	4,300	954,300
	CC-E04	7/04/2022	<1	18	2	14	7	21	<10	170	130	2,000	2,000	4,100	<100	6,100
	CC-E07	7/04/2022	<1	2	<1	<2	<1	<3	<10	<20	<20	<50	<50	300	<100	300
	CC-E08	7/04/2022	<1	7	2	11	7	19	20	210	180	5,200	5,180	9,800	<100	15,000
	CC-E09	7/04/2022	<1	3	1	6	4	10	10	160	150	51,000	50,990	68,000	1,100	120,100
	CC-E10	7/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	<50	<50	<100	<100	<100
	CC-E11	8/04/2022	<10	<10	<10	<20	<10	<30	<100	<200	<200	56,000	56,000	49,000	400	105,400
	CC-E12	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	70	70	200	<100	270
	CC-E13A	8/04/2022	<1	31	2	11	6	16	10	160	110	3,300	3,290	7,800	200	11,300
	CC-E14A	8/04/2022	<1	<1	<1	<2	2	3	<10	80	80	380	380	1,300	<100	1,680
	CC-E15	8/04/2022	<10	570	79	490	270	750	340	5,600	4,200	28,000	27,660	24,000	<1,000	52,000
	CC-E16	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	170	170	700	<100	870
	CC-E17	8/04/2022	<1	1	<1	<2	1	<3	<10	<20	<20	110	110	300	<100	410
	CC-E18	8/04/2022	<1	1	<1	<2	1	<3	<10	20	<20	13,000	13,000	19,000	200	32,200
	CC-E19	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	<50	<50	<100	<100	<100
	CC-E20	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	<50	<50	<100	<100	<100
Marton Park	MP-E01	7/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	<50	<50	<100	<100	<100
	MP-E02	7/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	<50	<50	<100	<100	<100
	MP-E03	7/04/2022	<10	17	<10	28	19	47	<100	460	400	98,000	98,000	87,000	900	185,900
	MP-E04	7/04/2022	<1	22	<1	5	3	8	<10	150	120	88,000	88,000	110,000	1,100	199,100
	MP-E05	7/04/2022	<10	150	43	230	150	380	140	2,600	2,000	390,000	389,860	270,000	3,200	663,200
	MP-E06	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	31,000	31,000	36,000	400	67,400
	MP-E07A	8/04/2022	<10	<10	<10	<20	<10	<30	<100	<200	<200	430,000	430,000	990,000	7,700	1,427,700
	MP-E08	8/04/2022	<1	7	1	23	13	36	20	320	280	<50	<50	100	<100	100
	MP-E09	8/04/2022	<1	11	2	24	14	37	30	350	300	50	<50	<100	<100	<100
	MP-E10	8/04/2022	<1	<1	<1	<2	<1	<3	<10	40	40	190	190	600	<100	790
	MP-E11	8/04/2022	<10	<10	<10	<20	<10	<30	<100	520	520	600	600	400	<100	1,000
	MP-E12	8/04/2022	<1	9	<1	22	14	36	20	310	270	<50	<50	100	<100	100
Quibray Bay	QB-E01	8/04/2022	<1	<1	<1	<2	<1	<3	<10	30	30	<50	<50	<100	<100	<100
	QB-E02	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	1,000	1,000	2,100	<100	3,100
	QB-E03	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	<50	<50	<100	<100	<100
	QB-E06	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	2,600	2,600	7,800	200	10,600
	QB-E09	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	590	590	400	<100	990
	QB-E10	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	<50	<50	<100	<100	<100
	QB-E11	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	640	640	400	<100	1,040
Tasman Street	TA-E01	8/04/2022	<1	<1	<1	<2	<1	<3	<10	<20	<20	<50	<50	<100	<100	<100
Statistics																
Number of Results			**41**	**41**	**41**	**41**	**41**	**41**	**82**	**41**	**41**	**41**	**41**	**41**	**41**	**41**
Minimum Detect			**ND**	**1**	**1**	**3**	**1**	**3**	**1**	**20**	**30**	**50**	**70**	**100**	**100**	**100**
Maximum Concentration			**<10**	**570**	**79**	**490**	**270**	**750**	**<5,000**	**5,600**	**4,200**	**480,000**	**479,970**	**990,000**	**7,700**	**1,427,700**
Average Concentration *			**1.2**	**22**	**4.1**	**23**	**13**	**36**	**57**	**291**	**232**	**41,082**	**41,068**	**52,788**	**529**	**94,343**
Standard Deviation *			**1.6**	**91**	**14**	**83**	**47**	**129**	**210**	**945**	**712**	**114,374**	**114,362**	**172,397**	**1,419**	**279,844**
% of Detects			**0**	**39**	**22**	**32**	**39**	**34**	**23**	**44**	**41**	**63**	**61**	**71**	**29**	**71**
% of Non-Detects			**100**	**61**	**78**	**68**	**61**	**66**	**77**	**56**	**59**	**37**	**39**	**29**	**71**	**29**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

No suitable screening level assessment criteria available for the current exposure scenario

Table 2 - Surface water results

			PAH															
			Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b&j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	PAHs (Sum)	Naphthalene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Location Type	**Field ID**	**Date**																	
Captain Cook Drive	CC-E02	7/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	10	9
	CC-E03	7/04/2022	<5	<100	<100	<20	<5	<5	<5	<5	<50	<5	<50	<500	<5	<200	<200	<500	<500
	CC-E04	7/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	7	6
	CC-E07	7/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	1
	CC-E08	7/04/2022	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3	<1	3	1	39	30
	CC-E09	7/04/2022	16	<5	7	<5	<5	<5	<5	<5	<10	<5	<5	36	<5	27	21	140	37
	CC-E10	7/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	CC-E11	8/04/2022	15	6	7	<5	<5	<5	<5	<5	<20	<2	<100	120	<2	62	<100	500	330
	CC-E12	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<5	<5
	CC-E13A	8/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	2	2	6	<1
	CC-E14A	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<5	<5
	CC-E15	8/04/2022	6	1	1	<5	<5	<5	<5	<5	<5	<5	<10	17	<5	10	6	260	220
	CC-E16	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<5	<5
	CC-E17	8/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	CC-E18	8/04/2022	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	4	4	9	<1
	CC-E19	8/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	CC-E20	8/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Marton Park	MP-E01	7/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	MP-E02	7/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	MP-E03	7/04/2022	<50	<5	<10	<5	<5	<5	<5	<5	<10	<5	<10	<100	<5	<100	<50	<500	<500
	MP-E04	7/04/2022	<50	<5	<20	<5	<5	<5	<5	<5	<10	<5	<5	<100	<5	<50	<50	<100	<50
	MP-E05	7/04/2022	<200	<5	<50	<10	<5	<5	<5	<5	<50	<5	<50	<200	<1	<200	<100	<5,000	<5,000
	MP-E06	8/04/2022	<1	<1	2	<1	<1	<1	<1	<1	2	<1	4	11	<1	6	7	38	6
	MP-E07A	8/04/2022	12	4	16	<10	<5	<5	<5	<5	<20	<5	<100	66	<5	56	<100	200	17
	MP-E08	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<5	<5
	MP-E09	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<5	<5
	MP-E10	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<5	<5
	MP-E11	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<50	<50
	MP-E12	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<5	<5
Quibray Bay	QB-E01	8/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	QB-E02	8/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	QB-E03	8/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	QB-E06	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	1	<5	<1	<5	2	<5	<5
	QB-E09	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<5	<5
	QB-E10	8/04/2022	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<5	<5
	QB-E11	8/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tasman Street	TA-E01	8/04/2022	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Statistics

Number of Results	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**41**	**82**
Minimum Detect	**1**	**1**	**1**	**ND**	**ND**	**ND**	**ND**	**ND**	**2**	**ND**	**1**	**1**	**ND**	**2**	**1**	**1**	**1**
Maximum Concentration	**<200**	**<100**	**<100**	**<20**	**<5**	**<5**	**<5**	**<5**	**<50**	**<5**	**<100**	**<500**	**<5**	**<200**	**<200**	**<5,000**	**<5,000**
Average Concentration *	**5.9**	**2.7**	**3.9**	**1.2**	**0.89**	**0.89**	**0.89**	**0.89**	**2.6**	**0.85**	**4.5**	**18**	**0.8**	**12**	**8.7**	**105**	**57**
Standard Deviation *	**16**	**7.7**	**8.7**	**1.8**	**0.8**	**0.8**	**0.8**	**0.8**	**5.6**	**0.76**	**12**	**46**	**0.71**	**25**	**20**	**397**	**210**
% of Detects	**15**	**7**	**12**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**5**	**22**	**0**	**20**	**17**	**27**	**23**
% of Non-Detects	**85**	**93**	**88**	**100**	**100**	**100**	**100**	**100**	**98**	**100**	**95**	**78**	**100**	**80**	**83**	**73**	**77**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

No suitable screening level assessment criteria available for the current exposure scenario