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ANALYSIS REPORT

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SPv1

Client:

Whangawehi Catchment Management Group

Contact: Nicolas Caviale-Delzescaux

C/- Whangawehi Catchment Management Group

720 East Coast Road

RD8

MAHIA 4198

 Lab No:
 1496750

 Date Registered:
 04-Nov-2015

 Date Reported:
 27-Nov-2015

 Quote No:
 72163

Order No: 72163 Order No: N42474 Client Reference: Biota testing

Submitted By: Nicolas Caviale-Delzescaux

| Sample Type: Shellfish | | | | | | | | |
|---|-----------------|-----------|------------|---|---|---|--|--|
| Sa | ample Name: | Cockles | Mud Snails | | | | | |
| | Lab Number: | 1496750.1 | 1496750.2 | | | | | |
| Individual Tests | | | ı | 1 | ı | 1 | | |
| Arsenic | mg/kg as rcvd | 0.98 | 0.82 | - | - | - | | |
| Cadmium | mg/kg as rcvd | 0.0175 | 0.033 | - | - | - | | |
| Chromium | mg/kg as rcvd | 0.33 | 0.47 | - | - | - | | |
| Copper | mg/kg as rcvd | 1.15 | 16.4 | - | - | - | | |
| Lead | mg/kg as rcvd | 0.054 | 0.179 | - | - | - | | |
| Nickel | mg/kg as rcvd | 1.03 | 0.64 | - | - | - | | |
| Zinc | mg/kg as rcvd | 7.4 | 6.5 | - | - | - | | |
| Polycyclic Aromatic Hydrocarbor | ns in Biomatter | | | | | | | |
| Acenaphthene* | mg/kg as rcvd | < 0.0005 | < 0.0005 | - | - | - | | |
| Acenaphthylene* | mg/kg as rcvd | < 0.0005 | < 0.0005 | - | - | - | | |
| Anthracene* | mg/kg as rcvd | < 0.0003 | < 0.0002 | - | - | - | | |
| Benzo[a]anthracene* | mg/kg as rcvd | < 0.0003 | < 0.0002 | - | - | - | | |
| Benzo[a]pyrene (BAP)* | mg/kg as rcvd | < 0.0003 | < 0.0002 | - | - | - | | |
| Benzo[b]fluoranthene + Benzo[j] fluoranthene* | mg/kg as rcvd | < 0.0003 | < 0.0002 | - | - | - | | |
| Benzo[g,h,i]perylene* | mg/kg as rcvd | 0.0005 | 0.0003 | - | - | - | | |
| Benzo[k]fluoranthene* | mg/kg as rcvd | < 0.0003 | < 0.0002 | - | - | - | | |
| Chrysene* | mg/kg as rcvd | 0.0002 | < 0.0002 | - | - | - | | |
| Dibenzo[a,h]anthracene* | mg/kg as rcvd | < 0.0003 | < 0.0002 | - | - | - | | |
| Fluoranthene* | mg/kg as rcvd | 0.0007 | 0.0007 | - | - | - | | |
| Fluorene* | mg/kg as rcvd | < 0.0007 | 0.0005 | - | - | - | | |
| Indeno(1,2,3-c,d)pyrene* | mg/kg as rcvd | < 0.0003 | < 0.0002 | - | - | - | | |
| Naphthalene* | mg/kg as rcvd | < 0.005 | < 0.005 | - | - | - | | |
| Phenanthrene* | mg/kg as rcvd | < 0.0016 | 0.0023 | - | - | - | | |
| Pyrene* | mg/kg as rcvd | 0.0012 | 0.0018 | - | - | - | | |

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

| Sample Type: Shellfish | | | | | | |
|--|--|--------------------------------|-----------|--|--|--|
| Test | Method Description | Default Detection Limit | Sample No | | | |
| Homogenisation of Biological samples for Organics Tests* | Mincing, chopping, or blending of sample to form homogenous sample fraction. | - | 1-2 | | | |
| Shucking of Shellfish* | Removal of tissue from shell. Analysis performed at Hill Laboratories - Food & Bioanalytical Division, Waikato Innovation Park, Ruakura Lane, Hamilton. | - | 1-2 | | | |
| Homogenise* | Mincing, chopping, or blending of sample to form homogenous sample fraction. Analysis performed at Hill Laboratories - Food & Bioanalytical Division, Waikato Innovation Park, Ruakura Lane, Hamilton. | - | 1-2 | | | |



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| Sample Type: Shellfish | | | | | | |
|--|---|---------------------------------|-----------|--|--|--|
| Test | Method Description | Default Detection Limit | Sample No | | | |
| Biological Materials Digestion | Nitric and hydrochloric acid micro digestion, filtration. Analysis performed at Hill Laboratories - Food & Bioanalytical Division, Waikato Innovation Park, Ruakura Lane, Hamilton. | - | 1-2 | | | |
| Polycyclic Aromatic Hydrocarbons in Biomatter* | | 0.0002 - 0.005 mg/kg as rcvd | 1-2 | | | |
| Arsenic | Biological materials digestion, ICP-MS. | 0.02 mg/kg as rcvd | 1-2 | | | |
| Cadmium | Biological materials digestion, ICP-MS. | 0.0004 mg/kg as rcvd | 1-2 | | | |
| Chromium | Biological materials digestion, ICP-MS with dynamic reaction cell. | 0.006 mg/kg as rcvd | 1-2 | | | |
| Copper | Biological materials digestion, ICP-MS. | 0.010 mg/kg as rcvd | 1-2 | | | |
| Lead | Biological materials digestion, ICP-MS. | 0.002 mg/kg as rcvd | 1-2 | | | |
| Nickel | Biological materials digestion, ICP-MS. | 0.02 mg/kg as rcvd | 1-2 | | | |
| Zinc | Biological materials digestion, ICP-MS. | 0.2 mg/kg as rcvd | 1-2 | | | |

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

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Ara Heron BSc (Tech)

Client Services Manager - Environmental Division