Appendix F

Contamination assessment

Roads and Maritime Services

Gee Gee Bridge Replacement REF

Contamination Assessment

June 2017

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1. Introduction

GHD Pty Ltd (GHD) was engaged by NSW Roads and Maritime Services (RMS) to undertake a contamination assessment and waste classification as part of a bridge replacement Review of Environmental Factors (REF) project of the Gee Gee Bridge located at the Swan Hill - Barham Road crossing of the Wakool River. The bridge is located between the towns of Barham in NSW and Swan Hill in Victoria (see Figure 1-1).

Murray River Council, the former Wakool Shire Council (Council) proposes to replace the existing bridge with a new bridge structure.

1.1 Objectives

The objectives of the contamination assessment were to:

- Identify the presence of potentially contaminated materials (timbers, soils and paint systems) in accessible portions of the bridge;
- Assess if there is potential risks to human health and/or the environment during demolition of the bridge;
- Assess appropriate reuse/disposal strategy for the bridge components with regard to Roads and Maritime *QA Specification Recycling of Bridge Timber* (2011); and
- Determine a waste classification for materials (timber, soil) should off-site disposal be required.

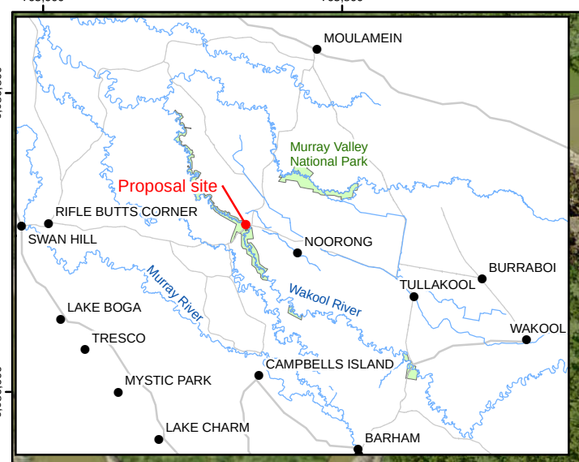
1.2 Site location

The Gee Gee Bridge crosses the Wakool River approximately six kilometres east of the township of Noorong in the shire of Wakool, NSW. The location of the bridge is shown in Figure 1-1.

The Gee Gee Bridge is approximately 75 metres in length including a 30 metre truss (Main Bridge). The approach bridge is approximately 120 metres in length. The bridge is a Dare Type timber and steel truss bridge constructed in 1929.

765,600 765,800 766,000 766,200 766,400 766,600 766,800 767,000 767,200

6,086,800 6,086,600 6,086,400 6,086,200 6,086,000



Murray Valley National Park

Lot 101, DP 914897

Residence - 'Rest-down' 3357 Noorong Road

Proposed stockpile/ compound site

Nacurrie Road

Proposed stockpile/ compound site (existing site)

Noorong Road

Proposed new bridge

Existing flood relief bridge

Property access road

Proposed compound site

Existing Gee Gee Bridge

Proposed rest area

Wakool River

Murray Valley National Park

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765,600 765,800 766,000 766,200 766,400 766,600 766,800 767,000 767,200

Paper Size A3

0 50 100 200

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 54

N

LEGEND

- Road design
- Existing road
- Proposal site
- Proposed rest area
- Proposed compound site
- Proposed stockpile/compound site
- Proposed temporary work platform
- Lot 101, DP 914897 (indicative only)
- Murray Valley National Park (indicative only)

Murray River Shire Council
Gee Gee Bridge replacement

Job Number	23 15324
Revision	0
Date	08 Jun 2017

Gee Gee Bridge locality

Figure 1.1

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Data source: NSW Government: Roads, localities, waterways & National Parks - 2012; satellite imagery - 2015; Murray River Shire Council: Aerial photograph & road design - 2015. Created by:rtrobinson

1.3 Scope of work

The scope of work for the project included the following:

- A review of available site information including construction plans and timber replacement history.
- Preparation of a site specific Health, Safety and Environmental Plan (HSEP).
- Field investigation including;

  Main Bridge

  – A visual inspection of accessible portions of the main bridge components (including the posts, rails, curbs, piers, trusses and abutments) for lead paint systems and for asbestos containing materials (ACM).
  – Sampling of painted surfaces (posts, rails and curbs).
  – Sampling of timber components from the Main Bridge including truss, piers, pier pile bracing, decking, abutments, posts, rails and curbs.
  – Analysis of wood samples for arsenic, boron, copper and chromium, organochlorine pesticides (OCPs), organophosphorous pesticides (OPPs), polycyclic aromatic hydrocarbons (PAHs) and total recoverable hydrocarbons (TRH).
  – Sampling of soils adjacent to each pier of the main bridge above the water line and each abutment with analysis for heavy metals, OCPs, OPPs, PAHs and asbestos.

  Approach Bridge

  – A visual inspection of accessible portions of the approach bridge components (including the posts, rails, curbs, piers and abutments) for lead paint systems and for asbestos containing materials (ACM).
  – Sampling of timber components from the approach bridge with analysis for arsenic, boron, copper and chromium, OCPs, OPPs, PAHs and TRH.
  – Sampling of soils adjacent every second pier of the approach bridge and each abutment with analysis for heavy metals, OCPs, OPPs, PAHs and asbestos.
- Preparation of this report with reference to the *Guidelines for Consultants Reporting on Contaminated Site*s (NSW OEH, 2011) detailing the results of the assessment, discussions and conclusions with respect to the potential risk to human health and/or the environment during demolition of the bridge and the appropriate reuse/disposal strategy for the bridge components.

1.4 Limitations

The assessment was limited to the scope described in Section 1.3 and the limitations outlined in Section 10. The scope of work was devised to target components of the Main and Approach Bridges not indicating visual signs of staining or treatment or observed with flaking and chalking paint. Components showing visual signs of staining or treatment were classified in accordance with their visual characteristics, in accordance with guidance from Roads and Maritime and the Roads and Maritime QA Specification of Bridge Timbers (2011). The investigation did not attempt to sample every bridge timber but rather holistically assessed the chemical characteristics of key elements associated with the bridge structure.

Representative sampling was conducted across both the Approach and Main Bridge. Every second pier of the Approach Bridge was sampled starting from Pier 1, and every accessible pier of the Main Bridge was sampled. It was observed the adjacent piers to the sampled would have a high likelihood of encompassing highly comparable analytical concentrations. Bridge historical

data and field observations confirmed this. The sampling scope and guidance from Roads and Maritime allowed for classification of piers, abutments, decking and truss structures in their entirety based on results from independent sampling of encompassing timber elements (piles, pier pile bracings, capwales, and sheeting). Where applicable, an encompassing classification would be adopted for piers and other bridge elements with a multitude of timber structure.

The project assumed that only the timber elements of the bridge will be re-used. All other components will be assumed to be pre-classified waste (apart from soils) and were not included in the sampling program.

Where bridge timber elements were not sampled it was concluded that timbers of similar age of construction to sampled key elements had similar characteristics and were classified as such.

It is recognised whilst this report is dated May 2017, the conclusions and recommendations are representative of site conditions in June 2015. Notwithstanding, GHD accepts no responsibility arising from, or in connection with, any changes to the site conditions since our investigation in June 2015.

2. Basis for assessment

2.1 Regulatory framework

For this contamination assessment and waste classification, analytical results for sampled soils, timber and paint have been compared with the following environmental criteria and guidelines:

- Australian Standard (AS 4361.2-1998) *Guide to Lead Paint Management. Part 1: Industrial applications*
- NEPC (2013). *National Environment Protection (Assessment of Site Contamination) Measure* (NEPM), 1999
- NSW EPA *Guidelines for consultants reporting on contaminated sites* (2011)
- NSW EPA *Waste Classification Guidelines Part 1: Classifying waste* (2014)
- Roads and Maritime *QA Specification Recycling of Bridge Timber* (2011).

2.2 Soil assessment criteria

Soil sampling was completed to assess the ground surface below and adjacent to key bridge elements as these locations may have been historically impacted due to a range of factors including chemical spills during treatment/painting of bridge timbers, leaching of chemicals within the bridge structure to surface and sub-surface soils and application of chemicals to the ground surface in the vicinity of bridge abutments/embankment areas for pest and weed control.

2.2.1 NEPM

The National Environment Protection Measure (NEPM) includes a range of ecological investigation and screening levels (EILs and ESLs), health investigation levels (HILs) and health screening levels (HSLs) for a range of contaminants and for a range of land use and exposure scenarios. The selection of the assessment criteria has been based on the following site specific characteristics:

- The proposed land use for the site is continued use for roads and infrastructure including bridges. Based on this, the commercial/industrial criteria will be used for the initial assessment of the results.
- Soils around the piers consisted of sandy silt with gravels. Given that the majority of soil/fill materials are silty, fine grained mixtures, the clay/fine texture based criteria for ESLs and HSLs will be selected for assessment.
- There is a potential for direct contact within contaminated soils during bridge demolition and construction.
- There is a potential for soil and bridge run-off to the Wakool River. Based on this, the public open space (recreational) criteria will be used for EILs.

The site specific characteristics have been considered in selecting appropriate assessment criteria, which are sourced from Schedule B1 of the NEPM and include the following:

- Health Investigation Level D (HIL D) – Commercial/industrial
- Ecological Investigation Levels (EILs) and soil specific added contaminant limits (ACLs) – Public open space.
- Ecological Screening Levels (ESL) for TPH, BTEX and benzo(a)pyrene fractions – Public open space (fine soil textures).

The application of EILs is dependent on site specific soil characteristics including pH, cation exchange capacity (CEC) and clay content. As these soil characteristics have not been assessed to date, the following assumptions have been made:

- Silty, clayey sand soil/fill is assumed to have a low CEC. As such, a CEC of 10 cmolc/kg for fill material has been assumed for the selection of copper, nickel and zinc criteria.
- Soils across the site are assumed to be slightly acidic to circum-neutral. A pH range of 5.0 to 6.0 has been assumed for the selection of zinc while a pH of 5.5 has been assumed for the selection of copper.
- For selection of the Cr III criterion, a clay content of >/= 10% been assumed for soils materials. The selection of Cr III criterion is not CEC or pH dependent.
- Given that background data for the Site has not been obtained to date, the soil specific ACLs have been used for EILs.

The soil assessment criteria are detailed in Tables A and B, Appendix C.

2.2.2 Waste Classification Guidelines

Waste classification criteria have been adopted from the *Waste Classification Guidelines, Part 1: Classifying Waste* (NSW EPA 2014) for the contaminants expected to govern waste classification of material that may require offsite disposal.

The waste classification criteria are detailed in Tables A and B, Appendix C.

2.3 Timber assessment criteria

2.3.1 RTA QA specification – Recycling of bridge timber (2011)

This Specification sets out details and requirements for the treatment and testing of used bridge timber for the purposes of recycling and selling and provides the process steps involved with the dismantling, transport, waste management, occupational health and safety and processing of bridge timbers. The Specification also includes validation of removal of unacceptable concentrations of contaminants, so that the recycled timbers can be safely sold on the open market for beneficial reuse in domestic (i.e. residential) premises.

The Acceptable Contaminant Residue Concentrations (ACRC) in timbers in the Specification was derived from a Risk Assessment (RA). The RA considered the nature and type of contaminants, exposure scenarios and parameters and toxicity assessment. At the completion of recycling/reprocessing, concentrations of contaminants of potential concern (COPC) must be less than the ACRC.

The ACRC are detailed in Table C and D, Appendix C.

2.3.2 Waste Classification Guidelines

Waste classification criteria for timber bridge components that may require offsite disposal have been adopted from the Waste Classification Guidelines, *Part 1: Classifying Waste* (NSW EPA 2014). Some commonly generated waste types have been pre-classified as general solid waste (non-putrescible). This includes “building and demolition waste” which mean unsegregated material (other than material containing asbestos or liquid waste) resulting from the construction, replacement, repair or alteration of infrastructure development such as roads, tunnels, sewage, water, electricity, telecommunications and airports. It includes materials such as:

- Timber, including unsegregated timber, that may contain timber treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP).

Based on the *Waste Classification Guidelines Part 1: Classifying Waste* (NSW EPA 2014).and communication in early September, 2015, between the NSW EPA and RMS, timbers with lead-based paint are pre-classified as General Solid Waste (building and demolition waste). However, if the paint is removed from the timber, the paint residue must be classified from its lead concentration.

The waste classification criteria are detailed in Table C and D, Appendix C.

2.4 Lead Paint

2.4.1 Guide to lead paint management

The *Guide to Lead Paint Management Part 1: Industrial Applications* (AS 4361.2-1998) assists in the identification and effective management of lead hazards on-site.

The primary cause of lead hazards on a demolition site is the presence of lead paint and lead contaminated dust. In-situ dust can be disturbed during work activities or new dust can be generated by disturbing old lead paint. AS4361.2 1998 defines lead paint as paint in which the lead content (calculated as lead metal) is in excess of 1.0 percent by weight of the dry film as determined by laboratory testing. Results are expressed in percentage w/w.

The lead paint criteria are presented in Table E in Appendix C.

2.4.2 Waste Classification Guidelines

As above, the waste classification criteria have been adopted from the *Waste Classification Guidelines, Part 1: Classifying Waste* (NSW EPA 2014) for the lead paint on bridge timbers. Some commonly generated waste types have been pre-classified by the NSW EPA as hazardous waste. This includes “lead paint waste arising otherwise than from residential premises or educational or child care institutions”.

As detailed in Section 2.3.2, based on communication between the NSW EPA and RMS, it is understood that bridge timbers with lead-based paint are pre-classified as General Solid Waste. However, if the paint is removed from the timber, the paint residue is classified as Hazardous Waste.

3. Data quality objectives

The purpose of establishing Data Quality Objectives (DQO) is to ensure the field investigations and subsequent analyses are undertaken in a way that enables the collection and reporting of reliable data on which to base the assessment.

A process for establishing DQOs for a site has been defined by the US EPA. That process has been adopted within the Australian Standard: AS 4482.1-2005 and referenced by the *National Environment Protection (Assessment of Site Contamination) Measure* (NEPC, 2013*)* and the *Guidelines for the NSW Site Auditor Scheme, 2nd Ed (*NSW DEC, 2006).

The DQO process, involves the following seven steps:

Step 1 State the problem;

Step 2 Identify the decision;

Step 3 Identify inputs to the decision;

Step 4 Define the study boundaries;

Step 5 Develop a decision rule;

Step 6 Specify limits on decision errors; and

Step 7 Optimise the design for obtaining data.

The seven steps outlined above are addressed below.

3.1 Step 1: the "problem"

The problem as it stands is the contamination status of the bridge structure and surrounds are unknown. The assessment was undertaken in order to ascertain the contamination status and whether contamination present at the site may pose an unacceptable health and/or environmental risk, and to classify the bridge timber components for disposal and/or reuse.

3.2 Step 2: identification of the decision(s)

The key decisions to be made in relation to the current works are:

- Is contamination present in timbers and soil at concentrations above the applicable approved guidelines?
- Where (if) contamination has occurred, does it have the potential to adversely impact on human health and/or environmental receptors?
- Does the site appear suitable (from a contamination perspective) for the current and future proposed land use (i.e. bridge replacement)?
- Are any further works in the form of assessment, ongoing management, or remedial tasks required in order to make the site suitable for the current and future proposed land use?

3.3 Step 3: inputs to the decision

Data to be inputted to the decision making process included:

- Information gained from documenting the site's environmental setting (**Section 3**);
- Information gained from desktop information (REFs) (**Section 5**);
- Appropriate screening-level criteria (investigation thresholds) for soil and timber re-use (**Section 6**); and
- Quantitative data gained via intrusive sampling and analytical works (**Section 8**).

3.4 Step 4: boundaries of the study

The lateral boundaries of the study area are depicted in **Figure 1** and are limited to the extents of the bridge structure. The vertical boundary of the study area is the depth of the deepest soil sample, which in this instance is the surface (0 -0.2 m below ground level).

3.5 Step 5: site decision rule

Project analytical data was compared to appropriate NSW EPA prepared or endorsed guidelines and NSW RMS timber bridge guidelines and directives. On the basis of this 'Tier 1' assessment, plus an assessment of potential contaminant exposure pathways, a decision was made as to whether or not the contamination poses a potential risk warranting management and/or remediation.

3.6 Step 6: specify limits on decision errors

Two primary decision error-types may occur due to uncertainties or limitations in the project data set:

- Type (a) Error: An investigation area may be deemed to pose no unacceptable risk, when in fact it does. This may occur is contamination is 'missed' due to limitations in the sampling plan, or if the project analytical data set is unreliable.
- Type (b) Error: An investigation area may be deemed to pose an unacceptable risk, which in fact it does not. This may occur if the project analytical data set is unreliable, due to inappropriate sampling, sample handling, or analytical procedures.

To minimise the potential for decision errors, Data Quality Indicators (DQIs) have been determined, for completeness, comparability, representativeness, precision and accuracy.

3.7 Step 7: Optimising the design for obtaining data

The sampling program was designed with reference to the known and observed bridge condition and layout including historical maintenance records. The sampling program was targeted to the timber sections and paint sections of the Approach Bridge and Main Bridge of the site, and the soil profile directly underneath the bridge structures.

4. Assessment methodology

4.1 Initial site inspection

An initial site inspection was undertaken by an Environmental Scientist from GHD on 2 June 2015. Both the main bridge and approach bridge were inspected to assess whether there were any visual indications of contamination in the area of the bridge, particularly the abutments and piers, and determine if there were any significant site constraints that could impact on completion of the assessment program. Notes were made with regard to the following:

- **Description and condition** – presence of old timber or recently replaced timbers, evidence of potential contamination (odours, staining etc).
- **Paint** - locations of potential lead paint systems, condition (flaking, chalking), and accessibility
- **Asbestos** – potential presence of Asbestos Containing Material (ACM), condition and accessibility.
- **Soils** – potential for run-off to sensitive receptors (river), staining, odour and inclusions.

All fieldwork was performed by trained and experienced GHD professional personnel, in accordance with the company's written Standard Field Operating Procedures (SFOPs). All sampling was conducted using carefully documented and supervised quality assurance procedures. See Figures 2.1 – 2.9, Appendix A for sample locations.

4.2 Soils

4.2.1 Sampling methodology

Soil sampling was undertaken by an Environmental Scientist from GHD on 2 June 2015. Fifteen surface soil samples were collected with a hand auger from a maximum depth of 0.2 m. Five samples were collected from the Main Bridge (MB-S1, MB-S2, MB-S3, MB-SAB1 and MB-SAB2) and ten samples were collected from the Approach Bridge (AB-S1 to AB-S8 and, AB-SAB1, and AB-SAB2).

Soil samples were generally taken from surface materials of the soil profile, specifically targeting areas of possible surface contamination to ascertain possible offsite transport of contaminants in surface soils as a result of the bridges and surface water run-off to nearby sensitive receivers (the Wakool River). Samples were collected directly from the hand auger using dedicated disposable gloves to limit cross contamination between sampling points. The hand auger was decontaminated with Decon 90 and demineralised water between locations.

Soils penetrated during the investigations were described in accordance with the Unified Soil Classification system, with features such as discolouration, staining, odours and other indications of contamination being noted. This information was recorded on the field sheets, as presented in Appendix A.

Collected soil samples were immediately transferred to laboratory supplied glass sample jars with Teflon lined lids. All sample containers were clearly labelled with a sample number, sample location, sample depth, and sample date. The sample containers were then transferred to a chilled esky for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form was completed and forwarded with the samples to the testing laboratory.

4.2.2 Analytical program

The soil sampling and analytical program is presented in Table 1. Soil sample locations were targeted to each pier of the main bridge above the water line (three locations) and under the bridge immediately adjacent to every second pier of the approach bridge (eight samples). One sample of fill material was also collected from the abutments of each bridge adjacent to one of the wing walls (total of four). See Figure 2.5, Appendix A.

Samples were analysed for heavy metals (Arsenic, Cadmium, Chromium, Copper, Mercury, Lead, Nickel and Zinc), Polycyclic Aromatic Hydrocarbons (PAHs), Organochlorine Pesticides (OCPs), Organophosphate Pesticides (OPPs) and asbestos.

Table 1 Soil sampling and analytical program

Basis of Investigation	Number of soil sample locations	Sample Identification	Analytical Parameters	Number of Analyses (including QC2)
Main Bridge				
Piers Abutments	3 1	MB-S1 - MB-S3 MB-SAB1 and MB-SAB2	Heavy metals PAHs OCPs &OPPs Asbestos	5 5 5 5
Approach Bridge				
Piers Abutments	8 2	AB-S1 - AB-S8 AB-SAB1 and AB-SAB2	Heavy metals PAHs OCPs & OPPs 1 Asbestos	11 10 10 10

1. Quality control sampled at a rate of 1 in 10 samples.

4.3 Timber

4.3.1 Sampling methodology

Sampling of bridge timbers was undertaken by an Environmental Scientist from GHD on 2 June 2015. Forty nine timber samples (including QA/QC) were collected using a decontaminated stainless steel mitre-chisel and a cordless, wood boring tool. Sample collection was at varying depths of surface to 0.25 m below the timber surface (where surface depth is the surface/exposed timber). See Figures 2.1 – 2.8 in Appendix A for sample locations. Sample identification outlined below were adopted for the assessment:

Main bridge

- Pr = principal of truss
- FD = first diagonal of truss
- SD = second diagonal of truss
- X = cross member of truss
- CH – top chord of truss – note: no top chords sampled due to access
- P = pile
- PPB = pier pile bracing
- D = decking
- AB = abutment

- S = soil
- SAB = soil abutment

Approach Bridge

- P = pile
- PPB = pier pile bracing
- PPP = pier pile post
- PC = pier capwale
- AB = abutment
- S = soil
- SAB = soil abutment
- R = rail
- Po = post
- K = curb

Timber sample locations were targeted to each component of the main and approach bridges. The sampling scope allowed for classification of piers, abutments, decking and truss structures in their entirety based on results from independent sampling of encompassing timber elements (piles, pier pile bracings, capwales, sheeting, etc).

At each sample location, approximately 100 grams of collected timber sample was immediately transferred into laboratory supplied containers. All sample containers were clearly labelled with a sample number, sample location and sample date and transferred to a chilled esky for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form was completed and forwarded with the samples to the testing laboratory.

In accordance with Roads and Maritime guidance, no samples of timber elements that were visibly CCA treated were collected or submitted for laboratory analysis as they are pre-classified under the Roads and Maritime QA Specification of Bridge Timbers (2011).

4.3.2 Analytical program

The timber sampling and analytical program is presented in Table 2.

Samples were analysed for Heavy metals (Arsenic, Cadmium, Chromium (VI), Copper, Mercury, Lead, Nickel and Zinc), Organochlorine Pesticides (OCPs), Organophosphate Pesticides (OPPs), Total Recoverable Hydrocarbons (TRH), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and Polycyclic Aromatic Hydrocarbons (PAHs).

Table 2 Timber sampling and analytical program

Basis of Investigation	Number of Sample Locations	Sample Identification	Analytical Parameters	Number of Analyses (including QC2)
Main Bridge				
Piers	3	MB-P1 – MB-P3	Heavy metals TRH/BTEX/PAH OCPs & OPPs	21 21 21
Abutments	1	MB-AB1 - MB-AB2		

Decking	5	MB-D1 – MB-D5		
Pier pile bracing	3	MB-PPB-1 – MB-PPB3		
Trusses	7	MB-FD2, MB-FD3, MB-SD1, MB-SD4, MB-X1, MB-Pr1, MB-Pr3		
Approach Bridge				
Piers	8	AB-P1 – AB-P8	Heavy metals TRH/BTEX/PAH OCPs & OPPs	28 28 28
Abutments	4	, AB-AB1 - AB-AB4		
Pier capwale	7	AB-PC1 – AB-PC5 AB-PC7 – AB-PC8		
Pier pile bracing	3	AB-PPB6 – AB-PPB8		
Pier pile posts	5	AB-PPP1 – AB-PPP5		

1. Quality control sampled at a rate of 1 in 10 samples

4.4 Lead Paint

Sampling of bridge timbers was undertaken by an Environmental Scientist from GHD, on 2 June 2015. Twelve lead paint samples were collected at the main bridge, on the posts rails and kerbs, using a decontaminated stainless steel, retractable blade scraper. Each sample site was lightly sprayed with deionised water prior to collection to reduce the potential for emissions of airborne particulate matter. All 12 samples were analysed for lead as a % w/w.

Samples were collected into laboratory supplied containers of sufficient volume to hold approximately 100 grams of sample material and clearly labelled with a sample number, sample location and sample date. A chain-of-custody form was completed and forwarded with the samples to the. GHD subcontracted laboratory analytical services, Envirolab, who is NATA (National Association of Testing Authorities) accredited for the testing program.

No lead paint sampling was completed for the approach bridge. Sampling locations are indicated on Figure 2.8 and Figure 2.9 in Appendix A.

5. Quality assurance/quality control plan

5.1 Field quality assurance/quality control (QA/QC)

5.1.1 Field quality assurance

All fieldwork was conducted in general accordance with the GHD Standard Field Operating Procedure (SFOP). The SFOP ensures environmental samples were collected by a set of uniform and systematic methods.

The SFOP describes field activities including:

- Implemented decontamination procedures.
- Sample identification procedures.
- Chain of custody information requirements.
- Sample duplicate frequency.

5.1.2 Field quality control

Field quality control procedures used during the project comprised:

Duplicates: These are prepared in the field by duplicating the original sample and placing two equivalent portions into two separate containers. The intra-laboratory duplicate sample is sent to the project laboratory. The duplicate samples were analysed for the identical set of parameters requested for the corresponding original sample. For the duplicate sample pairs, relative percentage differences (RPDs) were calculated. Duplicates provide an indication of the analytical precision of the project laboratory, but may also be affected by factors such as sampling methodology, inherent heterogeneity of the sample medium and different laboratory analytical techniques. Duplicate samples sampled at an overall rate of approximately 10%.

No rinsates were collected during the field works as it was considered that field decontamination procedures were appropriate.

No trip spikes were used during the field works as volatile hydrocarbons were not a contaminant of concern for this site.

5.2 Laboratory quality assurance/quality control

5.2.1 Laboratory quality assurance

The analytical laboratory Envirolab (a NATA accredited testing laboratory) undertook the analyses utilising their own internal procedures and test methods in accordance with their own quality assurance system.

5.2.2 Laboratory quality control

Laboratory quality control procedures used during the project and reported comprised:

- Laboratory Duplicate Samples: Analysis of duplicate sub-samples from one sample submitted for analytical testing and analysis of the samples in the one batch. A laboratory duplicate provides data on the analytical precision (repeatability) of an analytical batch.
- Spiked Samples: A sample is spiked by adding an aliquot of known concentration of the target analyte(s) to the sample matrix prior to sample extraction and analysis. A spike documents the effect of the sample matrix on the extraction and analytical techniques.

- Laboratory Blank: Usually an organic or aqueous solution that is as free of analyte as possible and contains all the reagents in the same volume as used in the processing of the samples. The reagent blank must be carried through the complete sample preparation procedure and contains the same reagent concentrations in the final solution as in the sample solution used for analysis. The reagent blank is used to correct for possible contamination resulting from the preparation or processing of the sample.
- Other internal laboratory quality control procedures, as required for NATA registration, are performed and are not reported by the laboratories. These procedures and results can be provided on request.

5.3 Quality assurance/quality control results

5.3.1 Field QA/QC

One intra-laboratory soil duplicate sample was sent to the primary laboratory for analysis for heavy metals only: AB-S1 / AB-S1 (QA). RPDs were calculated for the duplicated sample as part of the QA/QC program, and are presented in Table A in Appendix C.

No RPD's exceeded 50% as specified in the Roads and Maritime QA specification (2011). Based on a review of the field QA/QC data, it is considered that the analytical results are reasonably representative of conditions at the time of the investigation.

Two intra-laboratory timber samples were sent to the primary laboratory for analysis for heavy metals only: MB-X1 / MB-X1 (QA) and AB-PPB8 / AB-PPB8 (QA). RPDs were calculated for the duplicated samples as part of the QA/QC program, and are presented in Table C in Appendix C.

The RPDs for lead (158%) and zinc (179%) exceeded 50%. The variability in the concentrations is considered to result from both the heterogeneity within the timber samples with regard to depth collected and particle size/woodgrain density, and the weathering processes that the aged timber has undergone. The potential variability in contaminant concentrations was taken into consideration for the interpretation of the analytical results and the highest result was used for assessment against selected criteria. Based on a review of the field QA/QC data, it is considered that the analytical results are reasonably representative of conditions at the time of the investigation.

5.3.2 Laboratory QA/QC

The NATA certified laboratory results sheets, as presented in Appendix D refer to a quality control program comprising the analysis of spikes, method blanks and duplicate samples. The results reported indicate that the laboratory was achieving levels of performance within their recommended control limits during the period when the samples from this program were analysed.

The duplicate sample RPD and matrix spike recoveries for the batch were generally within the laboratory acceptance criteria with the following exceptions:

- The laboratory RPD acceptance criteria exceeded for 129115-13 for Copper, Lead and Zinc, 129115-45 for Zn and 129115-3 for Copper, Nickel and Boron. Therefore a triplicate result was issued.
- Organics (BTEX/TRH/PAH/OC/OP): the PQL was raised due to the light weight of the sample/s and /or high moisture content, which resulted in a high dilution factor.
- Total Recoverable Hydrocarbons and PAHs: Percent recovery was not possible to report as the high concentration of analytes in the sample/s caused interference. The RPD for duplicate results is accepted due to the non-homogenous nature of the sample/s.

- OC/OP: PQL was raised due to interference from analytes (other than those being tested) in the sample/s. Percent recovery was not possible to report due to interference.

Further to this, the PQL raised limit was less than the exceedance criteria of both the Roads and Maritime QA specification (2011) and the Waste Classification Guidelines, *Part 1: Classifying Waste* (NSW EPA 2014).

Based on a review of the laboratory QA/QC data, it is considered that the analytical results are reasonably representative of conditions at the time of the investigation.

6. Assessment Results

6.1 General site conditions

An inspection of the Gee Gee Bridge was completed by an Environmental Scientist from GHD on 2 June 2015. A summary of relevant site observations is presented below:

Main Bridge

- Based on visual observations, numerous bridge pier timbers, piles, girders and stringers (longitudinal bridge beams), and the southern abutment (ABUT B) have been replaced with copper-chromium-arsenic (CCA) treated timber. It is apparent that many of the bridge timbers are original and are likely to have been treated with non-CCA based products which could include heavy metals, pesticide and petroleum constituents (Main Bridge Plates 1, 2, 6, 7, 13,14,15, Appendix B);
- Longitudinal bridge beam, piers, decking and abutment timbers were observed to be generally hardwood with evidence of hand-applied treatment/preservation products (including tarring of the deck) (Main Bridge Plates 4, 5, 6, 12, 13, 20, 21, Appendix B)
- Painted surfaces across the bridge site include those associated with the timber elements of the over-water span and truss. The condition of the paint observed on bridge elements varied from fair to very poor with evidence of significant flaking and degradation common. It is considered highly likely some of the original paint on the bridge structure may contain lead compounds (Main Bridge Plates 3 and 18, Appendix B).

Approach Bridge

- Based on visual observations, numerous bridge pier timbers, piles, girders and stringers (longitudinal bridge beams) have been replaced with CCA treated timber. It is apparent that many of the bridge timbers are original and are likely to have been treated with non-CCA based products which could include heavy metals, pesticide and petroleum constituents (Approach Bridge Plate 1, 4, 5, 12, Appendix B);
- Longitudinal bridge beam, piers, decking and abutment timbers were observed to be generally hardwood with evidence of hand-applied treatment/preservation products (including tarring of the deck). Timber at many locations appeared to be in poor condition (Approach Bridge Plates 2, 3, 5, 6, 9, 10, 11, Appendix B)
- Painted surfaces across the approach bridge site include secondary timber fittings associated with the timber elements of the piers and piles. The condition of the paint observed on bridge elements at the subject site varied from good too fair with evidence of minor flaking and degradation occurring. It is considered that there is a high probability that some of the paint on the added bridge structures may contain lead compounds.
- As mentioned above, a proportion of the timber piers and piles had secondary timber attached at unknown time periods. It is unclear the nature of the additions, though temporary structural stability reasons are likely. Some additional timber elements observed had evidence of deteriorating condition, painted surfaces, and signs of staining (Approach Bridge Plates 15 and 16, Appendix B).

6.2 Soil

6.2.1 Soil profile

Main Bridge

Generally the soil profile under the main bridge consisted of a surface covering of re-worked brown sandy silty clay with gravels to depth of 0.2 m below ground level (bgl) (maximum depth of boreholes). Boreholes did not extend through to undisturbed natural soils as they were completed within the abutment area and adjacent to piers. Sampling was limited to surface soil to ascertain possible contamination issues related to offsite transport to nearby sensitive receivers (the Wakool River system).

Based on field observations, it is considered the fill sampled in abutment area and immediately adjacent to piers. Was representative of re-worked onsite material (local borrow) used to backfill the area behind the bridge abutment and form the associated embankment area.

Approach Bridge

Generally the soil profile consisted of a surface covering of re-worked brown silty clays with sand and gravel to depth of 0.2 m below ground level (bgl) (maximum depth of boreholes). Boreholes did not extend through to natural soils as they were completed within the abutment and embankment area associated with the Approach bridge.

Based on field observations, it is considered that the majority of fill at the site was representative of re-worked site material (local borrow) that was used to backfill the area behind the bridge abutment and form the associated embankment area.

6.2.2 Soil analytical results

The results of the sample analysis are presented in Tables A to E in Appendix C and copies of the laboratory certificates are presented in Appendix D.

Heavy metals

Concentrations of heavy metals in soil samples analysed were either below the limit of reporting (LOR) or below the assessment criteria.

Polycyclic Aromatic Hydrocarbons (PAHs)

All samples analysed for PAHs reported concentrations either below the LOR or the assessment criteria with the exception of the following:

Approach Bridge soil samples AB-S5, AB-S6 and AB-S8 which reported a benzo(a)pyrene (BaP) concentrations of 1.3 mg/kg, 1.4 mg/kg and 1.9 mg/kg respectively which is above the ESL public open space for fine soil textures (0.7 mg/kg). These minor exceedances are not considered to pose a risk to ecological receptors, as the NEPM states these are low reliability values, with the SA EPA already publically stating the BaP EILs are unrealistic and the human health criteria (HIL) for BaP TEQ of 3 mg/kg (public open space) should be adequate protective of ecological values.

OCPs/OPPs

Concentrations of OCPs and OPPs reported concentrations below the LOR in all samples analysed.

Asbestos

Asbestos was not detected in any of the samples analysed.

6.2.3 Indicative waste classification

In accordance with the *Waste Classification Guidelines, Part 1: Classifying Waste* (NSW EPA 2014) soils were classified as General Solid Waste with the exception of the following:

- Soils from the approach bridge piers (AB-S5, AB-S6 and AB-S8) are classified as Restricted Waste based on concentrations of benzo(a)pyrene above 0.8 mg/kg.
- Soils from the approach bridge piers at specifically AB-S7, which are classified as Restricted Waste based on concentrations of lead (CT1 – 130 mg/kg).

Additional leachate testing on these samples would likely reduce the Restricted Solid Waste classification to General Solid Waste for the soils.

6.3 Timber

6.3.1 Site observations and sampling restrictions

A general site inspection was conducted prior to undertaking sampling of timber with. inaccessible bridge components and visual assessment of possible issues recorded. Outlined below are the observations and sampling restrictions recorded during the inspection.

Main Bridge

- Pier 1 – No capwale sampled (steel)
- Pier 2 - No capwale sampled (height restrictions)
- Pier 5 - No capwale sampled (height restrictions)
- Truss cross members were visually observed to have lead paint.
- The southern abutment (ABUT B) appeared to have been replaced at a later stage of construction and CCA treated timber was visually observed. No sample was taken at the southern abutment. The northern abutment (ABUT A) had distinct staining throughout each timber member. Samples were taken at random heights at two representative sections.

Approach Bridge

- Pier 1 (AB-P1) – observed oil staining.
- Pier 3 (AB-P2) - lower capwale sampled. Top capwale was not sampled (steel support structures retro-fitted)
- Pier 5 (AB-P3) - lower capwale sampled. Top capwale was new/treated
- Pier 7 (AB-P4) – top capwale sampled. Square piers sampled with observations of oil staining and run-off.
- Pier 9 (AB-P5) - Centre pier sampled, bottom capwale sampled, oldest looking cross brace sampled
- Pier 11 (AB-P6) - Centre pier sampled, oldest looking cross brace sampled. No capwale sampled (WHS issues and accessibility restrictions).
- Pier 13 (AB-P7) – top capwale sampled, Pier Pile Bracing sampled, piers replaced, western pier sampled.
- Pier 15 (AB-P8) - top capwale sampled, PPB sampled, eastern pier sampled

- Abutments had distinct staining throughout each timber member. Samples were taken at random heights at two representative sections of each abutment.

All recently replaced timbers for both bridges are considered to have been treated with CCA based on observation of green coloured staining.

Sampling locations are found in Figures 2.1 – 2.9, Appendix A

Photographs are presented in Appendix B.

6.3.2 Bridge sections not inspected

Certain bridge components that were inaccessible due to WHS concerns or bridge design were not inspected. Bridge elements not sampled on the Approach Bridge were under sampling scope as agreed upon between GHD and RMS as outlined in Section 1.4 of this report. Bridge elements not inspected included:

Main bridge

- Piers 3 and 4 (accessibility restrictions)
- Longitudinal bridge decking and cross decking (accessibility restrictions)
- Stringers (accessibility restrictions)
- Top chords of the truss (accessibility restrictions)
- Bridge cross girders (accessibility restrictions)

Approach Bridge

- Piers 2, 4, 6, 8, 10, 12, 14 and 16 (Sampling scope as per the proposed and agreed upon by GHD and RMS outlined in Section 1.4 of this report)
- Stringers (
- Butting blocks
- Secondary timber footings
- Additionally added timber chocks, butting blocks, TOMs and steel structures

A number of bridge components comprised replaced timbers after original construction (RMS supplied bridge data - Appendix A). Known replaced timbers were considered pre-classified as General Solid Waste (non-putrescible) as per inclusions in the “building and demolition waste” category of the *Waste Classification Guidelines, Part 1: Classifying Waste* (NSW EPA 2014). Visually verified CCA timber was also considered pre-classified as per these guidelines.

6.3.3 Timber analytical results

Heavy metals

Concentrations of heavy metals were either below the limit of reporting (LOR) or below the Roads and Maritime ACRC assessment criteria with the exception of the following:

- Arsenic concentrations in MB-AB1 (abutment), MB-D1, MB-D4 and MB-D5 (decking) and MB-FD2, MB-FD3, MB-SD1, MB-SD4, MB-Pr1 and MB-Pr3 (truss) samples ranging from 8mg/kg (MB-AB1) to 3,500 mg/kg (MB-Pr3) which are above the RMS ACRC of 6 mg/kg.

Total chromium concentrations in MB-AB1 (abutment), MB-D1, MB-D3, MB-D4 and MB-D5 (decking) and MB-FD2, MB-FD3, MB-SD1, MB-SD4, MB-Pr1 and MB-Pr3 (truss) samples ranged from 6 mg/kg (MB-AB1) to 3,400 mg/kg (MB-Pr3).

Volatile hydrocarbons (TRH C_6 – C_{10} and BTEX)

Concentrations of total recoverable hydrocarbons (TRH C_6 – C_{10}) and BTEX were recorded below the LOR for all samples analysed.

Total recoverable hydrocarbons (TRH C_{10} – C_{40})

Concentrations of total recoverable hydrocarbons (TRH C_{10} – C_{40}) were above the LOR in most all timber samples analysed with concentrations ranging from <150 mg/kg to 1,300 mg/kg for TRH C_{10} – C_{16}, <200 mg/kg to 23,000 mg/kg for TRH C_{16} – C_{34} and <200 mg/kg to 3,500 mg/kg for TRH C_{34} – C_{40}. Whilst there are no RMS ACRC for TRH, these samples are classified as General Solid Waste as per the the Waste Classification for TRH C_{10} – C_{36} of 100,000 mg/kg.

Polycyclic Aromatic Hydrocarbons (PAHs)

The majority of timber samples analysed for total PAHs reported concentrations above the LOR with several samples above the Roads and Maritime ACRC criteria (5 mg/kg) including the following:

- MB-AB1 and MB-AB2 (ABUT A) with concentrations of 4,600 mg/kg and 6,900 mg/kg respectively
- MB-P1, MB-P2 and MB-P3 (piers) with concentrations between 1,900 mg/kg and 12,000 mg/kg respectively
- MB-PPB1 and MB-PPB3 (pier pile bracing) with concentrations of 1,200 mg/kg and 25 mg/kg respectively
- AB-AB1 to AB-AB4 (abutments) with concentrations between 920 mg/kg and 3,500 mg/kg
- AB-P1 to AB-P3 and AB-P5 to AB-P8 (piers) with concentrations between 7.6 mg/kg and 4,600 mg/kg
- AB-PC1 and AB-PC3 to AB-PC5 and AB-PC7 and AB-PC8 (pier capwales) with concentrations between 20 mg/kg and 120 mg/kg
- AB-PPB6 to AB-PPB8 (pier pile bracing) with concentrations between 15 mg/kg and 33 mg/kg
- AB-PPP1 to AB-PPP5 (pier pile posts) with concentrations between 17 mg/kg and 60 mg/kg

OCPs/OPPs

Concentrations of OCPs and OPPs were reported below the LOR and the Roads and Maritime ACRC assessment criteria in all timber samples analysed. Samples MB-AB1 and MB-AB2 (abutments), MB-P1 (pier) and AB-AB1 to AB-AB4 (abutments) recorded concentrations of Chlorpyrifos ranging between 6.4 mg/kg and 60 mg/kg above the LOR, however these were still below the Roads and Maritime ACRC of 4,700 mg/kg.

Asbestos (visual)

Potential ACM was not observed during collection of any of the samples.

6.3.4 Timber waste classification

Waste classification criteria for timber bridge components that are not to be re-used and may require offsite disposal have been adopted from the *Waste Classification Guidelines, Part 1: Classifying Waste* (NSW EPA 2014).

Timbers from bridge demolition are pre-classified as General Solid Waste (non-putrescible) as per inclusions in the “building and demolition waste” category, and as outlined within the Roads and Maritime QA specification for recycling bridge timbers.

6.3.5 Timber re-use

In accordance with the Roads and Maritime QA Specification of Bridge Timbers (2011) regarding re-use of bridge timbers a directive is given that reuse options (where applicable) is to either:

- Reprocess and beneficial reuse of timber elements for bridge construction, or
- Stockpile the timber elements onsite for later beneficial re-use or sale ensuring there is appropriate signage and security in place.

From the assessment, no timber components were classified as Scheduled Chemical Waste, and therefore, under the Roads and Maritime QA Specification of Bridge Timbers (2011) direction, are classified as General Solid Waste for timber reuse purposes.

6.4 Lead Paint

Potential lead based paint systems in poor condition (flaking and chalking) were observed on the main bridge with samples collected from the kerbs, rails and posts (Main Bridge Plates 3 and 18, Appendix B).

The Waste Classification Guidelines, Part 1: Classifying Waste (NSW EPA 2014) pre-classifies “lead paint waste arising otherwise than from residential premises or educational or child care institutions” as hazardous waste. It is understood that timbers with lead-based paint are pre-classified as General Solid Waste. However, if the paint is removed from the timber, the paint residue is classified as Hazardous Waste.

Lead percentages in paint samples exceeded 1% w/w in five of the 12 samples collected including the following:

- Posts – MB-Po3, MB-Po6 and MB-Po12 with levels between 4.7% and 9.5%.
- Rails – MB-R8 and MB-R11 with levels between 8.4% and 9.1%.

7. Discussion

7.1 Soil

7.1.1 Soil contamination assessment

Surface soil samples were collected from 15 locations including five from the main bridge and ten from the approach bridge to target soils adjacent to bridge piers and abutments. No hydrocarbon odours, chemical staining or seepage were noted at any of the hand auger locations.

The analytical results for soils sampled at the Main Bridge (heavy metals, asbestos, PAHs, OCPs and OPPs) indicate that the concentrations for all contaminants of concern were below the applicable assessment criteria for the site.

The analytical results for soils sampled at the Approach Bridge (heavy metals, asbestos, PAHs, OCPs and OPPs) indicated an exceedance of benzo(a)pyrene (B(a)P) at three of the ten soil samples, AB-S5, AB-S6 and AB-S8 which reported B(a)P concentrations of 1.3 mg/kg, 1.4 mg/kg and 1.9 mg/kg respectively, which is above the ESL public open space for fine soil textures of 0.7 mg/kg. However, these minor exceedances are not considered to pose a risk to ecological receptors, as the NEPM states these are low reliability values, with the South Australia EPA (SA EPA) already publically stating the BaP EIL of 0.7 mg/kg is unrealistic and the human health criteria (HIL) for B(a)P of 3 mg/kg (public open space) should be adequately protective of ecological values.

Based on the soil results it is considered that there is a low potential for significant soil contamination associated with the bridge components to pose a risk to human health and/or the environment for the proposed land use (ongoing road corridor/infrastructure). Further, there is a low potential for soil impact to have migrated towards the Wakool River or impacted groundwater beneath the site.

7.1.2 Soil waste classification

Comparison of the soil results to *Waste Classification Guidelines, Part 1: Classifying Waste* (NSW EPA 2014) indicate soils would most likely be classified as General Solid Waste if required to be disposed offsite with the exception of soil materials from the approach bridge piers (AB-S5, AB-S6, AB-S7 and AB-S8) which would be classified as Restricted Solid Waste based on B(a)P and lead concentrations. However additional leachate testing (TCLP) on these samples would likely reduce the Restricted Solid Waste classification to General Solid Waste.

It is noted that the concentrations of OCPs and OPPs included in the Scheduled Chemical Waste classification of bridge soils and/or timber (Roads and Maritime QA Specification, 2011) in sampled soils were less than the Scheduled Chemical Waste (SCW) criteria of the same Roads and Maritime specification.

7.2 Timber

7.2.1 Timber re-use assessment (Roads and Maritime ACRC)

Forty nine timber samples (including QA/QC) were collected from the Gee Gee Bridge including 21 from the Main Bridge and 28 from the Approach Bridge to target timber bridge components for re-use and were compared against the ACRC criteria outlined in the Roads and Maritime QA Specification Recycling Bridge Timber (2011).

Representative sampling was conducted across both bridges. Every second pier of the Approach Bridge was sampled starting from Pier 1. The sampling scope allowed for classification of bridge components in their entirety based on results from independent sampling of timber pier structures (piles, pier pile bracings, capwales, sheeting, etc).

It was observed the adjacent piers to those sampled would have a high likelihood of encompassing highly comparable analytical concentrations. Bridge historical data and field observations confirmed this.

Staining was observed on Pier 1 and Pier 13 of the approach bridge. No asbestos was noted during the bridge sampling.

The analytical results (heavy metals, TRH, BTEX, PAHs, OCPs and OPPs) indicate that the concentrations for all contaminants of concern were generally below the RMS ACRC with the exception of the following:

- Arsenic concentrations in the timbers sampled from the main bridge -Abutment A, decking timbers and truss timbers including diagonals and principals with concentrations ranging from 8 mg/kg to 3,500 mg/kg which are above the Roads and Maritime ACRC of 6 mg/kg.
- PAHs (total) concentrations in timbers sampled from the main bridge Abutment A, piers 1, 2 and 3 and pier pile bracing (piers 1 and 3) with concentrations ranging from 25 mg/kg to 12,000 mg/kg which are above the RMS ACRC for PAHs of 5 mg/kg.
- PAHs (total) concentrations in timbers sampled from both approach bridge abutments, piers 1 to 5 and piers 13 to 16, pier capwales, pier pile bracing and pier pile posts with concentrations ranging from 7.6 mg/kg to 3,500 mg/kg which are above the RMS ACRC for PAHs of 5 mg/kg.

Total chromium concentrations in the timbers sampled from the main bridge Abutment A, decking timbers and truss timbers including diagonals and principals with concentrations ranging from 6 mg/kg to 3,400 mg/kg. The total chromium results may indicate results above the RMS ACRC for Chromium (VI) of 5 mg/kg. Additional Chromium speciated testing on these samples is recommended.

It is noted that the concentrations of OCPs and OPPs included in the Scheduled Chemical Waste classification of bridge soils and/or timber (Roads and Maritime QA Specification, 2011) in sampled timbers were less than the Scheduled Chemical Waste (SCW) criteria of the same Roads and Maritime specification.

This pre-demolition assessment indicates that if the above timbers are considered suitable for recycling/reuse, they may require processing (i.e. initial milling/removal of outer layers/ unsuitable timber) for removal of the contaminants and compliance to the ACRC.

Typical bridge elements that may not be recyclable in accordance with Roads and Maritime QA Specification Recycling of Bridge Timber (2011) include:

- Timbers that have been in ground contact (e.g. the base of bridge and abutment piles and abutment sheets) due to unsuitable moisture content, the presence of dirt/grit or decay
- Road deck/Running boards due to unsuitable dimensions, the presence of asphalt pavement
- Timbers with lead-based paint: due to health and waste stream management considerations
- Damaged timbers (e.g. termite attack, fungal decay, piping, significant cracks/splits, bolt holes)

- Timbers considered having a high likelihood of significant concentrations of COPC, such as pesticide applications.
- Timbers that are considered to be non-recyclable by the commercial recycling facility will require appropriate management and disposal.

7.2.2 Waste classification for timber disposal

NSW EPA 2014 has pre-classified timber bridge components that may require offsite disposal as General Solid Waste under “building and demolition waste” (which includes materials resulting from the construction, replacement, repair or alteration of infrastructure development).

Based on communication between the NSW EPA and RMS, it is understood that timbers with lead-based paint are also pre-classified as General Solid Waste. However, if the paint is removed from the timber, the paint residue is classified as Hazardous Waste.

7.3 Lead based paint

Potential lead based paint systems were observed on the posts, curbs and rails of the main Gee Gee Bridge. Twelve paint samples were collected and analysed for lead.

Lead percentages in paint samples exceeded 1% w/w in five of the 12 samples collected from the posts and rails. It is considered that there a potential exposure risk from lead paint on these bridge components that is disturbed during demolition works. The selection of the most appropriate control measure should be determined by risk assessment and detailed knowledge of the workplace and activities.

The options for management of the lead paint usually include:

Do Nothing: This is an option when the lead paint is in sound condition and does not need to be disturbed and is generally only applicable to lead paint that is not directly accessible or where the lead is in underlying layers of paint, painted over with lead-free paint.

Stabilizing: This option usually involves over paint using lead-free paint, or by covering it (encapsulation) and can provide an interim to long-term solutions to a lead paint hazard.

Abatement: Lead paint abatement involves the suppression, reduction or elimination of the hazard from the structure. Abatement is necessary if the lead paint presents a hazard in its present state, and if encapsulation is either not viable due to the poor condition of the surface or is not considered for other reasons.

The *Waste Classification Guidelines, Part 1: Classifying Waste* (NSW EPA 2014) pre-classifies “lead paint waste arising otherwise than from residential premises or educational or child care institutions” as Hazardous Waste. It is understood that timbers with lead-based paint are pre-classified as General Solid Waste. However, if the paint is removed from the timber, the paint residue is classified as Hazardous Waste.

7.4 Summary of classification

Table 3 below outlines a summary of the bridge components for both the main bridge and the approach bridge.

Table 3 Bridge classification

Basis of investigation	Bridge component	Roads and Maritime QA Spec classification for timber reuse (ACRC)	Offsite Disposal Classification – timber and soils
Timber			
Main Bridge	Pier 1	Recyclable	GSW
	Pier 2	Recyclable	GSW
	Pier 3	Recyclable	GSW
	Pier 4	Recyclable	GSW
	Pier 5	Recyclable	GSW
	Abutment A	Recyclable	GSW
	Abutment B	Recyclable	GSW
	Decking	Recyclable	GSW
	Truss	Recyclable	GSW
	Post, Rails, Kerbs	Non-recyclable	GSW
Approach Bridge	Pier 1	Recyclable	GSW
	Pier 2	Recyclable	GSW
	Pier 3	Recyclable	GSW
	Pier 4	Recyclable	GSW
	Pier 5	Recyclable	GSW
	Pier 6	Recyclable	GSW
	Pier 7	Recyclable	GSW
	Pier 8	Recyclable	GSW
	Pier 9	Recyclable	GSW
	Pier 10	Recyclable	GSW
	Pier 11	Recyclable	GSW
	Pier 12	Recyclable	GSW
	Pier 13	Recyclable	GSW
	Pier 14	Recyclable	GSW

Basis of investigation	Bridge component	Roads and Maritime QA Spec classification for timber reuse (ACRC)	Offsite Disposal Classification – timber and soils
	Pier 15 Pier 16 Abutment A Abutment B	Recyclable Recyclable Recyclable Recyclable	GSW GSW GSW GSW
Paint			
Main Bridge	Posts, rails, kerbs Truss (bonded)	Non-recyclable (lead based paint) Recyclable	HW GSW
Soil			
Main Bridge	Piers (1-5)[1] Abutment A Abutment B	Non applicable Non applicable Non applicable	GSW GSW GSW
Approach Bridge	Piers (1-4)[1] Piers (5-8)[1] Piers (9-16)[1] Abutment A Abutment B	Non applicable - Non applicable Non applicable Non applicable Non applicable	GSW RSW GSW GSW GSW

[1] soils are surface samples at ground level adjacent to the pier.

In addition to Table 3, as per the RMS QA specification, some timber bridge elements may not be suitable for recycling, these include;

- Timbers that have been in ground contact (e.g. the base of bridge and abutment piles and abutment sheets) as they may have unsuitable moisture content, or the presence of dirt/grit may make processing difficult or may be decayed;
- Road deck/Running boards: the dimensions of the timbers may be insufficient to provide a ‘marketable’ recycled product. The presence of asphalt pavement may also preclude recycling;
- Timbers with lead-based paint: due to OH&S and waste stream management considerations
- Damaged timbers (e.g. visible termite attack, fungal decay, piping, etc); and
- Timbers that are considered to have a high likelihood of significant concentrations of contaminants such as Pesticide Application Point (PAPs).

8. Conclusions and recommendations

GHD was engaged by NSW Roads and Maritime Services (Roads and Maritime) to undertake a bridge contamination assessment and waste classification as part of a bridge replacement REF project at Gee Gee Bridge.

The objectives of the contamination assessment were to identify the presence of contaminated materials (timbers, soils and lead paint systems) at accessible portions of the bridge, assess the risk to human health or to the environment during demolition of the bridge, assess appropriate reuse/disposal strategies with regard to RMS specifications and NSW EPA guidelines and determine a waste classification for bridge waste materials should disposal offsite be required.

In accordance with the NSW EPA / RMS waste management protocols it is understood that the preferred options for disposal of bridge materials (timber/soils) at the site include reuse and recycling rather than disposal off site to landfill. The preferred options for waste management at the site would be:

- Reuse of materials on-site where possible;
- Transport of materials to recycling/processing facilities; or
- Disposal at an appropriately licensed landfill facility.

Demolition and disposal activities that will disturb contaminated materials would require appropriate waste management practices to control the risk of impacts to the health and safety of site personnel and the public and protection of the environment.

8.1 Soils

The analytical results (heavy metals, asbestos, PAHs, OCPs and OPPs) indicate that the concentrations for all contaminants of concern recorded were below the assessment criteria (public open space land use) except for Approach Bridge soil samples collected immediately adjacent to piers 5, 6 and 8 (samples AB-S5, AB-S6 and AB-S8) which marginally recorded benzo(a)pyrene level greater than the ecological screening criteria for public open space. It is considered that there is a low potential for soil contamination to pose a risk to human health and/or the environment for the proposed land use (ongoing road corridor/infrastructure) across the site. Furthermore, there is a low potential for soil impact to have migrated towards the Wakool River or impacted groundwater beneath the Site. The minor B(a)P exceedances are not considered to pose a risk to ecological receptors, as the NEPM states these are low reliability values, with SA EPA already publically stating the BaP EILs are unrealistic and the human health criteria (HIL) for BaP of 3 mg/kg (public open space) should be adequate protective of ecological value.

Soils from the approach bridge pier, specifically at AB-S7, indicated an exceedance of lead, which reported a concentration of 130 mg/kg. This is over the CT1 specific contaminant concentration (SCC) without TCLP for waste classification as General Solid Waste.

Based on the current data, soils can remain in-situ as necessary for the demolition of the bridge. If excavation is required and soils are disturbed, soils should not be placed or re-used within the flood-plain area of the site.

Should off-site disposal be required, soils will be classified as General Solid Waste with the exception of soils disturbed at sample locations AB-S5, AB-S6, AB-S7 and AB-S8 which will require disposal under Restricted Solid Waste classification. However, additional leachate sampling of these soils could reduce waste classification from Restricted Solid Waste to General Solid Waste.

Additional sampling and waste classification may be required once stockpile volumes for disposal are known to ensure representative samples are collected of the material.

8.2 Timbers

Representative sampling was carried out across the bridge structures. The sampling scope allowed for classification of piers, abutments, decking and truss structures in their entirety based on results from sampling of encompassing timber elements (piles, pier pile bracings, capwales sheeting, etc). Where applicable, an encompassing classification has been adopted for Piers and other bridge components with a multitude of timber structure and compared against Roads and Maritime QA Specification of Recycling Bridge Timber ACRC (2011) and NSW EPA *Waste Classification Guidelines Part 1: Classifying waste* (2014).

Bridge timber elements that were unable to be sampled have the following recommended suitability:

- Piers 3 and 4 of the main bridge are considered similar waste classification to sampled main bridge piers due to bridge construction and age of timbers.
- Longitudinal bridge decking and cross decking, stringers and cross girders are considered to be of similar waste classification to sampled bridge timber due to construction and age of timbers.
- Piers 2, 4, 6, 8, 10, 12, 14, 16 of the approach bridge are considered similar classification to sampled approach bridge piers due to bridge construction and age of timbers.
- Stringers, butting blocks, secondary timber footings, and additional timber chocks of the approach bridge are considered the same classification as the sampled pier timbers as they have formed part of the current pier structure.

NSW EPA 2014 has pre-classified timber bridge components that may require offsite disposal as General Solid Waste under “building and demolition waste” (which includes materials resulting from the construction, replacement, repair or alteration of infrastructure development).

During demolition, and prior to removal, visual inspections of timber should be undertaken to ensure the classification as provided in this report is accurate. If classification is not considered accurate, then additional sampling and analysis should be conducted. Additional sampling and analysis of all non-sampled bridge elements, which have not been classified, should be conducted after demolition and prior to removal.

In accordance with the Roads and Maritime QA Specification Recycling Bridge Timber (2011) all sampled timbers of the Gee Gee Bridge are classified as suitable for recycling with the exception of the posts, rails and kerbs of the Main Bridge that have flaked and/or chalked lead paint. Timbers with lead paint will need to be managed suitably. Section 8.3 below outlines appropriate management options in accordance with Australian Standard AS4361.2 1998 Guide to Lead Paint Management Part 1: Residential & Commercial Buildings.

8.2.1 Timber disposal management options

Based on the specifications provided by Roads and Maritime in the QA Specification Recycling Bridge Timber (2011) the following management options would be suitable for disposal of waste timber at the Gee Gee Bridge site:

Main Bridge piers, abutments and decking

- May be sent to landfill under the correct waste stream classification (General Solid Waste)

Approach bridge piers, abutments

- May be sent to landfill under the correct waste stream classification (General Solid Waste)

Other timbers (including components not sampled)

- Further sampling and analysis to occur post bridge demolition on bridge components not sampled or subsequently classified should be undertaken where required.
- Stockpile and/or store for future Roads and Maritime use where results indicate SCWs are not present in timbers.

8.3 Paint

Lead based paint systems were identified on the posts, rails and kerbs of the main bridge. Visual observations were made on the Dare style truss of the main bridge of possible lead paint underneath the surface coat.

All lead based paint systems observed flaking or chalking or likely to be disturbed by demolition or refurbishment works should be removed or over painted at the site in accordance with the Australian Standard AS4361.2 1998 Guide to Lead Paint Management Part 1: Residential & Commercial Buildings.

Following finalisation of the proposed work techniques and scope for demolition of the bridge, RMS should consider undertaking a detailed risk assessment of lead paint risk during the demolition project. The risk assessment and recommended controls should assume that the lead based paint systems observed will be disturbed during demolition.

Materials containing bonded lead based paint (painted bridge materials) can be disposed of as General Solid Waste. However loose lead paint waste from commercial or industrial premises is pre classified as Hazardous Waste under the *Waste Classification Guidelines, Part 1: Classifying Was*te (NSW EPA 2014).

9. References

NEPC (2013). National Environment Protection (Assessment of Site Contamination) Measure (NEPM), 1999 as amended by the National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1).

NSW EPA Guidelines for consultants reporting on contaminated sites (2011)

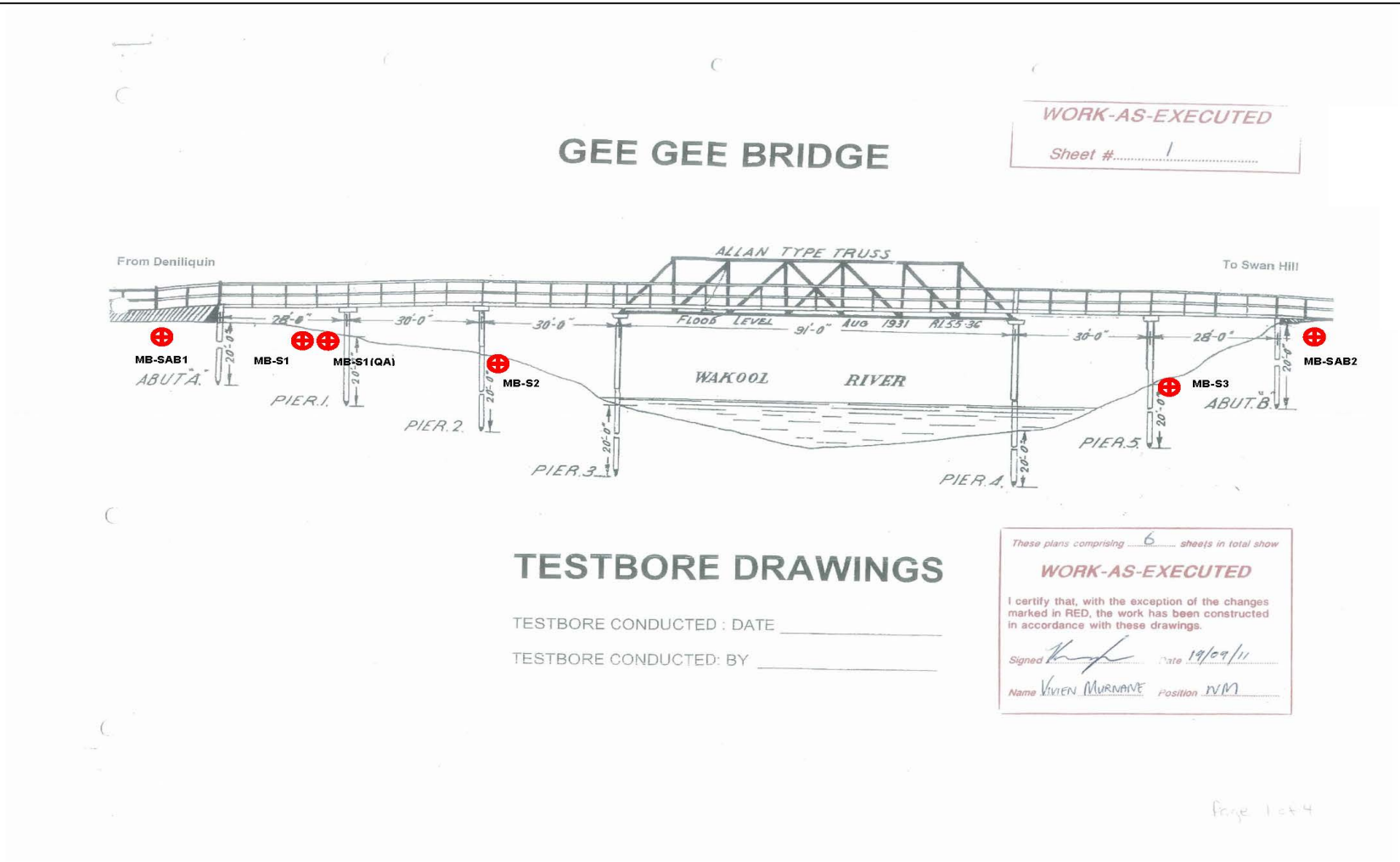
NSW EPA Waste Classification Guidelines Part 1: Classifying waste (2014)

Roads and Maritime QA Specification Recycling of Bridge Timber (2011).

The Guide to Lead Paint Management. Part 1: Residential and Commercial Buildings (AS4361.2-1998)

Appendices

Appendix A – Figures



SOURCE: GHD

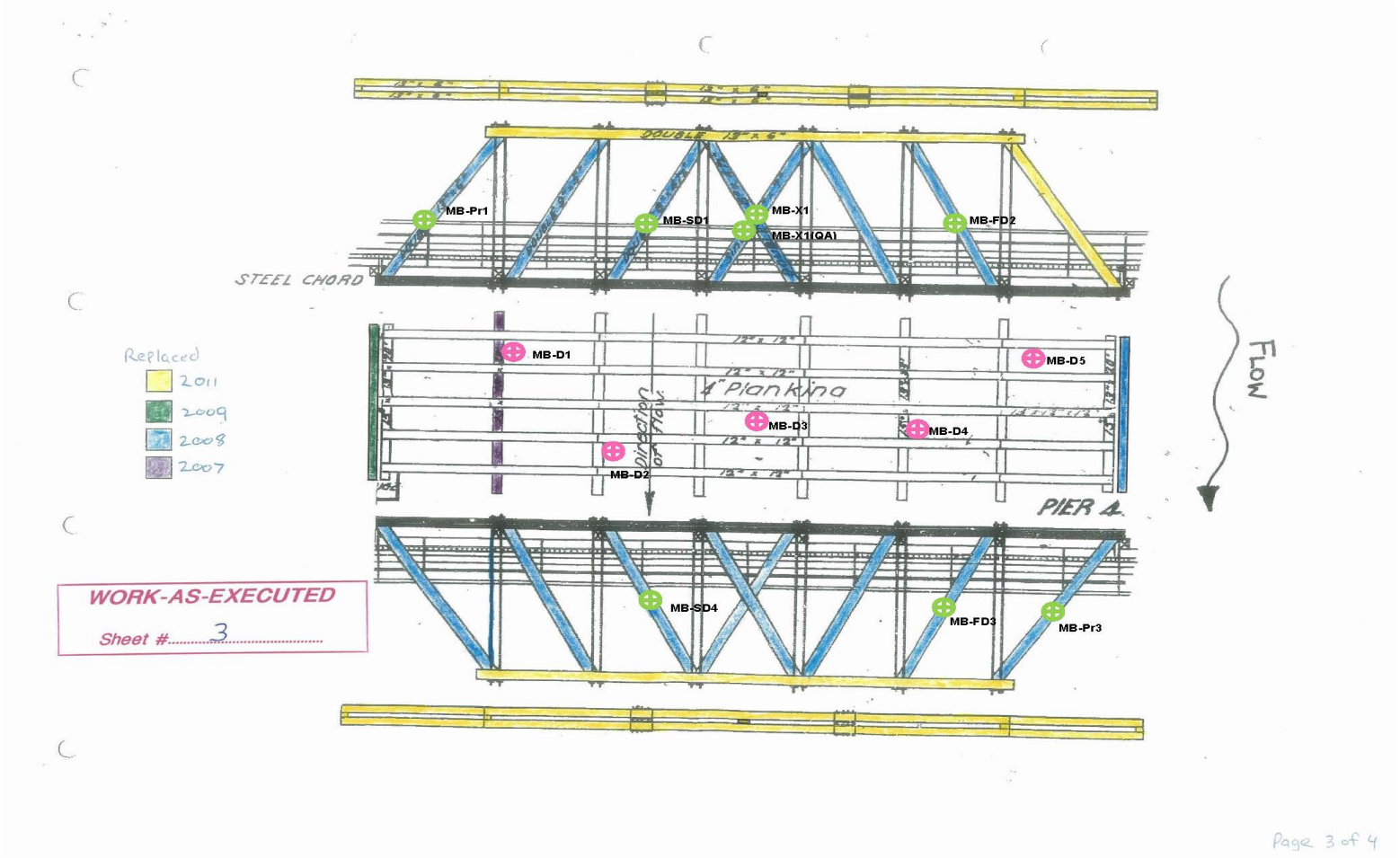
Key: Soil samples

Gee Gee Bridge Contamination Assessment

Job Number	23-15324
Revision	0
Date	04 Nov 2015

Main Bridge Sample Locations Figure 2.1

Level 3, 161-169 Baylis Street Wagga Wagga NSW 2650 **T** 61 2 6923 7400 **E** sydmail@ghd.com.au **W** www.ghd.com.au



SOURCE: GHD

Key:

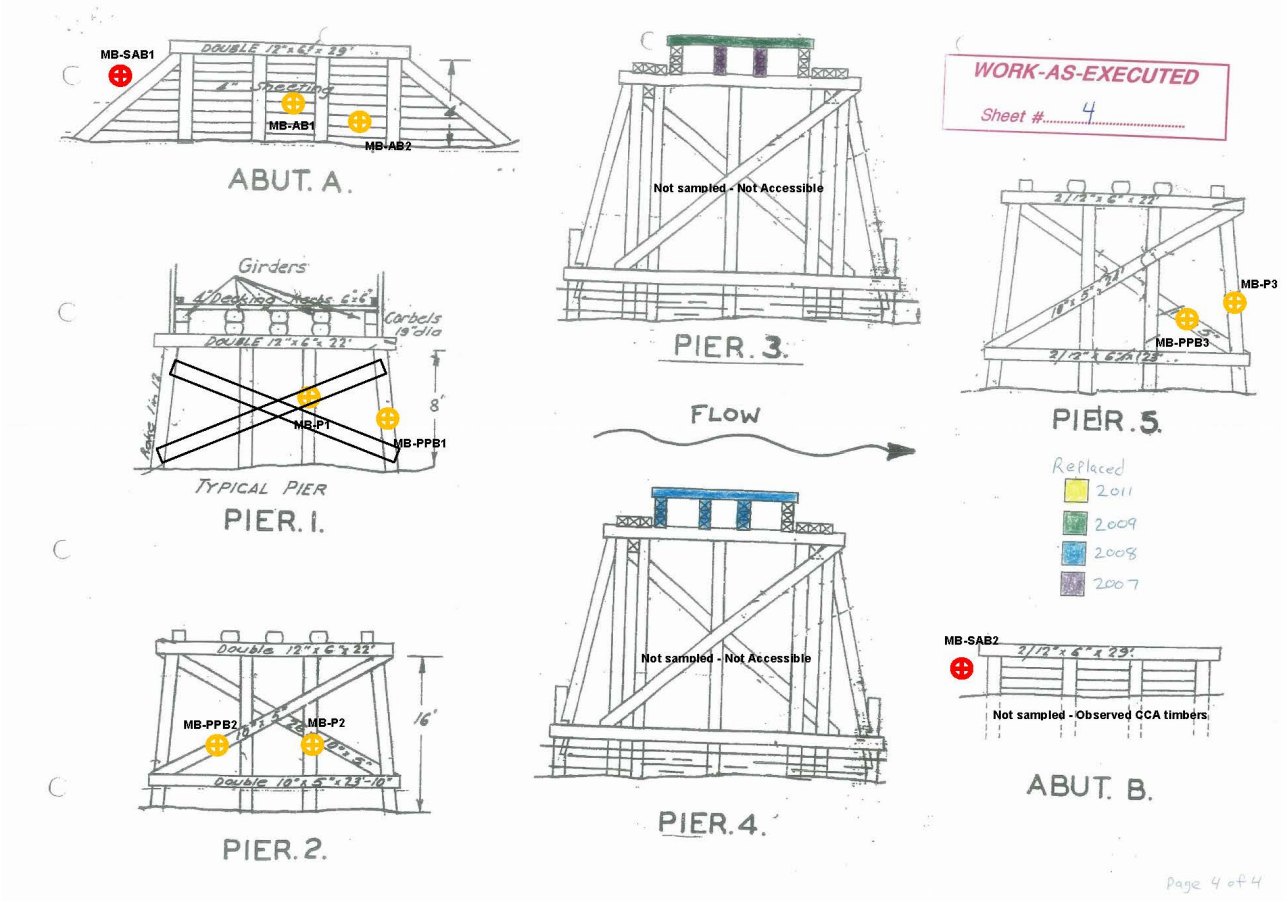
- Truss timber samples
- Decking timber samples

Gee Gee Bridge Contamination Assessment

Job Number	23-15324
Revision	0
Date	04 Nov 2015

Main Bridge Sample Locations **Figure 2.2**

Level 3, 161-169 Baylis Street Wagga Wagga NSW 2650 **T** 61 2 6923 7400 **E** sydmail@ghd.com.au **W** www.ghd.com.au



SOURCE: GHD

Key:
- Timber samples
- Soil samples

Gee Gee Bridge Contamination Assessment

Job Number	23-15324
Revision	0
Date	04 Nov 2015

Main Bridge Sample Locations Figure 2.3

Level 3, 161-169 Baylis Street Wagga Wagga NSW 2650 **T** 61 2 6923 7400 **E** sydmail@ghd.com.au **W** www.ghd.com.au

SOURCE: GHD

N

0 20 40 60 80 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

Note:

* See Figures 2.5-2.7 for further detailed sample locations

GHD

Gee Gee Bridge Contamination Assessment

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Date	04 Nov 2015

Approach Bridge Sample Locations Figure 2.4

Level 3, 161-169 Baylis Street Wagga Wagga NSW 2650 **T** 61 2 6923 7400 **E** sydmail@ghd.com.au **W** www.ghd.com.au

SOURCE: GHD

Key: ⊕ Timber samples

N

GHD

Gee Gee Bridge Contamination Assessment

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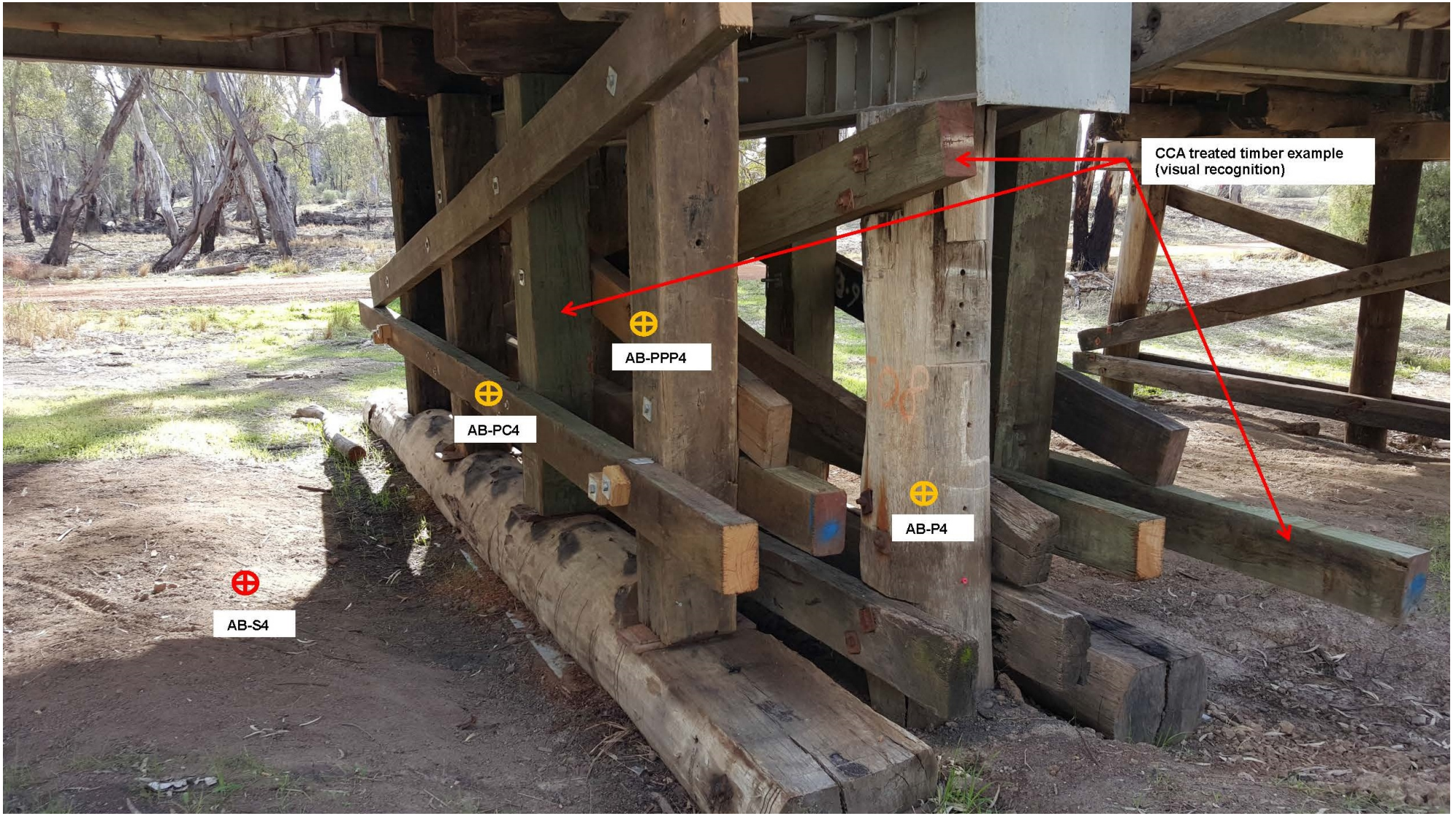
Date	04 Nov 2015

Approach Bridge Example Abutment Sampling (Abutment B)

Figure 2.5

Level 3, 161-169 Baylis Street Wagga Wagga NSW 2650 **T** 61 2 6923 7400 **E** sydmail@ghd.com.au **W** www.ghd.com.au



SOURCE: GHD

Key: Timber samples

Soil samples

Gee Gee Bridge Contamination Assessment

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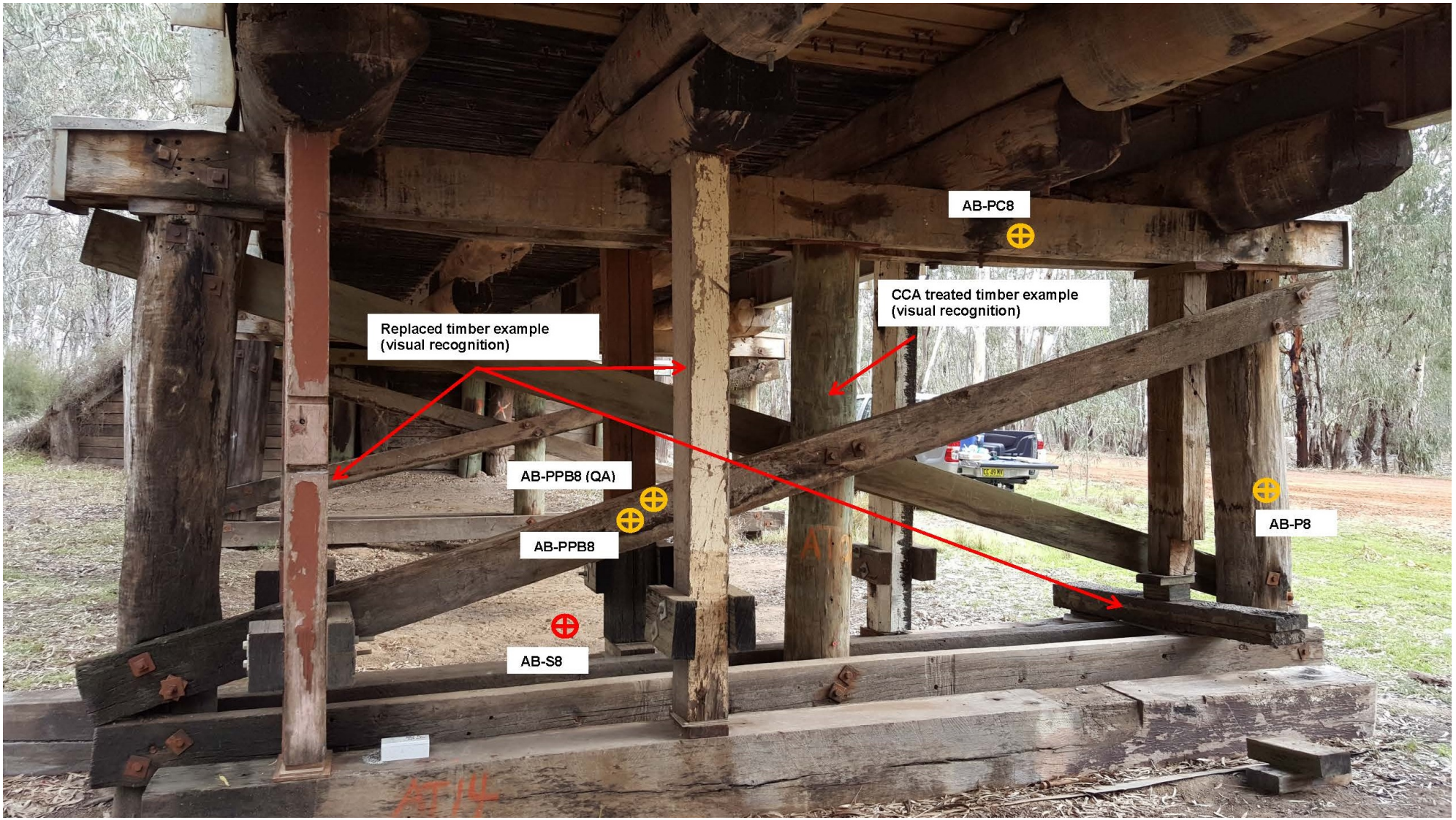
Revision 0
Date 04 Nov 2015

Approach Bridge Example Pier Sampling (Pier 9 shown)

Figure 2.6

Level 3, 161-169 Baylis Street Wagga Wagga NSW 2650 **T** 61 2 6923 7400 **E** sydmail@ghd.com.au **W** www.ghd.com.au



SOURCE: GHD

N

Key:
- Timber samples
- Soil samples

Gee Gee Bridge Contamination Assessment

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Approach Bridge Example
Pier Sampling (Pier 15 shown)

Figure 2.7

Level 3, 161-169 Baylis Street Wagga Wagga NSW 2650 **T** 61 2 6923 7400 **E** sydmail@ghd.com.au **W** www.ghd.com.au

SOURCE: GHD

Key: Lead paint samples

N

Gee Gee Bridge Contamination Assessment

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Main Bridge Lead Paint Sampling

Figure 2.8

Level 3, 161-169 Baylis Street Wagga Wagga NSW 2650 **T** 61 2 6923 7400 **E** sydmail@ghd.com.au **W** www.ghd.com.au

SOURCE: GHD

Key: ⊕ Lead paint samples

N

Gee Gee Bridge Contamination Assessment

Job Number	23-15324
Revision	0
Date	04 Nov 2015

Main Bridge Lead Paint Sampling

Figure 2.9

Level 3, 161-169 Baylis Street Wagga Wagga NSW 2650 **T** 61 2 6923 7400 **E** sydmail@ghd.com.au **W** www.ghd.com.au

Appendix B – Photographs

Main Bridge

Plate 1 – Main Bridge from the ground

Plate 2 – Main Bridge including piers, piles and bracing

Plate 3 – Visual of Lead paint – posts, rails and kerbs

Plate 4 – Pier 1

Plate 5 – Pier 2

Plate 6 – Bridge cross girders

Plate 7 – Main Bridge from the north west bank

Plate 8 – Main Bridge Abutment A

Plate 9 – Truss bridge sample First diagonal

Plate 10 – Truss Top Chord


Plate 11 – posts, rails, kerbs eastern

Plate 12 – Main Bridge Decking

Plate 13 – Replaced timber on Main Bridge

Plate 14 – Main Bridge Abutment B, fully replaced with treated timber

Plate 15 – Main Bridge Abutment B, fully replaced with treated timber

Plate 16 – Pier 4

Plate 17 – post, rails, kerbs western

Plate 18 – Visual signs of Lead paint, western kerb

Plate 19 – Cross Members of Truss showing visual signs of lead paint

Plate 20 – Main Bridge looking south

Plate 21 – Main Bridge from south western bank

Approach Bridge

Plate 1 – Piers with replaced treated timber

Plate 2 – Temporary replacement steel TOMs

Plate 3 – Temporary replacement steel TOMs

Plate 4 – Cross sections

Plate 5 – Pier 5

Plate 6 – Pier 8

Plate 7 – Visual signs of contamination in Piles

Plate 8 – Stained timber

Plate 9 – Pier 6

Plate 10 – Pier 15

Plate11 – Pier 15

Plate 12 – Approach Bridge

Plate 13 – Approach Bridge access track

Plate 14 – Approach Bridge Abutment A

Plate 15 – Example of additional timber retro-fitted to Piers

Plate 16 – Example of additional timber retro-fitted to Piers

Appendix C – Analytical results tables

Table A: Soil Analytical Results- Asbestos, Heavy Metals and PAHs
Client: Roads and Maritime Services
Project: Gee Gee Bridge Replacement REF Bridge Contamination Assessment
Job No.: 2315324

						Asbestos	Metals									PAH																
						Asbestos (Presence/Absence)	Arsenic	Boron	Cadmium	Total Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Pyrene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b&j)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	PAHs (Sum of total) - Lab calc	Benzo(a)pyrene TEQ (half LOR) - Lab Calc
						-	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							4	3	0.4	1	1	1	0.1	1	1	0.1	0.1	0.1	0.1	0.1	0.05	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.5
NEPM 2013 HIL D (Commercial/industrial)							**3000**	**300000**	**900**	**3600***	**240000**	**1500**	**730**	**6000**	**400000**																**4000**	**40**
NEPM 2013 ESL - Public open space (fine)																					**0.7**											
NEPM 2013 EIL ACL (pH 5-6, CEC 10, clay >=10%) - Public Open space							**100**		**3**	**400**	**130**	**1100**	**1**	**170**	**180**														**170**			
NSW 2014 General Solid Waste (No Leaching)							100		20	100*		100	4	40							0.8									200	
NSW 2014 Restricted Solid Waste (No Leaching)							100		20	100*		100	4	40							3.2									200	
NSW 2014 Special Waste (Asbestos)						**present/ absent**																										
Matrix Type	**Monitoring Zone**	**Location Code**	**Sample Depth**	**Sampled Date**																												
Main Bridge																																
Soil	Main Bridge	MB-S1	0-0.2	2/06/2015	absent	12	-	<0.4	14	18	68	<0.1	3	52	0.1	<0.1	<0.1	<0.1	<0.1	<0.05	0.3	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.54	<0.5
Soil	Main Bridge	MB-S2	0-0.2	2/06/2015	absent	7	-	<0.4	7	10	52	<0.1	2	46	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	0.25	-
Soil	Main Bridge	MB-S3	0-0.2	2/06/2015	absent	15	-	<0.4	23	27	56	<0.1	4	30	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.18	-
Soil	Main Bridge	MB-SAB1	0-0.2	2/06/2015	absent	5	-	<0.4	5	26	35	<0.1	3	95	1.3	<0.1	<0.1	<0.1	0.3	0.3	2.7	0.5	0.7	<0.1	1.5	<0.1	0.4	<0.1	0.3	8	0.7
Soil	Main Bridge	MB-SAB2	0-0.2	2/06/2015	absent	4	-	<0.4	12	14	84	<0.1	7	120	1.9	<0.1	0.3	0.1	0.6	0.61	3.2	0.7	0.9	0.1	1.9	<0.1	0.5	<0.1	0.5	11	1.2
Approach Bridge																																
Soil	Approach Bridge	AB-S1	0-0.2	2/06/2015	absent	5	-	<0.4	3	36	31	<0.1	3	62	1.7	<0.1	<0.1	<0.1	0.6	0.4	2	0.2	0.9	<0.1	2	<0.1	0.3	<0.1	0.4	8.3	0.7
Soil	Approach Bridge	AB-S1 / QA	0-0.2	2/06/2015	-	4	-	<0.4	3	47	21	<0.1	2	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
%RPD						22		-	0	27	38	-	40	23																		
Soil	Approach Bridge	AB-S2	0-0.2	2/06/2015	absent	<4	-	<0.4	3	9	58	<0.1	4	48	0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	0.48	-
Soil	Approach Bridge	AB-S3	0-0.2	2/06/2015	absent	<4	-	<0.4	3	12	65	<0.1	4	24	0.3	<0.2	<0.2	<0.2	<0.2	0.1	<0.4	<0.2	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	0.81	-
Soil	Approach Bridge	AB-S4	0-0.2	2/06/2015	absent	4	-	<0.4	6	19	58	<0.1	3	80	0.2	<0.1	<0.1	<0.1	<0.1	0.07	0.4	<0.1	0.2	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	1	<0.5
Soil	Approach Bridge	AB-S5	0-0.2	2/06/2015	absent	<4	-	<0.4	4	9	66	<0.1	5	35	2.3	<0.2	0.3	<0.2	0.8	1.3	3.8	1.7	1.2	0.2	2.8	<0.2	1.8	<0.2	0.8	17	2.2
Soil	Approach Bridge	AB-S6	0-0.2	2/06/2015	absent	<4	-	<0.4	6	33	76	<0.1	4	110	2.6	<0.2	0.4	<0.2	1	1.4	5.5	1	1.2	0.2	2.7	<0.2	1.2	<0.2	0.6	18	2.4
Soil	Approach Bridge	AB-S7	0-0.2	2/06/2015	absent	<4	-	<0.4	9	8	130	<0.1	6	67	0.9	<0.2	<0.2	<0.2	<0.2	0.1	0.9	0.3	0.3	<0.2	0.7	<0.2	0.3	<0.2	0.4	3.9	<0.5
Soil	Approach Bridge	AB-S8	0-0.2	2/06/2015	absent	<4	-	<0.4	4	8	68	<0.1	3	81	4	<0.1	0.9	0.1	1.7	1.9	4.1	1.6	2	0.2	3.4	<0.1	1.4	<0.1	0.5	22	2.9
Soil	Approach Bridge	AB-SAB1	0-0.2	2/06/2015	absent	13	-	<0.4	17	20	79	<0.1	3	50	0.3	<0.1	<0.1	<0.1	0.1	0.1	0.9	0.2	0.2	<0.1	0.3	<0.1	0.1	<0.1	<0.1	2.3	<0.5
Soil	Approach Bridge	AB-SAB2	0-0.2	2/06/2015	absent	18	-	<0.4	16	29	81	<0.1	8	32	1.5	<0.1	0.2	0.2	0.6	0.6	2.3	0.5	0.7	<0.1	1.6	<0.1	0.4	<0.1	0.5	9	1

* Maximum values for contaminant concentrations are for Chromium VI.

Table B: Soil Analytical Results- OCPs and OPPs
Client: Roads and Maritime Services
Project: Gee Gee Bridge Replacement REF Bridge Contamination Assessment
Job No.: 2315324

					OC Pesticides																					OP Pesticides												Other	
					a-BHC	Aldrin	Dieldrin	Aldrin + Dieldrin - Calc	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	4,4-DDE	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Moderately Harmful Pesticides (total)	Scheduled Chemicals (total)
					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	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					0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
NEPM 2013 Health Investigation Level D (commerical/industrial)								**45**		**530**				**3600**			**2000**			**100**			**50**			**2500**				**2000**									
NEPM 2013 Ecological Screnning Level - Commercial/industrial (fine)																																						
NEPM 2013 Ecological Investigation Levels (ACL)- Commercial /industrial														**180**																								
NSW 2014 General Solid Waste (No Leaching)																												4										
NSW 2014 Restricted Solid Waste (No Leaching)																												16										
Matrix Type	**Monitoring Zone**	**Location Code**	**Sample Depth Range**	**Sampled Date**																																		
Main Bridge																																						
Soil	Main Bridge	MB-S1	0-0.2	2/06/2015	<0.2	<0.2	<0.2	nd	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	nd
Soil	Main Bridge	MB-S2	0-0.2	2/06/2015	<0.2	<0.2	<0.2	nd	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	nd
Soil	Main Bridge	MB-S3	0-0.2	2/06/2015	<0.2	<0.2	<0.2	nd	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	nd
Soil	Main Bridge	MB-SAB1	0-0.2	2/06/2015	<0.1	<0.1	<0.1	nd	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	nd
Soil	Main Bridge	MB-SAB2	0-0.2	2/06/2015	<0.1	<0.1	<0.1	nd	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	nd
Approach Bridge																																						
Soil	Approach Bridge	AB-S1	0-0.2	2/06/2015	<0.1	<0.1	<0.1	nd	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	nd
Soil	Approach Bridge	AB-S1 / QA	0-0.2	2/06/2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soil	Approach Bridge	AB-S2	0-0.2	2/06/2015	<0.2	<0.2	<0.2	nd	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	nd
Soil	Approach Bridge	AB-S3	0-0.2	2/06/2015	<0.2	<0.2	<0.2	nd	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	nd
Soil	Approach Bridge	AB-S4	0-0.2	2/06/2015	<0.1	<0.1	<0.1	nd	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	nd
Soil	Approach Bridge	AB-S5	0-0.2	2/06/2015	<0.2	<0.2	<0.2	nd	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	nd
Soil	Approach Bridge	AB-S6	0-0.2	2/06/2015	<0.2	<0.2	<0.2	nd	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	nd
Soil	Approach Bridge	AB-S7	0-0.2	2/06/2015	<0.2	<0.2	<0.2	nd	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	nd
Soil	Approach Bridge	AB-S8	0-0.2	2/06/2015	<0.1	<0.1	<0.1	nd	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	nd
Soil	Approach Bridge	AB-SAB1	0-0.2	2/06/2015	<0.1	<0.1	<0.1	nd	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	nd
Soil	Approach Bridge	AB-SAB2	0-0.2	2/06/2015	<0.1	<0.1	<0.1	nd	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	nd

Table C: Timber Analytical Results- Heavy Metals, TRH, BTEX, PAHs
Client: Roads and Maritime Services
Project: Gee Gee Bridge Replacement REF Bridge Contamination Assessment
Job No.: 2315324

						Metals							TRH - NEPM 2013					TRH - NEPM 1999					BTEX & MAH					PAH																				
						Arsenic	Boron	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6 - C10 Fraction	>C10-C16 minus Naphthalene (F2)	>C10 - C16 Fraction	>C16 - C34 Fraction (F3)	>C34 - C40 Fraction (F4)	C6 - C9 Fraction	>C9 - C14 Fraction	>C10 - C16 Fraction	>C16 - C28 Fraction	>C28 - C36 Fraction	>C10 - C36 (Sum of TRH) - Calc	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Pyrene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,j,k)perylene	Chrysene	Dibenz(a,h)anthracene	Benzo(ghi)perylene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	PAHs (Sum of total) - Lab calc	Benzo(a)pyrene TEQ (half LOR)
EQL						4	3	0.4	1	1	1	0.1	1	1	25	50	50	100	100	25	50	100	100		0.2	0.5	1	1	2	0.1	0.1	0.1	0.1	0.1	0.05	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.5
RMS ACRC in recycled timber						6	8900		5*	62,000																																				
NSW 2014 General Solid Waste (No Leaching)						<100		<20	<100*		<100	<4	<40							<650				<10000	<10	<288	<600																	<200	
NSW 2014 Restricted Solid Waste (No Leaching)						>100		<20	>100*		>100	>4	>40							>650				>100000	>10	>288	>600																	>200	
NSW 2014 Hazardous Waste (No Leaching)						>400		>80	>400*		>400	>16	>160							>2600				>400000	>40	>1152	>2400																	>800	
Matrix Type	**Monitoring Zone**	**Sample ID**	**Location**	**Sampled Date**																																									
Main Bridge																																														
Wood	Main Bridge	MB-AB1	Abutment	2/06/2015		**8**	6	<0.4	**6**	16	16	<0.1	2	30	<50	910	910	18,000	1800	<50	490	15,000	4400	19890	<0.4	<1	<2	<2	<4	1100	16	14	65	390	93	600	41	270	14	1300	32	45	2 - 2.7	810	**4600**	210
Wood	Main Bridge	MB-AB2	Abutment	2/06/2015		5	9	<0.4	3	9	26	<0.1	1	35	<75	1200	1200	23,000	2600	<75	550	18,000	6100	24650	<0.6	<1.5	<3	<3	<6	1500	34	22	93	440	160	1000	57	430	20	1700	58	64	<3 - 4.7	1200	**6900**	340
Wood	Main Bridge	MB-D1	Decking	2/06/2015		**53**	<3	<0.4	**94**	130	4	<0.1	<1	33	<75	<150	<150	400	830	<75	<150	<300	560	785	<0.6	<1.5	<3	<3	<6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.15	<0.6	<0.3	0.43	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0	-
Wood	Main Bridge	MB-D2	Decking	2/06/2015		4	3	<0.4	5	4	14	<0.1	1	76	<75	<150	<150	1400	2300	<75	<150	390	1900	2365	<0.6	<1.5	<3	<3	<6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.15	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<3 - 0.8	<0.3	0.84	-
Wood	Main Bridge	MB-D3	Decking	2/06/2015		6	<3	<0.4	**6**	12	18	<0.1	<1	65	<50	<100	<100	1000	1900	<50	<100	330	1200	1580	<0.4	<1	<2	<2	<4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2 - 0.4	<0.2	0.4	-
Wood	Main Bridge	MB-D4	Decking	2/06/2015		**400**	<3	<0.4	**850**	290	18	<0.1	<1	61	<75	<150	<150	1200	2000	<75	<150	380	1300	1755	<0.6	<1.5	<3	<3	<6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.15	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<3 - 0.6	<0.3	0.61	-
Wood	Main Bridge	MB-D5	Decking	2/06/2015		**69**	<3	<0.4	**180**	81	5	<0.1	<1	49	<50	<100	<100	840	1500	<50	<100	270	960	1280	<0.4	<1	<2	<2	<4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2 - 0.3	<0.2	0.33	-
Wood	Main Bridge	MB-FD2	First diagonal of truss	2/06/2015		**560**	<3	<0.4	**630**	240	6	<0.1	<1	150	<50	180	180	210	<200	<50	170	<200	<200	370	<0.4	<1	<2	<2	<4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-
Wood	Main Bridge	MB-FD3	First diagonal of truss	2/06/2015		**420**	<3	<0.4	**460**	150	8	<0.1	<1	53	<50	<100	<100	<200	<200	<50	<100	<200	<200	<250	<0.4	<1	<2	<2	<4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-
Wood	Main Bridge	MB-SD1	Second diagonal of truss	2/06/2015		**1300**	<3	<0.4	**1600**	600	40	<0.1	<1	110	<50	<100	<100	<200	<200	<50	<100	<200	<200	<250	<0.4	<1	<2	<2	<4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.04	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-
Wood	Main Bridge	MB-SD4	Second diagonal of truss	2/06/2015		**2300**	4	<0.4	**2400**	1200	31	<0.1	<1	430	<50	210	210	710	530	<50	200	270	650	1120	<0.4	<1	<2	<2	<4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-
Wood	Main Bridge	MB-X1	Cross member of truss	2/06/2015		<4	5	<0.4	<1	<1	2	<0.1	<1	14	<75	440	440	590	610	<75	400	370	510	1280	<0.6	<1.5	<3	<3	<6	0.9	<0.3	<0.3	<0.3	<0.3	<0.15	0.6	<0.3	0.4	<0.3	1	<0.3	<0.3	0.3	3.2	-
Wood	Main Bridge	MB-X1 / QA	Cross member of truss	2/06/2015		<4	4	<0.4	<1	1	17	<0.1	<1	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NRPD							22	-	-	0	158	-	-	179																																
Wood	Main Bridge	MB-Py1	Principal of truss	2/06/2015		**2500**	<3	0.5	**2600**	1600	4	<0.1	<1	150	<50	130	130	270	<200	<50	130	<200	200	420	<0.4	<1	<2	<2	<4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-
Wood	Main Bridge	MB-Py3	Principal of truss	2/06/2015		**3500**	<3	0.5	**3400**	1900	20	<0.1	<1	210	<50	<100	<100	<200	<200	<50	<100	<200	<200	<250	<0.4	<1	<2	<2	<4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-
Wood	Main Bridge	MB-P1	Pile	2/06/2015		4	4	<0.4	3	11	12	<0.1	4	13	<50	360	360	7000	700	<50	100	6100	1400	7600	<0.4	<1	<2	<2	<4	390	11	6.6	47	100	39	160	20	140	4.6	560	21	26	<2 - 0.5	380	**1900**	75
Wood	Main Bridge	MB-P2	Pile	2/06/2015		**13**	<3	<0.4	<1	3	12	<0.1	2	5	<50	850	850	23,000	1300	<50	270	20,000	3600	23870	<0.4	<1	<2	<2	<4	2700	37	9.2	220	580	210	640	66	700	18	3900	82	83	<2 - 1.8	2700	**12,000**	390
Wood	Main Bridge	MB-P3	Pile	2/06/2015		<4	<3	<0.4	<1	2	8	<0.1	<1	13	<50	180	180	15,000	440	<50	<100	13,000	2000	15050	<0.4	<1	<2	<2	<4	2400	4.4	3	110	630	190	620	49	670	16	3400	17	69	<1	1200	**9400**	340
Wood	Main Bridge	MB-PPB1	Pier pile bracing	2/06/2015		<4	7	<0.4	2	10	98	<0.1	1	10	<50	180	180	6200	3500	<50	<100	2500	5100	7650	<0.4	<1	<2	<2	<4	280	3	3.3	11	24	8	55	6.5	39	1.1	470	10	7.9	<2 - 2.7	320	**1200**	18
Wood	Main Bridge	MB-PPB2	Pier pile bracing	2/06/2015		<4	<3	<0.4	<1	2	15	<0.1	<1	3	<50	<50	<50	280	110	<50	<50	<100	240	315	<0.4	<1	<2	<2	<4	0.3	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	0.1	<0.1	0.5	<0.1	<0.1	0.5	1.5	<0.5
Wood	Main Bridge	MB-PPB3	Pier pile bracing	2/06/2015		<4	<3	<0.4	2	8	3	<0.1	1	7	<50	<50	<50	190	170	<50	<50	<100	180	255	<0.4	<1	<2	<2	<4	5.1	<0.1	<0.1	1.5	1	0.2	1	<0.1	1.8	<0.1	7.8	0.1	<0.1	<0.1	5.5	**25**	<0.5
Approach Bridge																																														
Wood	Approach Bridge	AB-AB1	Abutment	2/06/2015		<4	3	<0.4	<1	5	1	<0.1	<1	2	<50	440	450	6600	930	<50	220	5000	2200	7420	<0.4	<1	<2	<2	<4	270	23	6.9	33	75	19	71	4.1	66	1.1	420	26	6.4	10 - 12	400	**1400**	36
Wood	Approach Bridge	AB-AB2	Abutment	2/06/2015		<4	6	<0.4	<1	3	2	<0.1	<1	6	<50	400	410	5800	750	<50	250	4500	1900	6850	<0.4	<1	<2	<2	<4	320	13	3.8	31	88	21	78	4.3	77	1.2	460	18	6.4	9 - 11	370	**1500**	41
Wood	Approach Bridge	AB-AB3	Abutment	2/06/2015		<4	7	<0.4	<1	3	4	<0.1	2	9	<75	510	510	9200	2500	<75	310	5700	4600	10610	<0.6	<1.5	<3	<3	<6	140	5.5	1.9	11	29	7.8	150	7.2	71	1.3	280	8	7	<3 - 3.4	230	**520**	28
Wood	Approach Bridge	AB-AB4	Abutment	2/06/2015		<4	7	<0.4	<1	4	5	<0.1	3	20	<75	890	890	12,000	1700	<75	590	9800	3300	13690	<0.6	<1.5	<3	<3	<6	670	7.3	4.5	35	160	49	500	28	280	7	1100	12	29	4 - 6.4	630	**3500**	130
Wood	Approach Bridge	AB-P1	Pile	2/06/2015		<4	4	<0.4	<1	3	5	<0.1	2	9	<50	190	190	6700	1900	<50	<100	4000	3500	7550	<0.4	<1	<2	<2	<4	110	1.5	7.9	7.6	64	56	130	31	68	5.9	140	1	35	<0.2	52	**710**	86
Wood	Approach Bridge	AB-P2	Pile	2/06/2015		<4	6	<0.4	<1	3	12	<0.1	2	40	<50	<100	<100	4200	1700	<50	<100	2200	2600	4850	<0.4	<1	<2	<2	<4	51	<0.2	5.5	4.3	29	31	71	21	35	4.3	58	0.2	23	<0.2	27	**360**	48
Wood	Approach Bridge	AB-P3	Pile	2/06/2015		<4	10	<0.4	1	17	7	<0.1	2	22	<50	260	260	7800	2200	<50	110	4800	4000	8910	<0.4	<1	<2	<2	<4	120	1.8	9.9	7.4	64	59	140	27	70	5.5	150	1.2	31	<0.2	51	**740**	89
Wood	Approach Bridge	AB-P4	Pile	2/06/2015		<4	110	<0.4	1	3700	4	<0.1	<1	110	<50	420	420	6300	750	<50	240	5100	1700	7040	<0.4	<1	<2	<2	<4	0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	0.2	<0.2	0.8	<0.2	<0.2	<2 - 0.2	0.4	1.8	-
Wood	Approach Bridge	AB-P5	Pile	2/06/2015		<4	3	<0.4	<1	3	4	<0.1	<1	17	<50	<50	<50	110	<100	<50	<50	<100	<100	<125	<0.4	<1	<2	<2	<4	1.1	0.1	<0.1	0.3	0.2	<0.05	<0.2	<0.1	0.2	<0.1	1.9	<0.1	<0.1	<0.1	3.8	**7.6**	<0.5
Wood	Approach Bridge	AB-P6	Pile	2/06/2015		<4	4	<0.4	<1	8	5	<0.1	5	11	<50	120	120	3800	1500	<50	58	2200	2300	4558	<0.4	<1	<2	<2	<4	48	<0.1	4	3	22	17	52	15	30	3	57	0.2	17	<0.1	30	**300**	30
Wood	Approach Bridge	AB-P7	Pile	2/06/2015		<4	20	<0.4	<1	2	5	<0.1	2	9	<50	91	91	2500	270	<50	<50	1900	780	2705	<0.4	<1	<2	<2	<4	110	2.5	1.8	4.9	41	8.9	110	9.9	110	2.5	180	3.2	15	<2 - 0.3	86	**690**	29
Wood	Approach Bridge	AB-P8	Pile	2/06/2015		<4	<3	<0.4	<1	<1	35	<0.1	<1	2	<50	1300	1300	13,000	1100	<50	620	12,000	2700	15320	<0.4	<1	<2	<2	<4	880	52	28	100	220	110	270	43	240	4.3	1200	110	51	15 - 34	1300	**4600**	170
Wood	Approach Bridge	AB-PC1	Pier capwale	2/06/2015		<4	4	<0.4	<1	2	7	<0.1	1	15	<50	<100	<100	1100	400	<50	<100	500	750	1300	<0.4	<1	<2	<2	<4	1.6	<0.2	0.3	0.3	0.9	0.98	5.7	1.8	1.4	0.2	2.7	<0.2	1.6	<0.2	2.1	**20**	2
Wood	Approach Bridge	AB-PC2	Pier capwale	2/06/2015		<4	<3	<0.4	<1	2	10	<0.1	2	41	<50	<100	<100	<200	<200	<50	<100	<200	<200	<250	<0.4	<1	<2	<2	<4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.6	0.63	<0.5
Wood	Approach Bridge	AB-PC3	Pier capwale	2/06/2015		<4	<3	<0.4	<1	5	3	<0.1	2	6	<50	77	77	1000	460	<50	<50	470	800	1295	<0.4	<1	<2	<2	<4	3.9	<0.1	0.6	0.5	2.3	1.2	6.5	1.7	3.4	0.3	5.5	<0.1	1.7	<0.1	5.4	**33**	2.6
Wood	Approach Bridge	AB-PC4	Pier capwale	2/06/2015		<4	5	<0.4	<1	14	15	<0.1	<1	13	<50	160	160	960	380	<50	110	570	570	1250	<0.4	<1	<2	<2	<4	3.5	<0.1	0.4	0.6	1.6	0.89	4.6	1	2.9	0.1	5.9	<0.1	1	<2 - 0.2	5.6	**29**	1.8
Wood	Approach Bridge	AB-PC5	Pier capwale	2/06/2015		<4	4	<0.4	<1	3	5	<0.1	2	16	<50	<50	<50	2400	910	<50	<50	1200	1600	2825	<0.4	<1	<2	<2	<4	16	<0.1	1.2	1.2	11	9.2	25	5.4	13	1.2	21	0.1	6.5	<0.1	13	**120**	15
Wood	Approach Bridge	AB-PC7	Pier capwale	2/06/2015		<4	33	<0.4	<1	1	13	<0.1	<1	9	<50	200	200	4500	1200	<50	140	2300	2800	5240	<0.4	<1	<2	<2	<4	4.8	<0.1	1.1	0.7	3.4	2.2	14	2	7.9	0.4	6.2	0.1	2.3	<2 - 0.2	6.1	**52**	4.6
Wood	Approach Bridge	AB-PC8	Pier capwale	2/06/2015		<4	<3	<0.4	<1	<1	1	<0.1	1	7	<50	<100	<100	1600	530	<50	<100	790	1100	1940	<0.4	<1	<2	<2	<4	2.5	<0.2	<0.2	0.3	1.5	0.58	2.3	0.3	2	<0.2	3.8	<0.2	0.3	<0.2	7.9	**21**	1.1
Wood	Approach Bridge	AB-PPB6	Pier pile bracing	2/06/2015		<4	20	<0.4	1	11	24	<0.1	7	22	<50	<50	<50	1100	380	<50	<50	540	810	1375	<0.4	<1	<2	<2	<4	2.8	<0.1	0.1	0.3	1.5	0.96	3.9	1	2.3	0.1	3.9	<0.1	1.1	<0.1	4.2	**22**	1.8
Wood	Approach Bridge	AB-PPB7	Pier pile bracing	2/06/2015		<4	4	<0.4	1	5	7	<0.1	1	25	<50	<50	<50	640	200	<50	<50	330	420	765	<0.4	<1	<2	<2	<4	1.9	<0.1	<0.1	0.2	0.9	0.3	2	0.2	1.6	<0.1	2.9	<0.1	0.3	<0.1	5.1	**15**	0.7
Wood	Approach Bridge	AB-PPB8	Pier pile bracing	2/06/2015		<4	3	<0.4	<1	4	5	<0.1	2	18	<50	<100	<100	1500	520	<50	<100	650	1000	1700	<0.4	<1	<2	<2	<4	3.2	<0.2	0.4	0.3	2.4	1.6	7.4	2	4.1	0.3	4.4	<0.2	2	<0.2	4.8	**33**	3.2
Wood	Approach Bridge	AB-PPB8 / QA	Pier pile bracing	2/06/2015		<4	4	<0.4	1	3	5	<0.1	2	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NRPD						-	29	-	0	29	0	-	0	18																															
Wood	Approach Bridge	AB-PPP1	Pier pile post	2/06/2015		<4	<3	<0.4	<1	1	3	<0.1	1	6	<50	220	220	920	410	<50	170	540	610	1320	<0.4	<1	<2	<2	<4	3.7	<0.2	<0.2	0.4	1.4	0.68	2	0.4	1.8	<0.2	5.1	<0.2	0.5	<0.2	7.2	**23**	1.2
Wood	Approach Bridge	AB-PPP2	Pier pile post	2/06/2015		<4	<3	<0.4	<1	3	10	<0.1	4	32	<50	180	180	470	240	<50	150	240	360	750	<0.4	<1	<2	<2	<4	4.6	<0.2	<0.2	0.4	1.9	0.67	2.5	0.5	2.5	<0.2	7	<0.2	0.7	<0.2	9.1	**30**	1.3
Wood	Approach Bridge	AB-PPP3	Pier pile post	2/06/2015		<4	3	<0.4	1	7	5	<0.1	3	160	<50	59	59	1500	600	<50	<50	680	1100	1805	<0.4	<1	<2	<2	<4	8.3	<0.1	0.8	1	4.4	2.2	7.9	2	6.2	0.4	12	0.1	2.4	<0.1	13	**60**	4.1
Wood	Approach Bridge	AB-PPP4	Pier pile post	2/06/2015		<4	7	<0.4	2	13	8	<0.1	4	16	<50	<50	<50	570	260	<50	<50	200	530	755	<0.4	<1	<2	<2	<4	2.3	<0.1	0.1	0.3	1.1	0.4	2	0.5	1.6	<0.1	3.2	<0.1	0.7	<0.1	5.6	**18**	0.8
Wood	Approach Bridge	AB-PPP5	Pier pile post	2/06/2015		<4	8	<0.4	1	7	11	<0.1	3	21	<50	<100	<100	930	280	<50	<100	240	540	830	<0.4	<1	<2	<2	<4	2.4	<0.2	<0.2	<0.2	1.4	0.54	2.9	0.8	2.2	<0.2	3.2	<0.2	0.6	<0.2	3.5	**17**	1.1

* Maximum values for contaminant concentrations are for Chromium VI

Table D: Timber Analytical Results- OCPs and OPPs
Client: Roads and Maritime Services
Project: Gee Gee Bridge Replacement REF Bridge Contamination Assessment
Job No.: 2315324

					OC Pesticides																				OP Pesticides													Other	
					4,4-DDE	a-BHC	Aldrin	Dieldrin	Aldrin + Dieldrin - Calc	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Pesticides (total, NSW EPA 2014)	Scheduled Chemicals (NSW EPA 2014)
					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	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					0.1	0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
RMS ACRC in recycled timber							**2**	**2**							**82**												**4700**											
NSW 2014 General Solid Waste (No Leaching)																											<4										<250	<50
NSW 2014 Restricted Solid Waste (No Leaching)																											>4										>250	>50
NSW 2014 Hazardous Waste (No Leaching)																											>16										>1000	>50
Matrix Type	**Monitoring Zone**	**Sample ID**	**Location**	**Sampled Date**																																			
Main Bridge																																						
Wood	Main Bridge	MB-AB1	Abutment	2/06/2015	<2	<2	<2	<3	2.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	51	<2	<2	<2	<2	<2	<2	<2	<2	<2	nd	13.5
Wood	Main Bridge	MB-AB2	Abutment	2/06/2015	<2	<2	<2	<2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	60	<2	<2	<2	<2	<2	<2	<2	<2	<2	nd	13
Wood	Main Bridge	MB-D1	Decking	2/06/2015	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	nd	1.95
Wood	Main Bridge	MB-D2	Decking	2/06/2015	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	nd	1.95
Wood	Main Bridge	MB-D3	Decking	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Main Bridge	MB-D4	Decking	2/06/2015	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	nd	1.95
Wood	Main Bridge	MB-D5	Decking	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Main Bridge	MB-FD2	First diagonal of truss	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Main Bridge	MB-FD3	First diagonal of truss	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Main Bridge	MB-SD1	Second diagonal of truss	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Main Bridge	MB-SD4	Second diagonal of truss	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Main Bridge	MB-X1	Cross member of truss	2/06/2015	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	nd	1.95
Wood	Main Bridge	MB-X1 / QA	Cross member of truss	2/06/2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wood	Main Bridge	MB-Pr1	Principal of truss	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Main Bridge	MB-Pr3	Principal of truss	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Main Bridge	MB-P1	Pile	2/06/2015	<2	<2	<2	<2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	23	<2	<2	<2	<2	<2	<2	<2	<2	<2	nd	13
Wood	Main Bridge	MB-P2	Pile	2/06/2015	<2	<2	<2	<3	2.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	nd	13.5
Wood	Main Bridge	MB-P3	Pile	2/06/2015	<2	<2	<2	<2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	nd	13
Wood	Main Bridge	MB-PPB1	Pier pile bracing	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Main Bridge	MB-PPB2	Pier pile bracing	2/06/2015	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	0.65
Wood	Main Bridge	MB-PPB3	Pier pile bracing	2/06/2015	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	0.65
Approach Bridge																																						
Wood	Approach Bridge	AB-AB1	Abutment	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	27	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-AB2	Abutment	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	6.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-AB3	Abutment	2/06/2015	<2	<2	<2	<2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	22	<2	<2	<2	<2	<2	<2	<2	<2	nd	13
Wood	Approach Bridge	AB-AB4	Abutment	2/06/2015	<2	<2	<2	<2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	49	<2	<2	<2	<2	<2	<2	<2	<2	nd	13
Wood	Approach Bridge	AB-P1	Pile	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.7
Wood	Approach Bridge	AB-P2	Pile	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-P3	Pile	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-P4	Pile	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-P5	Pile	2/06/2015	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	0.65
Wood	Approach Bridge	AB-P6	Pile	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-P7	Pile	2/06/2015	<0.1	<0.1	<0.1	<0.2	0.15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	0.7
Wood	Approach Bridge	AB-P8	Pile	2/06/2015	<2	<2	<2	<2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	nd	13
Wood	Approach Bridge	AB-PC1	Pier capwale	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-PC2	Pier capwale	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-PC3	Pier capwale	2/06/2015	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	0.65
Wood	Approach Bridge	AB-PC4	Pier capwale	2/06/2015	<0.1	<0.1	<0.1	<0.2	0.15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	0.7
Wood	Approach Bridge	AB-PC5	Pier capwale	2/06/2015	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	0.65
Wood	Approach Bridge	AB-PC7	Pier capwale	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-PC8	Pier capwale	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	6.7	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-PPB6	Pier pile bracing	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-PPB7	Pier pile bracing	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-PPB8	Pier pile bracing	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-PPB8 / QA	Pier pile bracing	2/06/2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wood	Approach Bridge	AB-PPP1	Pier pile post	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-PPP2	Pier pile post	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3
Wood	Approach Bridge	AB-PPP3	Pier pile post	2/06/2015	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	0.65
Wood	Approach Bridge	AB-PPP4	Pier pile post	2/06/2015	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nd	0.65
Wood	Approach Bridge	AB-PPP5	Pier pile post	2/06/2015	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nd	1.3

Table E: **Lead Paint Analytical Results**
Client: **Roads and Maritime Services**
Project: **Gee Gee Bridge Replacement REF Bridge Contamination Assessment**
Job No.: **2315324**

					Lead in paint
					% w/w
EQL					-
Guide to Lead Paint Management. Part 2					**1**
Matrix Type	**Monitoring Zone**	**Sample ID**	**Location**	**Sampled Date**	
Paint	Main Bridge	MB-K1	Kerb	2/06/2015	<0.05
Paint	Main Bridge	MB-K2	Kerb	2/06/2015	0.3
Paint	Main Bridge	MB-K4	Kerb	2/06/2015	<0.05
Paint	Main Bridge	MB-K7	Kerb	2/06/2015	<0.05
Paint	Main Bridge	MB-K10	Kerb	2/06/2015	<0.05
Paint	Main Bridge	MB-Po3	Post	2/06/2015	4.7
Paint	Main Bridge	MB-Po6	Post	2/06/2015	9.5
Paint	Main Bridge	MB-Po9	Post	2/06/2015	0.2
Paint	Main Bridge	MB-Po12	Post	2/06/2015	8.9
Paint	Main Bridge	MB-R5	Rail	2/06/2015	0.53
Paint	Main Bridge	MB-R8	Rail	2/06/2015	9.1
Paint	Main Bridge	MB-R11	Rail	2/06/2015	8.4

Appendix D – Laboratory certificates

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS 129115

Client:
GHD Pty Ltd (Wagga Wagga)
Suite 3, Level 1, 161-169 Baylis St
Wagga Wagga
NSW 2650

Attention: Dylan Galt

Sample log in details:

Your Reference:	**23-15324 Gee Gee Bridge Contam Assessment**
No. of samples:	48 wood, 15 soils, 11 paint
Date samples received / completed instructions received	05/06/15 / 05/06/15

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: / Issue Date:	15/06/15 / 15/06/15
Date of Preliminary Report:	Not Issued

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

Results Approved By:

Jacinta Hurst
Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	129115-1	129115-2	129115-3	129115-4	129115-5
Your Reference	----------	AB-PPB6	AB-PPB7	AB-PPB8	AB-PC1	AB-PC2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_6$ - C$_9$	mg/kg	<50	<50	<50	<50	<50
TRHC$_6$ - C$_{10}$	mg/kg	<50	<50	<50	<50	<50
Benzene	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Toluene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<2	<2	<2	<2	<2
m+p-xylene	mg/kg	<4	<4	<4	<4	<4
o-Xylene	mg/kg	<2	<2	<2	<2	<2
naphthalene	mg/kg	<2	<2	<2	<2	<2
Surrogate aaa-Trifluorotoluene	%	112	118	117	114	116

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	129115-6	129115-7	129115-8	129115-9	129115-10
Your Reference	----------	AB-PC3	AB-PC4	AB-PC5	AB-PC7	AB-PC8
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_6$ - C$_9$	mg/kg	<50	<50	<50	<50	<50
TRHC$_6$ - C$_{10}$	mg/kg	<50	<50	<50	<50	<50
Benzene	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Toluene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<2	<2	<2	<2	<2
m+p-xylene	mg/kg	<4	<4	<4	<4	<4
o-Xylene	mg/kg	<2	<2	<2	<2	<2
naphthalene	mg/kg	<2	<2	<2	<2	<2
Surrogate aaa-Trifluorotoluene	%	108	108	112	115	117

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	129115-11	129115-12	129115-21	129115-22	129115-23
Your Reference	----------	AB-AB1	AB-AB2	AB-P1	AB-P2	AB-P3
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_6$ - C$_9$	mg/kg	<50	<50	<50	<50	<50
TRHC$_6$ - C$_{10}$	mg/kg	<50	<50	<50	<50	<50
Benzene	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Toluene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<2	<2	<2	<2	<2
m+p-xylene	mg/kg	<4	<4	<4	<4	<4
o-Xylene	mg/kg	<2	<2	<2	<2	<2
naphthalene	mg/kg	10	11	<2	<2	<2
Surrogate aaa-Trifluorotoluene	%	117	111	115	115	114

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	129115-24	129115-25	129115-26	129115-27	129115-28
Your Reference	----------	AB-P4	AB-P5	AB-P6	AB-P7	AB-P8
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_6$ - C$_9$	mg/kg	<50	<50	<50	<50	<50
TRHC$_6$ - C$_{10}$	mg/kg	<50	<50	<50	<50	<50
Benzene	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Toluene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<2	<2	<2	<2	<2
m+p-xylene	mg/kg	<4	<4	<4	<4	<4
o-Xylene	mg/kg	<2	<2	<2	<2	<2
naphthalene	mg/kg	<2	<2	<2	<2	15
Surrogate aaa-Trifluorotoluene	%	118	112	111	102	79

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	129115-29	129115-30	129115-31	129115-32	129115-33
Your Reference	----------	AB-PPP1	AB-PPP2	AB-PPP3	AB-PPP4	AB-PPP5
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC6 - C9	mg/kg	<50	<50	<50	<50	<50
TRHC6 - C10	mg/kg	<50	<50	<50	<50	<50
Benzene	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Toluene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<2	<2	<2	<2	<2
m+p-xylene	mg/kg	<4	<4	<4	<4	<4
o-Xylene	mg/kg	<2	<2	<2	<2	<2
naphthalene	mg/kg	<2	<2	<2	<2	<2
Surrogate aaa-Trifluorotoluene	%	89	91	99	101	103

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	129115-37	129115-38	129115-39	129115-40	129115-41
Your Reference	----------	MB-P1	MB-P2	MB-P3	MB-PPB1	MB-PPB2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC6 - C9	mg/kg	<50	<50	<50	<50	<50
TRHC6 - C10	mg/kg	<50	<50	<50	<50	<50
Benzene	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Toluene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<2	<2	<2	<2	<2
m+p-xylene	mg/kg	<4	<4	<4	<4	<4
o-Xylene	mg/kg	<2	<2	<2	<2	<2
naphthalene	mg/kg	<2	<2	<2	<2	<2
Surrogate aaa-Trifluorotoluene	%	99	109	91	99	115

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	129115-42	129115-43	129115-44	129115-45	129115-46
Your Reference	----------	MB-PPB3	MB-AB1	MB-AB2	MB-X1	MB-SD1
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC6 - C9	mg/kg	<50	<50	<75	<75	<50
TRHC6 - C10	mg/kg	<50	<50	<75	<75	<50
Benzene	mg/kg	<0.4	<0.4	<0.6	<0.6	<0.4
Toluene	mg/kg	<1	<1	<1.5	<1.5	<1
Ethylbenzene	mg/kg	<2	<2	<3	<3	<2
m+p-xylene	mg/kg	<4	<4	<6	<6	<4
o-Xylene	mg/kg	<2	<2	<3	<3	<2
naphthalene	mg/kg	<2	2	<3	<3	<2
Surrogate aaa-Trifluorotoluene	%	97	95	89	90	97

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	129115-47	129115-57	129115-58	129115-59	129115-60
Your Reference	----------	MB-SD4	MB-D1	MB-D2	MB-D3	MB-D4
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC6 - C9	mg/kg	<50	<75	<75	<50	<75
TRHC6 - C10	mg/kg	<50	<75	<75	<50	<75
Benzene	mg/kg	<0.4	<0.6	<0.6	<0.4	<0.6
Toluene	mg/kg	<1	<1.5	<1.5	<1	<1.5
Ethylbenzene	mg/kg	<2	<3	<3	<2	<3
m+p-xylene	mg/kg	<4	<6	<6	<4	<6
o-Xylene	mg/kg	<2	<3	<3	<2	<3
naphthalene	mg/kg	<2	<3	<3	<2	<3
Surrogate aaa-Trifluorotoluene	%	88	90	87	81	90

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	129115-61	129115-62	129115-63	129115-64	129115-65
Your Reference	----------	MB-D5	MB-Pr1	MB-Pr3	MB-FD2	MB-FD3
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC6 - C9	mg/kg	<50	<50	<50	<50	<50
TRHC6 - C10	mg/kg	<50	<50	<50	<50	<50
Benzene	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Toluene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<2	<2	<2	<2	<2
m+p-xylene	mg/kg	<4	<4	<4	<4	<4
o-Xylene	mg/kg	<2	<2	<2	<2	<2
naphthalene	mg/kg	<2	<2	<2	<2	<2
Surrogate aaa-Trifluorotoluene	%	99	98	102	103	96

vTRH(C6-C10)/BTEXN in Soil			
Our Reference:	UNITS	129115-73	129115-74
Your Reference	----------	AB-AB3	AB-AB4
Depth	----------	-	-
Date Sampled		02/06/2015	02/06/2015
Type of sample		Wood	Wood
Date extracted	-	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015
TRHC6 - C9	mg/kg	<75	<75
TRHC6 - C10	mg/kg	<75	<75
Benzene	mg/kg	<0.6	<0.6
Toluene	mg/kg	<1.5	<1.5
Ethylbenzene	mg/kg	<3	<3
m+p-xylene	mg/kg	<6	<6
o-Xylene	mg/kg	<3	<3
naphthalene	mg/kg	<3	4
Surrogate aaa-Trifluorotoluene	%	99	97

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	129115-1	129115-2	129115-3	129115-4	129115-5
Your Reference	----------	AB-PPB6	AB-PPB7	AB-PPB8	AB-PC1	AB-PC2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	10/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<100	<100	<100
TRHC$_{15}$ - C$_{28}$	mg/kg	540	320	650	500	<200
TRHC$_{29}$ - C$_{36}$	mg/kg	810	420	1,000	750	<200
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<100	<100	<100
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<100	<100	<100
TRH>C$_{16}$-C$_{34}$	mg/kg	1,100	640	1,500	1,100	<200
TRH>C$_{34}$-C$_{40}$	mg/kg	380	200	520	400	<200
Surrogate o-Terphenyl	%	79	81	#	87	75

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	129115-6	129115-7	129115-8	129115-9	129115-10
Your Reference	----------	AB-PC3	AB-PC4	AB-PC5	AB-PC7	AB-PC8
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	110	<50	140	<100
TRHC$_{15}$ - C$_{28}$	mg/kg	470	570	1,200	2,300	790
TRHC$_{29}$ - C$_{36}$	mg/kg	800	570	1,600	2,800	1,100
TRH>C$_{10}$-C$_{16}$	mg/kg	77	160	<50	200	<100
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	77	160	<50	200	<100
TRH>C$_{16}$-C$_{34}$	mg/kg	1,000	960	2,400	4,500	1,600
TRH>C$_{34}$-C$_{40}$	mg/kg	460	380	910	1,200	530
Surrogate o-Terphenyl	%	86	84	95	97	77

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	129115-11	129115-12	129115-21	129115-22	129115-23
Your Reference	----------	AB-AB1	AB-AB2	AB-P1	AB-P2	AB-P3
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	220	250	<100	<100	110
TRHC$_{15}$ - C$_{28}$	mg/kg	5,000	4,500	4,000	2,200	4,800
TRHC$_{29}$ - C$_{36}$	mg/kg	2,200	1,900	3,500	2,600	4,000
TRH>C$_{10}$-C$_{16}$	mg/kg	450	410	190	<100	260
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	440	400	190	<100	260
TRH>C$_{16}$-C$_{34}$	mg/kg	6,600	5,800	6,700	4,200	7,800
TRH>C$_{34}$-C$_{40}$	mg/kg	930	750	1,900	1,700	2,200
Surrogate o-Terphenyl	%	130	114	108	97	119

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	129115-24	129115-25	129115-26	129115-27	129115-28
Your Reference	----------	AB-P4	AB-P5	AB-P6	AB-P7	AB-P8
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	10/06/2015	09/06/2015	9/06/2015	09/06/2015
Date analysed	-	09/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	240	<50	58	<50	620
TRHC$_{15}$ - C$_{28}$	mg/kg	5,100	<100	2,200	1,900	12,000
TRHC$_{29}$ - C$_{36}$	mg/kg	1,700	<100	2,300	780	2,700
TRH>C$_{10}$-C$_{16}$	mg/kg	420	<50	120	91	1,300
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	420	<50	120	91	1,300
TRH>C$_{16}$-C$_{34}$	mg/kg	6,300	110	3,800	2,500	13,000
TRH>C$_{34}$-C$_{40}$	mg/kg	730	<100	1,500	270	1,100
Surrogate o-Terphenyl	%	#	87	92	95	#

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	129115-29	129115-30	129115-31	129115-32	129115-33
Your Reference	----------	AB-PPP1	AB-PPP2	AB-PPP3	AB-PPP4	AB-PPP5
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	170	150	<50	<50	<100
TRHC$_{15}$ - C$_{28}$	mg/kg	540	240	680	200	240
TRHC$_{29}$ - C$_{36}$	mg/kg	610	360	1,100	530	540
TRH>C$_{10}$-C$_{16}$	mg/kg	220	180	59	<50	<100
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	220	180	59	<50	<100
TRH>C$_{16}$-C$_{34}$	mg/kg	920	470	1,500	570	630
TRH>C$_{34}$-C$_{40}$	mg/kg	410	240	600	290	280
Surrogate o-Terphenyl	%	85	80	86	82	76

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	129115-37	129115-38	129115-39	129115-40	129115-41
Your Reference	----------	MB-P1	MB-P2	MB-P3	MB-PPB1	MB-PPB2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	10/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	100	270	<100	<100	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	6,100	20,000	13,000	2,500	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	1,400	3,600	2,000	5,100	240
TRH>C$_{10}$-C$_{16}$	mg/kg	360	850	180	180	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	360	850	180	180	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	7,000	23,000	15,000	6,200	280
TRH>C$_{34}$-C$_{40}$	mg/kg	700	1,300	440	3,500	110
Surrogate o-Terphenyl	%	121	#	#	89	79

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	129115-42	129115-43	129115-44	129115-45	129115-46
Your Reference	----------	MB-PPB3	MB-AB1	MB-AB2	MB-X1	MB-SD1
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	490	550	400	<100
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	15,000	18,000	370	<200
TRHC$_{29}$ - C$_{36}$	mg/kg	180	4,400	6,100	510	<200
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	910	1,200	440	<100
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	910	1,200	440	<100
TRH>C$_{16}$-C$_{34}$	mg/kg	190	18,000	23,000	590	<200
TRH>C$_{34}$-C$_{40}$	mg/kg	170	1,800	2,600	610	<200
Surrogate o-Terphenyl	%	77	#	#	89	83

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	129115-47	129115-57	129115-58	129115-59	129115-60
Your Reference	----------	MB-SD4	MB-D1	MB-D2	MB-D3	MB-D4
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	9/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	200	<150	<150	<100	<150
TRHC$_{15}$ - C$_{28}$	mg/kg	270	<300	390	330	380
TRHC$_{29}$ - C$_{36}$	mg/kg	650	560	1,900	1,200	1,300
TRH>C$_{10}$-C$_{16}$	mg/kg	210	<150	<150	<100	<150
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	210	<150	<150	<100	<150
TRH>C$_{16}$-C$_{34}$	mg/kg	710	430	1,400	1,000	1,200
TRH>C$_{34}$-C$_{40}$	mg/kg	530	830	2,300	1,900	2,000
Surrogate o-Terphenyl	%	85	85	83	83	84

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	129115-61	129115-62	129115-63	129115-64	129115-65
Your Reference	----------	MB-D5	MB-Pr1	MB-Pr3	MB-FD2	MB-FD3
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	10/06/2015	10/06/2015	10/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	<100	120	<100	170	<100
TRHC$_{15}$ - C$_{28}$	mg/kg	270	<200	<200	<200	<200
TRHC$_{29}$ - C$_{36}$	mg/kg	960	200	<200	<200	<200
TRH>C$_{10}$-C$_{16}$	mg/kg	<100	130	<100	180	<100
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<100	130	<100	180	<100
TRH>C$_{16}$-C$_{34}$	mg/kg	840	270	<200	210	<200
TRH>C$_{34}$-C$_{40}$	mg/kg	1,500	<200	<200	<200	<200
Surrogate o-Terphenyl	%	80	84	85	88	81

svTRH (C10-C40) in Soil			
Our Reference:	UNITS	129115-73	129115-74
Your Reference	----------	AB-AB3	AB-AB4
Depth	----------	-	-
Date Sampled		02/06/2015	02/06/2015
Type of sample		Wood	Wood
Date extracted	-	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	310	590
TRHC$_{15}$ - C$_{28}$	mg/kg	5,700	9,800
TRHC$_{29}$ - C$_{36}$	mg/kg	4,600	3,300
TRH>C$_{10}$-C$_{16}$	mg/kg	510	890
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	510	890
TRH>C$_{16}$-C$_{34}$	mg/kg	9,200	12,000
TRH>C$_{34}$-C$_{40}$	mg/kg	2,500	1,700
Surrogate o-Terphenyl	%	108	140

PAHs in Soil						
Our Reference:	UNITS	129115-1	129115-2	129115-3	129115-4	129115-5
Your Reference	----------	AB-PPB6	AB-PPB7	AB-PPB8	AB-PC1	AB-PC2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Naphthalene	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Acenaphthylene	mg/kg	0.1	<0.1	0.4	0.3	<0.2
Acenaphthene	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Fluorene	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Phenanthrene	mg/kg	4.2	5.1	4.8	2.1	0.6
Anthracene	mg/kg	0.3	0.2	0.3	0.3	<0.2
Fluoranthene	mg/kg	3.9	2.9	4.4	2.7	<0.2
Pyrene	mg/kg	2.8	1.9	3.2	1.8	<0.2
Benzo(a)anthracene	mg/kg	1.5	0.9	2.4	0.9	<0.2
Chrysene	mg/kg	2.3	1.6	4.1	1.4	<0.2
Benzo(b,j+k)fluoranthene	mg/kg	3.9	2	7.4	5.7	<0.4
Benzo(a)pyrene	mg/kg	0.96	0.3	1.6	0.98	<0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	1.1	0.3	2.0	1.6	<0.2
Dibenzo(a,h)anthracene	mg/kg	0.1	<0.1	0.3	0.2	<0.2
Benzo(g,h,i)perylene	mg/kg	1.0	0.2	2.0	1.8	<0.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	1.8	0.6	3.2	2.0	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	1.8	0.7	3.2	2.0	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	1.8	0.7	3.2	2.0	<0.5
Total Positive PAHs	mg/kg	22	15	33	20	0.63
Surrogate p-Terphenyl-d14	%	105	105	104	102	96

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ---------- 	129115-6 AB-PC3 - 02/06/2015 Wood	129115-7 AB-PC4 - 02/06/2015 Wood	129115-8 AB-PC5 - 02/06/2015 Wood	129115-9 AB-PC7 - 02/06/2015 Wood	129115-10 AB-PC8 - 02/06/2015 Wood
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Naphthalene	mg/kg	<0.1	0.2	<0.1	0.2	<0.2
Acenaphthylene	mg/kg	0.6	0.4	1.2	1.1	<0.2
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Fluorene	mg/kg	<0.1	<0.1	0.1	0.1	<0.2
Phenanthrene	mg/kg	5.4	5.6	13	6.1	7.9
Anthracene	mg/kg	0.5	0.6	1.2	0.7	0.3
Fluoranthene	mg/kg	5.5	5.9	21	6.2	3.8
Pyrene	mg/kg	3.9	3.5	16	4.8	2.5
Benzo(a)anthracene	mg/kg	2.3	1.6	11	3.4	1.5
Chrysene	mg/kg	3.4	2.9	13	7.9	2.0
Benzo(b,j+k)fluoranthene	mg/kg	6.5	4.6	25	14	2.3
Benzo(a)pyrene	mg/kg	1.2	0.89	9.2	2.2	0.58
Indeno(1,2,3-c,d)pyrene	mg/kg	1.7	1.0	6.5	2.3	0.3
Dibenzo(a,h)anthracene	mg/kg	0.3	0.1	1.2	0.4	<0.2
Benzo(g,h,i)perylene	mg/kg	1.7	1.0	5.4	2.0	0.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	2.6	1.8	15	4.6	1.0
Benzo(a)pyrene TEQ calc(half)	mg/kg	2.6	1.8	15	4.6	1.1
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	2.6	1.8	15	4.6	1.2
Total Positive PAHs	mg/kg	33	29	120	52	21
Surrogate p-Terphenyl-d14	%	109	104	113	111	104

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ---------- 	129115-11 AB-AB1 - 02/06/2015 Wood	129115-12 AB-AB2 - 02/06/2015 Wood	129115-13 AB-S1 0-200 02/06/2015 Soil	129115-14 AB-S2 0-200 02/06/2015 Soil	129115-15 AB-S3 0-200 02/06/2015 Soil
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Naphthalene	mg/kg	12	9.0	<0.1	<0.2	<0.2
Acenaphthylene	mg/kg	6.9	3.8	<0.1	<0.2	<0.2
Acenaphthene	mg/kg	23	13	<0.1	<0.2	<0.2
Fluorene	mg/kg	26	18	<0.1	<0.2	<0.2
Phenanthrene	mg/kg	400	370	0.4	<0.2	<0.2
Anthracene	mg/kg	33	31	<0.1	<0.2	<0.2
Fluoranthene	mg/kg	420	460	2.0	0.2	0.3
Pyrene	mg/kg	270	320	1.7	0.2	0.3
Benzo(a)anthracene	mg/kg	75	88	0.6	<0.2	<0.2
Chrysene	mg/kg	66	77	0.9	<0.2	<0.2
Benzo(b,j+k)fluoranthene	mg/kg	71	78	2	<0.4	<0.4
Benzo(a)pyrene	mg/kg	19	21	0.4	<0.1	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	6.4	6.4	0.3	<0.2	<0.2
Dibenzo(a,h)anthracene	mg/kg	1.1	1.2	<0.1	<0.2	<0.2
Benzo(g,h,i)perylene	mg/kg	4.1	4.3	0.2	<0.2	<0.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	36	41	0.7	[NA]	[NA]
Benzo(a)pyrene TEQ calc(half)	mg/kg	36	41	0.7	[NA]	[NA]
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	36	41	0.8	[NA]	[NA]
Total Positive PAHs	mg/kg	1,400	1,500	8.3	0.48	0.81
Surrogate p-Terphenyl-d14	%	131	134	106	112	110

PAHs in Soil						
Our Reference:	UNITS	129115-16	129115-17	129115-18	129115-19	129115-20
Your Reference	----------	AB-S4	AB-S5	AB-S6	AB-S7	AB-S8
Depth	----------	0-200	0-200	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	9/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Naphthalene	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Acenaphthylene	mg/kg	<0.1	0.3	0.4	<0.2	0.9
Acenaphthene	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Fluorene	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Phenanthrene	mg/kg	<0.1	0.8	0.6	0.4	0.5
Anthracene	mg/kg	<0.1	<0.2	<0.2	<0.2	0.1
Fluoranthene	mg/kg	0.2	2.8	2.7	0.7	3.4
Pyrene	mg/kg	0.2	2.3	2.6	0.9	4.0
Benzo(a)anthracene	mg/kg	<0.1	0.8	1.0	<0.2	1.7
Chrysene	mg/kg	0.2	1.2	1.2	0.3	2.0
Benzo(b,j+k)fluoranthene	mg/kg	0.4	3.8	5.5	0.9	4.1
Benzo(a)pyrene	mg/kg	0.07	1.3	1.4	0.1	1.9
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	1.8	1.2	0.3	1.4
Dibenzo(a,h)anthracene	mg/kg	<0.1	0.2	0.2	<0.2	0.2
Benzo(g,h,i)perylene	mg/kg	<0.1	1.7	1.0	0.3	1.6
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	2.2	2.4	<0.5	2.9
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	2.2	2.4	<0.5	2.9
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	2.2	2.4	<0.5	2.9
Total Positive PAHs	mg/kg	1.0	17	18	3.9	22
Surrogate p-Terphenyl-d14	%	115	101	104	104	104

PAHs in Soil						
Our Reference:	UNITS	129115-21	129115-22	129115-23	129115-24	129115-25
Your Reference	----------	AB-P1	AB-P2	AB-P3	AB-P4	AB-P5
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Naphthalene	mg/kg	<0.2	<0.2	<0.2	0.2	<0.1
Acenaphthylene	mg/kg	7.9	5.5	9.9	<0.2	<0.1
Acenaphthene	mg/kg	1.5	<0.2	1.8	<0.2	0.1
Fluorene	mg/kg	1	0.2	1.2	<0.2	<0.1
Phenanthrene	mg/kg	52	27	51	0.4	3.8
Anthracene	mg/kg	7.6	4.3	7.4	<0.2	0.3
Fluoranthene	mg/kg	140	58	150	0.8	1.9
Pyrene	mg/kg	110	51	120	0.2	1.1
Benzo(a)anthracene	mg/kg	64	29	64	<0.2	0.2
Chrysene	mg/kg	68	35	70	0.2	0.2
Benzo(b,j+k)fluoranthene	mg/kg	130	71	140	<0.4	<0.2
Benzo(a)pyrene	mg/kg	56	31	59	<0.1	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	35	23	31	<0.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	5.9	4.3	5.5	<0.2	<0.1
Benzo(g,h,i)perylene	mg/kg	31	21	27	<0.2	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	86	48	89	[NA]	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	86	48	89	[NA]	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	86	48	89	[NA]	<0.5
Total Positive PAHs	mg/kg	710	360	740	1.8	7.6
Surrogate p-Terphenyl-d14	%	114	115	120	110	104

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ---------- 	129115-26 AB-P6 - 02/06/2015 Wood	129115-27 AB-P7 - 02/06/2015 Wood	129115-28 AB-P8 - 02/06/2015 Wood	129115-29 AB-PPP1 - 02/06/2015 Wood	129115-30 AB-PPP2 - 02/06/2015 Wood
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Naphthalene	mg/kg	<0.1	0.3	34	<0.2	<0.2
Acenaphthylene	mg/kg	4.0	1.8	28	<0.2	<0.2
Acenaphthene	mg/kg	<0.1	2.5	52	<0.2	<0.2
Fluorene	mg/kg	0.2	3.2	110	<0.2	<0.2
Phenanthrene	mg/kg	30	86	1,300	7.2	9.1
Anthracene	mg/kg	3.0	4.9	100	0.4	0.4
Fluoranthene	mg/kg	57	180	1,200	5.1	7.0
Pyrene	mg/kg	48	110	880	3.7	4.6
Benzo(a)anthracene	mg/kg	22	41	220	1.4	1.9
Chrysene	mg/kg	30	110	240	1.8	2.5
Benzo(b,j+k)fluoranthene	mg/kg	52	110	270	2	2.5
Benzo(a)pyrene	mg/kg	17	8.9	110	0.68	0.67
Indeno(1,2,3-c,d)pyrene	mg/kg	17	15	51	0.5	0.7
Dibenzo(a,h)anthracene	mg/kg	3.0	2.5	4.3	<0.2	<0.2
Benzo(g,h,i)perylene	mg/kg	15	9.9	43	0.4	0.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	30	29	170	1.1	1.2
Benzo(a)pyrene TEQ calc(half)	mg/kg	30	29	170	1.2	1.3
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	30	29	170	1.3	1.4
Total Positive PAHs	mg/kg	300	690	4,600	23	30
Surrogate p-Terphenyl-d14	%	111	108	120	108	106

PAHs in Soil						
Our Reference:	UNITS	129115-31	129115-32	129115-33	129115-34	129115-35
Your Reference	----------	AB-PPP3	AB-PPP4	AB-PPP5	MB-S1	MB-S2
Depth	----------	-	-	-	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Soil	Soil
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Naphthalene	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.2
Acenaphthylene	mg/kg	0.8	0.1	<0.2	<0.1	<0.2
Acenaphthene	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.2
Fluorene	mg/kg	0.1	<0.1	<0.2	<0.1	<0.2
Phenanthrene	mg/kg	13	5.6	3.5	<0.1	<0.2
Anthracene	mg/kg	1.0	0.3	<0.2	<0.1	<0.2
Fluoranthene	mg/kg	12	3.2	3.2	0.1	0.2
Pyrene	mg/kg	8.3	2.3	2.4	0.1	<0.2
Benzo(a)anthracene	mg/kg	4.4	1.1	1.4	<0.1	<0.2
Chrysene	mg/kg	6.2	1.6	2.2	<0.1	<0.2
Benzo(b,j+k)fluoranthene	mg/kg	7.9	2	2.9	0.3	<0.4
Benzo(a)pyrene	mg/kg	2.2	0.4	0.51	<0.05	<0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	2.4	0.7	0.6	<0.1	<0.2
Dibenzo(a,h)anthracene	mg/kg	0.4	<0.1	<0.2	<0.1	<0.2
Benzo(g,h,i)perylene	mg/kg	2.0	0.5	0.6	<0.1	<0.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	4.1	0.8	1.0	<0.5	[NA]
Benzo(a)pyrene TEQ calc(half)	mg/kg	4.1	0.8	1.1	<0.5	[NA]
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	4.1	0.9	1.2	<0.5	[NA]
Total Positive PAHs	mg/kg	60	18	17	0.54	0.25
Surrogate p-Terphenyl-d14	%	109	106	96	104	100

PAHs in Soil						
Our Reference:	UNITS	129115-36	129115-37	129115-38	129115-39	129115-40
Your Reference	----------	MB-S3	MB-P1	MB-P2	MB-P3	MB-PPB1
Depth	----------	0-200	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Wood	Wood	Wood	Wood
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Naphthalene	mg/kg	<0.2	0.5	1.8	<1	2.7
Acenaphthylene	mg/kg	<0.2	6.6	9.2	3.0	3.3
Acenaphthene	mg/kg	<0.2	11	37	4.4	3.0
Fluorene	mg/kg	<0.2	21	82	17	10
Phenanthrene	mg/kg	<0.2	380	2,700	1,200	320
Anthracene	mg/kg	<0.2	47	220	110	11
Fluoranthene	mg/kg	<0.2	560	3,900	3,400	470
Pyrene	mg/kg	<0.2	390	2,700	2,400	280
Benzo(a)anthracene	mg/kg	<0.2	100	580	630	24
Chrysene	mg/kg	<0.2	140	700	670	39
Benzo(b,j+k)fluoranthene	mg/kg	<0.4	160	640	620	55
Benzo(a)pyrene	mg/kg	0.2	39	210	190	8.0
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.2	26	83	69	7.9
Dibenzo(a,h)anthracene	mg/kg	<0.2	4.6	18	16	1.1
Benzo(g,h,i)perylene	mg/kg	<0.2	20	66	49	6.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	[NA]	75	360	340	18
Benzo(a)pyrene TEQ calc(half)	mg/kg	[NA]	75	360	340	18
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	[NA]	75	360	340	18
Total Positive PAHs	mg/kg	0.18	1,900	12,000	9,400	1,200
Surrogate p-Terphenyl-d14	%	101	116	135	135	99

PAHs in Soil						
Our Reference:	UNITS	129115-41	129115-42	129115-43	129115-44	129115-45
Your Reference	----------	MB-PPB2	MB-PPB3	MB-AB1	MB-AB2	MB-X1
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Naphthalene	mg/kg	<0.1	<0.1	2.7	4.7	<0.3
Acenaphthylene	mg/kg	<0.1	<0.1	14	22	<0.3
Acenaphthene	mg/kg	<0.1	<0.1	16	34	<0.3
Fluorene	mg/kg	<0.1	0.1	32	58	<0.3
Phenanthrene	mg/kg	0.5	5.5	810	1,200	0.3
Anthracene	mg/kg	<0.1	1.5	65	93	<0.3
Fluoranthene	mg/kg	0.5	7.8	1,300	1,700	1.0
Pyrene	mg/kg	0.3	5.1	1,100	1,500	0.9
Benzo(a)anthracene	mg/kg	<0.1	1.0	300	440	<0.3
Chrysene	mg/kg	0.1	1.8	270	430	0.4
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	1	600	1,000	0.6
Benzo(a)pyrene	mg/kg	<0.05	0.2	93	160	<0.15
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	45	64	<0.3
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	14	20	<0.3
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	41	57	<0.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	210	340	[NA]
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	210	340	[NA]
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	0.5	210	340	[NA]
Total Positive PAHs	mg/kg	1.5	25	4,600	6,900	3.2
Surrogate p-Terphenyl-d14	%	98	106	125	126	118

PAHs in Soil						
Our Reference:	UNITS	129115-46	129115-47	129115-57	129115-58	129115-59
Your Reference	----------	MB-SD1	MB-SD4	MB-D1	MB-D2	MB-D3
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Naphthalene	mg/kg	<0.2	<0.2	<0.3	0.8	0.4
Acenaphthylene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Acenaphthene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Fluorene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Phenanthrene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Anthracene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Fluoranthene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Pyrene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Benzo(a)anthracene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Chrysene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.4	<0.6	<0.6	<0.4
Benzo(a)pyrene	mg/kg	<0.1	<0.1	<0.15	<0.15	<0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Dibenzo(a,h)anthracene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Benzo(g,h,i)perylene	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Total Positive PAHs	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	0.84	0.40
Surrogate p-Terphenyl-d14	%	112	107	106	108	107

PAHs in Soil						
Our Reference:	UNITS	129115-60	129115-61	129115-62	129115-63	129115-64
Your Reference	----------	MB-D4	MB-D5	MB-Pr1	MB-Pr3	MB-FD2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Naphthalene	mg/kg	0.6	0.3	<0.2	<0.2	<0.2
Acenaphthylene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Acenaphthene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Fluorene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Phenanthrene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Anthracene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Fluoranthene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Pyrene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Benzo(a)anthracene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Chrysene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Benzo(b,j+k)fluoranthene	mg/kg	<0.6	<0.4	<0.4	<0.4	<0.4
Benzo(a)pyrene	mg/kg	<0.15	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Dibenzo(a,h)anthracene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Benzo(g,h,i)perylene	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Total Positive PAHs	mg/kg	0.61	0.33	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	111	103	108	114	114

PAHs in Soil						
Our Reference:	UNITS	129115-65	129115-69	129115-70	129115-71	129115-72
Your Reference	----------	MB-FD3	MB-SAB1	MB-SAB2	AB-SAB1	AB-SAB2
Depth	----------	-	0-200	0-201	0-202	0-203
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Soil	Soil	Soil	Soil
Date extracted	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Naphthalene	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.2	<0.1	0.3	<0.1	0.2
Acenaphthene	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.2	0.3	0.5	<0.1	0.5
Anthracene	mg/kg	<0.2	<0.1	0.1	<0.1	0.2
Fluoranthene	mg/kg	<0.2	1.5	1.9	0.3	1.6
Pyrene	mg/kg	<0.2	1.3	1.9	0.3	1.5
Benzo(a)anthracene	mg/kg	<0.2	0.3	0.6	0.1	0.6
Chrysene	mg/kg	<0.2	0.7	0.9	0.2	0.7
Benzo(b,j+k)fluoranthene	mg/kg	<0.4	2.7	3.2	0.9	2.3
Benzo(a)pyrene	mg/kg	<0.1	0.3	0.61	0.1	0.60
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.2	0.4	0.5	0.1	0.4
Dibenzo(a,h)anthracene	mg/kg	<0.2	<0.1	0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.2	0.5	0.7	0.2	0.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	[NA]	0.7	1.2	<0.5	0.9
Benzo(a)pyrene TEQ calc(half)	mg/kg	[NA]	0.7	1.2	<0.5	1.0
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	[NA]	0.8	1.2	<0.5	1.0
Total Positive PAHs	mg/kg	NIL (+)VE	8.0	11	2.3	9.0
Surrogate p-Terphenyl-d14	%	101	102	96	104	95

PAHs in Soil			
Our Reference:	UNITS	129115-73	129115-74
Your Reference	----------	AB-AB3	AB-AB4
Depth	----------	-	-
Date Sampled		02/06/2015	02/06/2015
Type of sample		Wood	Wood
Date extracted	-	9/06/2015	9/06/2015
Date analysed	-	10/06/2015	10/06/2015
Naphthalene	mg/kg	3.4	6.4
Acenaphthylene	mg/kg	1.9	4.5
Acenaphthene	mg/kg	5.5	7.3
Fluorene	mg/kg	8.0	12
Phenanthrene	mg/kg	210	630
Anthracene	mg/kg	11	35
Fluoranthene	mg/kg	260	1,100
Pyrene	mg/kg	140	670
Benzo(a)anthracene	mg/kg	29	160
Chrysene	mg/kg	71	280
Benzo(b,j+k)fluoranthene	mg/kg	150	500
Benzo(a)pyrene	mg/kg	7.6	49
Indeno(1,2,3-c,d)pyrene	mg/kg	7.0	29
Dibenzo(a,h)anthracene	mg/kg	1.3	7.0
Benzo(g,h,i)perylene	mg/kg	7.2	28
Benzo(a)pyrene TEQ calc (zero)	mg/kg	28	130
Benzo(a)pyrene TEQ calc(half)	mg/kg	28	130
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	28	130
Total Positive PAHs	mg/kg	920	3,500
Surrogate p-Terphenyl-d14	%	99	101

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-1	129115-2	129115-3	129115-4	129115-5
Your Reference	----------	AB-PPB6	AB-PPB7	AB-PPB8	AB-PC1	AB-PC2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
alpha-BHC	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
gamma-BHC	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
beta-BHC	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
delta-BHC	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Aldrin	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor Epoxide	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
gamma-Chlordane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
alpha-chlordane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endosulfan I	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
pp-DDE	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Dieldrin	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
pp-DDD	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endosulfan II	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
pp-DDT	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin Aldehyde	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endosulfan Sulphate	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Methoxychlor	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	99	99	98	97	89

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-6	129115-7	129115-8	129115-9	129115-10
Your Reference	----------	AB-PC3	AB-PC4	AB-PC5	AB-PC7	AB-PC8
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Dieldrin	mg/kg	<0.1	<0.2	<0.1	<0.2	<0.2
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Surrogate TCMX	%	99	101	101	113	97

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-11	129115-12	129115-13	129115-14	129115-15
Your Reference	----------	AB-AB1	AB-AB2	AB-S1	AB-S2	AB-S3
Depth	----------	-	-	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Soil	Soil	Soil
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
alpha-BHC	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
gamma-BHC	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
beta-BHC	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Heptachlor	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
delta-BHC	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Aldrin	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Heptachlor Epoxide	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
gamma-Chlordane	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
alpha-chlordane	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Endosulfan I	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
pp-DDE	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Dieldrin	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Endrin	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
pp-DDD	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Endosulfan II	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
pp-DDT	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Endrin Aldehyde	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Endosulfan Sulphate	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Methoxychlor	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Surrogate TCMX	%	110	110	100	99	98

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-16	129115-17	129115-18	129115-19	129115-20
Your Reference	----------	AB-S4	AB-S5	AB-S6	AB-S7	AB-S8
Depth	----------	0-200	0-200	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
alpha-BHC	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
gamma-BHC	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
beta-BHC	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Heptachlor	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
delta-BHC	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Aldrin	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
alpha-chlordane	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Endosulfan I	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
pp-DDE	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Dieldrin	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Endrin	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
pp-DDD	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Endosulfan II	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
pp-DDT	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Methoxychlor	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Surrogate TCMX	%	97	100	97	96	100

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-21	129115-22	129115-23	129115-24	129115-25
Your Reference	----------	AB-P1	AB-P2	AB-P3	AB-P4	AB-P5
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
alpha-BHC	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
gamma-BHC	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
beta-BHC	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Heptachlor	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
delta-BHC	mg/kg	<1	<0.2	<0.2	<0.2	<0.1
Aldrin	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Heptachlor Epoxide	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
gamma-Chlordane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
alpha-chlordane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Endosulfan I	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
pp-DDE	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Dieldrin	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Endrin	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
pp-DDD	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Endosulfan II	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
pp-DDT	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Endrin Aldehyde	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Endosulfan Sulphate	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Methoxychlor	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Surrogate TCMX	%	112	111	126	107	103

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-26	129115-27	129115-28	129115-29	129115-30
Your Reference	----------	AB-P6	AB-P7	AB-P8	AB-PPP1	AB-PPP2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
alpha-BHC	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
gamma-BHC	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
beta-BHC	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Heptachlor	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
delta-BHC	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Aldrin	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Heptachlor Epoxide	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
gamma-Chlordane	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
alpha-chlordane	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Endosulfan I	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
pp-DDE	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Dieldrin	mg/kg	<0.2	<0.2	<2	<0.2	<0.2
Endrin	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
pp-DDD	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Endosulfan II	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
pp-DDT	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Endrin Aldehyde	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Endosulfan Sulphate	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Methoxychlor	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Surrogate TCMX	%	108	99	106	96	98

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-31	129115-32	129115-33	129115-34	129115-35
Your Reference	----------	AB-PPP3	AB-PPP4	AB-PPP5	MB-S1	MB-S2
Depth	----------	-	-	-	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Soil	Soil
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
alpha-BHC	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
gamma-BHC	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
beta-BHC	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Heptachlor	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
delta-BHC	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Aldrin	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
alpha-chlordane	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Endosulfan I	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
pp-DDE	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Dieldrin	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Endrin	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
pp-DDD	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Endosulfan II	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
pp-DDT	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Methoxychlor	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Surrogate TCMX	%	95	98	95	97	97

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-36	129115-37	129115-38	129115-39	129115-40
Your Reference	----------	MB-S3	MB-P1	MB-P2	MB-P3	MB-PPB1
Depth	----------	0-200	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.2	<2	<2	<2	<0.2
alpha-BHC	mg/kg	<0.2	<2	<2	<2	<0.2
gamma-BHC	mg/kg	<0.2	<2	<2	<2	<0.2
beta-BHC	mg/kg	<0.2	<2	<2	<2	<0.2
Heptachlor	mg/kg	<0.2	<2	<2	<2	<0.2
delta-BHC	mg/kg	<0.2	<2	<2	<2	<0.2
Aldrin	mg/kg	<0.2	<2	<2	<2	<0.2
Heptachlor Epoxide	mg/kg	<0.2	<2	<2	<2	<0.2
gamma-Chlordane	mg/kg	<0.2	<2	<2	<2	<0.2
alpha-chlordane	mg/kg	<0.2	<2	<2	<2	<0.2
Endosulfan I	mg/kg	<0.2	<2	<2	<2	<0.2
pp-DDE	mg/kg	<0.2	<2	<2	<2	<0.2
Dieldrin	mg/kg	<0.2	<2	<3	<2	<0.2
Endrin	mg/kg	<0.2	<2	<2	<2	<0.2
pp-DDD	mg/kg	<0.2	<2	<2	<2	<0.2
Endosulfan II	mg/kg	<0.2	<2	<2	<2	<0.2
pp-DDT	mg/kg	<0.2	<2	<2	<2	<0.2
Endrin Aldehyde	mg/kg	<0.2	<2	<2	<2	<0.2
Endosulfan Sulphate	mg/kg	<0.2	<2	<2	<2	<0.2
Methoxychlor	mg/kg	<0.2	<2	<2	<2	<0.2
Surrogate TCMX	%	96	94	95	89	95

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-41	129115-42	129115-43	129115-44	129115-45
Your Reference	----------	MB-PPB2	MB-PPB3	MB-AB1	MB-AB2	MB-X1
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.1	<0.1	<2	<2	<0.3
alpha-BHC	mg/kg	<0.1	<0.1	<2	<2	<0.3
gamma-BHC	mg/kg	<0.1	<0.1	<2	<2	<0.3
beta-BHC	mg/kg	<0.1	<0.1	<2	<2	<0.3
Heptachlor	mg/kg	<0.1	<0.1	<2	<2	<0.3
delta-BHC	mg/kg	<0.1	<0.1	<2	<2	<0.3
Aldrin	mg/kg	<0.1	<0.1	<2	<2	<0.3
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<2	<2	<0.3
gamma-Chlordane	mg/kg	<0.1	<0.1	<2	<2	<0.3
alpha-chlordane	mg/kg	<0.1	<0.1	<2	<2	<0.3
Endosulfan I	mg/kg	<0.1	<0.1	<2	<2	<0.3
pp-DDE	mg/kg	<0.1	<0.1	<2	<2	<0.3
Dieldrin	mg/kg	<0.1	<0.1	<3	<2	<0.3
Endrin	mg/kg	<0.1	<0.1	<2	<2	<0.3
pp-DDD	mg/kg	<0.1	<0.1	<2	<2	<0.3
Endosulfan II	mg/kg	<0.1	<0.1	<2	<2	<0.3
pp-DDT	mg/kg	<0.1	<0.1	<2	<2	<0.3
Endrin Aldehyde	mg/kg	<0.1	<0.1	<2	<2	<0.3
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<2	<2	<0.3
Methoxychlor	mg/kg	<0.1	<0.1	<2	<2	<0.3
Surrogate TCMX	%	86	93	92	94	99

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-46	129115-47	129115-57	129115-58	129115-59
Your Reference	----------	MB-SD1	MB-SD4	MB-D1	MB-D2	MB-D3
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
alpha-BHC	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
gamma-BHC	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
beta-BHC	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Heptachlor	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
delta-BHC	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Aldrin	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Heptachlor Epoxide	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
gamma-Chlordane	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
alpha-chlordane	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Endosulfan I	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
pp-DDE	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Dieldrin	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Endrin	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
pp-DDD	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Endosulfan II	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
pp-DDT	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Endrin Aldehyde	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Endosulfan Sulphate	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Methoxychlor	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Surrogate TCMX	%	95	98	94	100	100

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-60	129115-61	129115-62	129115-63	129115-64
Your Reference	----------	MB-D4	MB-D5	MB-Pr1	MB-Pr3	MB-FD2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
alpha-BHC	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
gamma-BHC	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
beta-BHC	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Heptachlor	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
delta-BHC	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Aldrin	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Heptachlor Epoxide	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
gamma-Chlordane	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
alpha-chlordane	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Endosulfan I	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
pp-DDE	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Dieldrin	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
pp-DDD	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Endosulfan II	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
pp-DDT	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Endrin Aldehyde	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Endosulfan Sulphate	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Methoxychlor	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	98	93	103	99	100

Organochlorine Pesticides in soil						
Our Reference:	UNITS	129115-65	129115-69	129115-70	129115-71	129115-72
Your Reference	----------	MB-FD3	MB-SAB1	MB-SAB2	AB-SAB1	AB-SAB2
Depth	----------	-	0-200	0-201	0-202	0-203
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Soil	Soil	Soil	Soil
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
HCB	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	101	93	90	90

Organochlorine Pesticides in soil			
Our Reference:	UNITS	129115-73	129115-74
Your Reference	----------	AB-AB3	AB-AB4
Depth	----------	-	-
Date Sampled		02/06/2015	02/06/2015
Type of sample		Wood	Wood
Date extracted	-	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015
HCB	mg/kg	<2	<2
alpha-BHC	mg/kg	<2	<2
gamma-BHC	mg/kg	<2	<2
beta-BHC	mg/kg	<2	<2
Heptachlor	mg/kg	<2	<2
delta-BHC	mg/kg	<2	<2
Aldrin	mg/kg	<2	<2
Heptachlor Epoxide	mg/kg	<2	<2
gamma-Chlordane	mg/kg	<2	<2
alpha-chlordane	mg/kg	<2	<2
Endosulfan I	mg/kg	<2	<2
pp-DDE	mg/kg	<2	<2
Dieldrin	mg/kg	<2	<2
Endrin	mg/kg	<2	<2
pp-DDD	mg/kg	<2	<2
Endosulfan II	mg/kg	<2	<2
pp-DDT	mg/kg	<2	<2
Endrin Aldehyde	mg/kg	<2	<2
Endosulfan Sulphate	mg/kg	<2	<2
Methoxychlor	mg/kg	<2	<2
Surrogate TCMX	%	114	128

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-1	129115-2	129115-3	129115-4	129115-5
Your Reference	----------	AB-PPB6	AB-PPB7	AB-PPB8	AB-PC1	AB-PC2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos-ethyl	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos-methyl	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Diazinon	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorvos	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Ethion	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Fenitrothion	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Ronnel	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	99	99	98	97	89

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-6	129115-7	129115-8	129115-9	129115-10
Your Reference	----------	AB-PC3	AB-PC4	AB-PC5	AB-PC7	AB-PC8
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.2	6.7
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.5	<0.2
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Surrogate TCMX	%	99	101	101	113	97

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-11	129115-12	129115-13	129115-14	129115-15
Your Reference	----------	AB-AB1	AB-AB2	AB-S1	AB-S2	AB-S3
Depth	----------	-	-	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Soil	Soil	Soil
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Bromophos-ethyl	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Chlorpyriphos	mg/kg	27	6.4	0.4	<0.2	<0.2
Chlorpyriphos-methyl	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Diazinon	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Dichlorvos	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Dimethoate	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Ethion	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Fenitrothion	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Malathion	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Parathion	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Ronnel	mg/kg	<0.2	<0.2	<0.1	<0.2	<0.2
Surrogate TCMX	%	100	110	100	99	98

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-16	129115-17	129115-18	129115-19	129115-20
Your Reference	----------	AB-S4	AB-S5	AB-S6	AB-S7	AB-S8
Depth	----------	0-200	0-200	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.2	0.5	<0.2	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Diazinon	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Dichlorvos	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Dimethoate	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Ethion	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Fenitrothion	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Malathion	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Parathion	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Ronnel	mg/kg	<0.1	<0.2	<0.2	<0.2	<0.1
Surrogate TCMX	%	97	100	97	96	100

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-21	129115-22	129115-23	129115-24	129115-25
Your Reference	----------	AB-P1	AB-P2	AB-P3	AB-P4	AB-P5
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Bromophos-ethyl	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Chlorpyriphos	mg/kg	<1	<0.2	<1	<0.2	<0.1
Chlorpyriphos-methyl	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Diazinon	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Dichlorvos	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Dimethoate	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Ethion	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Fenitrothion	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Malathion	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Parathion	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Ronnel	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.1
Surrogate TCMX	%	112	111	126	107	103

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-26	129115-27	129115-28	129115-29	129115-30
Your Reference	----------	AB-P6	AB-P7	AB-P8	AB-PPP1	AB-PPP2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Bromophos-ethyl	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Chlorpyriphos	mg/kg	<0.2	<0.5	<2	<0.2	<0.2
Chlorpyriphos-methyl	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Diazinon	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Dichlorvos	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Dimethoate	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Ethion	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Fenitrothion	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Malathion	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Parathion	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Ronnel	mg/kg	<0.2	<0.1	<2	<0.2	<0.2
Surrogate TCMX	%	108	99	106	96	98

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-31	129115-32	129115-33	129115-34	129115-35
Your Reference	----------	AB-PPP3	AB-PPP4	AB-PPP5	MB-S1	MB-S2
Depth	----------	-	-	-	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Soil	Soil
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.2	<0.2	0.2
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Diazinon	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Dichlorvos	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Dimethoate	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Ethion	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Fenitrothion	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Malathion	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Parathion	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Ronnel	mg/kg	<0.1	<0.1	<0.2	<0.2	<0.2
Surrogate TCMX	%	95	98	95	97	97

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-36	129115-37	129115-38	129115-39	129115-40
Your Reference	----------	MB-S3	MB-P1	MB-P2	MB-P3	MB-PPB1
Depth	----------	0-200	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.2	<2	<2	<2	<0.2
Bromophos-ethyl	mg/kg	<0.2	<2	<2	<2	<0.2
Chlorpyriphos	mg/kg	<0.2	23	<2	<2	<0.2
Chlorpyriphos-methyl	mg/kg	<0.2	<2	<2	<2	<0.2
Diazinon	mg/kg	<0.2	<2	<2	<2	<0.2
Dichlorvos	mg/kg	<0.2	<2	<2	<2	<0.2
Dimethoate	mg/kg	<0.2	<2	<2	<2	<0.2
Ethion	mg/kg	<0.2	<2	<2	<2	<0.2
Fenitrothion	mg/kg	<0.2	<2	<2	<2	<0.2
Malathion	mg/kg	<0.2	<2	<2	<2	<0.2
Parathion	mg/kg	<0.2	<2	<2	<2	<0.2
Ronnel	mg/kg	<0.2	<2	<2	<2	<0.2
Surrogate TCMX	%	96	94	95	89	95

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-41	129115-42	129115-43	129115-44	129115-45
Your Reference	----------	MB-PPB2	MB-PPB3	MB-AB1	MB-AB2	MB-X1
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<2	<2	<0.3
Bromophos-ethyl	mg/kg	<0.1	<0.1	<2	<2	<0.3
Chlorpyriphos	mg/kg	<0.1	<0.1	51	60	<0.3
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<2	<2	<0.3
Diazinon	mg/kg	<0.1	<0.1	<2	<2	<0.3
Dichlorvos	mg/kg	<0.1	<0.1	<2	<2	<0.3
Dimethoate	mg/kg	<0.1	<0.1	<2	<2	<0.3
Ethion	mg/kg	<0.1	<0.1	<2	<2	<0.3
Fenitrothion	mg/kg	<0.1	<0.1	<2	<2	<0.3
Malathion	mg/kg	<0.1	<0.1	<2	<2	<0.3
Parathion	mg/kg	<0.1	<0.1	<2	<2	<0.3
Ronnel	mg/kg	<0.1	<0.1	<2	<2	<0.3
Surrogate TCMX	%	86	93	92	94	99

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-46	129115-47	129115-57	129115-58	129115-59
Your Reference	----------	MB-SD1	MB-SD4	MB-D1	MB-D2	MB-D3
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Bromophos-ethyl	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Chlorpyriphos	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Chlorpyriphos-methyl	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Diazinon	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Dichlorvos	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Dimethoate	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Ethion	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Fenitrothion	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Malathion	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Parathion	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Ronnel	mg/kg	<0.2	<0.2	<0.3	<0.3	<0.2
Surrogate TCMX	%	95	98	94	100	100

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-60	129115-61	129115-62	129115-63	129115-64
Your Reference	----------	MB-D4	MB-D5	MB-Pr1	MB-Pr3	MB-FD2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Bromophos-ethyl	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos-methyl	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Diazinon	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Dichlorvos	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Dimethoate	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Ethion	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Fenitrothion	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Parathion	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Ronnel	mg/kg	<0.3	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	98	93	103	99	100

Organophosphorus Pesticides						
Our Reference:	UNITS	129115-65	129115-69	129115-70	129115-71	129115-72
Your Reference	----------	MB-FD3	MB-SAB1	MB-SAB2	AB-SAB1	AB-SAB2
Depth	----------	-	0-200	0-201	0-202	0-203
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Soil	Soil	Soil	Soil
Date extracted	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.2	0.2	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	101	93	90	90

Organophosphorus Pesticides			
Our Reference:	UNITS	129115-73	129115-74
Your Reference	----------	AB-AB3	AB-AB4
Depth	----------	-	-
Date Sampled		02/06/2015	02/06/2015
Type of sample		Wood	Wood
Date extracted	-	09/06/2015	09/06/2015
Date analysed	-	10/06/2015	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	<2	<2
Bromophos-ethyl	mg/kg	<2	<2
Chlorpyriphos	mg/kg	22	49
Chlorpyriphos-methyl	mg/kg	<2	<2
Diazinon	mg/kg	<2	<2
Dichlorvos	mg/kg	<2	<2
Dimethoate	mg/kg	<2	<2
Ethion	mg/kg	<2	<2
Fenitrothion	mg/kg	<2	<2
Malathion	mg/kg	<2	<2
Parathion	mg/kg	<2	<2
Ronnel	mg/kg	<2	<2
Surrogate TCMX	%	114	128

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-1	129115-2	129115-3	129115-4	129115-5
Your Reference	----------	AB-PPB6	AB-PPB7	AB-PPB8	AB-PC1	AB-PC2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	1	1	<1	<1	<1
Copper	mg/kg	11	5	4	2	2
Lead	mg/kg	24	7	5	7	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	1	2	1	2
Zinc	mg/kg	22	25	18	15	41
Boron	mg/kg	20	4	3	4	<3

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-6	129115-7	129115-8	129115-9	129115-10
Your Reference	----------	AB-PC3	AB-PC4	AB-PC5	AB-PC7	AB-PC8
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	<1	<1	<1	<1	<1
Copper	mg/kg	5	14	3	1	<1
Lead	mg/kg	3	15	5	13	1
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2	<1	2	<1	1
Zinc	mg/kg	6	13	16	9	7
Boron	mg/kg	<3	5	4	33	<3

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-11	129115-12	129115-13	129115-14	129115-15
Your Reference	----------	AB-AB1	AB-AB2	AB-S1	AB-S2	AB-S3
Depth	----------	-	-	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Soil	Soil	Soil
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	<4	<4	5	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	<1	<1	3	3	3
Copper	mg/kg	5	3	36	9	12
Lead	mg/kg	1	2	31	58	65
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	<1	3	4	4
Zinc	mg/kg	2	6	62	48	24
Boron	mg/kg	3	6	[NA]	[NA]	[NA]

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-16	129115-17	129115-18	129115-19	129115-20
Your Reference	----------	AB-S4	AB-S5	AB-S6	AB-S7	AB-S8
Depth	----------	0-200	0-200	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	6	4	6	9	4
Copper	mg/kg	19	9	33	8	8
Lead	mg/kg	58	66	76	130	68
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	5	4	6	3
Zinc	mg/kg	80	35	110	67	81

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-21	129115-22	129115-23	129115-24	129115-25
Your Reference	----------	AB-P1	AB-P2	AB-P3	AB-P4	AB-P5
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	<1	<1	1	1	<1
Copper	mg/kg	3	3	17	3,700	3
Lead	mg/kg	5	12	7	4	4
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2	2	2	<1	<1
Zinc	mg/kg	9	40	22	110	17
Boron	mg/kg	4	6	10	110	3

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-26	129115-27	129115-28	129115-29	129115-30
Your Reference	----------	AB-P6	AB-P7	AB-P8	AB-PPP1	AB-PPP2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	<1	<1	<1	<1	<1
Copper	mg/kg	8	2	<1	1	3
Lead	mg/kg	5	5	35	3	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5	2	<1	1	4
Zinc	mg/kg	11	9	2	6	32
Boron	mg/kg	4	20	<3	<3	<3

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-31	129115-32	129115-33	129115-34	129115-35
Your Reference	----------	AB-PPP3	AB-PPP4	AB-PPP5	MB-S1	MB-S2
Depth	----------	-	-	-	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Soil	Soil
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	<4	<4	<4	12	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	1	2	1	14	7
Copper	mg/kg	7	13	7	18	10
Lead	mg/kg	5	8	11	68	52
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	4	3	3	2
Zinc	mg/kg	160	16	21	52	46
Boron	mg/kg	3	7	8	[NA]	[NA]

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-36	129115-37	129115-38	129115-39	129115-40
Your Reference	----------	MB-S3	MB-P1	MB-P2	MB-P3	MB-PPB1
Depth	----------	0-200	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Wood	Wood	Wood	Wood
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	15	4	13	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	23	3	<1	<1	2
Copper	mg/kg	27	11	3	2	10
Lead	mg/kg	56	12	12	8	98
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	4	4	2	<1	1
Zinc	mg/kg	30	13	5	13	10
Boron	mg/kg	[NA]	4	<3	<3	7

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-41	129115-42	129115-43	129115-44	129115-45
Your Reference	----------	MB-PPB2	MB-PPB3	MB-AB1	MB-AB2	MB-X1
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	<4	<4	8	5	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	<1	2	6	3	<1
Copper	mg/kg	2	8	16	9	<1
Lead	mg/kg	15	3	16	26	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	1	2	1	<1
Zinc	mg/kg	3	7	30	35	14
Boron	mg/kg	<3	<3	6	9	5

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-46	129115-47	129115-57	129115-58	129115-59
Your Reference	----------	MB-SD1	MB-SD4	MB-D1	MB-D2	MB-D3
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	1,300	2,300	53	4	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	1,600	2,400	94	5	6
Copper	mg/kg	600	1,200	130	4	12
Lead	mg/kg	40	31	4	14	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	<1	<1	1	<1
Zinc	mg/kg	110	430	33	76	65
Boron	mg/kg	<3	4	<3	3	<3

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-60	129115-61	129115-62	129115-63	129115-64
Your Reference	----------	MB-D4	MB-D5	MB-Pr1	MB-Pr3	MB-FD2
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Wood	Wood	Wood
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	400	69	2,500	3,500	560
Cadmium	mg/kg	<0.4	<0.4	0.5	0.5	<0.4
Chromium	mg/kg	850	180	2,600	3,400	630
Copper	mg/kg	290	81	1,600	1,900	240
Lead	mg/kg	18	5	4	20	6
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	<1	<1	<1	<1
Zinc	mg/kg	61	49	150	210	150
Boron	mg/kg	<3	<3	<3	<3	<3

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-65	129115-69	129115-70	129115-71	129115-72
Your Reference	----------	MB-FD3	MB-SAB1	MB-SAB2	AB-SAB1	AB-SAB2
Depth	----------	-	0-200	0-201	0-202	0-203
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Soil	Soil	Soil	Soil
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	420	5	4	13	18
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	460	5	12	17	16
Copper	mg/kg	150	26	14	20	29
Lead	mg/kg	8	35	84	79	81
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	3	7	3	8
Zinc	mg/kg	53	95	120	50	32
Boron	mg/kg	<3	[NA]	[NA]	[NA]	[NA]

Acid Extractable metals in soil						
Our Reference:	UNITS	129115-73	129115-74	129115-75	129115-76	129115-77
Your Reference	----------	AB-AB3	AB-AB4	AB-S1 - TRIPLICATE	MB-X1 - TRIPLICATE	AB-PPB8 - TRIPLICATE
Depth	----------	-	-	0-200	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Wood	Wood	Soil	Wood	Wood
Date digested	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Arsenic	mg/kg	<4	<4	4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	<1	<1	3	<1	1
Copper	mg/kg	3	4	47	1	3
Lead	mg/kg	4	5	21	17	5
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2	3	2	<1	2
Zinc	mg/kg	9	20	49	250	15
Boron	mg/kg	7	7	[NA]	4	4

Moisture						
Our Reference:	UNITS	129115-13	129115-14	129115-15	129115-16	129115-17
Your Reference	----------	AB-S1	AB-S2	AB-S3	AB-S4	AB-S5
Depth	----------	0-200	0-200	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Moisture	%	6.7	8.2	8.8	8.7	3.8

Moisture						
Our Reference:	UNITS	129115-18	129115-19	129115-20	129115-34	129115-35
Your Reference	----------	AB-S6	AB-S7	AB-S8	MB-S1	MB-S2
Depth	----------	0-200	0-200	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Moisture	%	14	5.3	3.2	[NT]	3.6

Moisture						
Our Reference:	UNITS	129115-36	129115-69	129115-70	129115-71	129115-72
Your Reference	----------	MB-S3	MB-SAB1	MB-SAB2	AB-SAB1	AB-SAB2
Depth	----------	0-200	0-200	0-201	0-202	0-203
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	9/06/2015	9/06/2015	9/06/2015	9/06/2015	9/06/2015
Date analysed	-	10/06/2015	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Moisture	%	7.4	3.2	3.4	5.8	8.4

Asbestos ID - soils						
Our Reference:	UNITS	129115-13	129115-14	129115-15	129115-16	129115-17
Your Reference	----------	AB-S1	AB-S2	AB-S3	AB-S4	AB-S5
Depth	----------	0-200	0-200	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	15/06/2015	15/06/2015	15/06/2015	15/06/2015	15/06/2015
Sample mass tested	g	Approx. 30g	Approx. 20g	Approx. 25g	Approx. 20g	Approx. 30g
Sample Description	-	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks	Brown coarse grain 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	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	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference:	UNITS	129115-18	129115-19	129115-20	129115-34	129115-35
Your Reference	----------	AB-S6	AB-S7	AB-S8	MB-S1	MB-S2
Depth	----------	0-200	0-200	0-200	0-200	0-200
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	15/06/2015	15/06/2015	15/06/2015	15/06/2015	15/06/2015
Sample mass tested	g	Approx. 20g	Approx. 25g	Approx. 30g	Approx. 25g	Approx. 25g
Sample Description	-	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks	Brown coarse grain 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	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	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference:	UNITS	129115-36	129115-69	129115-70	129115-71	129115-72
Your Reference	----------	MB-S3	MB-SAB1	MB-SAB2	AB-SAB1	AB-SAB2
Depth	----------	0-200	0-200	0-201	0-202	0-203
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	15/06/2015	15/06/2015	15/06/2015	15/06/2015	15/06/2015
Sample mass tested	g	Approx. 30g	Approx. 35g	Approx. 25g	Approx. 25g	Approx. 20g
Sample Description	-	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks	Brown coarse grain 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	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	No asbestos detected	No asbestos detected

Lead in Paint						
Our Reference:	UNITS	129115-48	129115-49	129115-50	129115-51	129115-52
Your Reference	----------	MB-K1	MB-K2	MB-Po3	MB-K4	MB-R5
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Lead in paint	%w/w	<0.05	0.3	4.7	<0.05	0.53

Lead in Paint						
Our Reference:	UNITS	129115-53	129115-54	129115-55	129115-56	129115-66
Your Reference	----------	MB-Po6	MB-K7	MB-R8	MB-Po9	MB-K10
Depth	----------	-	-	-	-	-
Date Sampled		02/06/2015	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Lead in paint	%w/w	9.5	<0.05	9.1	0.2	<0.05

Lead in Paint			
Our Reference:	UNITS	129115-67	129115-68
Your Reference	----------	MB-R11	MB-Po12
Depth	----------	-	-
Date Sampled		02/06/2015	02/06/2015
Type of sample		Paint	Paint
Date prepared	-	09/06/2015	09/06/2015
Date analysed	-	09/06/2015	09/06/2015
Lead in paint	%w/w	8.4	8.9

Method ID	Methodology Summary
Org-016	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.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>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.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <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. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <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. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. 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.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
ASB-001	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.
Metals-004	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			09/06/2015	129115-1	09/06/2015 || 09/06/2015	LCS-5	09/06/2015
Date analysed	-			10/06/2015	129115-1	10/06/2015 || 10/06/2015	LCS-5	10/06/2015
TRHC6 - C9	mg/kg	25	Org-016	<25	129115-1	<50 || <50	LCS-5	109%
TRHC6 - C10	mg/kg	25	Org-016	<25	129115-1	<50 || <50	LCS-5	109%
Benzene	mg/kg	0.2	Org-016	<0.2	129115-1	<0.4 || <0.4	LCS-5	99%
Toluene	mg/kg	0.5	Org-016	<0.5	129115-1	<1 || <1	LCS-5	120%
Ethylbenzene	mg/kg	1	Org-016	<1	129115-1	<2 || <2	LCS-5	107%
m+p-xylene	mg/kg	2	Org-016	<2	129115-1	<4 || <4	LCS-5	110%
o-Xylene	mg/kg	1	Org-016	<1	129115-1	<2 || <2	LCS-5	106%
naphthalene	mg/kg	1	Org-014	<1	129115-1	<2 || <2	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	117	129115-1	112 || 113 || RPD: 1	LCS-5	110%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			09/06/2015	[NT]	[NT]	LCS-5	09/06/2015
Date analysed	-			10/06/2015	[NT]	[NT]	LCS-5	09/06/2015
TRHC10 - C14	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-5	100%
TRHC15 - C28	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-5	103%
TRHC29 - C36	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-5	91%
TRH>C10-C16	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-5	100%
TRH>C16-C34	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-5	103%
TRH>C34-C40	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-5	91%
Surrogate o-Terphenyl	%		Org-003	75	[NT]	[NT]	LCS-5	87%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			9/06/2015	129115-10	9/06/2015 || 9/06/2015	LCS-5	9/06/2015
Date analysed	-			10/06/2015	129115-10	9/06/2015 || 9/06/2015	LCS-5	9/06/2015
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	<0.2 || <0.2	LCS-5	110%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	<0.2 || <0.2	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	<0.2 || <0.2	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	<0.2 || <0.2	LCS-5	105%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	7.9 || 5.8 || RPD: 31	LCS-5	109%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	0.3 || 0.3 || RPD: 0	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	3.8 || 2.9 || RPD: 27	LCS-5	106%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	2.5 || 1.9 || RPD: 27	LCS-5	110%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	1.5 || 1.1 || RPD: 31	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	2.0 || 1.8 || RPD: 11	LCS-5	102%
Benzo(b,j+k) fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	129115-10	2.3 || 2.2 || RPD: 4	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	129115-10	0.58 || 0.5 || RPD: 15	LCS-5	131%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	0.3 || 0.4 || RPD: 29	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	<0.2 || <0.2	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	129115-10	0.3 || 0.4 || RPD: 29	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	109	129115-10	104 || 93 || RPD: 11	LCS-5	104%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			09/06/2015	129115-13	09/06/2015 || 09/06/2015	LCS-5	09/06/2015
Date analysed	-			10/06/2015	129115-13	10/06/2015 || 10/06/2015	LCS-5	10/06/2015
HCB	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	106%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	93%
Heptachlor	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	98%
delta-BHC	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	110%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	100%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	110%
Dieldrin	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	106%
Endrin	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	100%
pp-DDD	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	105%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	LCS-5	101%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Surrogate TCMX	%		Org-005	102	129115-13	100 || 96 || RPD: 4	LCS-5	97%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			09/06/2015	129115-13	09/06/2015 || 09/06/2015	LCS-5	09/06/2015
Date analysed	-			10/06/2015	129115-13	10/06/2015 || 10/06/2015	LCS-5	10/06/2014
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	LCS-5	102%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	129115-13	0.4 || 0.4 || RPD: 0	LCS-5	115%
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Diazinon	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	LCS-5	97%
Dimethoate	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	LCS-5	107%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	LCS-5	97%
Malathion	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	LCS-5	96%
Parathion	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	LCS-5	110%
Ronnel	mg/kg	0.1	Org-008	<0.1	129115-13	<0.1 || <0.1	[NR]	[NR]
Surrogate TCMX	%		Org-008	102	129115-13	100 || 96 || RPD: 4	LCS-5	96%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			09/06/2015	129115-13	09/06/2015 || 09/06/2015	LCS-4	09/06/2015
Date analysed	-			09/06/2015	129115-13	09/06/2015 || 09/06/2015	LCS-4	09/06/2015
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	129115-13	5 || 5 || RPD: 0	LCS-4	124%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	129115-13	<0.4 || <0.4	LCS-4	113%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	129115-13	3 || 2 || RPD: 40	LCS-4	121%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	129115-13	36 || 130 || RPD: 113	LCS-4	122%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	129115-13	31 || 15 || RPD: 70	LCS-4	111%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	129115-13	<0.1 || <0.1	LCS-4	93%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	129115-13	3 || 3 || RPD: 0	LCS-4	116%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	129115-13	62 || 28 || RPD: 76	LCS-4	115%
Boron	mg/kg	3	Metals-020 ICP-AES	<3	[NT]	[NT]	LCS-4	106%

QUALITY CONTROL Lead in Paint	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			09/06/2015	129115-48	09/06/2015 || 09/06/2015	LCS-1	09/06/2015
Date analysed	-			09/06/2015	129115-48	09/06/2015 || 09/06/2015	LCS-1	09/06/2015
Lead in paint	%w/w	0.05	Metals-004	<0.05	129115-48	<0.05 || <0.05	LCS-1	100%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-8	09/06/2015 || 10/06/2015	LCS-6	09/06/2015
Date analysed	-	129115-8	10/06/2015 || 11/06/2015	LCS-6	10/06/2015
TRHC$_6$ - C$_9$	mg/kg	129115-8	<50 || <50	LCS-6	123%
TRHC$_6$ - C$_{10}$	mg/kg	129115-8	<50 || <50	LCS-6	123%
Benzene	mg/kg	129115-8	<0.4 || <0.4	LCS-6	115%
Toluene	mg/kg	129115-8	<1 || <1	LCS-6	121%
Ethylbenzene	mg/kg	129115-8	<2 || <2	LCS-6	130%
m+p-xylene	mg/kg	129115-8	<4 || <4	LCS-6	125%
o-Xylene	mg/kg	129115-8	<2 || <2	LCS-6	123%
naphthalene	mg/kg	129115-8	<2 || <2	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	129115-8	112 || 108 || RPD: 4	LCS-6	107%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-10	09/06/2015 || 10/06/2015	LCS-6	09/06/2015
Date analysed	-	129115-10	09/06/2015 || 11/06/2015	LCS-6	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	129115-10	<100 || <100	LCS-6	105%
TRHC$_{15}$ - C$_{28}$	mg/kg	129115-10	790 || 1200 || RPD: 41	LCS-6	104%
TRHC$_{29}$ - C$_{36}$	mg/kg	129115-10	1100 || 1700 || RPD: 43	LCS-6	98%
TRH>C$_{10}$-C$_{16}$	mg/kg	129115-10	<100 || <100	LCS-6	105%
TRH>C$_{16}$-C$_{34}$	mg/kg	129115-10	1600 || 2500 || RPD: 44	LCS-6	104%
TRH>C$_{34}$-C$_{40}$	mg/kg	129115-10	530 || 890 || RPD: 51	LCS-6	98%
Surrogate o-Terphenyl	%	129115-10	77 || 123 || RPD: 46	LCS-6	91%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-11	9/06/2015 || 9/06/2015	LCS-6	09/06/2015
Date analysed	-	129115-11	9/06/2015 || 9/06/2015	LCS-6	10/06/2015
Naphthalene	mg/kg	129115-11	12 || 6.3 || RPD: 62	LCS-6	116%
Acenaphthylene	mg/kg	129115-11	6.9 || 2.5 || RPD: 94	[NR]	[NR]
Acenaphthene	mg/kg	129115-11	23 || 18 || RPD: 24	[NR]	[NR]
Fluorene	mg/kg	129115-11	26 || 22 || RPD: 17	LCS-6	128%
Phenanthrene	mg/kg	129115-11	400 || 370 || RPD: 8	LCS-6	109%
Anthracene	mg/kg	129115-11	33 || 29 || RPD: 13	[NR]	[NR]
Fluoranthene	mg/kg	129115-11	420 || 460 || RPD: 9	LCS-6	111%
Pyrene	mg/kg	129115-11	270 || 320 || RPD: 17	LCS-6	114%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(a)anthracene	mg/kg	129115-11	75 || 78 || RPD: 4	[NR]	[NR]
Chrysene	mg/kg	129115-11	66 || 110 || RPD: 50	LCS-6	105%
Benzo(b,j+k)fluoranthene	mg/kg	129115-11	71 || 120 || RPD: 51	[NR]	[NR]
Benzo(a)pyrene	mg/kg	129115-11	19 || 26 || RPD: 31	LCS-6	119%
Indeno(1,2,3-c,d)pyrene	mg/kg	129115-11	6.4 || 17 || RPD: 91	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	129115-11	1.1 || 2.5 || RPD: 78	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	129115-11	4.1 || 14 || RPD: 109	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	129115-11	131 || 107 || RPD: 20	LCS-6	104%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-21	09/06/2015 || 09/06/2015	LCS-6	09/06/2015
Date analysed	-	129115-21	10/06/2015 || 10/06/2015	LCS-6	10/06/2015
HCB	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
alpha-BHC	mg/kg	129115-21	<0.2 || <0.2	LCS-6	105%
gamma-BHC	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
beta-BHC	mg/kg	129115-21	<0.2 || <0.2	LCS-6	89%
Heptachlor	mg/kg	129115-21	<0.2 || <0.2	LCS-6	87%
delta-BHC	mg/kg	129115-21	<1 || <1	[NR]	[NR]
Aldrin	mg/kg	129115-21	<0.2 || <0.2	LCS-6	110%
Heptachlor Epoxide	mg/kg	129115-21	<0.2 || <0.2	LCS-6	95%
gamma-Chlordane	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
alpha-chlordane	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
Endosulfan I	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
pp-DDE	mg/kg	129115-21	<0.2 || <0.2	LCS-6	105%
Dieldrin	mg/kg	129115-21	<0.2 || <0.2	LCS-6	100%
Endrin	mg/kg	129115-21	<0.2 || <0.2	LCS-6	88%
pp-DDD	mg/kg	129115-21	<0.2 || <0.2	LCS-6	99%
Endosulfan II	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
pp-DDT	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
Endrin Aldehyde	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
Endosulfan Sulphate	mg/kg	129115-21	<0.2 || <0.2	LCS-6	90%
Methoxychlor	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
Surrogate TCMX	%	129115-21	112 || 115 || RPD: 3	LCS-6	95%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-21	09/06/2015 || 09/06/2015	LCS-6	09/06/2015
Date analysed	-	129115-21	10/06/2015 || 10/06/2015	LCS-6	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	129115-21	<0.2 || <0.2	LCS-6	73%
Bromophos-ethyl	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
Chlorpyriphos	mg/kg	129115-21	<1 || <1	LCS-6	120%
Chlorpyriphos-methyl	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
Diazinon	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
Dichlorvos	mg/kg	129115-21	<0.2 || <0.2	LCS-6	95%
Dimethoate	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
Ethion	mg/kg	129115-21	<0.2 || <0.2	LCS-6	101%
Fenitrothion	mg/kg	129115-21	<0.2 || <0.2	LCS-6	94%
Malathion	mg/kg	129115-21	<0.2 || <0.2	LCS-6	79%
Parathion	mg/kg	129115-21	<0.2 || <0.2	LCS-6	109%
Ronnel	mg/kg	129115-21	<0.2 || <0.2	[NR]	[NR]
Surrogate TCMX	%	129115-21	112 || 115 || RPD: 3	LCS-6	99%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	129115-45	09/06/2015 || 09/06/2015	129115-14	09/06/2015
Date analysed	-	129115-45	09/06/2015 || 09/06/2015	129115-14	09/06/2015
Arsenic	mg/kg	129115-45	<4 || <4	129115-14	111%
Cadmium	mg/kg	129115-45	<0.4 || <0.4	129115-14	109%
Chromium	mg/kg	129115-45	<1 || <1	129115-14	114%
Copper	mg/kg	129115-45	<1 || <1	129115-14	116%
Lead	mg/kg	129115-45	2 || 3 || RPD: 40	129115-14	118%
Mercury	mg/kg	129115-45	<0.1 || <0.1	129115-14	102%
Nickel	mg/kg	129115-45	<1 || <1	129115-14	111%
Zinc	mg/kg	129115-45	14 || 8 || RPD: 55	129115-14	88%
Boron	mg/kg	129115-45	5 || 4 || RPD: 22	129115-14	86%

QUALITY CONTROL Lead in Paint	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	129115-68	09/06/2015 || 09/06/2015
Date analysed	-	129115-68	09/06/2015 || 09/06/2015
Lead in paint	%w/w	129115-68	8.9 || 9.0 || RPD: 1

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-28	09/06/2015 || 10/06/2015	LCS-7	09/06/2015
Date analysed	-	129115-28	10/06/2015 || 11/06/2015	LCS-7	10/06/2015
TRHC$_6$ - C$_9$	mg/kg	129115-28	<50 || <50	LCS-7	124%
TRHC$_6$ - C$_{10}$	mg/kg	129115-28	<50 || <50	LCS-7	124%
Benzene	mg/kg	129115-28	<0.4 || <0.4	LCS-7	110%
Toluene	mg/kg	129115-28	<1 || <1	LCS-7	117%
Ethylbenzene	mg/kg	129115-28	<2 || <2	LCS-7	129%
m+p-xylene	mg/kg	129115-28	<4 || <4	LCS-7	133%
o-Xylene	mg/kg	129115-28	<2 || <2	LCS-7	129%
naphthalene	mg/kg	129115-28	15 || 18 || RPD: 18	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	129115-28	79 || 104 || RPD: 27	LCS-7	100%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-42	09/06/2015 || 10/06/2015	LCS-7	09/06/2015
Date analysed	-	129115-42	10/06/2015 || 11/06/2015	LCS-7	10/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	129115-42	<50 || <50	LCS-7	115%
TRHC$_{15}$ - C$_{28}$	mg/kg	129115-42	<100 || 130	LCS-7	127%
TRHC$_{29}$ - C$_{36}$	mg/kg	129115-42	180 || 130 || RPD: 32	LCS-7	109%
TRH>C$_{10}$-C$_{16}$	mg/kg	129115-42	<50 || <50	LCS-7	115%
TRH>C$_{16}$-C$_{34}$	mg/kg	129115-42	190 || 220 || RPD: 15	LCS-7	127%
TRH>C$_{34}$-C$_{40}$	mg/kg	129115-42	170 || <100	LCS-7	109%
Surrogate o-Terphenyl	%	129115-42	77 || 120 || RPD: 44	LCS-7	103%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-21	9/06/2015 || 9/06/2015	LCS-7	9/06/2015
Date analysed	-	129115-21	10/06/2015 || 10/06/2015	LCS-7	9/06/2015
Naphthalene	mg/kg	129115-21	<0.2 || <0.2	LCS-7	108%
Acenaphthylene	mg/kg	129115-21	7.9 || 9.1 || RPD: 14	[NR]	[NR]
Acenaphthene	mg/kg	129115-21	1.5 || 1.7 || RPD: 12	[NR]	[NR]
Fluorene	mg/kg	129115-21	1 || 1.2 || RPD: 18	LCS-7	96%
Phenanthrene	mg/kg	129115-21	52 || 60 || RPD: 14	LCS-7	111%
Anthracene	mg/kg	129115-21	7.6 || 9.9 || RPD: 26	[NR]	[NR]
Fluoranthene	mg/kg	129115-21	140 || 160 || RPD: 13	LCS-7	115%
Pyrene	mg/kg	129115-21	110 || 130 || RPD: 17	LCS-7	119%
Benzo(a)anthracene	mg/kg	129115-21	64 || 76 || RPD: 17	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Chrysene	mg/kg	129115-21	68 || 75 || RPD: 10	LCS-7	108%
Benzo(b,j+k)fluoranthene	mg/kg	129115-21	130 || 150 || RPD: 14	[NR]	[NR]
Benzo(a)pyrene	mg/kg	129115-21	56 || 63 || RPD: 12	LCS-7	124%
Indeno(1,2,3-c,d)pyrene	mg/kg	129115-21	35 || 37 || RPD: 6	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	129115-21	5.9 || 5.1 || RPD: 15	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	129115-21	31 || 31 || RPD: 0	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	129115-21	114 || 119 || RPD: 4	LCS-7	110%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-34	09/06/2015
Date analysed	-	[NT]	[NT]	LCS-34	10/06/2015
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	LCS-34	93%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	LCS-34	79%
Heptachlor	mg/kg	[NT]	[NT]	LCS-34	80%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	LCS-34	97%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	LCS-34	88%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	LCS-34	90%
Dieldrin	mg/kg	[NT]	[NT]	LCS-34	92%
Endrin	mg/kg	[NT]	[NT]	LCS-34	86%
pp-DDD	mg/kg	[NT]	[NT]	LCS-34	79%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	LCS-34	86%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	LCS-34	85%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-34	09/06/2015
Date analysed	-	[NT]	[NT]	LCS-34	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	LCS-34	90%
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	LCS-34	108%
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	LCS-34	90%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	LCS-34	95%
Fenitrothion	mg/kg	[NT]	[NT]	LCS-34	85%
Malathion	mg/kg	[NT]	[NT]	LCS-34	86%
Parathion	mg/kg	[NT]	[NT]	LCS-34	93%
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	LCS-34	87%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	129115-47	09/06/2015 || 09/06/2015	LCS-5	09/06/2015
Date analysed	-	129115-47	09/06/2015 || 09/06/2015	LCS-5	09/06/2015
Arsenic	mg/kg	129115-47	2300 || 2500 || RPD: 8	LCS-5	116%
Cadmium	mg/kg	129115-47	<0.4 || <0.4	LCS-5	109%
Chromium	mg/kg	129115-47	2400 || 2600 || RPD: 8	LCS-5	114%
Copper	mg/kg	129115-47	1200 || 1300 || RPD: 8	LCS-5	117%
Lead	mg/kg	129115-47	31 || 27 || RPD: 14	LCS-5	106%
Mercury	mg/kg	129115-47	<0.1 || <0.1	LCS-5	94%
Nickel	mg/kg	129115-47	<1 || <1	LCS-5	110%
Zinc	mg/kg	129115-47	430 || 270 || RPD: 46	LCS-5	108%
Boron	mg/kg	129115-47	4 || 3 || RPD: 29	LCS-5	103%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-33	09/06/2015 || 10/06/2015	129115-2	09/06/2015
Date analysed	-	129115-33	10/06/2015 || 11/06/2015	129115-2	10/06/2015
TRHC$_6$ - C$_9$	mg/kg	129115-33	<50 || <50	129115-2	117%
TRHC$_6$ - C$_{10}$	mg/kg	129115-33	<50 || <50	129115-2	117%
Benzene	mg/kg	129115-33	<0.4 || <0.4	129115-2	99%
Toluene	mg/kg	129115-33	<1 || <1	129115-2	111%
Ethylbenzene	mg/kg	129115-33	<2 || <2	129115-2	122%
m+p-xylene	mg/kg	129115-33	<4 || <4	129115-2	126%
o-Xylene	mg/kg	129115-33	<2 || <2	129115-2	122%
naphthalene	mg/kg	129115-33	<2 || <2	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	129115-33	103 || 104 || RPD: 1	129115-2	116%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-11	09/06/2015 || 10/06/2015	129115-2	09/06/2015
Date analysed	-	129115-11	09/06/2015 || 11/06/2015	129115-2	09/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	129115-11	220 || 250 || RPD: 13	129115-2	102%
TRHC$_{15}$ - C$_{28}$	mg/kg	129115-11	5000 || 11000 || RPD: 75	129115-2	#
TRHC$_{29}$ - C$_{36}$	mg/kg	129115-11	2200 || 6600 || RPD: 100	129115-2	#
TRH>C$_{10}$-C$_{16}$	mg/kg	129115-11	450 || 570 || RPD: 24	129115-2	102%
TRH>C$_{16}$-C$_{34}$	mg/kg	129115-11	6600 || 17000 || RPD: 88	129115-2	#
TRH>C$_{34}$-C$_{40}$	mg/kg	129115-11	930 || 2800 || RPD: 100	129115-2	#
Surrogate o-Terphenyl	%	129115-11	130 || #	129115-2	125%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-28	9/06/2015 || 9/06/2015	129115-2	9/06/2015
Date analysed	-	129115-28	10/06/2015 || 9/06/2015	129115-2	9/06/2015
Naphthalene	mg/kg	129115-28	34 || 23 || RPD: 39	129115-2	114%
Acenaphthylene	mg/kg	129115-28	28 || 25 || RPD: 11	[NR]	[NR]
Acenaphthene	mg/kg	129115-28	52 || 55 || RPD: 6	[NR]	[NR]
Fluorene	mg/kg	129115-28	110 || 79 || RPD: 33	129115-2	110%
Phenanthrene	mg/kg	129115-28	1300 || 1000 || RPD: 26	129115-2	116%
Anthracene	mg/kg	129115-28	100 || 68 || RPD: 38	[NR]	[NR]
Fluoranthene	mg/kg	129115-28	1200 || 880 || RPD: 31	129115-2	123%
Pyrene	mg/kg	129115-28	880 || 630 || RPD: 33	129115-2	128%
Benzo(a)anthracene	mg/kg	129115-28	220 || 160 || RPD: 32	[NR]	[NR]
Chrysene	mg/kg	129115-28	240 || 190 || RPD: 23	129115-2	114%
Benzo(b,j+k)fluoranthene	mg/kg	129115-28	270 || 210 || RPD: 25	[NR]	[NR]
Benzo(a)pyrene	mg/kg	129115-28	110 || 83 || RPD: 28	129115-2	137%
Indeno(1,2,3-c,d)pyrene	mg/kg	129115-28	51 || 50 || RPD: 2	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	129115-28	4.3 || 13 || RPD: 101	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(g,h,i)perylene	mg/kg	129115-28	43 || 39 || RPD: 10	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	129115-28	120 || 107 || RPD: 11	129115-2	104%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-42	09/06/2015 || 09/06/2015	LCS-7	09/06/2015
Date analysed	-	129115-42	10/06/2015 || 10/06/2015	LCS-7	10/06/2015
HCB	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	129115-42	<0.1 || <0.1	LCS-7	99%
gamma-BHC	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
beta-BHC	mg/kg	129115-42	<0.1 || <0.1	LCS-7	99%
Heptachlor	mg/kg	129115-42	<0.1 || <0.1	LCS-7	109%
delta-BHC	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Aldrin	mg/kg	129115-42	<0.1 || <0.1	LCS-7	111%
Heptachlor Epoxide	mg/kg	129115-42	<0.1 || <0.1	LCS-7	114%
gamma-Chlordane	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Endosulfan I	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
pp-DDE	mg/kg	129115-42	<0.1 || <0.1	LCS-7	113%
Dieldrin	mg/kg	129115-42	<0.1 || <0.1	LCS-7	121%
Endrin	mg/kg	129115-42	<0.1 || <0.1	LCS-7	128%
pp-DDD	mg/kg	129115-42	<0.1 || <0.1	LCS-7	111%
Endosulfan II	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
pp-DDT	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	129115-42	<0.1 || <0.1	LCS-7	103%
Methoxychlor	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Surrogate TCMX	%	129115-42	93 || 84 || RPD: 10	LCS-7	99%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-42	09/06/2015 || 09/06/2015	LCS-7	09/06/2015
Date analysed	-	129115-42	10/06/2015 || 10/06/2015	LCS-7	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	129115-42	<0.1 || <0.1	LCS-7	126%
Bromophos-ethyl	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	129115-42	<0.1 || <0.1	LCS-7	126%
Chlorpyriphos-methyl	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Diazinon	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Dichlorvos	mg/kg	129115-42	<0.1 || <0.1	LCS-7	115%
Dimethoate	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	129115-42	<0.1 || <0.1	LCS-7	118%
Fenitrothion	mg/kg	129115-42	<0.1 || <0.1	LCS-7	105%
Malathion	mg/kg	129115-42	<0.1 || <0.1	LCS-7	111%
Parathion	mg/kg	129115-42	<0.1 || <0.1	LCS-7	129%
Ronnel	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Surrogate TCMX	%	129115-42	93 || 84 || RPD: 10	LCS-7	110%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	129115-62	09/06/2015 || 09/06/2015	129115-20	09/06/2015
Date analysed	-	129115-62	09/06/2015 || 09/06/2015	129115-20	09/06/2015
Arsenic	mg/kg	129115-62	2500 || 1800 || RPD: 33	129115-20	101%
Cadmium	mg/kg	129115-62	0.5 || <0.4	129115-20	107%
Chromium	mg/kg	129115-62	2600 || 1900 || RPD: 31	129115-20	107%
Copper	mg/kg	129115-62	1600 || 1100 || RPD: 37	129115-20	111%
Lead	mg/kg	129115-62	4 || 3 || RPD: 29	129115-20	117%
Mercury	mg/kg	129115-62	<0.1 || <0.1	129115-20	82%
Nickel	mg/kg	129115-62	<1 || <1	129115-20	107%
Zinc	mg/kg	129115-62	150 || 99 || RPD: 41	129115-20	99%
Boron	mg/kg	129115-62	<3 || <3	[NR]	[NR]

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-43	09/06/2015 || 10/06/2015	129115-7	10/06/2015
Date analysed	-	129115-43	10/06/2015 || 11/06/2015	129115-7	11/06/2015
TRHC$_6$ - C$_9$	mg/kg	129115-43	<50 || <50	129115-7	127%
TRHC$_6$ - C$_{10}$	mg/kg	129115-43	<50 || <50	129115-7	127%
Benzene	mg/kg	129115-43	<0.4 || <0.4	129115-7	106%
Toluene	mg/kg	129115-43	<1 || <1	129115-7	126%
Ethylbenzene	mg/kg	129115-43	<2 || <2	129115-7	133%
m+p-xylene	mg/kg	129115-43	<4 || <4	129115-7	135%
o-Xylene	mg/kg	129115-43	<2 || <2	129115-7	136%
naphthalene	mg/kg	129115-43	2 || 2 || RPD: 0	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	129115-43	95 || 98 || RPD: 3	129115-7	106%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-28	09/06/2015 || 10/06/2015	129115-38	10/06/2015
Date analysed	-	129115-28	10/06/2015 || 11/06/2015	129115-38	11/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	129115-28	620 || 820 || RPD: 28	129115-38	#
TRHC$_{15}$ - C$_{28}$	mg/kg	129115-28	12000 || 15000 || RPD: 22	129115-38	#
TRHC$_{29}$ - C$_{36}$	mg/kg	129115-28	2700 || 3700 || RPD: 31	129115-38	#
TRH>C$_{10}$-C$_{16}$	mg/kg	129115-28	1300 || 1900 || RPD: 38	129115-38	#
TRH>C$_{16}$-C$_{34}$	mg/kg	129115-28	13000 || 17000 || RPD: 27	129115-38	#
TRH>C$_{34}$-C$_{40}$	mg/kg	129115-28	1100 || 1600 || RPD: 37	129115-38	#
Surrogate o-Terphenyl	%	129115-28	# || #	129115-38	#
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-33	9/06/2015 || 9/06/2015	129115-34	09/06/2015
Date analysed	-	129115-33	10/06/2015 || 9/06/2015	129115-34	10/06/2015
Naphthalene	mg/kg	129115-33	<0.2 || <0.2	129115-34	98%
Acenaphthylene	mg/kg	129115-33	<0.2 || 0.2	[NR]	[NR]
Acenaphthene	mg/kg	129115-33	<0.2 || <0.2	[NR]	[NR]
Fluorene	mg/kg	129115-33	<0.2 || <0.2	129115-34	100%
Phenanthrene	mg/kg	129115-33	3.5 || 2.3 || RPD: 41	129115-34	106%
Anthracene	mg/kg	129115-33	<0.2 || 0.2	[NR]	[NR]
Fluoranthene	mg/kg	129115-33	3.2 || 2.2 || RPD: 37	129115-34	113%
Pyrene	mg/kg	129115-33	2.4 || 1.9 || RPD: 23	129115-34	113%
Benzo(a)anthracene	mg/kg	129115-33	1.4 || 1.1 || RPD: 24	[NR]	[NR]
Chrysene	mg/kg	129115-33	2.2 || 2.1 || RPD: 5	129115-34	103%
Benzo(b,j+k)fluoranthene	mg/kg	129115-33	2.9 || 4.3 || RPD: 39	[NR]	[NR]
Benzo(a)pyrene	mg/kg	129115-33	0.51 || 0.69 || RPD: 30	129115-34	122%
Indeno(1,2,3-c,d)pyrene	mg/kg	129115-33	0.6 || 1 || RPD: 50	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	129115-33	<0.2 || <0.2	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(g,h,i)perylene	mg/kg	129115-33	0.6 || 0.9 || RPD: 40	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	129115-33	96 || 93 || RPD: 3	129115-34	93%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	129115-2	09/06/2015
Date analysed	-	[NT]	[NT]	129115-2	10/06/2015
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	129115-2	104%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	129115-2	98%
Heptachlor	mg/kg	[NT]	[NT]	129115-2	96%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	129115-2	111%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	129115-2	96%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	129115-2	104%
Dieldrin	mg/kg	[NT]	[NT]	129115-2	101%
Endrin	mg/kg	[NT]	[NT]	129115-2	98%
pp-DDD	mg/kg	[NT]	[NT]	129115-2	101%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	129115-2	100%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	129115-2	135%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	129115-2	09/06/2015
Date analysed	-	[NT]	[NT]	129115-2	10/06/201594
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	129115-2	94%
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	129115-2	116%
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	129115-2	100%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	129115-2	107%
Fenitrothion	mg/kg	[NT]	[NT]	129115-2	98%
Malathion	mg/kg	[NT]	[NT]	129115-2	85%
Parathion	mg/kg	[NT]	[NT]	129115-2	106%
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	129115-2	98%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	129115-3	09/06/2015 || 09/06/2015	LCS-6	09/06/2015
Date analysed	-	129115-3	09/06/2015 || 09/06/2015	LCS-6	09/06/2015
Arsenic	mg/kg	129115-3	<4 || <4	LCS-6	113%
Cadmium	mg/kg	129115-3	<0.4 || <0.4	LCS-6	105%
Chromium	mg/kg	129115-3	<1 || 2	LCS-6	110%
Copper	mg/kg	129115-3	4 || 9 || RPD: 77	LCS-6	114%
Lead	mg/kg	129115-3	5 || 8 || RPD: 46	LCS-6	104%
Mercury	mg/kg	129115-3	<0.1 || <0.1	LCS-6	86%
Nickel	mg/kg	129115-3	2 || 7 || RPD: 111	LCS-6	107%
Zinc	mg/kg	129115-3	18 || 29 || RPD: 47	LCS-6	104%
Boron	mg/kg	129115-3	3 || 6 || RPD: 67	LCS-6	99%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-64	09/06/2015 || 10/06/2015	129115-42	10/06/2015
Date analysed	-	129115-64	10/06/2015 || 11/06/2015	129115-42	11/06/2015
TRHC$_6$ - C$_9$	mg/kg	129115-64	<50 || <50	129115-42	125%
TRHC$_6$ - C$_{10}$	mg/kg	129115-64	<50 || <50	129115-42	125%
Benzene	mg/kg	129115-64	<0.4 || <0.4	129115-42	103%
Toluene	mg/kg	129115-64	<1 || <1	129115-42	120%
Ethylbenzene	mg/kg	129115-64	<2 || <2	129115-42	130%
m+p-xylene	mg/kg	129115-64	<4 || <4	129115-42	136%
o-Xylene	mg/kg	129115-64	<2 || <2	129115-42	130%
naphthalene	mg/kg	129115-64	<2 || <2	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	129115-64	103 || 110 || RPD: 7	129115-42	112%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-33	09/06/2015 || 10/06/2015	129115-59	10/06/2015
Date analysed	-	129115-33	10/06/2015 || 11/06/2015	129115-59	11/06/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	129115-33	<100 || <50	129115-59	106%
TRHC$_{15}$ - C$_{28}$	mg/kg	129115-33	240 || 690 || RPD: 97	129115-59	#
TRHC$_{29}$ - C$_{36}$	mg/kg	129115-33	540 || 1100 || RPD: 68	129115-59	#
TRH>C$_{10}$-C$_{16}$	mg/kg	129115-33	<100 || <50	129115-59	106%
TRH>C$_{16}$-C$_{34}$	mg/kg	129115-33	630 || 1500 || RPD: 82	129115-59	#
TRH>C$_{34}$-C$_{40}$	mg/kg	129115-33	280 || 710 || RPD: 87	129115-59	#
Surrogate o-Terphenyl	%	129115-33	76 || 121 || RPD: 46	129115-59	77%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-35	9/06/2015 || 9/06/2015	129115-59	09/06/2015
Date analysed	-	129115-35	10/06/2015 || 9/06/2015	129115-59	11/06/2015
Naphthalene	mg/kg	129115-35	<0.2 || <0.2	129115-59	102%
Acenaphthylene	mg/kg	129115-35	<0.2 || <0.2	[NR]	[NR]
Acenaphthene	mg/kg	129115-35	<0.2 || <0.2	[NR]	[NR]
Fluorene	mg/kg	129115-35	<0.2 || <0.2	129115-59	93%
Phenanthrene	mg/kg	129115-35	<0.2 || <0.2	129115-59	101%
Anthracene	mg/kg	129115-35	<0.2 || <0.2	[NR]	[NR]
Fluoranthene	mg/kg	129115-35	0.2 || 0.3 || RPD: 40	129115-59	99%
Pyrene	mg/kg	129115-35	<0.2 || 0.2	129115-59	99%
Benzo(a)anthracene	mg/kg	129115-35	<0.2 || <0.2	[NR]	[NR]
Chrysene	mg/kg	129115-35	<0.2 || <0.2	129115-59	94%
Benzo(b,j+k)fluoranthene	mg/kg	129115-35	<0.4 || <0.4	[NR]	[NR]
Benzo(a)pyrene	mg/kg	129115-35	<0.1 || <0.1	129115-59	104%
Indeno(1,2,3-c,d)pyrene	mg/kg	129115-35	<0.2 || <0.2	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	129115-35	<0.2 || <0.2	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(g,h,i)perylene	mg/kg	129115-35	<0.2 || <0.2	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	129115-35	100 || 138 || RPD: 32	129115-59	91%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	129115-38	09/06/2015
Date analysed	-	[NT]	[NT]	129115-38	10/06/2015
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	129115-38	121%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	129115-38	101%
Heptachlor	mg/kg	[NT]	[NT]	129115-38	107%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	129115-38	130%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	129115-38	118%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	129115-38	#
Dieldrin	mg/kg	[NT]	[NT]	129115-38	#
Endrin	mg/kg	[NT]	[NT]	129115-38	#
pp-DDD	mg/kg	[NT]	[NT]	129115-38	98%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	129115-38	120%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	129115-38	97%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	129115-38	09/06/2015
Date analysed	-	[NT]	[NT]	129115-38	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	129115-38	#
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	129115-38	#
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	129115-38	114%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	129115-38	125%
Fenitrothion	mg/kg	[NT]	[NT]	129115-38	129%
Malathion	mg/kg	[NT]	[NT]	129115-38	96%
Parathion	mg/kg	[NT]	[NT]	129115-38	#
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	129115-38	100%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	129115-19	09/06/2015 || 09/06/2015	129115-35	09/06/2015
Date analysed	-	129115-19	09/06/2015 || 09/06/2015	129115-35	09/06/2015
Arsenic	mg/kg	129115-19	<4 || <4	129115-35	104%
Cadmium	mg/kg	129115-19	<0.4 || <0.4	129115-35	108%
Chromium	mg/kg	129115-19	9 || 11 || RPD: 20	129115-35	107%
Copper	mg/kg	129115-19	8 || 10 || RPD: 22	129115-35	112%
Lead	mg/kg	129115-19	130 || 110 || RPD: 17	129115-35	#
Mercury	mg/kg	129115-19	<0.1 || <0.1	129115-35	86%
Nickel	mg/kg	129115-19	6 || 8 || RPD: 29	129115-35	111%
Zinc	mg/kg	129115-19	67 || 47 || RPD: 35	129115-35	112%
Boron	mg/kg	[NT]	[NT]	129115-35	76%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	129115-42	9/06/2015 || 9/06/2015	LCS-8	09/06/2015
Date analysed	-	129115-42	9/06/2015 || 9/06/2015	LCS-8	10/06/2015
Naphthalene	mg/kg	129115-42	<0.1 || <0.1	LCS-8	111%
Acenaphthylene	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	129115-42	0.1 || 0.1 || RPD: 0	LCS-8	114%
Phenanthrene	mg/kg	129115-42	5.5 || 4.5 || RPD: 20	LCS-8	116%
Anthracene	mg/kg	129115-42	1.5 || 1.0 || RPD: 40	[NR]	[NR]
Fluoranthene	mg/kg	129115-42	7.8 || 6.6 || RPD: 17	LCS-8	114%
Pyrene	mg/kg	129115-42	5.1 || 4.5 || RPD: 12	LCS-8	116%
Benzo(a)anthracene	mg/kg	129115-42	1.0 || 0.9 || RPD: 11	[NR]	[NR]
Chrysene	mg/kg	129115-42	1.8 || 1.7 || RPD: 6	LCS-8	111%
Benzo(b,j+k)fluoranthene	mg/kg	129115-42	1 || 1 || RPD: 0	[NR]	[NR]
Benzo(a)pyrene	mg/kg	129115-42	0.2 || 0.2 || RPD: 0	LCS-8	138%
Indeno(1,2,3-c,d)pyrene	mg/kg	129115-42	<0.1 || 0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	129115-42	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	129115-42	106 || 95 || RPD: 11	LCS-8	106%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	129115-59	09/06/2015
Date analysed	-	[NT]	[NT]	129115-59	10/06/2015
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	129115-59	101%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	129115-59	87%
Heptachlor	mg/kg	[NT]	[NT]	129115-59	88%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	129115-59	112%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	129115-59	102%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	129115-59	97%
Dieldrin	mg/kg	[NT]	[NT]	129115-59	105%
Endrin	mg/kg	[NT]	[NT]	129115-59	96%
pp-DDD	mg/kg	[NT]	[NT]	129115-59	86%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	129115-59	98%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	129115-59	95%
QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	129115-59	09/06/2015
Date analysed	-	[NT]	[NT]	129115-59	10/06/2015
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	129115-59	95%
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	129115-59	124%
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	129115-59	119%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	129115-59	107%
Fenitrothion	mg/kg	[NT]	[NT]	129115-59	108%
Malathion	mg/kg	[NT]	[NT]	129115-59	115%
Parathion	mg/kg	[NT]	[NT]	129115-59	125%
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	129115-59	100%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	LCS-7	09/06/2015
Date analysed	-	[NT]	[NT]	LCS-7	09/06/2015
Arsenic	mg/kg	[NT]	[NT]	LCS-7	111%
Cadmium	mg/kg	[NT]	[NT]	LCS-7	103%
Chromium	mg/kg	[NT]	[NT]	LCS-7	109%
Copper	mg/kg	[NT]	[NT]	LCS-7	111%
Lead	mg/kg	[NT]	[NT]	LCS-7	102%
Mercury	mg/kg	[NT]	[NT]	LCS-7	88%
Nickel	mg/kg	[NT]	[NT]	LCS-7	105%
Zinc	mg/kg	[NT]	[NT]	LCS-7	103%
Boron	mg/kg	[NT]	[NT]	LCS-7	98%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	129115-69	9/06/2015 || 9/06/2015
Date analysed	-	129115-69	10/06/2015 || 9/06/2015
Naphthalene	mg/kg	129115-69	<0.1 || <0.1
Acenaphthylene	mg/kg	129115-69	<0.1 || 0.1
Acenaphthene	mg/kg	129115-69	<0.1 || <0.1
Fluorene	mg/kg	129115-69	<0.1 || <0.1
Phenanthrene	mg/kg	129115-69	0.3 || 0.2 || RPD: 40
Anthracene	mg/kg	129115-69	<0.1 || <0.1
Fluoranthene	mg/kg	129115-69	1.5 || 1.3 || RPD: 14
Pyrene	mg/kg	129115-69	1.3 || 1.4 || RPD: 7
Benzo(a)anthracene	mg/kg	129115-69	0.3 || 0.6 || RPD: 67
Chrysene	mg/kg	129115-69	0.7 || 1 || RPD: 35
Benzo(b,j+k)fluoranthene	mg/kg	129115-69	2.7 || 2 || RPD: 30
Benzo(a)pyrene	mg/kg	129115-69	0.3 || 0.62 || RPD: 70
Indeno(1,2,3-c,d)pyrene	mg/kg	129115-69	0.4 || 0.4 || RPD: 0
Dibenzo(a,h)anthracene	mg/kg	129115-69	<0.1 || <0.1
Benzo(g,h,i)perylene	mg/kg	129115-69	0.5 || 0.4 || RPD: 22
Surrogate p-Terphenyl-d14	%	129115-69	102 || 92 || RPD: 10

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	129115-70	09/06/2015
Date analysed	-	[NT]	[NT]	129115-70	09/06/2015
Arsenic	mg/kg	[NT]	[NT]	129115-70	97%
Cadmium	mg/kg	[NT]	[NT]	129115-70	101%
Chromium	mg/kg	[NT]	[NT]	129115-70	103%
Copper	mg/kg	[NT]	[NT]	129115-70	106%
Lead	mg/kg	[NT]	[NT]	129115-70	73%
Mercury	mg/kg	[NT]	[NT]	129115-70	105%
Nickel	mg/kg	[NT]	[NT]	129115-70	100%
Zinc	mg/kg	[NT]	[NT]	129115-70	100%
Boron	mg/kg	[NT]	[NT]	129115-70	79%

Report Comments:

METALS_S: Wood Chips: The results are reported on the sample as received i.e. no moisture correction has been applied.

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 129115-13 for Cu, Pb and Zn. Therefore a triplicate result has been issued as laboratory sample number 129115-75.

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 129115-45 for Zn. Therefore a triplicate result has been issued as laboratory sample number 129115-76.

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 129115-3 for Cu, Ni and B. Therefore a triplicate result has been issued as laboratory sample number 129115-77.

METALS_S: # Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Samples 45,46,47,62,63,64 and 65: Paint present on sample

Asbestos: A portion of the supplied samples were sub-sampled for asbestos analysis according to Envirolab procedures. We cannot guarantee that these sub-samples are indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.

Organics (BTEX/TRH/PAH/OC/OP)
PQL has been raised due to the light weight of the sample/s, which results in a high dilution factor.
PQL has been raised due to the high moisture content in the sample/s, resulting in a high dilution factor.
For the woodchips: Sample/s reported on an "as received" basis, i.e. moisture content not included in the calculation.

Total Recoverable Hydrocarbons in soil: # Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.
The RPD for duplicate results is accepted due to the non homogenous nature of the sample/s.

PAH_S:# Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.The RPD for duplicate results is accepted due to the non homogenous nature of the sample/s.

OC/OP's in soil:
PQL has been raised due to interference from analytes(other than those being tested) in the sample/s.
Percent recovery is not possible to report due to interference from analytes (other than those being tested) in the sample/s.

Asbestos ID was analysed by Approved Identifier: Paul Ching
Asbestos ID was authorised by Approved Signatory: Paul Ching

INS: Insufficient sample for this test
NA: Test not required
<: Less than
PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: Greater than
NT: Not tested
NA: Test not required
LCS: Laboratory Control Sample

Quality Control Definitions

Blank: 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.

Duplicate: 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.

Matrix Spike : 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.

LCS (Laboratory Control Sample) : 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.

Surrogate Spike: 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.

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: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-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.

GHD

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Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
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