

6 October 2023



Tinex Group Limited
C/- Stratum Consultants
Level 1, 29 Grey Street
Tauranga

Attention: Shae Crossan
Revision: 02

Dear Shae,

RE: Stormwater Sampling: 245 Te Puna Station Road, Te Puna

1 INTRODUCTION

BCD Group Limited (BCD) has been engaged by Tinex Group Limited (The Client) to assist with the collection and analysis of stormwater samples collected from 245 Te Puna Station Road, Te Puna. The water quality sampling is required as part of a resource consent application for the existing activities on site.

2 SCOPE

The purpose is to identify the contaminant loading in the stormwater discharging from a culvert at the sites accessway, and the water in the drain flowing past the site. The site location is presented in figure 1.



Figure 1. The site (red) (source: [LINZ CC BY 4.0 © - Bay of Plenty 0.1m Urban Aerial Photos \(2023\) & others 2020-2022](#))



3.2.4 Total Petroleum Hydrocarbons

Both samples contained concentrations of TPH below laboratory limits of reporting.

4 CONCLUSIONS

Based on analysis for commonly encountered contaminants within stormwater concentrations within the sample collected from the culvert met consented limits for stormwater discharges within the Western Bay of Plenty District Councils network. The sample collected from the drain contained concentrations of copper above the consented limits.

5 LIMITATIONS

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Laboratory test results provide an approximation of the concentration of the tested analytes and are subject to the inherent limitations of the laboratory techniques used for the tests. Interpretations of subsurface conditions including contaminant concentrations are not guaranteed at distance away from the specific points of sampling.

Prepared by:



Alan Woodger
Senior Environmental Scientist
BCD Group Ltd

Attachments

Laboratory Summary Table
Laboratory Certificates



**245 Te Puna Station Road: Stormwater Sample Results Summary
23-1432**

| Name Location Date Time | TSR - 01 Drain 24/09/2023 7am | TSR - 02 Culvert 24/09/2023 7am | WBOPDC Consent ¹ |
|--|--|--|--------------------------------|
| Total Suspended Solids | 8 | 12 | 150 |
| Dissolved Copper | 0.0031 | 0.0007 | 0.0018 |
| Total Copper | 0.0039 | 0.00097 | 0.0018 |
| Dissolved Zinc | 0.0034 | 0.0096 | 0.015 |
| Total Zinc | 0.0086 | 0.0122 | 0.015 |
| Total Petroleum Hydrocarbons in Water | | | |
| C7 - C9 | < 0.10 | < 0.10 | - |
| C10 - C14 | < 0.2 | < 0.2 | - |
| C15 - C36 | < 0.4 | < 0.4 | - |
| Total hydrocarbons (C7 - C36) | < 0.7 | < 0.7 | 15 |

All concentrations are in g/m³

1) Resource Consented Limits presented in RM22-0643 Appendix A Table 1.

Certificate of Analysis

Page 1 of 2

| | | | | |
|-----------------|--|--------------------------|--------------|------|
| Client: | BCD Group Limited | Lab No: | 3371848 | SPV1 |
| Contact: | Alan Woodger C/- BCD Group Limited PO Box 13276 Tauranga Central Tauranga 3141 | Date Received: | 26-Sep-2023 | |
| | | Date Reported: | 05-Oct-2023 | |
| | | Quote No: | 113268 | |
| | | Order No: | 23-1432 | |
| | | Client Reference: | 23-1432 | |
| | | Submitted By: | Alan Woodger | |

Sample Type: Aqueous

| Sample Name: | TSR - 01 24-Sep-2023 7:00 am | TSR - 02 24-Sep-2023 7:00 am | |
|---------------------------------------|------------------------------|------------------------------|---------|
| Lab Number: | 3371848.1 | 3371848.2 | |
| Individual Tests | | | |
| Total Suspended Solids | g/m ³ | 8 | 12 |
| Dissolved Copper | g/m ³ | 0.0031 | 0.0007 |
| Total Copper | g/m ³ | 0.0039 | 0.00097 |
| Dissolved Zinc | g/m ³ | 0.0034 | 0.0096 |
| Total Zinc | g/m ³ | 0.0086 | 0.0122 |
| Total Petroleum Hydrocarbons in Water | | | |
| C7 - C9 | g/m ³ | < 0.10 | < 0.10 |
| C10 - C14 | g/m ³ | < 0.2 | < 0.2 |
| C15 - C36 | g/m ³ | < 0.4 | < 0.4 |
| Total hydrocarbons (C7 - C36) | g/m ³ | < 0.7 | < 0.7 |

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 simple 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. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Aqueous

| Test | Method Description | Default Detection Limit | Sample No |
|--|--|--------------------------|-----------|
| Individual Tests | | | |
| Total Digestion | Nitric acid digestion. APHA 3030 E (modified) : Online Edition. | - | 1-2 |
| Total Suspended Solids | Filtration using Whatman 934 AH, Advantec GC-50 or equivalent filters (nominal pore size 1.2 - 1.5µm), gravimetric determination. APHA 2540 D (modified) : Online Edition. | 3 g/m ³ | 1-2 |
| Filtration for dissolved metals analysis | Sample filtration through 0.45µm membrane filter and preservation with nitric acid. APHA 3030 B : Online Edition. | - | 1-2 |
| Dissolved Copper | Filtered sample, ICP-MS, trace level. APHA 3125 B : Online Edition. | 0.0005 g/m ³ | 1-2 |
| Total Copper | Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8. | 0.00053 g/m ³ | 1-2 |
| Dissolved Zinc | Filtered sample, ICP-MS, trace level. APHA 3125 B : Online Edition. | 0.0010 g/m ³ | 1-2 |
| Total Zinc | Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8. | 0.0011 g/m ³ | 1-2 |
| Total Petroleum Hydrocarbons in Water | | | |
| C7 - C9 | Solvent extraction, GC-FID analysis. In-house based on US EPA 8015. | 0.10 g/m ³ | 1-2 |
| C10 - C14 | Solvent extraction, GC-FID analysis. In-house based on US EPA 8015. | 0.2 g/m ³ | 1-2 |
| C15 - C36 | Solvent extraction, GC-FID analysis. In-house based on US EPA 8015. | 0.4 g/m ³ | 1-2 |
| Total hydrocarbons (C7 - C36) | Calculation: Sum of carbon bands from C7 to C36. In-house based on US EPA 8015. | 0.7 g/m ³ | 1-2 |

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

Testing was completed between 27-Sep-2023 and 05-Oct-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

A handwritten signature in purple ink, consisting of a large capital 'K' followed by the name 'Harrison' in a cursive script.

Kim Harrison MSc
Client Services Manager - Environmental