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14 November 2022

Mr John Sabbouh  
Richard Crookes Constructions  
Level 3, 4 Broadcast Way  
Artarmon NSW 2064

**RE: WASTE CLASSIFICATION OF STOCKPILED FILL SOIL SCRAPPED  
FROM THE CHAPEL AREA AT ST JOHN OF GOD RICHMOND HOSPITAL  
177 GROSE VALE ROAD, NORTH RICHMOND NSW**

Dear Sir,

**INTRODUCTION**

This letter report presents the findings of a waste classification assessment conducted on fill soil that has been scrapped and stockpiled from across the area on which the former chapel building was located within the St John of God Richmond Hospital at 177 Grose Vale Road, North Richmond NSW (the site).

Following demolition of the chapel building, fill soil below the concrete slab floors was sampled for waste classification and was found to contain some random fragments of asbestos cement sheet debris and also elevated levels of organochlorine pesticides (OCP). This fill soil was scrapped to depth of approximately 250mm and stockpiled for off-site disposal with a stockpile specific waste classification report prepared.

After the area had been scrapped and the fill soil containing elevated levels of OCP was stockpiled, a visual inspection was carried out of the remaining in-situ fill soil which confirmed this remaining fill soil to be free of asbestos material debris. Validation soil sampling was carried out across this area on 28 October 2022 which confirmed some of the remaining in situ soil to have levels of OCP above the site acceptance criteria of 10 mg/kg. These samples confirmed the level of OCP to all be below 50mg/kg.

Following receipt of these validation results, the remaining in-situ fill soil was excavated to a depth of approximately 100mm with the excavated soil placed into a separate stockpile to allow for waste classification sampling which was completed on 2 November 2022. Validation sampling undertaken across the remaining in-situ soil in conjunction with the waste classification soil sampling found the remaining in-situ soil at sample location 3 to have a concentration of OCP of 10.7mg/kg (above the site acceptance criteria of 10 mg/kg). Following receipt of this result the soil in this sample area was scrapped and placed with the stockpiled soil on 8 November 2022 for off-site disposal.

Further validation sampling in the sample 3 location on 8 November 2022 was carried out and the two samples taken from this area were found to have OCP concentrations of less than 10mg/kg confirming that no further OCP contaminated soil remained in the chapel excavation area.



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## **SITE IDENTIFICATION DETAILS**

Site address: 177 Grose Vale Road, North Richmond NSW

Le Identification: Lot 12 DP1134453 and Lot 11 DP11134453

LGA: Hawkesbury City Council

Zoning: RU1 Primary Production, W1 Natural Waterways

## **SITE OBSERVATIONS AND SOIL SAMPLING**

Fieldwork was undertaken on Wednesday 2 November 2022 and comprised an inspection of the fill that had been excavated from across the chapel area and placed into a stockpile on the western side of this area. The soil in the stockpile comprises sandy and silty clay soil in which there are a small number of pieces of brick and concrete debris. See attached photograph of the soil stockpile that has been removed from the chapel area.

Inspections of the area from which the soil was excavated both prior to and following the soil excavation and of the soil in the stockpile found no visible asbestos containing material debris to be present.

During the site inspection three soil samples were collected from the stockpiled fill soil for laboratory analysis to ascertain the levels of potential chemical contaminants to enable this waste classification report to be prepared to allow for the fill soil to be disposed of to a suitably licenced landfill site.

The stockpiled fill soil that has been removed from the chapel area at the site has no noticeable odour or discoloration from oil or chemical contamination.

Three soil sample were collected during the site inspection on 2 November 2022 for laboratory analysis to determine the waste classification of the stockpiled fill soil containing asbestos cement sheet debris that is to be loaded out from the site for off-site disposal at a NSW EPA licenced landfill site.

## **ANALYTICAL REGIME**

The soil samples collected on 2 November 2022 were placed into clean laboratory supplied sample jars fitted with Teflon lined lids that were each marked with the date, sample number and project number. The sample jars were filled with soil with no airspace remaining.

The sampled soil was collected using disposable surgical-type gloves. No tools requiring cleaning prior to or following sample collection were used for the sample collection.

Following collection, the samples were placed into a chilled esky and were delivered to Envirolab Services NATA accredited laboratory at Chatswood NSW on 2 November 2022 for waste classification analysis for the following suite of common contaminants including:

- 8 priority heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc);
- Polycyclic Aromatic Hydrocarbons (PAH);
- Total Recoverable Hydrocarbons (TRH);
- Monocyclic Aromatic Hydrocarbons (Benzene, Toluene, Ethyl benzene and Xylene: BTEX);
- Organochlorine pesticides (OCP),
- Polychlorinated Biphenyls (PCB) and
- Asbestos.

## **ASSESSMENT CRITERIA**

With regard to the stockpiled fill soil at the site which is to be excavated for disposal at a licenced landfill facility, waste classification assessment was conducted with reference to the NSW Environment Protection Authority (NSW EPA) Waste Classification Guidelines (November 2014). According to these guidelines, waste material is to be assessed by the following six step process, viz.

### Steps Description

1. Is the waste Special Waste? – No, the soil that has been excavated from across the chapel area and stockpiled to the west side of this area was found to be free of asbestos material debris. Each of the soil samples taken from this soil were analysed and found to be free of asbestos.
2. Is the waste Liquid Waste? - No, the sampled material comprises mostly sandy and silty clay fill soil with some building debris inclusions.
3. Has the waste been pre-classified? - No, the soil is not pre-classified as per the NSW EPA 2014 waste guideline.
4. Is the waste Hazardous Waste? – No, the waste soil does not comprise hazardous waste.
5. Chemical Assessment in accordance with the specified total and or leachable contaminant concentration thresholds? – Yes, see attached summary table of laboratory results.



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6. Is the waste putrescible? – No putrescible waste was sighted on or in the sandy clay fill soil that had been scrapped from across the former chapel area at the site that is to be excavated for off-site disposal and which is the subject of this waste classification report.

In particular, with regard to Step 6, wastes that are generally not classified as putrescible include soils, timber, garden trimmings, agricultural, forestry and crop materials, and natural fibrous organic and vegetative materials (NSW EPA, 2014).

## **SUMMARY OF RESULTS AND WASTE CLASSIFICATION**

The analytical results for the soil samples are presented in the attached table (Table 1). The NATA endorsed laboratory reports are attached to this letter report.

**The contaminant levels within the stockpiled fill soil that has been removed from the chapel area within the St John of God Richmond Hospital site at 177 Grose Vale Road, North Richmond NSW were found to be below the maximum guideline levels for classification as general solid waste (non-putrescible) based on the contaminant threshold (CT1).**

**The level of OCP in each of the three samples is greater than 1 mg/kg but less than 50 mg/kg. This level of OCP is above that which is allowable for GSW classified soil to be recycled but below the maximum level for GSW landfill disposal.**

**Therefore based on the soil sample analysis results from the stockpiled soil, this soil is classifiable as general solid waste for disposal to a NSW EPA licenced landfill facility that can lawfully accept this soil.**

It is recommended that the receiving NSW EPA landfill site should check the incoming materials and ensure that the waste received matches the material description provided in this letter report.

### **Important Note:**

PCA's assessment is necessarily based on the result of limited site investigation and sample testing. Neither PCA, nor any other reputable consultant, can provide unqualified warranties nor does PCA assume any liability for site conditions not observed, or accessible during the time of the investigations.



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Despite all reasonable care and diligence, the materials encountered and concentrations of contaminants measured may not be representative of conditions between the locations sampled and investigated.

In addition, site characteristics may change at any time in response to variations in natural conditions, chemical reactions and other events, e.g. groundwater movement and or spillages of contaminating substances. These changes may occur subsequent to PCA's investigations and assessment.

This report and associated documentation and the information herein have been prepared solely for the use of Richard Crookes Constructions, their excavation and transport contractors as well as interested parties at the time and is valid (for the purposes of transport of material) for a period of one month only from the date of issue.

Any other reliance assumed by third parties on this report shall be at such parties' own risk. Any ensuing liability resulting from use of the report by third parties cannot be transferred to PCA.

Please note that Part 5.6, Section 143 of the Protection of the Environment Operations (POEO) Act 1997 states that is an offence for waste to be transported to a place that cannot lawfully be used as a facility to accept that waste. It is the duty of the owner and transporter of the waste to ensure that the waste is disposed of appropriately. PCA accept no liability for the unlawful disposal of waste materials from any site. PCA accepts no responsibility for the material tracking, loading, management, transport or disposal of waste from the site. Before disposal of the material to a licensed landfill is undertaken, the waste producer is required to obtain consent from the landfill.

If you require any further information, please contact the undersigned on 0437 251 358.

Yours faithfully  
**P. CLIFTON & ASSOCIATES PTY LTD**

Philip Clifton  
Principal

Attachments:  
Photograph  
Laboratory Report and Chain of Custody Documentation



**PHOTOGRAPH**

14 November 2022



**Photograph No. 1: Arrow indicates stockpiled fill soil excavated from across the area on which the former chapel building was located on 2 November 2022**



**LABORATORY REPORT AND CHAIN OF CUSTODY DOCUMENTATION**





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## **CERTIFICATE OF ANALYSIS 309568**

### **Client Details**

<b>Client</b>	P Clifton & Assoc
<b>Attention</b>	Phil Clifton
<b>Address</b>	PO Box 447, Pymble Business Ctre, NSW, 2073

### **Sample Details**

<b>Your Reference</b>	<b><u>North Richmond</u></b>
<b>Number of Samples</b>	9 Soil
<b>Date samples received</b>	02/11/2022
<b>Date completed instructions received</b>	02/11/2022

### **Analysis Details**

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

**Please refer to the last page of this report for any comments relating to the results.**

### **Report Details**

**Date results requested by** 03/11/2022

**Date of Issue** 03/11/2022

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with \***

#### **Asbestos Approved By**

Analysed by Asbestos Approved Analyst: Nyovan Moonean

Authorised by Asbestos Approved Signatory: Lucy Zhu

#### **Results Approved By**

Hannah Nguyen, Metals Supervisor

Kyle Gavriily, Senior Chemist

Lucy Zhu, Asbestos Supervisor

Nancy Zhang, Laboratory Manager, Sydney

Steven Luong, Senior Chemist

#### **Authorised By**

Nancy Zhang, Laboratory Manager

Client Reference: North Richmond

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		309568-7	309568-8	309568-9
Your Reference	UNITS	1 - East	2 - South	3 - West
Depth		SP	SP	SP
Date Sampled		02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil
Date extracted	-	02/11/2022	02/11/2022	02/11/2022
Date analysed	-	02/11/2022	02/11/2022	02/11/2022
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	91	90	94

Client Reference: North Richmond

svTRH (C10-C40) in Soil				
Our Reference		309568-7	309568-8	309568-9
Your Reference	UNITS	1 - East	2 - South	3 - West
Depth		SP	SP	SP
Date Sampled		02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil
Date extracted	-	02/11/2022	02/11/2022	02/11/2022
Date analysed	-	03/11/2022	03/11/2022	03/11/2022
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	<100	<100	<100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	<50	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	<100	<100	<100
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	79	80	85

Client Reference: North Richmond

PAHs in Soil				
Our Reference		309568-7	309568-8	309568-9
Your Reference	UNITS	1 - East	2 - South	3 - West
Depth		SP	SP	SP
Date Sampled		02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil
Date extracted	-	02/11/2022	02/11/2022	02/11/2022
Date analysed	-	02/11/2022	02/11/2022	02/11/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Surrogate <i>p</i> -Terphenyl-d14	%	79	82	86

Client Reference: North Richmond

Organochlorine Pesticides in soil						
Our Reference		309568-1	309568-2	309568-3	309568-4	309568-5
Your Reference	UNITS	1	2	3	4	5
Depth		-	-	-	-	-
Date Sampled		02/11/2022	02/11/2022	02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/11/2022	02/11/2022	02/11/2022	02/11/2022	02/11/2022
Date analysed	-	02/11/2022	02/11/2022	02/11/2022	02/11/2022	02/11/2022
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	2.0	7.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	0.9	3.4	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	82	85	82	91

Client Reference: North Richmond

Organochlorine Pesticides in soil					
Our Reference		309568-6	309568-7	309568-8	309568-9
Your Reference	UNITS	6	1 - East	2 - South	3 - West
Depth		-	SP	SP	SP
Date Sampled		02/11/2022	02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/11/2022	02/11/2022	02/11/2022	02/11/2022
Date analysed	-	02/11/2022	02/11/2022	02/11/2022	02/11/2022
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.2	18	3.4	2.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.1	4.8	1.9	2.3
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	89	87	94	97

**Client Reference: North Richmond**

<b>PCBs in Soil</b>				
Our Reference		309568-7	309568-8	309568-9
Your Reference	UNITS	1 - East	2 - South	3 - West
Depth		SP	SP	SP
Date Sampled		02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil
Date extracted	-	02/11/2022	02/11/2022	02/11/2022
Date analysed	-	02/11/2022	02/11/2022	02/11/2022
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	87	94	97

**Client Reference: North Richmond**

<b>Acid Extractable metals in soil</b>				
Our Reference		309568-7	309568-8	309568-9
Your Reference	UNITS	1 - East	2 - South	3 - West
Depth		SP	SP	SP
Date Sampled		02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil
Date prepared	-	03/11/2022	03/11/2022	03/11/2022
Date analysed	-	03/11/2022	03/11/2022	03/11/2022
Arsenic	mg/kg	11	9	9
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	11	11	15
Copper	mg/kg	29	27	27
Lead	mg/kg	26	34	100
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	8	9	15
Zinc	mg/kg	52	69	53



**Client Reference: North Richmond**

Moisture						
Our Reference		309568-1	309568-2	309568-3	309568-4	309568-5
Your Reference	UNITS	1	2	3	4	5
Depth		-	-	-	-	-
Date Sampled		02/11/2022	02/11/2022	02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/11/2022	02/11/2022	02/11/2022	02/11/2022	02/11/2022
Date analysed	-	03/11/2022	03/11/2022	03/11/2022	03/11/2022	03/11/2022
Moisture	%	6.5	2.9	3.0	2.2	11

Moisture					
Our Reference		309568-6	309568-7	309568-8	309568-9
Your Reference	UNITS	6	1 - East	2 - South	3 - West
Depth		-	SP	SP	SP
Date Sampled		02/11/2022	02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	02/11/2022	02/11/2022	02/11/2022	02/11/2022
Date analysed	-	03/11/2022	03/11/2022	03/11/2022	03/11/2022
Moisture	%	8.1	9.1	10	12

**Client Reference: North Richmond**

<b>Asbestos ID - soils</b>				
Our Reference		309568-7	309568-8	309568-9
Your Reference	UNITS	1 - East	2 - South	3 - West
Depth		SP	SP	SP
Date Sampled		02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil
Date analysed	-	03/11/2022	03/11/2022	03/11/2022
Sample mass tested	g	Approx. 40g	Approx. 35g	Approx. 35g
Sample Description	-	Brown clayey soil & rocks	Brown clayey soil & rocks	Brown clayey soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg  Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg  Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg  Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected

Client Reference: North Richmond

TCLP Preparation - Acid				
Our Reference		309568-7	309568-8	309568-9
Your Reference	UNITS	1 - East	2 - South	3 - West
Depth		SP	SP	SP
Date Sampled		02/11/2022	02/11/2022	02/11/2022
Type of sample		Soil	Soil	Soil
pH of soil for fluid# determ.	pH units	7.7	7.4	7.5
pH of soil TCLP (after HCl)	pH units	1.7	1.7	1.7
Extraction fluid used		1	1	1
pH of final Leachate	pH units	4.9	5.0	5.0

**Client Reference: North Richmond**

Method ID	Methodology Summary
<b>ASB-001</b>	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
<b>Inorg-004</b>	<p>Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439 and USEPA 1311.</p> <p>Please note that the mass used may be scaled down from default based on sample mass available.</p> <p>Samples are stored at 2-6oC before and after leachate preparation.</p>
<b>Inorg-008</b>	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
<b>Metals-020</b>	Determination of various metals by ICP-AES.
<b>Metals-021</b>	Determination of Mercury by Cold Vapour AAS.
<b>Org-020</b>	<p>Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.</p> <p>F2 = (&gt;C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.</p>
<b>Org-020</b>	<p>Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.</p> <p>F2 = (&gt;C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.</p> <p>Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (&gt;C10-C40).</p>
<b>Org-021</b>	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
<b>Org-021</b>	<p>Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.</p> <p>Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.</p>
<b>Org-022/025</b>	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.

**Client Reference: North Richmond**

Method ID	Methodology Summary
<b>Org-022/025</b>	<p>Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS.</p> <p>Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.</p>
<b>Org-022/025</b>	<p>Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.</p> <p>For soil results:-</p> <ol style="list-style-type: none"> <li>1. 'EQ PQL' values are assuming all contributing PAHs reported as &lt;PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present.</li> <li>2. 'EQ zero' values are assuming all contributing PAHs reported as &lt;PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL.</li> <li>3. 'EQ half PQL' values are assuming all contributing PAHs reported as &lt;PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above.</li> </ol> <p>Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.</p>
<b>Org-023</b>	<p>Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.</p>
<b>Org-023</b>	<p>Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.</p>
<b>Org-023</b>	<p>Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.</p> <p>Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.</p>

Client Reference: North Richmond

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	[NT]
Date extracted	-			02/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
Date analysed	-			02/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	95	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	92	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	91	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	98	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	87	[NT]	[NT]	[NT]	[NT]	99	[NT]

Client Reference: North Richmond

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	[NT]
Date extracted	-			02/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
Date analysed	-			02/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	102	[NT]
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	80	[NT]
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	71	[NT]
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	102	[NT]
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	80	[NT]
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	71	[NT]
Surrogate o-Terphenyl	%		Org-020	106	[NT]	[NT]	[NT]	[NT]	117	[NT]

Client Reference: North Richmond

QUALITY CONTROL: PAHs in Soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	[NT]
Date extracted	-			02/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
Date analysed	-			02/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	122	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	84	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	86	[NT]	[NT]	[NT]	[NT]	114	[NT]



Client Reference: North Richmond

QUALITY CONTROL: Organochlorine Pesticides in soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	[NT]
Date extracted	-			02/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
Date analysed	-			03/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	119	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	115	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	122	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	87	[NT]	[NT]	[NT]	[NT]	92	[NT]

Client Reference: North Richmond

QUALITY CONTROL: PCBs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	[NT]
Date extracted	-			02/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
Date analysed	-			02/11/2022	[NT]	[NT]	[NT]	[NT]	02/11/2022	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	136	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	83	[NT]	[NT]	[NT]	[NT]	92	[NT]

Client Reference: North Richmond

QUALITY CONTROL: Acid Extractable metals in soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			03/11/2022	[NT]	[NT]	[NT]	[NT]	03/11/2022	[NT]
Date analysed	-			03/11/2022	[NT]	[NT]	[NT]	[NT]	03/11/2022	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	98	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	100	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	87	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]

**Result Definitions**

<b>NT</b>	Not tested
<b>NA</b>	Test not required
<b>INS</b>	Insufficient sample for this test
<b>PQL</b>	Practical Quantitation Limit
<b>&lt;</b>	Less than
<b>&gt;</b>	Greater than
<b>RPD</b>	Relative Percent Difference
<b>LCS</b>	Laboratory Control Sample
<b>NS</b>	Not specified
<b>NEPM</b>	National Environmental Protection Measure
<b>NR</b>	Not Reported

## Quality Control Definitions

<b>Blank</b>	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
<b>Duplicate</b>	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
<b>Matrix Spike</b>	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
<b>LCS (Laboratory Control Sample)</b>	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
<b>Surrogate Spike</b>	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

## Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

## Report Comments

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to ASB-001 asbestos subsampling procedure. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab/MPL recommends supplying 40-60g or 500ml of sample in its own container.

Note: Samples 309568-7-9 were sub-sampled from jars provided by the client.



# CHAIN OF CUSTODY FORM - Client

## ENVIROLAB GROUP

National phone number 1300 424 344

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**Darwin Office - Envirolab Services**  
Unit 20/119 Reichardt Road, Winnellie, NT 0820  
☎ 08 8967 1201 | ✉ darwin@envirolab.com.au

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Company:	Phil Clifton & Assoc		Client Project Name/Number/Site etc (ie report title):	North Richmond	
Contact Person:			PO No. (if applicable):		
Project Mgr:			Envirolab Quote No. :		
Sampler:			Date results required:	<input type="checkbox"/> Standard <input type="checkbox"/> Same Day <input checked="" type="checkbox"/> 1 day <input type="checkbox"/> 2 day <input type="checkbox"/> 3 day	
Address:			Or choose:		
Phone:		Mob:	Note: Inform lab in advance if urgent turnaround is required - surcharges apply		
Email Results to:	Phil Clifton @ PhilClifton.com		Additional report format:	<input type="checkbox"/> Esdat <input type="checkbox"/> Equis	
Email Invoice to:			Lab Comments:		

Sample information					Tests Required										Comments			
Envirolab Sample ID (Lab use only)	Client Sample ID or Information	Depth	Date Sampled	Type of Sample	OCP	Combo SA + TCLP												Provide as much information about the sample as you can
1	1		2.11.22	Sail	✓													
2	2		"	"	✓													
3	3		"	"	✓													
4	4		"	"	✓													
5	5		"	"	✓													
6	6		"	"	✓													
7	1 - East	SP	"	"		✓												
8	2 - South	SP	"	"		✓												
9	3 - West	SP	"	"		✓												

ENVIROLAB GROUP  
12 Ashley St  
Chatswood NSW 2067  
Phone: 02 9910 6200  
Job No: 309568  
Date Received: 02/11/22  
Time Received: 1535  
Received By: [Signature]  
Temp: Cool / Ambient  
Cooling: Ice pack  
Security: Intact / Broken / None

Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis

Relinquished by (Company): Phil Clifton & Assoc	Received by (Company): ELS SYD.	Lab Use Only	
Print Name: Edwin Babela	Print Name: Victoria Chan	Job number: 309568	Cooling: Ice (Ice pack) / None
Date & Time: 2/11/22 3.36pm	Date & Time: 02/11/22 @ 1535	Temperature: 26°C	Security seal: Intact / Broken / None
Signature: [Signature]	Signature: [Signature]	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

## SAMPLE RECEIPT ADVICE

### Client Details

<b>Client</b>	P Clifton & Assoc
<b>Attention</b>	Phil Clifton

### Sample Login Details

<b>Your reference</b>	North Richmond
<b>Envirolab Reference</b>	309568
<b>Date Sample Received</b>	02/11/2022
<b>Date Instructions Received</b>	02/11/2022
<b>Date Results Expected to be Reported</b>	03/11/2022

### Sample Condition

<b>Samples received in appropriate condition for analysis</b>	Yes
<b>No. of Samples Provided</b>	9 Soil
<b>Turnaround Time Requested</b>	1 day
<b>Temperature on Receipt (°C)</b>	26
<b>Cooling Method</b>	None
<b>Sampling Date Provided</b>	YES

### Comments

Nil

Please direct any queries to:

#### Aileen Hie

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#### Jacinta Hurst

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*Analysis Underway, details on the following page:*





Sample ID	VTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	PCBs in Soil	Acid Extractable metals in soil	Asbestos ID - soils	TCLP Preparation - Acid
1				✓				
2				✓				
3				✓				
4				✓				
5				✓				
6				✓				
1 - East-SP	✓	✓	✓	✓	✓	✓	✓	✓
2 - South-SP	✓	✓	✓	✓	✓	✓	✓	✓
3 - West-SP	✓	✓	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

### Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.



**LABORATORY REPORT AND CHAIN OF CUSTODY DOCUMENTATION**



Table 1 – Summary of Analytical Results 14 November 2022

Richard Crookes Constructions – Stockpiled Soil in Chapel Area at St John of God Richmond Hospital, North Richmond NSW

Sampled Wednesday 2 November 2022

Analyte	Sample 1 Stockpile East 309568-7	Sample 2 Stockpile South 309568-8	Sample 3 Stockpile West 309568-9	NSW EPA Waste Classification General Solid Waste Threshold Levels			NSW EPA Waste Classification Restricted Solid Waste Threshold Levels		NSW EPA Waste Classification
				CT1 concentration (mg/kg)	SCC1 concentration (mg/kg)	TCLP1 concentration (mg/L)	SCC2 concentration (mg/kg)	TCLP2 concentration (mg/L)	
				Total concentration (mg/kg)	Total Concentration (mg/kg)	Total concentration (mg/kg)	concentration (mg/kg)	concentration (mg/L)	
Sample depth	Stockpile 0.1m	Stockpile 0.1m	Stockpile 0.1m	-	-	-			-
Arsenic	11	9	9	100	500	5	2,000	20	General solid waste
Cadmium	<0.4	<0.4	<0.4	20	100	1	400	4	General solid waste
Chromium	11	11	15	100	1900	5	7,600	20	General solid waste
Copper	29	27	27	-	-	-	-	-	General solid waste
Lead	26	34	100	100	1500	5	6,000	20	General solid waste
Mercury	<0.1	<0.1	<0.1	4	50	0.2	200	0.8	General solid waste
Nickel	8	9	15	40	1050	2	4,200	8	General solid waste
Zinc	52	69	53	-	-	-	-	-	General solid waste
Benzene	<0.2	<0.2	<0.2	10	18	0.5	72	2	General solid waste
Toluene	<0.5	<0.5	<0.5	288	1080	14.4	2,073	57.6	General solid waste
Ethyl Benzene	<1.0	<1.0	<1.0	600	1080	30	4,320	120	General solid waste
Total Xylenes	<1.0	<1.0	<1.0	1000	1800	50	7,200	200	General solid waste
TPH C6-9	<25	<25	<25	650	650	N/A	2,600	N/A	General solid waste
TPH C10-40	<100	230	<100	10000	10000	N/A	40,000	N/A	General solid waste
Total PAH	<0.2	<0.2	<0.2	200	200	N/A	800	N/A	General solid waste
Benzo(a)pyrene	<0.05	<0.05	<0.05	0.8	10	0.04	23	0.16	General solid waste
OCP (Pesticides)	22.8	5.3	4.4	<50	<50	N/A	<50	N/A	General solid waste
PCB	<0.1	<0.1	<0.1	<50	<50	N/A	<50	N/A	General solid waste
Asbestos in soil	No asbestos detected	No asbestos detected	No asbestos detected	-	-	-			Special waste asbestos