



## STUDY PLAN 10/2023

To:

FSANI  
10A-C Clarendon Road  
Belfast

### Official Control Services for Shellfish Chemical Contaminants 2023

Results included overleaf.

Abnormalities or departures from standard conditions: None.

Remarks: None.

Sample condition: Acceptable.

|              |              |         |
|--------------|--------------|---------|
| Method used: | PAHs         | SOP 147 |
|              | Heavy Metals | SOP 163 |

Date of issue of report: 30/05/2023

*Table 1: Sample information.*

| Lab Number | Site name/Production Area | Site Identification Ref (SIR) | Species collected | Sample Date |
|------------|---------------------------|-------------------------------|-------------------|-------------|
| 202301415  | Middlebank                | B1 AFFNI 55                   | Mussels           | 20/02/2023  |
| 202301450  | Fair Green                | C11 AFFNI 84                  | Oysters           | 20/02/2023  |
| 202301451  | Narrow Water              | NW - Wild Fishery             | Mussels           | 20/02/2023  |
| 202301690  | Killough                  | K1 AFFNI 18                   | Oysters           | 28/02/2023  |
| 202301824  | Shingle Bay               | L3 AFFNI 88                   | Oysters           | 06/03/2023  |
| 202302494  | Paddy's Point             | S7 AFFNI 76                   | Oysters           | 27/03/2023  |
| 202302763  | Ballyedmond               | C7 AFFNI 73                   | Oysters           | 03/04/2023  |

*Three individual samples per site were collected and combined to make a composite sample for all analyses.*

Table 2: PAH results in µg/kg on a fresh (wet) weight basis

| Lab Number | EFSA 4 | Naphthalene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | 7H-Benzo (c) Fluorene | Benzo (a) Anthracene | Cyclopenta (c,d) Pyrene | Chrysene | 5 Methyl Chrysene | Benzo (b) Fluoranthene | Benzo (k) Fluoranthene | Benzo (j) Fluoranthene | Benzo (a) Pyrene | Indeno (123,cd) Pyrene | Dibenzo (a,h) Anthracene | Benzo (ghi) Perylene | Dibenzo (a,l) Pyrene | Dibenzo (a,e) Pyrene | Dibenzo (a,i) Pyrene | Dibenzo (a,h) Pyrene |
|------------|--------|-------------|--------------|------------|--------------|--------|-----------------------|----------------------|-------------------------|----------|-------------------|------------------------|------------------------|------------------------|------------------|------------------------|--------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 202301415  | 12.0   | 1.12        | 4.67         | 0.94       | 5.86         | 5.06   | <0.50                 | 2.40                 | <0.50                   | 3.94     | <0.50             | 3.83                   | 1.46                   | 1.20                   | 1.83             | 2.23                   | <0.50                    | 2.27                 | <0.50                | <0.50                | <0.50                | <0.50                |
| 202301450  | 9.15   | <0.50       | 4.33         | 0.64       | 5.98         | 3.11   | <0.50                 | 1.41                 | <0.50                   | 3.48     | <0.50             | 3.46                   | 1.26                   | 0.81                   | 0.80             | 1.13                   | <0.50                    | 0.81                 | <0.50                | <0.50                | <0.50                | <0.50                |
| 202301451  | 29.3   | 0.95        | 7.67         | 1.58       | 19.9         | 17.8   | <0.50                 | 7.72                 | <0.50                   | 9.24     | <0.50             | 8.42                   | 3.39                   | 3.06                   | 3.89             | 3.30                   | <0.50                    | 3.10                 | <0.50                | <0.50                | <0.50                | <0.50                |
| 202301690  | 14.9   | 2.16        | 4.87         | 0.98       | 9.52         | 5.10   | <0.50                 | 2.74                 | <0.50                   | 5.60     | <0.50             | 5.23                   | 2.21                   | 1.23                   | 1.32             | 1.75                   | <0.50                    | 1.41                 | <0.50                | <0.50                | <0.50                | <0.50                |
| 202301824  | 18.4   | 1.50        | 7.96         | 0.57       | 14.8         | 8.97   | <0.50                 | 2.58                 | <0.50                   | 7.63     | <0.50             | 6.78                   | 1.96                   | 1.39                   | 1.36             | 1.25                   | <0.50                    | 1.08                 | <0.50                | <0.50                | <0.50                | <0.50                |

Table 2 continued: PAH results in µg/kg on a fresh (wet) weight basis

| Lab number          | EFSA 4 | Naphthalene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | 7H-Benzo (c) Fluorene | Benzo (a) Anthracene | Cyclopenta (c,d) Pyrene | Chrysene | 5 Methyl Chrysene | Benzo (b) Fluoranthene | Benzo (k) Fluoranthene | Benzo (j) Fluoranthene | Benzo (a) Pyrene | Indeno (123,cd) Pyrene | Dibenzo (a,h) Anthracene | Benzo (ghi) Perylene | Dibenzo (a,i) Pyrene | Dibenzo (a,e) Pyrene | Dibenzo (a,i) Pyrene | Dibenzo (a,h) Pyrene |
|---------------------|--------|-------------|--------------|------------|--------------|--------|-----------------------|----------------------|-------------------------|----------|-------------------|------------------------|------------------------|------------------------|------------------|------------------------|--------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 202302494           | 16.2   | 1.75        | 7.66         | 11.3       | 11.8         | 5.12   | <0.50                 | 2.30                 | <0.50                   | 6.96     | <0.50             | 5.97                   | 2.25                   | 1.34                   | 0.99             | 1.57                   | <0.50                    | 1.34                 | <0.50                | <0.50                | <0.50                | <0.50                |
| 202302763           | 9.75   | 2.09        | 4.59         | 0.97       | 7.96         | 3.98   | <0.50                 | 1.64                 | <0.50                   | 4.08     | <0.50             | 3.28                   | 1.18                   | 0.59                   | 0.74             | 1.06                   | <0.50                    | 0.91                 | <0.50                | <0.50                | <0.50                | <0.50                |
| LOD (µg/kg)         |        | 0.30        | 0.30         | 0.30       | 0.30         | 0.30   | 0.30                  | 0.30                 | 0.30                    | 0.30     | 0.30              | 0.30                   | 0.30                   | 0.30                   | 0.30             | 0.30                   | 0.30                     | 0.30                 | 0.30                 | 0.30                 | 0.30                 | 0.30                 |
| LOQ (µg/kg)         |        | 0.50        | 0.50         | 0.50       | 0.50         | 0.50   | 0.50                  | 0.50                 | 0.50                    | 0.50     | 0.50              | 0.50                   | 0.50                   | 0.50                   | 0.50             | 0.50                   | 0.50                     | 0.50                 | 0.50                 | 0.50                 | 0.50                 | 0.50                 |
| HORRAT <sub>r</sub> |        | 1.34        | 0.48         | 1.00       | 0.32         | 0.32   | 0.85                  | 0.56                 | 0.57                    | 0.26     | 0.37              | 0.30                   | 0.40                   | 0.36                   | 1.09             | 1.19                   | 0.38                     | 0.55                 | 0.67                 | 1.08                 | 1.27                 | 0.97                 |
| Uncertainty         |        | 0.20        | 0.17         | 0.19       | 0.17         | 0.17   | 0.38                  | 0.14                 | 0.26                    | 0.20     | 0.17              | 0.14                   | 0.18                   | 0.16                   | 0.19             | 0.29                   | 0.17                     | 0.18                 | 0.30                 | 0.49                 | 0.58                 | 0.44                 |

*Table 3: Metal results for Lead, Cadmium and Mercury, expressed as mg/kg on a fresh (wet) weight basis.*

| Lab Number  | Lead  | Cadmium | Mercury |
|-------------|-------|---------|---------|
| 202301415   | 0.77  | <0.20   | <0.10   |
| 202301450   | <0.30 | 0.36    | <0.10   |
| 202301451   | 0.50  | <0.20   | <0.10   |
| 202301690   | <0.30 | 0.27    | <0.10   |
| 202301824   | 0.30  | 0.30    | <0.10   |
| 202302494   | <0.30 | 0.23    | <0.10   |
| 202302763   | <0.30 | 0.24    | <0.10   |
| LOD (mg/kg) | 0.15  | 0.10    | 0.05    |
| LOQ (mg/kg) | 0.30  | 0.20    | 0.10    |
| HORRATr     | 0.23  | 0.21    | 0.17    |
| Uncertainty | 0.07  | 0.08    | 0.09    |