Mirvac Projects Pty Ltd

Australian Technology Park Remedial Action Plan

2 Locomotive Street, Eveleigh, NSW

15 June 2016

51142/104280 (Revision 0)

JBS&G Australia Pty Ltd

www.jbsg.com.au

Mirvac Projects Pty Ltd
Australian Technology Park Remedial Action Plan

2 Locomotive Street, Eveleigh, NSW

15 June 2016

51142/104280 (Revision 0)
JBS&G Australia Pty Ltd Australia Pty Ltd

Table of Contents

Abbreviations vii

1. Introduction and Objectives 1
   - 1.1 Introduction 1
   - 1.2 Objective 2
2. Proposed Development 3
   - 2.1 Development Framework and Design 3
   - 2.2 Planning Framework 4
3. Site Conditions and Land Uses 5
   - 3.1 Site Identification 5
   - 3.2 Site Layout 5
   - 3.3 Surrounding Land Uses 6
   - 3.4 Geology and Soils 7
   - 3.5 Acid Sulfate Soils 8
   - 3.6 Topography 8
   - 3.7 Hydrology 8
   - 3.8 Hydrogeology 9
   - 3.9 Meteorology 9
4. Summary of Site History 10
5. Previous Investigations / Contamination Status 11
   - 5.1 Detailed Site Assessment (JBS&G 2015a) 11
   - 5.2 Lot 12 Fill Retention Assessment (JBS&G 2016c) 12
   - 5.3 Locomotive Workshop Soil Vapour Assessment (JBS&G 2016d) 13
   - 5.4 Human Health Risk Assessment (JBS&G 2016a) 13
   - 5.5 Ecological Risk Assessment (JBS&G 2016b) 14
   - 5.6 Summary of Known Contamination Status 15
     - 5.6.1 Summary of Known Fill/Soil Contamination Status 16
     - 5.6.2 Summary of Known Groundwater Contamination Impact 17
     - 5.6.3 Summary of Known Soil Vapour Contamination Impact 18
     - 5.6.4 Hazardous Building Materials 19
6. Conceptual Site Model 20
   - 6.1 Overview 20
   - 6.2 Constituents of Concern 20
   - 6.3 Potentially Contaminated Media 20
   - 6.4 Potential Exposure Pathways 22
   - 6.5 Receptors 23
   - 6.6 Preferential Pathways 24

7. Remedial Action Plan 25
7.1 Remedial Goal 25
7.2 Extent of Remediation 25
7.3 Assessment of Remedial Options 25
7.4 Proposed Remedial Approach 30
7.4.1 Additional Development Details 31
7.5 Regulatory and Planning Requirements 33
7.6 Remediation Scope of Works 35
7.6.1 Site Establishment 35
7.6.2 Capping and Cover of Onsite Retained Fill/Soil 35
7.6.3 Off-Site Removal of Impacted Materials 37
7.6.4 Asbestos Management 37
7.6.5 Materials Tracking 38
8. Validation Plan 41
8.1 Overview 41
8.1.1 Data Quality Objectives 41
8.1.2 Identify the Decision 41
8.1.3 Identify Inputs to the Decision? 42
8.1.4 Define the Study Boundaries 42
8.1.5 Develop a Decision Rule 43
Developable Lots 43
Locomotive Workshop and Public Domain Areas 44
8.1.6 Specific Limits of Decision Error 45
8.1.7 Optimise the Design for Obtaining Data 46
8.2 Soil Sampling Methodology 47
8.2.1 Soil Sample Containers 47
8.2.2 PID Screening 48
8.3 Laboratory Analysis 48
8.4 Quality Assurance/Quality Control 49
8.5 Validation Criteria 51
8.5.1 Soil Criteria 51
8.5.2 Vapour Screening Criteria 57
8.5.3 Water 58
8.6 Reporting 59
8.6.1 Validation Report 59
8.6.2 Long-Term Environmental Management Plan 59
9. Contingency Plan 61
9.1 Unexpected Finds 61

9.2 Change in Development Plans 63
9.3 Vapour beneath the Locomotive Workshop 63
9.4 Identification of Underground Storage Tank 63
9.5 Identification of Oily or Tarry Materials 63
9.6 Material Storage Breach 63
9.7 Emissions Complaints 63
10. Other Remediation Documents 64
10.1 Environmental Management 64
10.1.1 Preparation of a Remediation Environmental Management Plan 64
10.1.2 Required Elements/Procedures 64
10.1.3 Certification 66
10.1.4 Hours of Site Operation/Duration of Works 66
10.2 Health and Safety 66
10.2.1 Work Health and Safety Management Plan 66
10.2.2 Additional Site-Specific Elements/Procedures 66
10.2.3 Asbestos 67
10.2.4 Additional Consideration of Chemical Contaminants 67
11. Conclusions and Recommendations 68
11.1 Conclusions 68
11.2 Recommendations 68
12. Limitations 69

List of Tables

Table 3.1 Summary Site Details 5
Table 7.1 Assessment of Remedial Options 27
Table 7.2 Summary of Burrow Pit Design Details 32
Table 8.1: Soil Laboratory Analysis Methods (all units in mg/kg unless stated) 49
Table 8.2: Summary of Quality Assurance / Quality Control Program 50
Table 8.3 Health Based Soil Investigation Criteria and Hydrocarbon Management Limits (all units in mg/kg) 53
Table 8.4 Ecological Screening Levels and Soil Quality Guideline Values (all units in mg/kg) 55
Table 8.5: Vapour Sample Analytical Schedule (mg/m^3) – HSL A / HIL A 58
Table 8.6: Vapour Sample Analytical Schedule (mg/m^3) – HSL D / HIL D 58
Table 10.1 Required Elements of the REMP 64

List of Figures

Figure 1	Site Location
Figure 2	Site Layout
Figure 3	Cadastre - Lot and Deposited Plan Location
Figure 4	Depth of Fill
Figure 5	Cross Section Locations
Figure 5A	Sections A-A and B-B
Figure 5B	Sections C-C and D-D
Figure 5C	Sections E-E and F-F
Figure 5D	Section G-G
Figure 6	Historical Site Layout
Figure 7A	Historical Soil Sample Locations – Lots 8 and 9
Figure 7B	Historical Soil Sample Locations – Lot 12
Figure 7C	Historical Soil and Soil Vapour Sample Locations – Lots 4000 and 4007
Figure 7D	Historical Groundwater Monitoring Well Locations
Figure 8A	Historical Exceedances in Soil and Remedial Extent – Lots 8 and 9
Figure 8B	Historical Exceedances in Soil and Remedial Extent – Lot 12 East
Figure 8B	Historical Exceedances in Soil and Remedial Extent – Lot 12 West
Figure 8C	Historical Exceedances in Soil / Soil Vapour and Remedial Extent – Lot 4000, Area 5 and Area 7 (Recreational)
Figure 8D	Historical Exceedances in Soil and Remedial Extent – Lot 4007, Area 1, 2, 3, 4, 6 (Commercial/Industrial)
Figure 8E	Historical Exceedances in Groundwater – East
Figure 8E	Historical Exceedances in Groundwater – West
Figure 9	Cross Section Location/Schematic Capping Arrangments
Figure 9A	Schematic of Capping Arrangements – Lot 8
Figure 9B	Schematic of Capping Arrangements – Lot 9
Figure 9C	Schematic of Capping Arrangements – Lot 12
Figure 9D	Schematic of Capping Arrangements – Public Domains
Figure 10	Borrow Pit Details

Appendices

Appendix A	Design Plans, Landscaping and Staging
Appendix B	JBS&G (2016c) Fill Retention Documentation
Appendix C	JBS&G (2016d) Soil Vapour Factual Data Report
Appendix D	Analytical Summary Tables
Appendix E	Materials Characterisation Form Example
Appendix F	Materials Tracking Sheet Example

Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
AF/FA	Asbestos Fines / Fibrous Asbestos
AHD	Australian Height Datum
ASLP	Australian Standard Leaching. Procedure
ASS	Acid Sulphate Soils
AGST	Aboveground Storage Tank
AST	Australian Technology Park
bgl	Below Ground Level
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CBA	Commonwealth Bank of Australia
COPC	Contaminant of Potential Concern
CSM	Conceptual Site Model
DA	Development Application
DQI	Data Quality Indicator
DQO	Data Quality Objectives
DP	Deposited Plan
DPI Water	NSW Department of Primary Industry - Water
EMP	Environmental Management Plan
EPA	NSW Environment Protection Authority
ERA	Ecological Risk Assessment
ESL	Ecological Screening Level
Ha	Hectare
HIL	Health-based Investigation Level
HSL	Health Screening Level
HHRA	Human Health Risk Assessment
JBS&G	JBS&G Australia Pty Ltd
LOR	Limit of Reporting
OCP	Organochlorine Pesticides
OPP	Organophosphorus Pesticides
NEPC	National Environment Protection Council
OEH	NSW office of Environment and Heritage
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PID	Photo-ionisation Detector
QA/QC	Quality Assurance/Quality Control
RAP	Remedial Action Plan
RPD	Relative Percentage Difference
SSDA	State Significant Development Application
TCLP	Toxicity Characteristic Leaching Procedure
TRH	Total Recoverable Hydrocarbons
TPH	Total Petroleum Hydrocarbons
UST	Underground Storage Tank
VENM	Virgin Excavation Natural Material (as defined in *POEO Act*)
VOC	Volatile Organic Compound

1. Introduction and Objectives

1.1 Introduction

JBS&G Australia Pty Ltd (JBS&G) was engaged by Mirvac Projects Pty Ltd (Mirvac, the client) to prepare a standalone site-wide remedial action plan (RAP) for a portion of the Australian Technology Park (ATP). This report supports a State Significant Development Application (SSDA) to be submitted to the Department of Planning and Environment pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (*EP&A Act 1979*).

The ATP precinct, for which the site is part, comprises a 13.2 hectare (ha) parcel of land and is occupied by a number of modern high rise buildings, heritage industrial buildings, private roads and public domains, as shown in **Figures 1** and **2**. The Mirvac site, herein referred to as 'the site' is legally identified as Lots 8, 9, 12 in Deposited Plan (DP) 1136859, Lot 4000 in DP 1194309, Part Lot 4007 in DP 1194309 and Part Lot 10 in DP 1136859 (**Figure 3**) and occupies an area of 11.6 ha. The site includes the Locomotive Workshop, public roads/domains (road reserves and pedestrian easements, recreational facilities and the eastern most extent of Lot 10 DP 1136859) and Developable Lots (Lots 8, 9 and 12). Lots 4001 to 4006 including the International Business Centre, National Innovation Centre, Traffic Management Centre (formally the RTA Building), Ambulance Service Building and Biomedical Building footprints) and Lot 501 DP 1033739 (rail easement) fall outside the site boundaries, as shown on **Figure 2**. It is noted Lots 4000 to 4007 were previously identified as Lot 13 in DP1136859.

The ATP precinct, including the site, has been subject of a number of previous investigations which have identified historical land uses comprising locomotive workshops, foundries, railway sidings and goods yards. The ATP precinct, including the site, was used to manufacture components required for steam locomotive assembly and repair. Site activities were reported to have comprised brass, iron and steel founding, heavy engineering machining, blacksmith works, refuelling, cleaning and degreasing including the use of solvents and paints.

Soil impact has been identified as associated with hot-spots of semi- and non-volatile petroleum hydrocarbons and polycyclic aromatic hydrocarbons (PAHs), and/or heavy metals as associated with fill materials historically used across the sites or resultant from historical site activities. Localised areas of asbestos impact have identified.

Mirvac has been announced by UrbanGrowth NSW Development Corporation (UGDC) as the successful party in securing ownership and redevelopment rights for the site for ongoing use as a campus style precinct catering for science and technology bases occupants. In addition, Mirvac propose to develop Developable Lots 8, 9 and 12 in DP 1136859 for commercial land use, with Lots 8 and 9 potentially including childcare facilities (or similar). Adaptive reuse of Locomotive Workshop is proposed for ongoing commercial land use excluding childcare facilities.

Remediation/management is required to address contamination and aesthetic issues identified in JBS&G (2015a[1], 2016a[2] and 2016b[3]) within Developable Lots and the Locomotive Workshop in order to make these site portions suitable for their permissible land uses. The balance of the site (road reserves, pedestrian easements and recreational facilities) has been subject to numerous assessments, from a contamination perspective, with a draft Site Audit Statement (SAS,

[1] *Mirvac Projects Pty Ltd – Australian Technology Park Detailed Site Assessment. 2 Locomotive Street, Eveleigh NSW*. JBS&G Australia Pty Ltd dated 9 December 2015 (JBS&G 2015a)

[2] Mirvac Projects Pty Ltd Human Health Risk Assessment, 2 Locomotive Street, Eveleigh, NSW. JBS&G Australia Pty Ltd dated 15 June 2016 reference 51142/102227 Rev 0 (JBS&G 2016a)

[3] *Mirvac Projects Pty Ltd - Ecological Risk Assessment, 2 Locomotive Street, Eveleigh NSW*. JBS&G Australia Pty Ltd dated 15 June 2016 Ref:51142-102217 Rev 0 (JBS&G 2016b)

Ramboll 2015a[4]) issued September 2015 certifying that public domain areas (road reserves, pedestrian easements and recreational facilities) are suitable for ongoing recreational and commercial/industrial land uses subject to implementation of the environmental management plan (EMP, ES 2015a[5]) prepared for these land parcels.

A SAS has been issued for Lots 10 and 11 in DP 1136859, for which the site is part (pedestrian easement between the Channel 7 building and Lot 12) certifying Lots 10 and 11 in DP 1136859 are suitable for their permissible land uses (commercial) subject to implementation of the EMP (DP[6]) prepared for these land parcels. It is understood Rod Hardwood of Environmental Strategies Pty Ltd prepared the SAS and Douglas Partners Pty Ltd prepared the EMP.

Landscaping and public domain improvements and extension and augmentation of physical infrastructure/utilities is proposed within Lot 4007 (previously Lot 13). Documented procedures, adopted from the EMP (ES 2015a), are required to ensure the ongoing suitability of public domain areas for their specified land uses and compliance with the EMP (ES 2015a and DP) requirements.

This RAP has been prepared with reference to relevant guidelines made or endorsed by the NSW Environment Protection Agency (EPA) inclusive of NEPC (2013[7]) and also the requirement of SEPP 55[8].

1.2 Objective

The objectives of this RAP are to:

- Characterise and document the known extent of environmental impact within the site via presentation of a conceptual site model (CSM);
- Identify the remedial strategy(ies) to be adopted by an assessment of remedial options and development objectives; and
- Document the procedures and standards to be followed in order to remove the risks posed by contaminated soils, to make the site suitable for permissible (commercial and commercial with childcare centres) land uses, while ensuring the protection of human health and the surrounding environment.

[4] *Site Audit Statement/Report – Public Open Space Area, Australian Technology Park, Eveleigh.* Ramboll Environ Pty Ltd dated 4 September 2015, draft document (Ramboll 2015a)

[5] *Environmental Management Plan, Australian Technology Park, Eveleigh NSW*. Environmental Strategies Pty Ltd dated August 2015 Revision 0 (ES 2015a)

[6] It is noted that a copy of the Lot 10 and 11 SAS and associated Douglas Partners Pty Ltd EMP was not made available for review

[7] National Environment Protection (Assessment of Site Contamination) Measure, Amendment No 1 (2013). National Environment Protection Council (NEPC 2013)

[8] *Managing Land Contamination – Planning Guidelines SEPP 55 Remediation of Land*. Department of Urban Affairs and Planning. Environment Protection Authority 1998 (DUAP 1998)

2. Proposed Development

2.1 Development Framework and Design

Mirvac is seeking to secure approval for the urban regeneration of the Australian Technology Park (ATP), including the redevelopment of three car parking lots within ATP for the purposes of commercial, retail and community purposes, along with an upgrade to the existing public domain within ATP. Building heights of 4, 7 and 9 storeys are proposed across the three development lots.

ATP has been continuously developed since its establishment in 1996, but has been underutilised as a technology and business precinct for quite some time. UGDC has actively encouraged new development and employment opportunities for the past 15 years, and Mirvac intends to continue upon this and deliver upon the precinct's full potential, with the development of circa 107,400 m^2 for employment uses, which will facilitate the employment homes of an extra 10,000 staff everyday within ATP by development completion.

Background

Mirvac has been announced by UGDC as the successful party in securing ownership and redevelopment rights for the ATP precinct (the site), following an Expression of Interest (EOI) and an Invitation to Tender (ITT) process which commenced in 2014. Mirvac has also secured the Commonwealth Bank of Australia (CBA) as an anchor tenant for the development and intends to immediately commence the urban regeneration of this precinct through the lodgement of this SSDA. CBA's commitment to the precinct is in the form of one of the largest commercial leasing pre-commitments in Australian history, occupying circa 95,000 square metres of commercial, retail, community and childcare NLA, which will house circa 10,000 technology focused staff by 2019 and 2020. Mirvac's redevelopment goes well beyond the development on the 3 development lots, as it includes the regeneration of the public domain within ATP, the addition of retail to activate the precinct and also the provision of community facilities such as a community centre, a gym and 2 x 90 child childcare facilities (Lots 8 and 9).

Site Description

The ATP precinct is strategically located approximately 5 km south of the Sydney central business district (CBD), 8 km north of Sydney airport and within 200 m of Redfern Railway Station. The ATP precinct, with an overall area of some 13.2 hectares, is located within the City of Sydney local government area (LGA).

Three key lots remain undeveloped within the ATP precinct and are presently used for at-grade worker and special event car parking. These sites are:

- Lot 8 in DP 1136859 – site area circa 1,937 m^2;
- Lot 9 in DP 1136859 – site area circa 8,299 m^2; and
- Lot 12 in DP 1136859 – site area circa 11,850 m^2.

The ATP site layout is shown in **Figure 2**.

In addition, the site contains the Locomotive Workshops which is a large heritage listed masonry and steel former railway building, which has undergone adaptive reuse in recent years for commercial purposes. The current SSDA works boundary excludes the Locomotive Workshop, however, future development associated with the adaptive re-use of the Locomotive Workshop will be the subject of separate future applications. To avoid the preparation of a separate RAP for the Locomotive Works, and the ensure consistency with regards to the remedial approach across the site/ATP, the Locomotive Workshop has been included in this RAP and the site boundary.

Overview of Proposed Development

The development application seeks approval for the following components of the development:

- Site preparation works, including demolition and clearance of the existing car parking areas/ancillary facilities and excavation;
- Construction and use of a 9 storey building within Lot 9 (Building 1), comprising of parking, retail, commercial and childcare uses;
- Construction and use of a 7 storey building within Lot 12 (Building 2) comprising of parking, retail and commercial uses;
- Construction and use of a 4 storey community building within Lot 8 (Community Building) comprising of gym, retail, community, commercial and childcare uses;
- Extensive landscaping and public domain improvements throughout the precinct for the benefit of the local community; and
- Extension and augmentation of physical infrastructure/utilities as required.

A more detailed and comprehensive description of the proposal is contained in the Environmental Impact Statement (EIS) prepared by JBA. Design Plans for Lots 8, 9 and 12 are provided in **Appendix A**. Landscape design plans are also presented in **Appendix A**.

Adaptive reuse and refurbishment of the Locomotive Workshop for commercial purposes is proposed in future development. This will involve modifications to the interior. The concrete slab will be retained.

It is understood works are to be undertaken in a staged manner.

2.2 Planning Framework

State Environmental Planning Policy (SEPP) Major Development 2005 is the principal environmental planning instrument applying to the site. Schedule 3, Part 5 of the Major Development SEPP sets out the zoning, land use and development controls that apply to development on the site.

As the development has a capital investment value of more than $10 million it is identified as State Significant Development under the State Environmental Planning Policy (State and Regional Development) 2011, with the Minister for Planning the consent authority for the project.

3. Site Conditions and Land Uses

3.1 Site Identification

This site is a part of the ATP campus style precinct catering for science and technology based occupants, in a historical setting, comprising heritage renewal as well as modern state of the art facilities. The site is located approximately 5 km south of the Sydney CBD, 8 km north of Sydney airport and within 200 m of Redfern Railway Station. The site, with an overall area of some 11.6 hectares, is located within the City of Sydney LGA.

The site is bound to the north by a railway easement, east by Garden and Cornwallis Streets, south by Henderson Road and to west by Alexander Street and a childcare facility.

The location of the site is shown in **Figure 1**, current layout is shown in **Figure 2**. Site details are summarised in **Table 3.1**.

Table 3.1 Summary Site Details

Lot Numbers (as shown on **Figure 3**)	Lots 8, 9, 12 in DP 1136859 Lot 4000 in DP 1194309 (previously Lot13 DP 1136859) Part Lot 4007 in DP 1194309 (previously Lot13 DP 1136859) Part Lot 10 in DP 1136859
Street Address	Australian Technology Park, 2 Locomotive Street, Eveleigh, NSW, 2015
ATP Site Area	Approximately 13.2 ha
Site Area	Approximately 11.6 ha, as shown in **Figure 3**
Local Government Authority	City of Sydney
Geographic Coordinates (MGA 56)	Please refer to **Figure 3**
Zoning	SEPP Major Development 2005 under the City of Sydney Local Environment Plan 2012
Previous Land Uses	Locomotive workshops, foundries, railway sidings and goods yards
Current Land Uses	Lot 8 DP 1136859 – vacant land / car park Lot 9 DP 1136859 – vacant land / car park Lot 12 DP 1136859 – vacant land / car park Lot 4000 DP 1194309 – ongoing commercial land use Part Lot 4007 DP 1194309 – campus style precinct comprising heritage renewal as well as modern state of the art facilities for science and technology based occupants (commercial land use). In addition areas of public open space comprising a roads, sports oval, tennis courts and picnic facilities (recreational land use) Part Lot 10 DP 1136859 – commercial land use (Channel 7)
Proposed Developable Land Uses	Part Lot 10 DP 1136859 and Part Lot 4007 DP 1194309 – ongoing commercial (road and pedestrian easements) and recreational land uses Lot 8 DP 1136859 – commercial potentially including a child care centre Lot 9 DP 1136859 – commercial potentially including a child care centre Lot 12 DP 1136859 – commercial Lot 4000 DP 1194309 -–adaptive reuse for ongoing commercial land uses

3.2 Site Layout

The site comprises an irregular shaped parcel of land accommodating Developable Lots and public domain areas of the ATP campus style precinct catering for science and technology based occupants, in a historical setting, comprising heritage renewal as well as modern state of the art facilities. The site is bound to the north by a railway easement, east by Garden and Cornwallis Streets, south by Henderson Road and to west by Alexander Street and a childcare facility.

The site is defined as part of the ATP precinct, comprising the public domain areas of the ATP precinct (roads, pedestrian easements and recreations facilities) including the pedestrian easement between Lots 10 and 12, the Locomotive Workshop and Developable Lots (Lots 8, 9 and 12). Areas excluded from the site include Lots 4001 to 4006 including the International Business Centre, National Innovation Centre, Traffic Management Centre, Ambulance Service Building and Biomedical Building), Lot 501 in DP 1033739 (rail tunnel easement) and land currently tenanted by Seven

Network (Channel Seven – Lots 10 and 11 in DP 1136859) (but includes the public domain easement between Lot 10 in DP1136859 and Lot 12 in DP 1136589).

Excluding Developable Lots (Lots 8, 9 and 12), the site is occupied/surfaced by either or a combination of the following:

- Road Reserves - primarily surfaced with bituminous concrete, concrete pavements or ceramic pavers with landscaped areas (garden beds with mulch/topsoil ground cover),
- Pedestrian Easements - primarily surfaced with bituminous concrete, concrete pavements or ceramic pavers with landscaped areas (garden beds with mulch/top soil ground cover), and
- Areas of Open Public Space – public accessible parks comprising primarily areas surfaced with grass cover (Vice Chancellors Oval and lawn areas), tennis courts, barbeque picnic area and areas surfaced with bituminous concrete, concrete and/or ceramic pavements with landscaped areas (garden beds with mulch/top soil ground cover).

Developable Lots (Lots 8, 9 and 12) are largely level, surfaced with bituminous concrete pavements with minor areas of exposed soils (garden beds). Lot 12 is noted to comprise two tiers, an upper level flush with the Locomotive Street road frontage, and a low level flush with the Central Avenue road frontage. An earthen/concrete embankment retaining wall of approximately 3 m in height separates the two tiers.

Developable Lots are currently used as overflow car parking facilities and proposed to be developed to accommodate commercial land use, with Lots 8 and 9 potentially including childcare facilities or similar.

The Vice Chancellors Oval and recreational areas located within the southern site extent are surfaced with grass cover and also act as a flood detention basin.

The Eastern Suburbs/Illawarra Train Line Tunnel runs below ground parallel to Henderson Road along the southern site boundary.

3.3 Surrounding Land Uses

The surrounding land uses have been identified as comprising:

- North – The site is bound to the north by a railway easement and in turn mixed land use comprising heritage (Carriage Works) renewal (commercial land use - art centre, restaurant/bar and markets), residential allotments and the University of Sydney campus facilities;
- East – The site is bound to the east by Cornwalls and Garden Street, across which are mixed land uses comprising residential and commercial allotments. Several residential and commercial allotments bound the site to the south east (corner of Henderson Road and Garden Street);
- South – The site is bound to the south by Henderson Road, across which are mixed land uses comprising residential and commercial allotments. A child care facility (Alexandria Childcare Centre) bounds the site to the south west. The Eastern Suburbs/Illawarra Train Line Tunnel runs parallel to Henderson Road along the southern site boundary (**Figure 1**); and
- West – The site is bound to the north west by a railway easement and associated infrastructure (RailCorp Depot), Lots 10 and 11 in DP 1136859 comprising commercial land uses (Channel 7 Building) and a child care centre (Alexandria Childcare Centre) to the south west.

Lots 4001 to 4006 in DP 1194309 including the International Business Centre, National Innovation Centre, Traffic Management Centre, Ambulance Service Building and Biomedical Building) and Lots

10 and 11 in DP 1136859 (Seven Network Building) line the site periphery, falling outside the subject site. Lot 501 DP 1033739 (rail easement) also falls outside the site boundary. As discussed above, the pedestrian easement between Lot 10 in DP1136859 and Lot 12 in DP 1136589 falls within the site boundary.

3.4 Geology and Soils

Reference to the 1:100 000 Geological Series Sheet for Sydney (DMR 1983[9]) indicates that the site is largely underlain by Ashfield Shale of the Wianamatta Group and Quaternary sediments, although limited in extent and skeletal in nature (i.e. within the southern extents of Lots 8 and 9 and Lot 4007).

Ashfield Shale, which are located across the majority of the site typically comprises black to dark grey shales with laminate. A thin horizon of Quaternary sediments, commonly referred to as the Botany Sand Beds (BSB) is present within the southernmost site extent. BSB typically comprise unconsolidated to semi-consolidated permeable sands. The sands are medium to fine grained quartz marine sands with minor shell fragments and podzols. The sand is interspersed with lenses of layers of peat, peaty sand, silt and clay, which become more common in the lower part of the sequence. The BSBs can be up to 30 m to 60 m thick and are underlain typically with Hawkesbury Sandstone.

Based upon the Sydney 1:100,000 Soil Landscape series (DLWC 1989[10]) the site is located within the Blacktown soil landscape group. The landscape is generally characterised by gently undulating rises on Wianamatta shales, local relief to 30 m and slopes usually <5%, broad rounded crests and ridges with gently inclined slopes, cleared eucalypt woodland and tall, open forest (dry sclerophyll forest).

Soils are characteristically shallow to moderately deep (<100 cm) hard setting mottled texture contrast soils, red and brown podzolic soils and crests grading to yellow podzolic soils on lower slopes and in drainage lines.

Limitations of the Blacktown group include moderately reactive, highly plastic subsoil, low soil fertility and poor soil drainage.

Previous investigations, as discussed in **Section 5**, identified fill materials across the entire site with minor exceptions, ranging from a skeletal fill soil profile to 7.6 m in depth (**Figure 4**). In general, the vertical extent of fill is reported to be greatest within the northern site extent, adjacent the Locomotive Workshop. Fill materials are considered result from a combination of site activity (waste products) and importation of fill materials to establish site levels.

Fill materials were noted to comprise gravelly sandy, silty sands, clayey sands, peat with inclusions of railway ballast, glass, ash, slag, metal, ceramic, brick, sedimentary clast and construction rubble.

Silty clay soils, with small isolated clayey sand/sand lens and in turn shale/sandstone bedrock were encountered underlying fill materials. Detailed schematic cross section of the identified subsurface conditions are provided as **Figure 5** and **Figures 5A** to **5D** Lot 12 is noted to be underlain by fill and in turn clay and shale bedrock.

Groundwater seepage was noted at a number of sampling locations during historical investigation activities. Seepage water levels varied from 0.8 m to 5 m below ground level (bgl) over a period of twenty two years.

[9] Sydney 1:100 000 Geological Series Sheet 9130 (Edition 1). Department of Mineral Resources, 1983 (DMR 1983)
[10] 1:100 000 *Sydney Soil Landscapes Map Sheet 9130 Edition 1*, Department of Land and Water Conservation, Published 1989

3.5 Acid Sulfate Soils

Review of the *Acid Sulfate Soil Risk Map for Botany Bay*[11] indicates that the subject site is located within an area of '*no known occurrence of Acid Sulfate Soils*'. Acid sulfate soils (ASS) are not known or expected to occur in areas having this classification.

Notwithstanding the aforementioned, previous investigations have reported potential for ASS/potential acid sulfate soils (PASS) within natural soils at depth.

With due consideration to the geological and soil characteristics of the site (i.e. peat material), in addition to historical information, management of development activities should consider the potential for ASS/PASS if development activities involve excavation of natural soils beneath the water table.

The nearest occurrence of identified ASS comprises the sediments of the Alexandra Canal, located approximately 1.4 km to the south the site.

3.6 Topography

A review of the *1:25,000 Botany Bay Topographic M*ap (9130-3-S) indicates that the site lies at an elevation of between approximately 10 m and 20 m above Australian Height Datum (AHD). The site is reported to slope gently to the south west.

Based on communications with the client, it is understood that site is highly engineered, and alterations to the site's topography are subject to development controls, with the Vice Chancellors and recreational areas used as a stormwater detention basin.

The site is situated within an area of gently undulating rises associated with dune formations. In the vicinity of the site, regional ground levels fall gently toward the south generally toward Shea's Creek, located approximately 600 m to the south east of the site and Alexandra Canal located approximately 1.4 km to the south of the site.

Based on communications with Mirvac, it is understood that site is highly engineered, and alterations to the site's topography are subject to development controls.

3.7 Hydrology

The nearest surface water receptor is the Alexandra Canal, located approximately 1.4 km to the south of the site. Alexandra Canal flows into the Cooks River, located approximately 4.5 km to the south west of the site which discharges into Botany Bay approximately 6 km to the south west of the site.

Existing pavements occupy greater than approximately 85% of the site and as such, rainfall within the site is anticipated to generally be controlled by the current storm water system, draining toward the Henderson Road site boundary and then into the regional storm water system. It is understood that regional storm water flow occurs via below ground infrastructure to the Alexandra Canal.

In unsealed sections of the site, a portion of rainfall is expected to infiltrate the relatively permeable sandy fill soils, with the remainder of rainfall becoming surface water run off toward the site boundary and then the regional storm water system.

As discussed above, based on communications with the client, it is understood that site is highly engineered, and alterations to the site's topography and in turn hydrology are subject to development controls, with the Vice Chancellors Oval and recreational areas fronting Henderson Road used as a stormwater detention basin.

[11] *Acid Sulfate Soil Risk Map – Botany Bay,* Edition 2, 1997 1:25 000 Ref: 91 30S3. NSW DLWC

3.8 Hydrogeology

Based on local topography, geology and reported depths to groundwater, groundwater flow is anticipated to be to the south, towards Shea's Creek/Alexandra Canal. Shallow groundwater at the site is anticipated to occur perched at the base of the fill/sand materials and at the interface with the much less permeable shale / sandstone following rain fall events. Within the underlying bedrock, groundwater is expected to be confined to zones of relatively higher permeability (i.e. faults, fractures and weathered seams of clay and sandy clay within the bedrock) and therefore limited in extent.

Previous assessments within the site have identified groundwater at depths of approximately 16.8 m AHD within the norther site extent falling to approximately 13.2 m AHD within the southern site extent.

As discussed above, previous assessment have identified the potential for the Eastern Suburbs/Illawarra Train Line Tunnel along Henderson Road to influence groundwater flow direction.

A review of the Botany Groundwater Management Zones map (DNR 2009[12]) indicates that hydrogeologically downgradient areas are located within, Zone 2 of the Botany Sands Aquifer Embargo Area. The DNR indicate that the Embargo Area "*incorporates localities with known or suspected contamination from past industrial activity*". Residents of properties situated within this zone are advised that groundwater use is now banned, especially for drinking water, watering gardens, washing windows and cars, bathing or to fill swimming pools. Industrial users are required to test the bore water at least annually and provide the results to the NSW Department of Primary Industry - Water (DPI) and the Office of Environment and Heritage (NSW OEH).

3.9 Meteorology

A review of average climatic data for the nearest Bureau of Meteorology monitoring location (Sydney Airport AMO[13]) indicates the site is located within the following meteorological setting:

- Average minimum temperatures vary from 7.2 in July to 19.0 in February;
- Average maximum temperatures vary from 17.0 in July to 26.5 in January;
- The average annual rainfall is approximately 1083 mm with rainfall greater than 1 mm occurring on an average of 96 days per year; and
- Monthly rainfall varies from 60 mm in September to 121 mm in June with the wettest periods occurring on average in February, March and June.

[12] Botany Groundwater Management Zones map, www.water.nsw.gov.au/water-management/water-quality/groundwater/botany-sand-beds-aquifer/Botany-Sands-Aquifer/default.aspx NSW Department of Natural Resources (DNR 2009)

[13] http://www.bom.gov.au/climate/averages/tables/cw_066037.shtml Commonwealth of Australia, 2013 Bureau of Meteorology, Product IDCJCM0028 prepared at 20 October 2015 and accessed by JBS& on 20 October 2015.

4. Summary of Site History

The ATP precinct was occupied by a large complex of rail workshops and yards throughout the late nineteenth and most of the twenty century. The northern portion of the ATP precinct, adjacent the railway lines was occupied by the Eveleigh Locomotive Workshops, while the southern ATP extent was occupied by the Alexandria Goods Yards.

Based on review of historical investigations as presented in JBS&G (2015a), the site was used to manufacture components required for steam locomotive assembly and repair. As such, site activities were reported to have comprised brass, iron and steel founding, heavy engineering machining, blacksmith works, refuelling, cleaning, degreasing, including the use of solvents and paints.

As part of its development, the site was extensively filled and built up with a range of hard fill material including sand, clay, railway ballast, construction and demolition and other waste materials (see **Figure 4** for inferred fill depth). Fill materials were reported resultant from site derived waste and materials importation.

The primary potentially contaminating activities at the ATP site was considered to be its previous use as part of the Eveleigh Railway Workshops. Workshops included a paint shop, potash shed, wheel press, welder shop, copper shop, Oliver shop, tin smiths and pattern shop among others. The Locomotive Workshop was partitioned to accommodate a blacksmiths, fitter shop, machine shop, fabrication shop etc. Other significant buildings included the Engine Shop, foundry and Alexandria Goods Shed (**Figure 6**).

The potash shed was reported to have been used to wash dirt and grease from the locomotive wheels and axles and to remove rust and scale through acid bath drenching.

The central site extent housed a significant building being 240 m long and 40 m wide by 10 m high, located across Lot 12 and Central Avenue and extending into Lots 10 and 11 beyond the site boundary. Furnaces, smelting apparatus and furnace pits were reported, with the building surfaced with a dirt floor. The building in this area was reported to have comprised three sections for casting, one each for iron, brass and steel.

Lots 8 and 9 in DP 1136859 and recreation areas within the southern site extent formed part of the former Alexandria Goods Shed which was demolished in the 1980s. The shed is understood to have been used for the storage and re-distribution of coke, coal, wood, grain and livestock via railway.

Archaeological reports presented in previous reports indicated that an underground storage tank (UST) may have been located between the Locomotive Workshop and the large erecting shop (**Figure 6**). The contents of the potential UST were unknown. In addition, it was reported solvent like substances were stored in a UST(s), along with a waste oil separator in the north eastern site extent (location unknown). Light non-aqueous phase liquid (LNAPL) hydrocarbons and elevated dissolved hydrocarbons have historically been reported at sample location MW3 within Area 2 (**Figure 7D**) and within Lot 10 DP 1136859 (beneath the Channel 7 building, outside the site boundary).

Major fuel storage and dispensing was largely associated with infrastructure on the perimeter of the site north of Lots 10 and 11 in DP 1136859 (beyond the site) resulting in some localised soil and groundwater contamination. Lots 10 and 11 in DP 1136859 have recently been the subject of a SAS, certifying that Lots 10 and 11 in DP 1136859 are suitable for commercial land use subject to implementation of an EMP. Lot 10 is understood to have a multi-level basement, with the basement likely terminating in natural soils. It is further understood that the basement does not extend to the south eastern most extent of Lot 10 but is understood to occupy the northern most extent of the pedestrian easement portion of Lot 10.

5. Previous Investigations / Contamination Status

The following provides a summary of previous investigations:

5.1 Detailed Site Assessment (JBS&G 2015a)

JBS&G prepared a standalone site-wide detailed site investigation (DSI, JBS&G 2015a) report comprising a review of historical reports prepared for the ATP. The scope of works completed for this assessment comprised:

- A review of available historical information to identify potential areas of environmental concern (AEC);
- Review and collation of available information in relation to site natural and contamination conditions;
- Development of a CSM; and
- Comparison of available data with relevant endorsed criteria to assess, from a contamination perspective, the suitability of the site/individual land parcels for the permissible land uses.

The following summarises the contamination status at the site:

- Numerous historical site investigations have assessed the contamination conditions at the site over the last 22 years, with the total number of investigation locations exceeding those recommended by endorsed guidelines;
- Fill materials are present underlying the site and variously comprise gravelly sandy, silty sands, clayey sands, peat with inclusions of railway ballast, glass, ash, metal, ceramic, brick, slag, sedimentary clast and construction rubble;
- Fill materials within Developable Lots were reported to contain concentrations of heavy metals, total petroleum hydrocarbons (TPHs)/total recoverable hydrocarbons (TRH) and PAH exceeding adopted NEPC (2013) ecological criteria and, in relatively few locations, adopted health-based criteria. No significant amounts of volatile contaminants were detected in fill materials;
- However, there was no discernible pattern to the distribution of contaminants within the fill material and the impact was not confined to any particular portion(s) of the site. Furthermore, the vertical extent of potential contamination in fill material is considered to be consistent with the depth of fill material;
- Elevated volatile contaminants of potential concern (COPC) concentrations in fill materials at isolated locations within Lot 9 at BH7/1.5-1.6, BH8/0.6-1.0 and BH10/0.9-1.0 within were reported to historically exceed the adopted health-based criteria. Further assessment of current fill conditions at these locations with respect to the proposed future land uses was recommended;
- Asbestos was identified in isolated samples (BH12/0.1-0.2 within Lot 8, BH10/2.0-2.1 within Lot 9, BH2/3.0-3.0 and BH4/0.35-0.4 within Lot 12). Given the occurrence of anthropogenic inclusions and historical investigation methods used, it was noted potential remains for more widespread asbestos impact within the fill materials in portions of the site;
- Previous investigations have considered the risk of ASS/PASS to be low, however there has reported to be uncertainty in the potential for acid ASS/PASS within natural soils at depth. Further consideration of the potential for ASS/PASS and management measures is required if development activities involve significant excavation of natural soils beneath the water table.

- Fill materials within public domain areas were identified to contain elevated concentrations of heavy metals, PAHs and TPH/TRH, generally consistent with that reported for Developable Lots that will require management. A draft Non-Statutory Section A SAS (Ramboll 2015a) has been issued for public domain areas within the ATP certifying that public domains are suitable for the proposed ongoing recreation and/or commercial/ industrial land uses subject to implementation of the EMP (ES 2015a) prepared for these land parcels;
- A SAS has been issued for Lot 10 certifying that Lot 10 is suitable for commercial land use subject to implementation of the EMP (DP) prepared for this land parcel;
- On the basis of potential variability in fill quality and identification of anthropogenic inclusions within the fill soil profile, aesthetic issues require management;
- Elevated sub-slab soil vapour trichloroethlene (TCE) concentrations have been reported underlying Bays 5 and 6 of the Locomotive Workshop. However, ambient air quality results from within the building collected as part of ongoing EMP (ES 2015a) requirements were all below the adopted assessment criteria. As such, no current risk from sub-slab vapour conditions has been reported, however, additional assessment of sub-slab vapour conditions underlying the Locomotive Workshop may be warranted to support ongoing management if the exposure scenario changes under the adaptive reuse or change to the EMP is necessary;
- Lead paint dust has been identified within the Locomotive Workshop requiring ongoing management;
- As documented in SAS's prepared of the ATP precinct, groundwater has been assessed across the broader ATP precinct and no groundwater remediation is considered to be required; and
- Should fill materials be subject to cut and fill activities, and potential remains for the placement of fill from the unsaturated zone within the saturated zone, the potential for detrimentally affecting groundwater conditions, for example by increased contaminant leaching, needs to be considered.

On this basis, it was considered that the site can be made suitable for the proposed land use provided that a suitable remediation plan/management strategy is appropriately implemented as part of site redevelopment to address identified contamination issues at the site.

It was recommended that a management strategy and/or RAP be developed and implemented in accordance with the relevant regulatory requirements to manage the identified contamination issues at the site so as to render the Developable Lots and areas of adaptive reuse suitable for their permissible uses.

Future works within public domain areas are required to be undertaken in accordance with the EMP prepared for these land parcels (ES 2015a).

5.2 Lot 12 Fill Retention Assessment (JBS&G 2016c[14])

The investigation comprised collection of soil samples from across Lot 12 on a systematic grid basis skewed to areas of historical elevated total and/or toxicity characteristic leaching procedure (TCLP) contaminant concentrations.

The objective of the investigation was to evaluate fill materials within Lot 12 to establish whether fill materials are environmentally suitable for placement below the future Lot 12 building, specifically the placement of fill from the unsaturated zone within the saturated zone and the potential for detrimentally affecting groundwater conditions by increased contaminant leaching. A secondary

[14] *Mirvac Projects Pty Ltd – Australian Technology Park Lot 12 Fill Retention Assessment*. 2 Locomotive Street, Eveleigh, NSW. JBS&G Australia Pty Ltd dated 29 January 2016 (JBS&G 2016c)

objective was to assess whether ASS/PASS conditions/properties were present at depth within Lot 12.

Sampling was conducted at eighteen locations, from which soil samples were collected at regular intervals until natural soils or prior refusal. A total of thirty six primary soil samples were submitted for heavy metals, TRH, PAH and Australian standard leaching procedure (ASLP) heavy metal and PAH analysis. In addition, to replicate the excavation, stockpiling and homogenisation process as a result of earth works (and potential for disaggregation), JBS&G also submitted six 5 kg samples of fill materials for column leach analysis in accordance with ASTM (D4874-95[15]).

The report was prepared as a factual presentation of data which was subsequently interpreted in JBS&G (2016b). Relevant data is provided as **Appendix B**.

Fill materials and natural site soils within Lot 12 were identified as not containing ASS/PASS properties requiring management.

5.3 Locomotive Workshop Soil Vapour Assessment (JBS&G 2016d[16])

The objective of this investigation was to assess the concentration of soil vapour contaminants, specifically volatile organic compounds (VOCs) underlying the Locomotive Workshop. The scope of works completed for this assessment comprised:

- Installation of twenty seven systematic sub-slab soil vapour points on an approximately 30 m grid across the Locomotive Workshop, sample collection, and subsequent laboratory analysis at a National Association of Testing Authority (NATA) certified laboratory for volatile organic compounds (VOC);
- Subsequent to receipt of the certificates of analysis of the initial sampling event , installation of six targeted sub-slab soil vapour locations, sample collection and laboratory analysis at a NATA certified laboratory for VOCs to assist in plume delineation / source identification in areas of elevated VOC concentrations; and
- Preparation of a factual letter report summarising the results of the sampling and analysis.

The report was prepared as a factual presentation of data which was subsequently interpreted in JBS&G (2016a). Relevant data is provided as **Appendix C**.

5.4 Human Health Risk Assessment (JBS&G 2016a)

JBS&G completed a human health risk assessment (HHRA) for the site with respect to permissible land uses. Based on the results of the assessment, the following were noted:

- It was considered that risks to site users associated with direct contact exposures (i.e. incidental ingestion, dermal contact, dust inhalation) to contaminated soils can be managed through the establishment and maintenance of physical barriers, with potentially complete source-pathway-receptor linkages limited to sub-surface maintenance workers and construction workers;
- Risks to sub-surface maintenance workers and construction workers posed by contaminated soils are acceptable for non-asbestos contaminants, however, due to the potential for unexpected finds it is recommended that safe work procedures are implemented during subsurface works in order to reduce exposures via the incidental ingestion, dermal contact and inhalation pathways to the extent practicable in accordance with current guidance and legislation, inclusive of WorkSafe Australia (July 2014) Review of Hazards and Health Effects

[15] ASTM Designation: D4874-95 (Reapproved 2014) – Standard Test Method for Leaching Solid Material in a Column Apparatus (ASTM D4875-95).

[16] *Locomotive Workshop Soil Vapour Assessment*. JBS&G Australia Pty Ltd dated 27 May 2016 (JBS&G 2016d)

of Inorganic Lead, Information Sheet as well as National Health and Medical Research Council (April 2016) Managing Individual Exposure to Lead in Australia – A Guide for Health Practitioners;

- Asbestos contaminated soils are not widespread, however, friable forms have been detected and the presence of asbestos contamination in any particular area cannot be precluded on the basis of the available information. As such, asbestos clearance procedures should be developed and implemented in accordance with current guidance and legislation where ground disturbance is proposed;
- A review of the groundwater data indicates that no risk management measures and/or further assessment are warranted with respect to exposure to contaminants in groundwater. However, considering the proximity of the site with respect to the Botany Sands Aquifer Embargo Area, groundwater use for purposes other than monitoring should be precluded;
- Although contaminant concentrations in soil vapour exceed adopted screening criteria in a number of samples collected beneath the Locomotive Workshop floor, the available indoor air monitoring data indicates that vapour inhalation risks are acceptable to current users of the building. Due to the magnitude of criteria exceedances in sub-surface vapour monitoring samples it is recommended that ongoing indoor air monitoring is conducted. The air monitoring should continue until such time that the sub-slab to indoor air attenuation being observed can be explained by establishing an adequately representative vapour intrusion model based upon site specific data (e.g. establishment of variation in relation to representative sub-slab and indoor air concentrations, foundation thickness, mixing space volume, air exchange rate etc.);
- Although it is considered unlikely that vapour inhalation risks to subsurface workers in the vicinity of the Locomotive Workshop are unacceptable, as a conservative measure it is recommended that ongoing management of the site includes provision to conduct air monitoring using a Photo-Ionisation Detector (PID) during excavations in the vicinity of the Locomotive Workshop and the establishment of a 0.1ppm trigger level (based on sub-chronic risk, to be adjusted for PID lamp) for action (e.g. cease work, active ventilation) in order to appropriately manage risks to human health; and
- Additional investigations are required in relation to Lot 12 to assess vapour intrusion risks associated with the adjacent Locomotive Workshop area. As the proposed development for Lot 12 includes a partially sunken car park, these investigations will also need to consider the potential for contaminated groundwater seepage. The additional investigations should be followed by a site specific risk assessment which considers the proposed development plans and identifies whether risks to future users of Lot 12 are unacceptable. In the event that unacceptable risks are identified, appropriate management measures will need to be developed and implemented in order to reduce risks to acceptable levels.

5.5 Ecological Risk Assessment (JBS&G 2016b)

JBS&G completed an ecological risk assessment (ERA) for the site. Based on the results of the assessment, the following were noted:

- Growing media (imported) are used in accessible areas of the site where potential plantings are proposed to occur;
- A minimum depth of 0.5 m of growing media should be adopted in areas of grasses / shrubs, or depths of 0.1 m in areas already subject to management by the existing Environmental Management Plan;

- A minimum depth of 1.5 m, not exceeding 2 m, is appropriate for areas of the site where larger trees are proposed to be planted;
- Growing media should have levels of constituents consistent with ecological protection criteria for 'urban residential and public open space' as provided to NEPC (2013), and levels of aldrin, dieldrin and polychlorinated biphenyls (PCBs) below laboratory detection limits;
- Fill materials on site are not suitable to be used as growing media, unless demonstrated to be environmentally suitable by additional targeted sampling and analysis;
- A significant extent of the natural soils on the site, generally at depths in proximity to the extent of the fill based soils, are further not suitable to be used as growing media, unless demonstrated otherwise. Where natural soils are proposed to be used on site as growing media they will require to be validated for heavy metals, TRH and PAHs;
- Natural soils on site (underlying fill materials) may be suitable to be used as growing media subject to validation of hydrocarbons meeting NEPC (2013) criteria; and
- There is not considered to be an unacceptable ecological risk, from a protection of groundwater/off site ecological receptor perspective, to the re-use of fill materials within the site subject to the retention of fill materials within clay based soils as present over the majority of the site. The levels of potential leachates, where fill materials are retained in this lithology, have been demonstrated to be negligible.

5.6 Summary of Known Contamination Status

The following sections provide key comments in relation to historical investigations made available and applicable to the site summarised by JBS&G (2015a). Historical sample locations are shown in **Figures 7A** to **7D**. Soil, groundwater and soil vapour exceedances when compared to NEPC (2013) are shown in **Figures 8A, 8B East, 8B West, 8C, 8D, 8E East** and **8E West**. A summary of soil and groundwater analytical data is presented in **Appendix D**. Soil vapour data is presented in **Appendix C**.

The ATP precinct, for which the site is part, has been the subject of over one hundred contamination investigations over a period of 22 years.

A draft Non-Statutory Section A SAS (Ramboll 2015a) was issued in September 2015 certifying that public domain areas within Lot 4007 in DP 1194309 (road reserves, pedestrian easements and recreational facilities) are suitable for ongoing recreational and commercial land uses subject to implementation of the EMP (ES 2015a) prepared for these land parcels.

A Non-Statutory Section A SAS (Environ 2014a[17]) was issued for Lot 8 in DP 1136859 in 2014 certifying that Lot 8 was suitable for commercial land uses. This land parcel is now proposed to accommodate commercial land use, potentially including a childcare facility (or similar) and the SAS (Environ 2014a) is not applicable to the proposed redevelopment.

A Non-Statutory Section B SAS was issued for Lot 9 (Environ 2014b[18]) and Lot 12 (Environ 2014c[19]) in DP 1136859 certifying that the nature and extent of the contamination has been appropriately determined for the purposes of planning future management or redevelopment of the site.

[17] *Site Audit Statement/Report – Lot 8 Australian Technology Park Eveleigh.* Environ Australia Pty Ltd dated December 2014 (Environ 2014a)

[18] *Site Audit Report – Lot 9 Australian Technology Park Eveleigh.* Environ Australia Pty Ltd dated December 2014 (Environ 2014b)

[19] *Site Audit Statement/Report – Lot 12 Australian Technology Park Eveleigh.* Environ Australia Pty Ltd dated December 2014 (Environ 2014c)

It is understood a Non-Statutory Section A SAS[20] has been issued for Lots 10 and 11 in DP 1136859 certifying that these land parcels are suitable for commercial land uses subject to implementation of the EMP (DP) prepared for these land parcels.

In addition, groundwater beneath the ATP precinct has been identified as not requiring remediation (Environ 2014a/b/c, Ramboll 2015a).

Subsequent to the aforementioned, the site has been subject to an ERA (JBS&G 2016b) and HHRA (JBS&G 2016a).

5.6.1 Summary of Known Fill/Soil Contamination Status

Fill materials were reported to occur across the entire site with minor exceptions, ranging from a skeletal fill soil profile to 7.6 m in depth. Fill materials within the site were noted to comprise gravelly sandy, silty sands, clayey sands, peat with inclusions of railway ballast, glass, ash, metal, ceramic, brick, slag, sedimentary clast and construction rubble.

Fill materials have been shown to contain elevated concentrations of heavy metals (principally copper, zinc and to a lesser extent lead), semi to non-volatile TPHs/TRH, PAHs (including concentrations of carcinogenic PAH compounds as benzo(a)pyrene TEQ) and, in parts, asbestos.

Within the Developable Lots (Lot 8, Lot 9 and Lot 12) the reported concentrations of the identified contaminants (where present) in the fill material typically exceed endorsed generic/site-derived ecological criteria and, in relatively few cases, exceed endorsed health-based criteria as adopted in JBS&G (2015a) for proposed permissible land uses (Lots 8 and 9 – commercial with childcare use; Lot 12 – commercial use).

No significant amounts of volatile contaminants were detected in fill materials. Elevated TRH (F2 fraction) and/or naphthalene concentrations in fill materials at isolated locations in Lot 9 at BH7/1.5-1.6, BH8/0.6-1.0 and BH10/0.9-1.0 historically exceeded the adopted NEPC (2013) health-based criteria. However, it is noted that volatile COPC concentrations reported in fill samples from locations adjacent to BH7/1.5-1.6, BH8/0.6-1.0 and BH10/0.9-1.0 within Lot 9 were low and acceptable. Based on the results of the ERA/HHRA (JBS&G 2016b and JBS&G 2016a), fill materials at sample locations BH7/1.5-1.6, BH8/0.6-1.0 and BH10/0.9-1.0 are considered not to represent a potential vapour risk requiring management.

Asbestos in the form of asbestos fine/ fibrous asbestos (AF/FA) has been identified in isolated areas within Developable Lots (one location within both Lots 8 and 9 and two locations within Lot 12). However, it is noted that while asbestos was identified in isolated samples, extensive observations of “rubble” and other building-material related inclusions were noted on the borehole logs from previous investigations, and the nature of historical investigation methods, indicate that asbestos may be more widespread within the fill materials than currently identified.

There is no discernible pattern to the distribution of contaminants within the fill material and the impact is not confined to any particular portion(s) of site. The sample depths at which elevated concentrations of the nominated contaminants were identified ranged from immediately beneath ground surface until fill termination indicating the presence of contaminants is associated with the fill material itself, rather than discrete point sources.

The majority of constituents reported in fill have low potential for leaching and groundwater contamination has not been identified as an issue of concern with respect to human health and/or sensitive downgradient groundwater receptors. Based on the results of the ERA (JBS&G 2016b), reported calculations undertaken to assess potential worst case levels of leachate generated from site fill materials, the reuse of site fill materials, and the potential impact to site groundwater and

[20] A copy of the SAS and EMP has not been provided for review. It is understood Rod Hardwood of Environmental Strategies Pty Ltd prepared the SAS and Douglas Partners Pty Ltd prepared the EMP

hydrogeologically down gradient potential receptors of groundwater, have indicated fill materials do not pose an unacceptable ecological risk. Fill materials from Lot 12 are considered suitable for retention in the proposed borrow pit beneath the future Lot 12 building, as discussed in **Sections 5.5** and **7.4.1**.

It is noted that ash and slag inclusions in fill material have been identified at a significant portion of locations, and the ash and slag inclusions are inferred to be a significant source of COPCs (e.g. PAHs and heavy metals). On this basis, it is considered appropriate to apply the associated NSW EPA general immobilisation approvals (EPA 1999[21] and EPA 2009[22]) when consideration is given to evaluating a waste classification(s) for material required to be excavated during the remedial works.

Although the risk has been considered low, previous investigations have been uncertain with respect to potential for ASS/PASS within natural soils underlying the site. With due consideration to the geological and soil characteristics of the site (i.e. sands with minor peat material in parts), in addition to historical information presented in JBS&G (2015a), further consideration of the potential for ASS/PASS and management measures is required if development activities involve significant excavation of natural soils beneath the water table. Notwithstanding the aforementioned, assessment activities as part of JBS&G (2016c) did not identify ASS/PASS properties within Lot 12 fill materials or natural soils requiring ongoing management.

Fill materials within public domain areas have been identified to contain elevated concentrations of heavy metals, PAHs and TPH/TRH, generally consistent with that reported for Developable Lots that will require management. A draft SAS (Ramboll 2015a) was issued in September 2015 certifying that public domain areas within Lot 4007 (road reserves, pedestrian easements and recreational facilities) are suitable for ongoing recreational and commercial land uses subject to implementation of the EMP (ES 2014a) prepared for this land parcel. As discussed above, a SAS has also been issued for Lot 10 in DP 1136859 certifying Lot 10 in DP 1136859 is suitable for commercial land use subject to implementation of the EMP (DP) prepared for this land parcel.

5.6.2 Summary of Known Groundwater Contamination Impact

As documented in JBS&G (2015a), SAS's prepared for various land parcels within the ATP precinct and ERA (JBS&G 2016D), groundwater has been assessed across the site and no groundwater remediation is considered to be required.

Identified historical groundwater contamination issues underlying the ATP precinct, incorporating but not necessary directly applicable to the site, include:

- Elevated concentrations of heavy metals (principally zinc and copper) in groundwater identified in various parts of site;
- Elevated zinc concentrations at BH508 within Lot 9, which may be related to overlying fill conditions;
- Light non-aqueous phase liquid (LNAPL) historically reported (in the 1990s) within the northern site extent (MW3 – Area 2) and GWP208A within Lot 10; and
- Dissolved phase concentrations of TRH in groundwater related to the presence of LNAPL and in localised areas likely associated with other TRH sources (e.g., UST(s) and/or historical site activities).

[21] *General Approval of the Immobilisation of Contaminants in Waste – 1999/05. Ash, ash-contaminated natural excavated materials or coal-contaminated natural excavated materials*. (EPA 1999).

[22] *General Approval of the Immobilisation of Contaminants in Waste – 2009/07. Metallurgical furnace slag or metallurgical furnace slag contaminated natural excavated materials*. (EPA 2009).

As documented in JBS&G (2015a), no known LNAPL sources have been reported during recent groundwater sampling events and TRH (and other organic COPC) concentrations have generally been below the laboratory limit of reporting (LOR) or only marginally exceeding the laboratory LOR.

As discussed in JBS&G (2016b), unsaturated fill materials from Lot 12 are considered environmentally suitable for placement within the saturated zone beneath the future Lot 12 building (**Sections 5.5 and 7.4.1**).

5.6.3 Summary of Known Soil Vapour Contamination Impact

Sub-slab vapour samples collected from underlying Bays of the Locomotive Workshop have reported TCE concentrations ranging between 0.0655 mg/m^3 to 6.167 mg/m^3. Concentrations of tetrachloroethene (PCE) ranging from 0.1667 mg/m^3 to 3.167 mg/m^3 have also been reported beneath the Locomotive Workshop along with other volatile compounds. However, on the basis that ambient air quality sampling results were reported below the adopted assessment criteria, no current risk from sub-slab vapour conditions has been identified. As discussed in JBS&G (2016a) ongoing ambient air monitoring is required to demonstrate ongoing commercial land use suitability.

Although it is considered unlikely that risks to subsurface workers in the vicinity of the Locomotive Workshop are unacceptable, as a conservative measure it is recommended that ongoing management of the site includes provision to conduct air monitoring using a PID during excavations in the vicinity of the Locomotive Workshop and the establishment of a 0.1 ppm trigger level (based on sub-chronic risk, to be adjusted for PID lamp) for action (e.g. cease work, active ventilation) in order to appropriately manage risks to human health.

It is noted the source of the PCE/TCE concentrations detected beneath the Locomotive Workshop is unclear at the time of this report, noting that two discrete source areas appear to exist (i.e. western portion associated with SV03/SV07 and a larger area in the eastern portion). In addition, the lateral extent of PCE/TCE contamination in soil vapour above adopted criteria is uncertain to the south (i.e. towards Lot 12) in both the western or eastern source areas.

Although soil vapour data is not available for Lot 12, the available evidence suggests that it is highly unlikely that soil or groundwater contamination currently exists within Lot 12 which represents a potentially significant source of PCE/TCE contamination in soil vapour. Historical soil investigations conducted across Lot 12 have included relatively limited analysis for PCE/TCE, however, relatively extensive C_6-C_9 /C_6-C_{10} analysis has been conducted and the available results are not indicative of a significant C_6-C_9 /C_6-C_{10} contamination source in soils. Historical groundwater investigations conducted across Lot 12 have not identified concentrations of PCE/TCE above the laboratory limit of reporting, noting that PCE analysis has been relatively limited. Although PCE analysis has been relatively limited for groundwater, C_6-C_9/C_6-C_{10} analysis has been relatively extensive and the results are not indicative of a significant C_6-C_9/C_6-C_{10} contamination source apart from an isolated result which can be attributable to petroleum hydrocarbon contamination which meets vapour intrusion based screening levels (i.e. MW149: C_6-C_9 less BTEX – 0.15mg/L, toluene - 0.95mg/L).

Based upon the available soil and groundwater data for Lot 12, it appears as though it is unlikely that there is significant source of PCE/TCE within Lot 12. However, the potential for PCE or TCE to pose unacceptable vapour intrusion risks to users of future buildings upon Lot 12 cannot be precluded due to the following:

- The source of the PCE/TCE contamination detected in soil vapour beneath the Locomotive Workshop is unclear, noting that given Lot 12 is located hydraulically downgradient of the Locomotive Workshop and the available groundwater data for Lot 12 indicates a lack of PCE/TCE contamination, a shallow source in soil is suspected;
- The lateral extent of PCE/TCE in soil vapour at concentrations exceeding adopted criteria is unclear between the Locomotive Workshop and Lot 12;

- No soil vapour data is available for Lot 12;
- Due to the equilibrium phase partitioning characteristics of PCE/TCE, the absence of evidence for a significant source of PCE/TCE contamination in soil and groundwater does not provide sufficient evidence that PCE/TCE may not be present in soil vapour at concentrations exceeding adopted criteria; and
- Depending upon the nature of the PCE/TCE source beneath the Locomotive Workshop, there are some future development scenarios for Lot 12 whereby TCE/PCE related risks could be exacerbated (e.g. temporary construction dewatering may draw in TCE/PCE contaminated groundwater).

Additional data will be obtained to address the uncertainty around the TCE/PCE contamination detected in soil vapour beneath the Locomotive Workshop and better define the lateral extent of PCE/TCE in soil vapour at concentrations exceeding adopted screening criteria. The target depth for the soil vapour investigations will consider the likely depth of future building foundations. A risk assessment will subsequently be conducted on the basis of the additional data and specific redevelopment scenarios in order to ensure that risks posed by PCE/TCE in soil vapour are appropriately managed.

Fill material across the balance of the site is not considered to represent a potential soil vapour risk.

5.6.4 Hazardous Building Materials

Lead based paint has been identified within the Locomotive Workshop. Lead based paints are required to be removed from the Locomotive Workshop or documented in the Hazardous Materials Register prepared for the Locomotive Workshop and managed under an EMP.

6. Conceptual Site Model

6.1 Overview

NEPC (2013) identifies a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The development of a CSM is an essential part of all site assessments.

NEPC (2013) identified the essential elements of a CSM as including:

- Known and potential sources of contamination and contaminants of concern including the mechanism(s) of contamination;
- Potentially affected media (soil, sediment, groundwater, vapours etc.);
- Human and ecological receptors;
- Potential and complete exposure pathways; and
- Any potential preferential pathways for vapour migration (if potential for vapours identified).

6.2 Constituents of Concern

As identified in **Section 5**, the following COPC have been identified within fill materials underlying the site:

- PAH compounds, including as benzo(a)pyrene TEQ;
- TRH/TPH;
- Individual heavy metals, in particular lead, nickel and zinc; and
- Isolated areas of asbestos impact, occurring as free asbestos fibres in fill material (fibrous asbestos).

Site Audit Reports and the ERA have noted that groundwater has been assessed as part of the greater ATP site and that no groundwater remediation is considered to be required. However, groundwater COPCs are considered related to those identified for fill materials and typical of urban environments, including heavy metals, TRH/TPH and PAHs.

Volatile organic compounds in sub-slab vapour underlying a portion of the Locomotive Workshop are considered COPC.

6.3 Potentially Contaminated Media

Potentially contaminated media comprise:

- Fill materials;
- Underlying natural soils;
- Subsurface vapour underlying the Locomotive Workshop; and
- Groundwater

Fill Materials

The fill materials have been identified across the site and found to be heterogeneous (though broadly consistent across the site) comprising generally of gravelly sandy, silty sands, clayey sands, clay, peat with inclusions of railway ballast, glass, ash, metal, ceramic, brick, sedimentary clast, construction rubble, boiler ash and metallurgical slag gravel inclusions.

Available site characterisation data has identified that samples of fill material have, in some instances, concentrations of carcinogenic PAH compounds (including benzo(a)pyrene TEQ), TRH/TPH, heavy metal (principally copper, nickel and lead) and asbestos (friable) in exceedance of ecological-based assessment criteria, and at relatively few locations, adopted health-based criteria as relevant to the proposed future permissible land uses. As noted by the Site Auditor, concentrations exceeded the adopted human health criteria in only a small number of samples of fill materials and no significant amounts of volatile contaminants were detected.

A summary of existing analytical data is provided in **Appendix D**. Depth of fill and cross sections of site's lithology are depicted in **Figure 4** and **Figure 5** and **Figures 5A** to **5D**, respectively to assist with the interpretation of site conditions. Soil sample exceedance with respect to land used criteria presented NEPC (2013) are shown on **Figures 8A**, **8B-East**, **8B-West**, **8C** and **8D**.

As noted by the ATP Site Auditor no clear distribution of contaminants within fill has been identified. The sample depths at which elevated concentrations of the nominated contaminants were identified range from immediately beneath hardstands/establish site vegetation, until fill termination indicating contamination is associated with the fill material itself, rather than discrete point sources.

TRH F2 and/or naphthalene concentrations were identified at sample locations BH7, BH8 and BH510 within Lot 9 at concentrations exceeding relevant NEPC (2013) assessment criteria (e.g. HSL-A) for vapour intrusion. However, TRH F2 and/or naphthalene concentrations at locations adjacent to BH7/BH8/BH510 at Lot 9 were reported less than the adopted assessment criteria, suggesting these areas are isolated and small relative to the lot area. As discussed above, based on the results of the ERA/HHRA (JBS&G 2016b and JBS&G 2016a), fill materials at sample locations BH7/1.5-1.6, BH8/0.6-1.0 and BH10/0.9-1.0 are considered not to represent a potential vapour risk requiring management.

It is noted previous investigations have identified asbestos impact within Developable Lots; however, given the sampling methodology (boreholes) and the occurrence of anthropogenic materials within the fill soil profile, potential remains for more widespread asbestos impact.

As discussed in JBS&G (2015a), fill/soil materials are generally characterised by low leachability. Assessment of leachability (JBS&G 2016b) has identified fill materials do not representing a potential migration issue requiring management.

It is noted that ash and slag inclusions in fill material have been identified at a significant portion of locations, and the ash and slag inclusions are inferred to be a significant source of COPCs (e.g. heavy metals and PAHs). On this basis, it is appropriate to apply the associated NSW EPA general immobilisation approvals (EPA 1999 and EPA 2009) when consideration is given to evaluating a waste classification(s) for material required to be excavated during the site development works.

Natural Soils

Analysis of natural soil samples indicated contaminated material is generally limited to the fill material overlying the natural soils. Several soil samples reported elevated TRH/TPH, PAH and heavy metals within the inferred top 0.2 m of the nature soil profile. Potential remains for the historical sampling methodology to have resulted in minor cross-contamination of samples of underlying natural profile.

Although the risk of ASS/PASS has been considered low, previous investigations have reported uncertainty in the potential for ASS/PASS within natural soils. Assessment activities as part of JBS&G (2016c) did not identify ASS/PASS properties within Lot 12 fill or natural soils requiring management.

Soil Vapour

Sub-slab vapours beneath a portion of the Locomotive Workshop have been identified to contain TCE and PCE concentrations exceeding commercial/industrial land used criteria. However, ambient air sampling has reported ambient air TCE and other volatile COPC concentrations within the

Locomotive Workshop to be less than adopted assessment criteria. As such, no current risk from sub-slab vapour within the Locomotive Workshop has been reported.

As discussed in **Section 5.6.3**, additional data will be collected from the Locomotive Workshop and to the south of the Locomotive Workshop to address the uncertainty around the identified TCE/PCE soil vapour impact.

With regards to the balance of the site, as discussed in the HHRA (JBS&G 2016a), fill materials do not represent a potential vapour risk with respect to permissible land uses.

Ongoing ambient air monitoring is required within the Locomotive Workshop.

Groundwater

Groundwater has been found to be characterised with levels of a range of heavy metals above the adopted assessment ANZECC (2000) criteria. Historically, elevated groundwater TPH/TRH concentrations have been identified in areas of proximity to historical petroleum storage and handling areas, though the highest concentrations were reported to be at off-site locations at the western end of Locomotive Street or reported in the 1990s (i.e. unlikely to be representative of current conditions). As shown in **Appendix D**, current TPH/TRH concentrations are several orders of magnitude below those reported in 1993/1994, suggesting removal of TPH source and/or attenuation has occurred. LNAPL has not been identified in the most recent monitoring rounds.

Site Audit Reports have noted that no groundwater remediation was considered to be required under existing site conditions. However, the potential for affecting groundwater conditions, for example by increased contaminant leaching, will need to be considered in any redevelopment proposal.

As discussed in **Section 5**, the ERA (JBS&G 2015b) concluded that fill material are suitable to remain on site, including the retention of unsaturated fill materials from Lot 12 below the water table in Lot 12 (i.e. within clay soils/shale).

As discussed in **Section 3.8,** it is noted that there is an embargo prohibiting domestic use, and controlling industrial use, of groundwater downgradient of the site. Any future groundwater abstraction would require investigation of the groundwater resource and approval from the NSW Department of Natural Resource (now the NSW Department of Primary Industry – Water). In the event that groundwater is encountered during redevelopment works that will require dewatering, excavation dewater will require appropriate management.

6.4 Potential Exposure Pathways

The ATP precinct, for which the site is part, is currently subject to EMPs (ES 2015a and DP[23]) to control exposures to identified contamination to ensure site suitability. However, potential exposure pathways relevant to the proposed redevelopment is required. The exposure pathways considered to be potentially complete for the site include:

- Potential dermal and oral contact to impacted soils as present at shallow depths and/or accessible by future service excavations; and/or
- Potential oral and dermal contact to shallow groundwater as accessible by potential future service excavations; and/or
- Inhalation of COPC vapours migrating upwards from current in-situ impacted soils; and/or
- Potential contaminant uptake by vegetation proposed to be established in the vegetated areas of the site, potentially including large tree plantings.

[23] This report has not been made available for review. Year unknown

Oral and dermal contact of regular site users to current in-sit' soils on the site is anticipated will be/is restricted over the majority of the site by existing site cover arrangements (buildings, pavements and hardstands, mulch, grass cover and/or topsoil physical barrier), future buildings and hardstands. Notwithstanding the aforementioned, should site cover arrangements be augmented to accommodate site development upgrades, there is the potential for site users to have dermal, inhalation and/or oral contact to impacted surface soils.

There is limited potential exposure to groundwater at the site. Excavation workers in deep excavations/trenches may potentially be exposed to infiltrating seepage water during construction activities. Whilst temporary dewatering may be required to achieve construction requirements (i.e. the borrow in Lot 12 to retain fill materials), it is not anticipated that any ongoing groundwater extraction will occur within the site in the future following completion of construction works. The site is on the edge of the Botany Aquifer Groundwater Management Zone 2, as such groundwater removal at and downgradient of the site for domestic purposes is prohibited and restricted for industrial purposes.

The potential for contamination migration via surface water movement and infiltration of water and subsequent migration through the soil profile is considered generally to be low given the extent of impermeable pavements at the site. However, the potential for infiltration of surface water via leakage from poorly maintained sub-surface stormwater infrastructure is noted.

Given the relatively permeable nature of the underlying fill/sand soils, migration of contamination via groundwater movement is considered to be a potential migration pathway. However, groundwater assessment have been undertaken since the 1990s, and no significant groundwater contamination is currently identified that would require groundwater remediation. The potential for affecting groundwater conditions, for example by increased contaminant leaching, would need to be considered in any redevelopment.

As discussed in JBS&G (2015a and 2016a), ambient air results suggest that soil vapour concentrations of TCE/PCE within the Locomotive Workshop are not posing a direct risk to site users, however, inhalation of vapours migrating upwards from current in-situ impacted soils and/or groundwater represent a potential exposure pathway should building hardstand be removed or altered or site development activities result increase exposure (i.e. within Lot 12 with a sunken/at grade car parking). In addition, potential remains for inhalation of vapours migrating upwards from current in-situ impacted soils at sample locations BH7, BH8 and BH510 within Lot 9; however these are considered not to represent a potential vapour risk requiring management.

6.5 Receptors

Potential receptors of environmental impact present within the site which will require to be addressed with the site include:

- Future users of the non-paved areas of the site who may potentially be exposed to COPC through direct contact with impacted soils and/or inhalation of dusts/fibres/vapours associated with impacted soils; and/or
- Excavation/construction/maintenance workers conducting activities at or in the vicinity of the site, who may potentially be exposed to COPC through direct contact with impacted soils/groundwater present within excavations and/or inhalation of dusts/fibres/vapours associated with impacted soils; and/or
- Future site workers and users of the site who may potentially be exposed to COPC through inhalation of vapours via migration and/or direct contact with contaminated soil beneath the Locomotive Workshop; and/or

- The marine water ecosystem of Alexandra Canal located hydro-geologically downgradient of the site. Groundwater has not been found to pose a potentially significant risk to off-site receptors; and/or
- Flora species to be established on the landscaped/vegetated areas of the site including potential large tree plantings.

6.6 Preferential Pathways

For the purpose of this assessment, preferential pathways have been identified as natural and/or man-made pathways that result in the preferential migration of COPC as either liquids or gases.

Man-made preferential pathways are present throughout the site, generally associated with extensive fill materials, and at near surface depths over the remainder of the site. Fill materials are anticipated to have a high permeability.

Sub-surface services are also present, or will be present as part of site redevelopment, throughout the site. Preferential pathways can be created by the generally higher permeability backfill used to re-instate these trenches.

Preferential pathways are also important in the assessment of potential off-site sources of COPC. Preferential pathways are potentially present in the adjoining road network, as associated with service easements.

7. Remedial Action Plan

7.1 Remedial Goal

The goal for the remediation and/or ongoing management of environmental impact is to:

- Remove unacceptable risks to human populations working on/using the site posed by fill/soil contamination within Developable Lots;
- Maintain requirements in the EMPs (ES 2015a and DP) or appropriate revised management requirements to ensure ongoing suitability of public domain areas for recreational and commercial land uses;
- Prevent exposure of human populations working on/using the site to potentially impacted soils and soil vapour underlying the Locomotive Workshop, and hazardous materials within the Locomotive Workshop that may cause an unacceptable risk; and
- Remove or manage unacceptable ecological risks to flora posed by fill/soil contamination (where applicable).

All remediation works, consistent with the site redevelopment proposed by Mirvac, requires to be undertaken in a manner consistent with principles of ecologically sustainable development (ESD). Of most relevance of remedial works to ESD, where necessary protection of potential and ecological receptors is able to be demonstrated, is best achieving waste minimisation.

7.2 Extent of Remediation

Based on historical investigations as summarized in JBS&G (2015a), the results of JBS&G (2016a and 2016b), and subject to the limitations of those investigations, the following areas require remediation/management:

- Fill materials across the Developable Lots identified as contaminated with heavy metals, TRH/TPH, asbestos and PAHs to varying degrees requiring management;
- Fill materials across the public domain areas identified as contaminated require ongoing management via implementation of the EMPs (ES 2015a and DP);
- Management of identified sub-slab vapour conditions underlying the Locomotive Workshop building; and
- Lead based paint within the Locomotive Workshop requires removal or management and documentation in a Hazardous Materials Register to ensure no unacceptable health risk.

In addition, as discussed in **Section 5.6.3**, additional investigations are proposed to be undertaken to address the uncertainty around the TCE/PCE contamination detected in soil vapour beneath the Locomotive Workshop and better addressing the lateral extent of PCE/TCE in soil vapour at concentrations exceeding adopted screening criteria (including to the south). The target depth for the soil vapour investigations will consider the likely depth of future building foundations, including those of Lot 12 being down gradient of the Locomotive Workshop. A risk assessment will subsequently be conducted on the basis of the additional data and specific redevelopment scenarios in order to ensure that risks posed by PCE/TCE in soil vapour are appropriately managed.

7.3 Assessment of Remedial Options

The *Contaminated Sites Guidelines for the NSW Auditor Scheme* (DEC 2006[24]) lists the following order of preference for soil remediation and management:

[24] *Contaminated Sites – Guidelines for the NSW Site Auditor Scheme (2nd Edition)*. NSW Department of Environment and Conservation 2006 (DEC 2006)

- On-site treatment of the soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level;
- Off-site treatment of excavated soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site;
- Removal of contaminated soil to an approved site or facility, followed where necessary by replacement with clean fill; and
- Consolidation and isolation of the soil on-site by containment within a properly designed barrier.

In addition, it is also a requirement that remediation should not proceed in the event that it is likely to cause a greater adverse effect than leaving the site undisturbed. And, where there are large quantities of soil with low levels of contamination, alternative strategies are required to be considered or developed (DEC 2006).

Remedial options of Developable Lots and the Locomotive Workshop have been assessed for the site as detailed in **Table 7.1** following.

Works within pubic domains are required to be undertaken in accordance with documented procedures in ES (2015a) and procedures herein.

Table 7.1 Assessment of Remedial Options

Remedial Option	Applicability	Assessment
1. On-site treatment so that the contaminants are either destroyed or the associated hazards are reduced to an acceptable level.	Metals Metals are unable to be destroyed. However, there are a number of microencapsulation treatment technologies which can reduce the mobility of the identified inorganic contaminants of concern (e.g. cement stabilisation).	Metals Not a suitable option Metals are unable to be destroyed, so this is not an option which is able to be considered. Microencapsulation is not considered necessary given the absence of identified groundwater impacts requiring remediation.
	PAHs Polycyclic aromatic hydrocarbons present in site soils are typically restricted to heavier non-volatile constituents. These can be remediated by thermal processes. However this requires substantial investment in plant and equipment and substantial energy use. Similarly for heavy metals, there are a number of microencapsulation treatment technologies which can reduce the mobility of the identified organic contaminants of concern (e.g., cement stabilisation).	PAHs Not a suitable option Remediation options are available for PAH contaminated fill contaminants, generally restricted to thermal treatment processes which are energy intensive. These options are not considered consistent with the green star rating objectives for the site. Microencapsulation is not considered necessary given the absence of identified groundwater impacts requiring remediation.
	TRH Hydrocarbon constituents present in site soils are typically restricted to semi to non-volatile constituents. There is a potential that they may be able to be remediated on site by a bioremediation style remediation method. Bioremediation occurs where contaminants are chemically broken-down by the metabolic processes of micro-organisms into less toxic or non-toxic forms. Recent NSW EPA guidance requires bioremediation methods to demonstrate that pollutant emissions are not discharged to the atmosphere. On this basis, the lateral extent of the bioremediation activity requires to be restricted to ensure that air emissions from remediation materials are able to be collected. It is considered that bioremediation as implemented by 'biopiles' may be most appropriate for the particular constituents, site area, excavation volumes and requirement to retain hydrocarbon constituents. Biopiles consist of heaped stockpiles of the soil provided with an internal network of screened piping. Air is extracted from the screened pipe sections, by use of a vacuum pump, or by the use of passive flow devices. Collected air requires treatment / filtration to remove volatile constituents. Fresh air is drawn into the biopiles over the remainder of the stockpile surface.	TRH Not a suitable option Given the low detection limits, semi to non-volatile nature of contaminants and time and space limitations, bioremediation of soil impacted with petroleum hydrocarbons is considered lower feasibility at the site.
	Asbestos There is no known technology to remove asbestos fibres from soils. Asbestos present in non-friable forms can be remediated by screening to	Asbestos Not a viable option There is no treatment method available for asbestos impacts.

Remedial Option	Applicability	Assessment
	remove oversize materials. However the co-occurrence of a range of construction and demolition materials with the asbestos containing material reduces the potential effectiveness of screening processes. In addition, where friable asbestos impacts have been identified, screening of impacted material increases the risk of exposure to site workers and migration of fibres within the works area.	On this basis, on site treatment of impacted fill material is considered not to be a viable option.
2. Off-site treatment so that the contaminants are either destroyed or the associated hazards are reduced to an acceptable level, after which the soil is returned to the site.	Metals Metals are unable to be destroyed. However, there are a number of microencapsulation treatment technologies which can reduce the mobility of the identified inorganic contaminants of concern (e.g. cement stabilisation).	Metals/TRH/PAHs Not a suitable option. Energy / resource use associated with the transport and return of materials is not considered consistent with green star objectives for the site.
	PAHs Polycyclic aromatic hydrocarbons present in site soils are typically restricted to heavier non-volatile constituents. These can be remediated by thermal processes. However this requires substantial investment in plant and equipment and substantial energy use. Similarly for heavy metals, there are a number of microencapsulation treatment technologies which can reduce the mobility of the identified organic contaminants of concern (e.g., cement stabilisation).	
	TRH Hydrocarbon constituents present in site soils are typically restricted to semi to non-volatile constituents. There is a potential that they may be able to be remediated off site by a bioremediation style remediation method.	
	Asbestos There is no known technology to remove asbestos fibres from soils. Asbestos present in non-friable forms can be remediated by screening to remove oversize materials. However the co-occurrence of a range of construction and demolition materials with the asbestos containing material reduces the potential effectiveness of screening processes. In addition, where friable asbestos impacts have been identified, screening of impacted material increases the risk of exposure to site workers and migration of fibres within the works area.	Asbestos Not a suitable option
3. Excavation and off-site removal of the impacted material.	Fill Materials (TRH, PAHs, heavy metals and asbestos) There are currently suitably licensed waste facilities in the Sydney Metropolitan region capable of accepting the identified contaminants within fill materials. These are generally located a significant distance from the site.	Fill Materials (TRH, PAHs, heavy metals and asbestos) A potentially applicable option but inferior to on-site placement (Option 4). The environmental impact of the transport of materials, waste generation and resource use in sourcing materials to re-instate the site to development levels is considered inconsistent with the green star requirements for the site.

Remedial Option	Applicability	Assessment
		Whilst this method is viable from a technical and practical view point, as a result of resource consumption and waste generation volume considerations, this is not the most preferred remedial option available. However, where materials are identified as not being environmentally suitable under option 4, or surplus to construction requirments then this is the preferred option.
4. On-site in situ management of the soil by capping and cover, and ongoing management.	Fill Materials (TRH, PAHs, heavy metals and asbestos) The fill materials, based on the assessment to date, have been found to be largely free of constituents: • That will pose a potential groundwater risk by the demonstrated absence of significant groundwater impact attributable to the site; and • That will pose a potential inhalation risk as demonstrated by the assessment of landfill gases/vapours. On this basis, the impacted fill materials are suitable for retention on the site in areas where human / ecological exposures can be restricted. Where materials are identified as not being suitable for containment, Option 3 is the preferred remedial strategy.	Fill Materials (TRH, PAHs, heavy metals and asbestos) This is the preferred option for the management of impacted fill materials. The retention of the materials will reduce the waste generation and resource requirements of the remediation of the site, as consistent with the site green star objectives. The site is/will be subject to significant areas of building and pavements which will act as appropriate containment structures. This option is of highest ranking with respect to the green star principles as a result of the low waste volumes and energy use. However, consideration of the practical implications of an ongoing site management plan is required prior to implementation.

7.4 Proposed Remedial Approach

Developable Lots and the Locomotive Workshop

As shown in **Table 7.1**, with consideration to DEC (2006) hierarchy for remediation, the characteristics of soils requiring remediation, the environmental setting of the area and the proposed development, the preferred remediation/management approach is a combination of on-site management (cap/cover creating a physical barrier) and implementation of a long-term environment management plan (LTEMP) and/or off-site disposal where fill/soil is surplus to development requirements.

Where off-site disposal of surplus materials is required, materials with a lower waste classification/potential for off-site re-use should be selected in preference, if environmentally suitable for onsite retention, to impacted materials to minimise waste generated by the works.

As discussed in **Section 5**, the ERA (JBS&G 2015b) concluded that fill material are suitable to remain on site, including the retention of unsaturated fill materials from Lot 12 below the water table in Lot 12 in the proposed borrow pit (i.e. clay soils), as discussed in **Section 7.4.1.**

The proposed cap/cover arrangements, providing physical separation from retained fill are presented in **Section 7.6.2.**

Soils moved between stages/across the broader site will require that a materials tracking system is implemented during works (as described in **Section 7.6.5**).

Public Domain Areas

As discussed above, public domains areas have been the subject of previous investigations, with a draft/final SASs issued certifying that Lots 10 and 4007 are suitable for permissible land uses (commercial, recreational, road reserves and pedestrian easements) subject to implementation of procedures presented in ES (2015a) and the DP EMP. The implemented remedial strategy comprises cap/cover. Current cap/cover arrangements, providing physical separation are summarised in **Section 3.2** and presented in detail in ES (2015a).

Any future works are required to be undertaken in accordance with procedures documented in ES (2015a) and procedures herein. The proposed cap/cover arrangement, providing physical separation from retained fill are presented in **Section 7.6.2.**

Soils moved within the site will require that a materials tracking system is implemented during works (as described in **Section 7.6.5**).

Locomotive Workshop

Elevated sub-slab soil vapour TCE and other VOC constituents concentrations have been reported underlying Bays of the Locomotive Workshop. However, ambient air quality results from within the building collected as part of ongoing EMP requirements were all reported below the adopted assessment criteria to date (JBS&G 2016a). As such, no current risk from sub-slab vapour conditions has been reported.

As discussed in JBS&G (2016a), ongoing ambient air monitoring is required. The current capping arrangements, generally comprising concrete slab floor ranging in thickness from 0.4 m to 0.7 m are required to be maintained.

Air monitoring should continue until such time that the sub-slab to indoor air attenuation being observed can be explained empirically by establishing an adequately representative vapour intrusion model based upon site specific data (e.g. establishment of variation in relation to representative sub-slab and indoor air concentrations, foundation thickness, mixing space volume, air exchange rate etc.).

7.4.1 Additional Development Details

A description of the proposed development application was provided in **Section 2**. A summary of the key development attributes relevant to the preferred remediation/management method, as discussed below, is provided following. Development plans showing the layout of the buildings within Developable Lots and the broader site are shown in **Appendix A**.

Lot 8

Construction of a four storey building within Lot 8 (Community Building) comprising of gym, retail, community, commercial and childcare uses over the majority of the lot. The building will be constructed largely at grade, with minor excavation required for lift wells and services etc. The concrete slab of the building will serve as a physical barrier.

Surface treatments external to the building comprise hardstands (paved areas underlain by a concrete slab or similar). A small landscaped area, constructed garden bed with validated environmentally suitable soils rather than existing site fill is proposed along the northern lot extent.

A schematic diagram is presented on **Figure 9A**. Cross Section Locations are shown on **Figure 9**.

No direct exposures will be present. A marker layer will underlie physical barriers (hardstands/nominated thick of environmentally suitable material), denoting the extent of retained fill.

Lot 9

Construction of a nine storey building within Lot 9 (Building 1) comprising parking, retail, commercial and childcare uses in the southeast portion. The building footprint will occupy the majority of the lot. The building will be constructed largely at grade, with minor excavation required for lift wells and services etc. The concrete slab of the building will serve as a physical barrier.

Surface treatments external to the building comprise hardstands (asphaltic parking and paved areas underlain by a concrete slab or similar). No landscaping (garden beds or similar) is proposed.

A schematic diagram is presented on **Figure 9B**. The cross section locations is shown on **Figure 9**.

No direct exposures will be present. A marker layer will underlie physical barriers (hardstands), denoting the extent of retained fill.

Lot 12

Construction of a seven storey building within Lot 12 (Building 2) comprising of parking, retail and commercial uses. The carpark (two levels in areas) will be partially sunken and constructed at-grade given the tiered site topography (**Section 3.6**) (i.e. level with Central Avenue but sunken below the Locomotive Street road frontage). A portion of materials from the 'upper tier' of the current carpark at Lot 12 will require excavation to achieve design levels. As discussed above and in the ERA (JBS&G 2016b), fill materials from Lot 12 are environmentally suitable for retention in a borrow pit beneath the proposed building.

The concrete slab of the building will serve as a physical barrier to retained fill materials both within the borrow pit and surrounds.

Surface treatments external to the building comprise hardstands (paved areas underlain by a concrete slab or similar). No landscaping (garden beds or similar) is proposed.

A schematic diagram is presented on **Figure 9C** of the proposed capping arrangement. The cross section locations is shown on **Figure 9**.

No direct exposures will be present. A marker layer will underlie physical barriers (hardstands), denoting the extent of retained fill.

With regards to the borrow pit/retention of fill materials beneath the future Lot 12 commercial building, to minimise waste generation and help achieve a green star rating, Mirvac propose to excavate fill materials, natural soils and bedrock to depths ranging to approximately 9 AHD m to 11 m AHD. The proposed excavation location/layout is shown on **Figure 10**. Additional design details are summarised in **Table 7.2** below.

Table 7.2 Summary of Burrow Pit Design Details

Current Lot 12 layout	Lot 12 is noted to comprise two tiers, an upper level flush with the Locomotive Street road frontage, and a low level flush with the Central Avenue road frontage. An earthen/concrete embankment retaining wall of approximately 3 m in height separates the two tiers. A portion of materials from the 'upper tier' of the current carpark at Lot 12 will require excavation to achieve design levels (i.e. sunken car parking when compared to Locomotive Street).
Borrow pit footprint	The borrow pit is proposed to be excavated beneath the future Lot 12 commercial building offset by approximately 26 m from the eastern Lot 12 boundary, 5 m from the southern Lot 12 boundary and approximately 40 m from the south western Lot 12 boundary. The borrow pit abuts the northern and western Lot 12 boundary. A secant pile wall (or similar) is proposed along the northern and western Lot 12 boundaries, retaining fill materials from neighbouring allotments. Potential remains for the secant pile wall (or similar) to be extended along the north eastern Lot 12 boundary, however, these details have yet to be confirmed/finalised. The borrow pit layout is shown on **Figure 10.** The secant pile wall (or similar) will help reduce groundwater migration
Borrow pit area	6 975 m^2
Borrow pit elevation (base)	Mirvac propose to excavate fill materials, natural soils and bedrock to depths ranging to approximately 9 AHD m to 11 m AHD, as shown on **Figure 10**
Borrow pit elevation (top)	The top of the borrow pit (cap) will comprise the future commercial building concrete slab foundation The proposed construction basal level for the proposed multi-storey commercial building range from RL 15.45 m AHD within the northern Lot extent to RL 16.7 m to 16.4 m AHD within the southern Lot extent.
Groundwater levels	Previous assessments within the site have identified groundwater at depths of approximately 16.8 m AHD within the norther site extent falling to approximately 13.2 m AHD within the southern site extent. Recent groundwater level monitoring by JBS&G within Lot 12 recorded groundwater levels within the northern Lot 12 extent ranging between 17 m AHD and 17.5 m AHD. Groundwater levels within the southern Lot 12 extent were recorded to range between 13.5 m AHD and 13.9 RL m AHD. The noticeable difference in groundwater levels is attributed to the two tiers lot topography and encountered lithology/geology, with groundwater perched at the interface with the much less permeable materials
Borrow pit excavation faces	The base of the burrow pit will largely terminate in bedrock within isolated areas of residual clay. The walls will be largely comprise bedrock/residual clay soils with isolated areas of more permeable soils. As discussed above, a secant pile wall (or similar) is proposed along the northern and western Lot 12 boundaries, retaining fill materials from neighbouring allotments. Potential remains for the secant pile wall (or similar) to be extended along the north eastern Lot 12 boundary, however, these details have yet to be confirmed/finalised

Following construction of the borrow pit, a program of groundwater monitoring will be undertaken consistent with those historically undertaken across the site, as documented in JBS&G (2015a). Groundwater monitoring wells will be the subject of groundwater sampling events at three monthly intervals for a period of 12 months. Following completion of the four groundwater monitoring events, a qualitative assessment of groundwater quality/conditions will be completed providing conclusions on the status of groundwater leaving Lot 12 and the site.

Public Domains Areas

Excluding Developable Lots (Lots 8, 9 and 12), the site is occupied/surfaced by either or a combination of the following as documented in the site EMP (ES 2015a):

- Road Reserves - primarily surfaced with bituminous concrete, concrete pavements or ceramic pavers with landscaped areas (garden beds with mulch/topsoil ground cover),

- Pedestrian Easements - primarily surfaced with bituminous concrete, concrete pavements or ceramic pavers with landscaped areas (garden beds with mulch/top soil ground cover), and
- Areas of Open Public Space – public accessible parks comprising primarily areas surfaced with grass cover (Vice Chancellors Oval and lawn areas), tennis courts, barbeque picnic area and areas surfaced with bituminous concrete, concrete and/or ceramic pavements with landscaped areas (garden beds with mulch/top soil ground cover).

Landscaping and public domain improvements and/or extension and augmentation of physical infrastructure/utilities within Lots 10 and 4007 are proposed. This largely comprises the addition of landscaped areas (constructed garden beds which will be in validated environmentally suitable soils rather than existing site soils) along road reserves and paved extents, installation of services (trenching), bike racks and changes to the road alignment etc. The only major change to the current public domain configuration is the construction of a park/grassed area within the north eastern site extent, as shown in design plans provided in **Appendix A.** A schematic diagram is presented on **Figure 9D**. The cross section locations is shown on **Figure 9**.

Public domain improvements and/or extension and augmentation of physical infrastructure/utilities is to be undertaken in accordance with procedure documented in EMP prepared for these site portions. The key principal in the EMP (ES 2015a) is maintaining appropriate cover/capping to prevent direct contact exposure to normal site users from fill materials.

With respect to newly established landscaped areas, these will be required to be in accordance with the principals of the EMPs and the requirements of the RAP, specifically the requirements for physical separation of impacted fill material based upon the *Guidelines for the Assessment of On-Site Containment of Contaminated Soil*, September 1999, ANZECC (ANZECC 1999)

As discussed in the JBS&G (2016a and 2016b) and herein, materials imported to the site for the establishment of vegetated areas or service backfill will need to be demonstrated to be environmentally suitable.

Locomotive Workshop

The Locomotive Workshop is a large heritage listed masonry and steel former railway building, which has undergone adaptive reuse in recent years for commercial purposes. With the notable exception of Bays 1 and 2 (Blacksmith and heritage room) within the Locomotive Workshop, based on advanced sample locations the concrete slab floor varies in thickness ranging from 0.4 m to 0.7 m and was noted to be in good condition with no observed cracks or fissures.

Within Bays 1 and 2 (Blacksmith and heritage room) ground surface treatments comprised a combination of gravels / crushed concrete (approximately 0.5 m in thickness) and / or asphaltic hardstands.

Future development associated with the adaptive re-use of the Locomotive Workshop will be the subject of separate future applications. It is understood the development will largely involve internal remodelling rather than removal of existing hardstands/demolition of structures.

A concrete slab floor will serve as the physical barrier.

7.5 Regulatory and Planning Requirements

The following planning requirements for the proposed remedial works are presented.

Environment Planning and Assessment Act 1979/SEPP 55

The site is listed as a State Significant Site within Schedule 3 of the Major Projects State Environmental Planning Policy. As such development approval for the project falls under the provisions of Part 4 of the *EP&A Act.*

The specific State Environmental Planning Policy which is relevant to remediation of the site is SEPP 55 (Remediation of Land), which requires that development consent is not granted unless contamination has been considered and, if required, remediated.

JBS&G understand that the project is being assessed under Part 4 of the EP&A Act, with consideration of remediation works, and the consent authority for the remediation works is the Director General of the NSW Department of Planning.

Specifically in relation to the subject site, SEPP 55 also requires that:

- The proposed remediation works are carried out in accordance with the DUAP (1998) and any guidelines in force under the *CLM Act*;
- The proposed remediation works are carried out in accordance with any development consent conditions; and
- Notice of completion is provided to the local council and the consent authority (Department of Planning) within 30 days of completion of the works, with the details required under Regulation 18 of SEPP 55.

Environment Planning and Assessment Regulation 2000 – Schedule 3 Designated Development

The proposed remediation works do not constitute designated development.

Protection of the Environment Operations Act 1997

The proposed remediation/validation activities are not considered required to be licensed under the *Protection of the Environment Operation Act 1997*.

Water Management Act 2000

Should dewatering be required, a dewatering and potentially a re-injection approval will be required from the NSW Department of Primary Industry - Water (DPI-Water) for any dewatering proposed with site remediation works. The approval will require to be obtained prior to the undertaking of any groundwater dewatering and treatment. At this stage, short term dewatering is not anticipated as developments plans do not include subsurface basements.

Protection of the Environment Operations (Waste) Regulation 2014

The regulations make requirements relating to non-licensed waste activities and waste transporting. The proposed works will not require to be licensed. Section 48 of the Reg. requires that wastes are stored in an environmentally safe manner. It is also stipulates that vehicles used to transport waste must be covered when loaded. This regulation also details additional tracking requirements for vehicles carrying Special (Asbestos) waste.

Provision is provided in the Regulation and EPA (2014) guidelines for the NSW EPA to approve the immobilisation of contaminants in waste (if required).

Waste Classification Guidelines (EPA 2014a[25])

All wastes generated and proposed to be disposed off-site shall be assessed, classified and managed in accordance with this guideline. Where wastes require immobilisation prior to off-site disposal (to reduce waste classifications) an immobilisation approval shall be sought in accordance with Part 2 of this guideline. Immobilisations are only anticipated to be required with unexpected finds.

City of Sydney (2004) 'Contaminated Land Development Control Plan'

The Council DCP provides a number of environmental and site management provisions required to be employed during remediation works. While consent conditions from Director General of the NSW

[25] *Waste Classification Guidelines – Part 1: Classifying Waste*. NSW EPA 2014 (EPA 2014a)

Department of Planning as part of the SSDA will supersede these, the Council DCP may be adopted as minimum standards for the environmental management of remediation works and requirements of on-going environmental management plans, subject to consent conditions.

7.6 Remediation Scope of Works

It is envisaged that remedial and validation works will be conducted as a staged process as required for site development. Within each proposed stage (**Appendix A**), remediation works will comprise, where appropriate, the following actions.

7.6.1 Site Establishment

For each stage of remediation works the site boundary will be defined and secured as appropriate to ensure that all safety and environmental controls are implemented, including necessary contractor briefings and inductions for the remediation workforce. A summary of the controls are provided in **Sections 9** and **10**.

7.6.2 Capping and Cover of Onsite Retained Fill/Soil

Developable Lots

The principal of the onsite management approach is to retain materials in situ, provide physical separation between impacted fill/soil materials and receptors (e.g. site users or flora) to prevent direct contact via capping or cover by buildings and pavement, and implementation of a LTEMP to maintain the capping/cover. Since no significant volatile contamination has been identified, control of vapours intrusion is not required. Within Developable Lots, physical separation will largely be provided by the concrete floor/foundation of the proposed buildings and pavement.

Requirements for physical separation of impacted fill material are based upon ANZECC (1999). With consideration to the primary COPC in impacted fill materials, containment by physical covering in conjunction with appropriate control measures is considered appropriate.

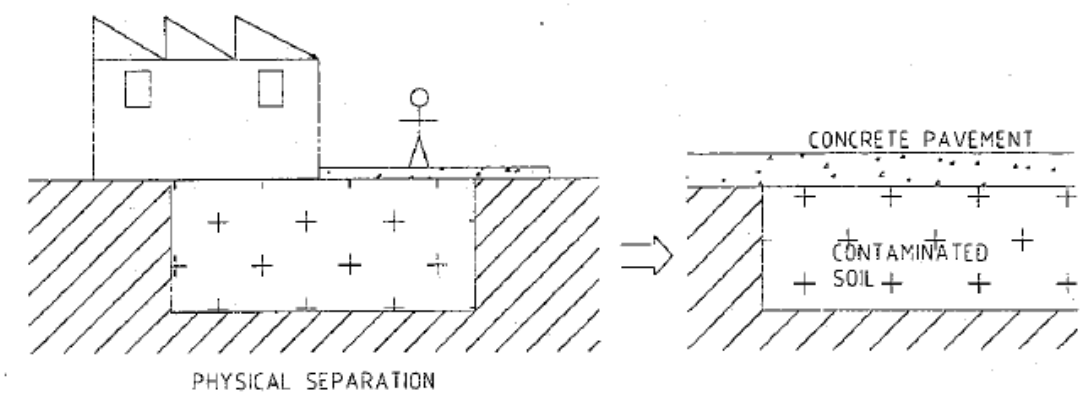
Based on fill/soil physical properties, analytical results (**Appendix D**) and the findings of JBS&G (2016a and 2016b), contaminates generally fall within Groups 1, 2 and 10, as listed in Table 1 (ANZECC, 1999). For these contaminant groups, inhalation of vapours is not a primary exposure. Therefore, implementation of a 'cap and contain' strategy as indicated in ANZECC (1999), in conjunction with appropriate control measures, is appropriate with respect to management of the health risk.

Furthermore, based on fill/soil physical properties, analytical results (**Appendix B** and **D**) and the findings of JBS&G (2016b), water exclusion and isolation using bottom lining as listed in Table 2 (ANZECC, 1999) is not considered necessary.

The minimum typical requirements for physical separation include:

- Permanent concrete floor slab or asphalt surfaced pavement. The pavement outside of the building footprint shall be underlain by a marker layer; or
- A thickness of soil that is unlikely to be penetrated by future users of the site. A minimum soil cover thickness of 0.5m is nominated as underlain by a layer of 'marker layer' in areas of exposed site soil (i.e. landscaped beds).

As shown schematically below:



Source: ANZECC (1999)

Given the specific development plans as understood at the time of preparation of the RAP, the following capping and cover procedures within Developable Lots are to be implemented:

- Cover of fill materials by buildings – installation of a marker layer overlying potentially contaminated material to denote the extent of retained fill. The concrete floor slab shall act as a physical barrier. Buildings will cover the majority of the Developable Lot areas;
- Cover of fill materials by permanent paved areas beyond building footprints – installation of a marker layer overlying potentially contaminated material followed by sub-grade material validated as environmentally suitable materials for human exposure (where required) and then the permanent pavement (i.e. concrete, asphalt, pavers, etc.);
- Capping of fill materials in landscaped areas – installation of the marker layer at a minimum depth of 0.5 m below final finished site levels in areas of shallow planting (for grasses and shrubs), or a minimum of 1.5 m below final finished site levels in areas of tree planting, with environmentally suitable materials placed above to the final levels; and
- Within underground services trenches – in the event underground services trenches are to be installed, the service infrastructure will require to be installed above a marker layer within suitable materials for potential human and/or ecological exposure.

The marker layer, where required, shall consist of a light coloured knitted HDPE or similar with a density of greater than 248 grams per square metre (or equivalent). The specific details of the marker layer will require to be included in the site validation report and LTEMP documents in addition to plans showing the extent of capped area within the site.

As per the requirements of the HHRA and ERA, material above the marker layer extending to the final finished ground level will be required to be environmentally suitable material for human and/or ecological exposure (as appropriate). These capping materials shall generally comprise growing media, but may potentially comprise material originating from within the site validated as suitable for reuse in accordance the requirements outlined in **Sections 8.1.7** and **8**; imported virgin excavated natural material (VENM) or material certified in accordance with an exemption issued by the NSW EPA. Where materials are proposed for beneficial reuse under a NSW EPA exemption (i.e. imported to the site), fill material will need to be further assessed for land use suitability. Sampling densities and analysis for COPC will be dependent on the volume, material type, source and subject to Site Auditor endorsement and acceptance along with meeting the facilities EPL.

<u>Public Domain Area and the Locomotive Workshop</u>

Given the specific development plans as understood at the time of preparation of the RAP, the following capping and cover procedures within public domain areas and the Locomotive Workshop are to be implemented:

- Existing cover and capping arrangements as documented in ES (2015a) and the DP EMP are required to be maintained or reinstated following improvements and/or extension and augmentation of physical infrastructure/utilities within Lots 10 and 4007. No marker layer is required to be installed given the broader area is not underlain by a marker layer. Where new services are to be installed, to reduce the risk to future maintenance workers, backfill shall comprise validated environmentally suitable materials, as per the requirements of the HHRA (JBS&G 2016a) and ERA (JBS&G 2016b). In addition, material used to backfill services is required to be environmentally suitable material for human and/or ecological exposure (as appropriate) and meet the requirements of WorkSafe Australia and National Health and Medical Research Council guidance/legislation in relation to occupation hygiene exposure.
- New landscaped areas – where new landscaped areas are proposed a minimum depth of 0.5 m below final finished site levels in areas of shallow planting (for grasses and shrubs), or a minimum of 1.5 m below final finished site levels in areas of tree planting. As per the requirements of the HHRA (JBS&G 2016a) and ERA (JBS&G 2016b), material used to backfill is required to be environmentally suitable material for human and/or ecological exposure (as appropriate).

Works within Lot 4007 are required to be undertaken in accordance with procedures documented in ES (2015a) or a subsequent revised EMP approved by the Site Auditor and additional requirements outlined in this RAP.

Works within Lot 10 are required to be undertaken in accordance with procedures documented in DP EMP or a subsequent revised EMP approved by the Site Auditor and the additional requirements outlined in this RAP.

Given the heritage status of the Locomotive Workshop, and with consideration of the requirements of ANZECC (1999), a concrete slab is considered suitable as a cover. No marker layer is required.

Where materials are proposed for beneficial reuse under a NSW EPA exemption (i.e. imported to the site), fill material will need to be further assessed for land use suitability. Sampling densities and analysis for COPC will be dependent on the volume, material type, source and subject to Site Auditor endorsement and acceptance along with meeting the facilities EPL.

7.6.3 Off-Site Removal of Impacted Materials

Where contaminated fill/soil is not suitable for onsite management or is surplus to construction requirements, materials are proposed to be remediated by off-site removal and disposal. Materials shall be classified in accordance with EPA (2014) *Waste Classification Guidelines* or an appropriate exemption as created under the *Protection of the Environment Operations (Waste) Regulation 2014*.

Given the identification of ash and slag inclusions in fill material samples with elevated total PAH and metal concentrations, the ash and slag inclusions are concluded to be a significant source of these contaminants. On this basis, it is appropriate to apply the associated NSW EPA general immobilisation approvals (EPA 1999 and EPA 2009) when consideration is given to evaluating a waste classification(s) for material required to be excavated during the remedial works.

Material will require to be removed to a facility lawfully able to receive it.

7.6.4 Asbestos Management

As discussed in the HHRA (JBS&G 2016), asbestos contaminated is not widespread, however, friable forms have been detected and the presence of asbestos contamination in any particular area cannot be precluded on the basis of the available information. As such, asbestos clearance procedures should be developed and implemented where ground disturbance is proposed.

Asbestos contaminated soil necessitating management for potential asbestos exposure is defined in *How to Manage and Control Asbestos in the Workplace Code of Practice*, December 2011, Safe Work

Australia/ NSW WorkCover (SWA 2011/NSW WorkCover 2011). Environmental, health and safety management requirements for the handling of these materials will be based on the requirements provided for asbestos-related works in SWA 2011/NSW WorkCover 2011. This will include preparation of an asbestos register and associated asbestos removal control/management plan as outlined in SWA 2011/NSW WorkCover 2011.

From a land use suitability, the potential for asbestos will be managed via means of cap/cover through the establishment and maintenance of physical barriers.

7.6.5 Materials Tracking

Movement of materials will be required at the site and shall be moved as per a material tracking plan as documented following. The tracking system is designed to track the quantity and quality of materials from their arrival on site or their derivation point, through temporary storage to placement.

The system comprises the following elements;

- Definition of Roles and Responsibilities;
- Material quality information;
- Material movement tracking;
- Material emplacement;
- Documentation required;
- Dealing with non-conformance; and
- Dealing with expected and unexpected finds

7.6.5.1 Roles and Responsibility

The Principal Contractor will be responsible for the following:

- Implementation and overall management of onsite procedures and protocols defined in the RAP document.
- Responsible for ensuring all subcontractors and consultants employed in reuse material classification generation, movement and placement are adequately briefed in the requirements of the RAP.
- Will take ultimate responsibility for the movement and placement of materials intended for reuse.
- Will ensure clear lines of communication are maintained between all relevant responsible parties.
- Will be responsible for liaison with suppliers in sourcing of materials from offsite, whether imported VENM or material under a NSW EPA exemption.
- Responsible for ensuring the RAP is operated effectively in conjunction with other relevant documents and in line with the overarching Health, Safety and Environmental Plan, Asbestos Management Plan to be developed for the site works.

JBS&G will be responsible for the following:

- Undertaking sampling and characterisation works of materials, as required, for potential beneficial reuse, as per the requirements of the RAP.
- Responsible for identification of the AF/FA impacted materials.

- Liaise with the Principal Contractor with regards to the importation of materials which does not meet the definition of VENM to ensure materials meet the project requirements and to prevent unsuitable materials being inadvertently brought onto the site, such that the site cannot be validated as suitable for proposed permissible uses.
- Undertake inspections when material importation works are being undertaken to confirm materials sampled are consistent with those being imported.
- Review materials tracking documents submitted by the Principal Contractor and investigate/resolve any discrepancies.
- Cross check inspection findings with materials tracking sheets.
- Provide directives (decisions) relating to a proposed and/or placed fill materials suitability.

7.6.5.2 Material Tracking

The movement of classified materials within the site will be controlled by an appropriately managed Materials Tracking System, as discussed below.

In order to minimize double handling on the site, improve cost effectiveness and reduce environmental impacts, every effort should be made to facilitate the movement of excavated or imported material directly to the area of placement.

It is, however, recognized that this objective may not always be practical and hence the following range of potential material movements is anticipated:

- Stockpile to Placement;
- Import to Emplacement;
- Import to Stockpile;
- Stockpile to Stockpile; and
- Offsite disposal.

7.6.5.3 Materials Characterisation Form

All material movements within the site will be controlled using Materials Classification Forms (MCF) and Material Tracking Sheets (MTS).

Each MCF outlines procedures for confirming material quality, quantity and summarising existing analytical data. The MCF will be completed by the Principal Contractor and/or the Civil Works Contractor and will include the following:

- A unique MCF document name/number;
- A summary of VENM/ENM reports prepared JBS&G;
- Materials description; and
- Material reuse suitability summary.

Each MCF will be completed and signed off by the Principal Contractor/Civil Works Contractor based on material characterisation reports prepared by JBS&G. Once completed, the MCF will be incorporation into the Principal Contractors materials tracking system prior to placement within the Developable Site.

An example of the MCF is presented in **Appendix E**.

7.6.5.4 Materials Tracking Sheet

The MTS is a two part document which requires information to be collected at the material source location and at one of the three potential destination sites. An example of the MTS is presented in **Appendix F**.

All MTSs will be uniquely referenced and stored as a record of material movements.

This first part (Part A) of the document will record the following data:

i. Time and date;

ii. Truck registration or plant identification;

iii. Load quantity; and

iv. MCF reference name/number. The MCF will provide details on items such as a source location reference, visual/olfactory observations, materials classification/reuse zone suitability summary.

The document will also be used for materials required for onsite placement or temporary stored prior to placement and will be completed at the point of unloading. The sheet will record the following details:

- Items i, ii, iii, as above;
- Visual and olfactory observations; and
- Zone of emplacement.

The final portion of the sheet (Part B) will be completed for materials which cannot be used within the site and are scheduled for off-site disposal in accordance with EPA (2014).

Items I, ii, iii and iv above will be recorded initially. The name of the haulage company responsible for transferring the material to the tip site and the details of the receiving site must also be recorded. Prior to leaving the site, the material should have undergone a waste classification in accordance with EPA (2014) and confirmation of this should be acknowledged on the sheet.

Finally, a note should be made of the consignment note number or receipt identification obtained.

The MTS will be reviewed and signed off as completed by the Principal Contractor and or Civil Works Contractor.

7.6.5.5 Material Placement

Zones (grid references) of material placement will be accurately surveyed. This will allow the interrogation of the data set to ensure reuse material loads have been correctly deposited and a record kept of cumulative loads deposited in any particular zone.

8. Validation Plan

8.1 Overview

Validation data is required to be collected to verify the effectiveness of the remedial works and document the final site conditions as being suitable for the proposed future use(s).

The following sections establish the Data Quality Objectives (DQOs) to be adopted during validation of the site remediation works.

8.1.1 Data Quality Objectives

8.1.1.1 State the Problem

Mirvac has been announced by UGDC as the successful party in securing ownership and redevelopment rights for the site for ongoing use as a campus style precinct catering for science and technology bases occupants. This will involves upgrades to existing infrastructure (road and pedestrian easements), landscaped areas (garden beds and tree planting areas) and recreational facilities (tennis and basketball courts, and the Vice Chancellors Oval).

In addition, Mirvac propose to develop Developable Lots 8, 9 and 12 in DP 1136859 for commercial land use, with Lots 8 and 9 to potentially including childcare facilities (or similar). Adaptive reuse of Locomotive Workshop is proposed for ongoing commercial land use excluding childcare facilities.

Previous site assessment activities have identified the presence of impacted fill material which will require remediation/management for the site to be considered suitable for the proposed uses. The proposed remediation strategy for the site includes cap/cover or off-site disposal, and implementation/revision of a LTEMP.

Works undertaken within public domains are require to be undertaken in accordance with procedures documented in ES (2015a)/DP EMP and requirements of this RAP.

During the proposed remediation activities, sufficient validation documentation of the site activities is required to demonstrate that the identified environmental and health based risks to future use(s) of the site have been adequately managed to render the site suitable for the proposed land use.

8.1.2 Identify the Decision

The following decisions are required to be addressed during validation:

<u>Developable Lots</u>

- Have cover/capping layers been installed appropriately and in accordance with the RAP requirements?
- Are accessible soils environmentally suitable?
- Are imported soils (where required) environmentally suitable for their proposed use?
- Have the site remediation activities been undertaken in compliance with the regulatory requirements?
- Is the site (Developable Lots) suitable for the proposed use?

<u>Public Domain Areas and the Locomotive Workshop</u>

- With regards to newly establish landscaped areas, have cover/capping layers been installed appropriately and in accordance with the RAP requirements?
- Are accessible soils environmentally suitable?
- Are imported soils (where required) environmentally suitable for their proposed use?

- Have sub-slab vapour assessment activities underlying the Locomotive Workshop been undertaken in accordance with the requirements of ES (2015a) and the HHRA (JBS&G 2016a)?
- Have works within public domains been undertaken in accordance with ES (2015a)/DP EMP?
- Have the site remediation activities been undertaken in compliance with the regulatory requirements?
- Is the site (Public Domain Areas and the Locomotive Workshop) suitable for the proposed use?

8.1.3 Identify Inputs to the Decision?

Inputs to the decisions are:

- Detailed development plans to be provided by Mirvac appropriate to identify;
  - Building design details;
  - Areas of accessible soils; and
  - Areas of plantings.

  Design plans and landscape plans are provided in **Appendix A**.
- Analytical data collected as part of the ongoing ambient air monitoring/EMP requirements;
- Field observations in relation to inspection of stockpiled materials, excavations bases and walls for odours, sheen, discolouration and other indicators of potential contamination;
- Waste classification and/or material characterisation data obtained during assessment of fill material;
- Disposal dockets and relevant documents in relation to appropriate disposal of materials;
- Survey data as to the extent and thickness of capping materials and extent environmentally impacted materials; and
- Data quality indicators as assessed by quality assurance/quality control (QA/QC).

8.1.4 Define the Study Boundaries

The study boundaries of the site are as follows:

- The lateral extent of the works relevant to this RAP as presented in **Figure 2** and **Table 3.1;**
- The vertical extent of the works is defined as the depths required to implement appropriate capping, as schematically shown in **Figures 9A** to **9D**.

Validation works will be completed with development timelines to be informed by Mirvac.

It is noted that the validation works may be undertaken in stages as a result of construction sequencing, landscaping activities, etc. Where this occurs, then the validation will be similarly undertaken in stages, and the validation survey shall clearly define the extent of staged validation completed at the time of each validation assessment.

8.1.5 Develop a Decision Rule

Decision rules are provided following for each of the environmental issues anticipated on the site.

Developable Lots

Have marking and capping layers been installed appropriately and in accordance with RAP requirements?

The marker and capping layers must be installed across the extent of the remedial area, as graphically shown in **Figures 9A** to **9C.** The marker layer must be installed to the RAP requirements, as well as the manufacturer's installation requirements. The vertical and lateral extents of the marker layer should be surveyed (**Section 8.1.7**), along with consistent and comprehensive photographic evidence.

Where soil based material is to be used as a capping layer, placed above the marker layer and readily accessible to human users, this material is required to be validated as meeting the health and ecological validation requirements for the site in addition to aesthetic requirements.

All imported materials to be used as the capping layer must be environmentally suitable, as defined below. As per the requirements of the ERA (2016b), growing media should have levels of constituents consistent with ecological protection criteria for 'urban residential and public open space' as provided to NEPC (2013), and levels of aldrin, dieldrin and PCBs below laboratory detection limits.

Capping arrangements are discussed in **Section 7.4.2**.

Are imported soils environmentally suitable for their proposed use?

Material used for capping above the marker layer shall be validated:

- Growing media: Material to be used as growing media in landscaped areas of the site, whether sourced from on-site or imported from off-site will require to meet the health based assessment criteria suitable for the appropriate land use in **Section 8** in addition to:
    - Aesthetics requirements;
    - Growing media should have levels of constituents consistent with ecological protection criteria for 'urban residential and public open space' as provided to NEPC (2013), and levels of aldrin, dieldrin and PCBs below laboratory detection limits; and
    - Growing media capping in such areas shall comprise installation of the marker layer at a minimum depth of 0.5 m below final finished site levels in areas of shallow planting (for grasses and shrubs), or a minimum of 1.5 m but not more than 2 m below final finished site levels in areas of tree planting.
- VENM: VENM shall be as defined under the Protection of the Environment Operations (POEO) Act 1997.
- Site Materials: Where site fill/soil based material is to be used as capping placed above the marker layer and readily accessible by human users, this material is required to be validated as meeting the health/ecological validation requirements for the site in addition to aesthetic validation requirements. Material sourced from within the site proposed to be reused as cover/capping will be required to meet land use exposure criteria presented in Section 8 as appropriate for the relevant end land use.

Where a valid data set can be generated as based on a consideration of the location of soils on the site and the potential exposure scenarios, the following statistical criteria will apply:

- The 95 % UCL avg concentrations shall be below the soil criteria;

- The standard deviation of the generated data set shall be below 50 % of the soil criteria; and
- The maximum concentration shall be below 250 % of the soil criteria.

Existing data for chemical constituents (not asbestos) shall be included in analytical data sets created for the soils.

Waste Classification or Exemptions

Excess soils requiring off-site disposal are required to be classified in accordance with EPA (2014). Soils may also be classified as 'excavated natural material' as per sampling and analysis undertaken in accordance with the excavated natural material exemption 2012 (ENM exemption) or as other exempt material as via successful implementation of an alternative applicable exemption. Existing data for chemical constituents (not asbestos) shall be included in analytical data sets created for the soils.

Are there any outstanding regulatory compliance issues associated with site remediation activities?

A qualitative assessment of the completed works in relation to EPA, DWE, WorkCover, Department of Planning, etc. approvals will be undertaken during and following the completion of remediation activities.

Locomotive Workshop and Public Domain Areas

Have marking and capping layers been installed appropriately and in accordance with RAP requirements?

As the broader area is not underlain by a marker layer, application of a marker layer to denote the extent of rained fill is not proposed in areas of public domain improvements and extension and augmentation of physical infrastructure.

As discussed in **Section 7.6.2** (capping arrangements), existing cover/capping arrangements as documented in ES (2015a) and the DP EMP are required to be maintained or reinstated following improvements and/or extension and augmentation of physical infrastructure/utilities within Lots 10 and 4007. Based on the results of the HHRA (JBS&G 2016a), fill materials are considered suitable to backfill services provided ongoing management under an EMP.

New landscaped areas. Where new landscaped areas are proposed a minimum depth of 0.5 m below final finished site levels in areas of shallow planting (for grasses and shrubs), or a minimum of 1.5 m below final finished site levels in areas of tree planting. As per the requirements of the ERA (JBS&G 2016b), material used to backfill is required to be environmentally suitable material for human and/or ecological exposure (as appropriate). The vertical and lateral extents of the capping profile are required to be surveyed (**Section 8.1.7**), along with consistent and comprehensive photographic evidence.

Are imported soils environmentally suitable for their proposed use?

Material used for capping above shall be validated:

- Growing media: Material to be used as growing media in landscaped areas of the site, whether sourced from on-site or imported from off-site will require to meet the health based assessment criteria suitable for the appropriate land use in **Section 8.5** in addition to:
    - Aesthetics requirements;
    - Growing media should have levels of constituents consistent with ecological protection criteria for 'urban residential and public open space' as provided to NEPC (2013), and levels of aldrin, dieldrin and PCBs below laboratory detection limits; and
    - Growing media capping in such areas shall comprise a minimum depth of 0.5 m below final finished site levels in areas of shallow planting (for grasses and shrubs), or a

minimum of 1.5 m but not more than 2 m below final finished site levels in areas of tree planting.

- VENM: VENM shall be as defined under the Protection of the Environment Operations (POEO) Act 1997.
- Site Materials: Where site fill/soil based material is to be used as capping placed above the marker layer and readily accessible by human users, this material is required to be validated as meeting the health/ecological validation requirements for the site in addition to aesthetic validation requirements. Material sourced from within the site proposed to be reused as cover/capping will be required to meet land use exposure criteria presented in **Section 8.5** as appropriate for the relevant end land use. All materials are required to be compliant with current WH&S guidance and legislation.

Where a valid data set can be generated as based on a consideration of the location of soils on the site and the potential exposure scenarios, the following statistical criteria will apply:

- The 95 % UCL avg concentrations shall be below the soil criteria;
- The standard deviation of the generated data set shall be below 50 % of the soil criteria; and
- The maximum concentration shall be below 250 % of the soil criteria.

Existing data for chemical constituents (not asbestos) shall be included in analytical data sets created for the soils.

Waste Classification or Exemptions

Excess soils requiring off-site disposal are required to be classified in accordance with EPA (2014). Soils may also be classified as 'excavated natural material' as per sampling and analysis undertaken in accordance with the excavated natural material exemption 2012 (ENM exemption) or as other exempt material as via successful implementation of an alternative applicable exemption. Existing data for chemical constituents (not asbestos) shall be included in analytical data sets created for the

Ambient Air Monitoring

As per the requirements of the HHRA (JBS&G 2016a) and EMP (ES 2015a), air monitoring should continue until such time that the sub-slab to indoor air attenuation being observed can be explained empirically by establishing an adequately representative vapour intrusion model based upon site specific data (e.g. establishment of variation in relation to representative sub-slab and indoor air concentrations, foundation thickness, mixing space volume, air exchange rate etc.).

Are there any outstanding regulatory compliance issues associated with site remediation activities?

A qualitative assessment of the completed works in relation to EPA, DWE, WorkCover, Department of Planning, etc. approvals will be undertaken during and following the completion of remediation activities.

8.1.6 Specific Limits of Decision Error

This step is to define, in statistical terms, the decision-makers acceptable error rates based on the consequences of making an incorrect decision. Two types of decision error are defined in AS4482.1-2005 'Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds':

(a) Deciding that the site is acceptable when it actually is not; and

(b) Deciding that the site is unacceptable when it is.

AS4482.1-2005 nominates setting limits of 5% probability of (a) type errors and 20% probability of (b) type errors. These limits are in general accordance with suggested limits as outlined in US EPA

(July 1994) 'Using the Data Quality Objectives Process in Risk Assessment'. While the methodology for determining whether the number of samples collected is sufficient to satisfy these limit is appropriate for site investigation it is generally not appropriate for site validation or remediation works. Where impact is present in the materials on the site that requires remediation then application of the limits is not relevant and therefore a qualitative assessment shall be undertaken of potential decision errors associated with the data.

8.1.7 Optimise the Design for Obtaining Data

The validation sampling design is summarised for each specific type of validation works as follows.

8.1.7.1 Sub-slab Vapour – Locomotive Workshop

As discussed above, elevated sub-slab soil vapour TCE concentrations have been reported underlying the Locomotive Workshop. However, ambient air quality results from within the building collected as part of ongoing EMP requirements were all below the adopted assessment criteria. As such, no current risk from sub-slab vapour conditions has been reported. As per the requirements of the HHRA (JBS&G 2016a) and EMP (ES 2015a), ongoing monitoring is required.

The air monitoring should continue until such time that the sub-slab to indoor air attenuation being observed can be explained empirically by establishing an adequately representative vapour intrusion model based upon site specific data (e.g. establishment of variation in relation to representative sub-slab and indoor air concentrations, foundation thickness, mixing space volume, air exchange rate etc.).

Should monitoring identify a potential human health risk, then procedures in the Contingency Plan (**Section 9.3**) should be applied.

The current capping arrangements are required to be maintained.

8.1.7.2 Installation of the Physical Barrier (cap/cover)

Installation of cover/capping in Developable Lots shall be defined by survey as completed by a registered surveyor and/or building as-built drawings sufficient to identify:

- The lateral extent and upper depth height of known environmentally impacted materials (i.e. residual fill materials underlying the cover) within each remediation area/stage;
- The lateral extent and type of cover (e.g. building or permanent pavement) within the remediation area/stage; and
- Confirmation, by photos or otherwise, of the installation of the 'marker layer' underlying the cover (as required).

In preparing the final survey, it is noted that alternate contractors may undertake site preparation and services installation activities during proposed development works. To this effect, validation of the cover installation may be undertaken in stages.

Capping requirements (i.e. thickness etc.) are detailed in **Section 7.6.2**.

<u>Growing Media</u>

Site sourced fill or soil material to be used as growing media within Developable Lots shall be sampled at a rate of at least one sample per 70 m^3 with a minimum of three samples per source/end location. Where small material quantities are being assessed (i.e. < 400 m^3), consideration of whether the data set is sufficiently robust with respect to the assessed material will be required to be documented in the validation report. Alternatively, the rate of sample analysis may require to be increased to provide sufficient data.

Site sourced fill samples shall be analysed for TRH, PAHs, heavy metals, (including As, Cd, Cr, Cu, Pb, Hg, Ni and Zn), organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), asbestos and soil

pH in combination with consideration of the source location and material inspection. In addition, assessment of the potential presence of aesthetic issues, including staining, discolouration and/or odorous soil conditions will be completed.

Site sourced natural soils shall be analysed for TRH and PAHs. In addition, assessment of the potential presence of aesthetic issues, including staining, discolouration and/or odorous soil conditions will be completed.

Imported material to be used as growing media/capping material shall be assessed on a batch basis, with a minimum of ten samples collected for each specific supplier's product. Samples shall be analysed for TRH, PAHs, heavy metals, (including As, Cd, Cr, Cu, Pb, Hg, Ni and Zn), OCPs, PCBs, asbestos and soil pH. The materials shall be further inspected for any aesthetic indicators of contamination.

VENM

VENM shall be as defined under the *Protection of the Environment Operations (POEO) Act 1997* and characterised by at least five samples per source site and 1 per 1,000 m^3 being collected if more than 10,000 m^3. Visual inspection is required.

Site Materials

Site sourced materials shall be characterised as per Growing Media (above).

8.2 Soil Sampling Methodology

The soil sampling method shall be determined by the Field Scientist as consistent with the observations of the site sub-surface and appropriate to generate representative samples. The soil sampling method shall be consistent with the data quality indicators in **Section 8.4**.

Where sample locations are placed by boreholes, undisturbed samples, as collected by push tube or SPT sampler, are preferred where able to be effectively implemented. Otherwise samples may be recovered from solid flight augers or via test pitting. Re-usable equipment shall require to be decontaminated between sampling locations.

8.2.1 Soil Sample Containers

During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indications of contamination shall be noted on field reporting sheets/field logs.

Collected soil samples shall be immediately transferred to sample containers of appropriate composition (glass jars) fitted with Teflon sealed lids. 500 mL samples shall be additionally collected and placed in new zip lock bags where asbestos analysis is required. Sample labels shall record sample identification number and date and time of sampling. Sample containers shall be transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form shall be completed and forwarded with the samples to the testing laboratory, containing the following information:

- Sample identification;
- Signature of sampler;
- Date of collection;
- Type of sample;
- Number and type of container;
- Inclusive dates of possession; and
- Signature of receiver.

8.2.2 PID Screening

Soil samples will be screened during field works using a photo-ionisation detector (PID) to assess the potential presence of VOCs including petroleum hydrocarbons. Samples obtained for PID screening will be placed in a sealed plastic bag for approximately 5 minutes to equilibrate, prior to a PID being attached to the bag. Readings will then monitored for a period of approximately 30 seconds or until values stabilise and the stabilise/highest reading will be recorded on the field sample forms. The PID will be calibrated prior to the commencement of field works and then check readings will be completed on a daily basis during the field program using suitable calibration gas. If required, the PID will be re-calibrated during the field program in accordance with manufacturer's instructions.

8.3 Laboratory Analysis

NATA accredited laboratories shall be used for all analysis of samples. Appropriate methods and limits of reporting (LORs) are required for comparison to relevant criteria.

Laboratory methods and LOR as summarised in **Table 8.1** are proposed to be adopted for analysis of soil samples collected during remediation/validation activities.

Table 8.1: Soil Laboratory Analysis Methods (all units in mg/kg unless stated)

Analyte	Limit of Reporting	Laboratory Method
METALS		
Arsenic	4.0	ICP-AES (USEPA 200.7)
Cadmium	1.0	ICP-AES (USEPA 200.7)
Chromium (total)	1.0	ICP-AES (USEPA 200.7)
Chromium (VI)	1.0	Alkali leach colorimetric (APHA3500-Cr/USEAP3060A)
Copper	1.0	ICP-AES (USEPA 200.7)
Lead	1.0	ICP-AES (USEPA 200.7)
Nickel	1.0	ICP-AES (USEPA 200.7)
Zinc	1.0	ICP-AES (USEPA 200.7)
Mercury (inorganic)	0.1	ICP-AES (USEPA 200.7)
TRH		
C6 – C9 Fraction	25	Purge Trap-GCMS (USEPA8260)
C10 – C36 Fraction	250	Purge Trap-GCFID (USEPA8000)
BTEX		
Benzene	1.0	Purge Trap-GCMS (USEPA8260)
Toluene	1.0	Purge Trap-GCMS (USEPA8260)
Ethylbenzene	1.0	Purge Trap-GCMS (USEPA8260)
Total Xylenes	3.0	Purge Trap-GCMS (USEPA8260)
PAH		
Benzo(a)pyrene	0.05	GCMS (USEPA8270)
Total PAHs	1.55	GCMS (USEPA8270)
PCBs		
PCBs (total)	0.9	GCECD (USEPA8140,8080)
OCP/OPP		
Aldrin + Dieldrin	0.2	GCECD (USEPA8140,8080)
Chlordane	0.1	GCECD (USEPA8140,8080)
DDT + DDD + DDE	0.3	GCECD (USEPA8140,8080)
Heptachlor	0.1	GCECD (USEPA8140,8080)
PHENOLS		
Total Phenols	5	Distillation-Colorimetric (APHA 5530)
VOC		
PCE	1.0	Purge Trap-GCMS (USEPA8260)
TCE	1.0	Purge Trap-GCMS (USEPA8260)
Cis 1,2 DCE	1.0	Purge Trap-GCMS (USEPA8260)
Trans 1,2 DCE	1.0	Purge Trap-GCMS (USEPA8260)
VC	1.0	Purge Trap-GCMS (USEPA8260)
OTHER		
Asbestos	Presence/ 0.1 g/kg	PLM / Dispersion Staining as per AS4964:2004
Soil pH	0.1	5:1 leach

8.4 Quality Assurance/Quality Control

The pre-determined Data Quality Indicators (DQIs) established for the project are discussed below in relation to precision, accuracy, representativeness, comparability and completeness (PARCC parameters), and are shown in **Table 8.2**.

- Precision - measures the reproducibility of measurements under a given set of conditions. The precision of the data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD)[26] of duplicate samples.

[26] $RPD(\%) = \frac{|C_o - C_d|}{C_o + C_d} \times 200$

Where C0 is the analyte concentration of the original sample. Cd is the analyte concentration of the duplicate sample

- Accuracy - measures the bias in a measurement system. The accuracy of the laboratory data that is generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- Representativeness –expresses the degree which sample data accurately and precisely represents a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- Comparability - expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- Completeness – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.

Table 8.2: Summary of Quality Assurance / Quality Control Program

Data Quality Objective	Frequency	Data Quality Indicator
Precision		
Blind duplicates	1 / 20 samples	<50% RPD[1]
Split duplicates	1 / 20 samples	<50% RPD[1]
Trip blank	1 / media / day	<LOR
Rinsate blank	1 / media / day	<LOR
Trip spike	1 / media / day	70-130%
Accuracy		
Surrogate spikes	All organic samples	70-130%[2]
Matrix spikes	1 per lab batch or 20 samples	70-130%[2]
Laboratory control samples	1 per lab batch or 20 samples	70-130%[2]
Representativeness		
Sampling appropriate for media and analytes		-
Laboratory blanks	1 per lab batch	<LOR
Samples extracted and analysed within holding times.	-	Soils: 7 days for VOCs/pH, 14 days for all other analytes.
Comparability		
Standard operating procedures for sample collection & handling	All Samples	All samples
Standard analytical methods used for all analyses	All Samples	All samples
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples
Limits of reporting appropriate and consistent	All Samples	All samples
Completeness		
Soil description and COCs completed and appropriate	All Samples	- All samples
Appropriate documentation	All Samples	- All samples
Satisfactory frequency and result for QC samples	All QA/QC samples	-
Data from critical samples is considered valid	-	Critical samples valid

[1]If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment will be made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.

[2]Lower recoveries may be recorded for some semi-volatile organic analyses particularly including phenols.

8.5 Validation Criteria

8.5.1 Soil Criteria

Based on the proposed development/adaptive reuse details, in accordance with the decision process for assessment of urban redevelopment sites (DEC 2006), and with consideration of JBS&G (2016a and 2016b), concentrations of contaminants in media shall be compared against adopted criteria as presented in **Tables 8.3** and **8.4**, sourced from the following:

Lots 8 and 9

Lots 8 and 9 are proposed to be developed to accommodate commercial land uses potentially including childcare facilities (or similar). As such, land use criteria for a childcare centre has been adopted.

- Criteria established in the HHRA (JBS&G 2016a);
- Health based Investigation Levels (HILs) for residential with access to soils land use NEPC (2013) - HIL-A;
- Health Screening Levels (HSLs) for petroleum hydrocarbons considering potential for vapour intrusion, coarse grained soil for low-high density residential (HSL A & B) land use at 0.0-1.0 m depth (NEPC 2013);
- As a conservative measure, generic and site specific ecological investigation levels (EILs) were derived through the added contaminant limits;
- Management Limits for TRH, coarse grained soils for residential land use – NEPC (2013);
- Ecological Screening Levels (ESLs) for TRH fractions, BTEX and benzo(a)pyrene in coarse grained soil for residential land use (NEPC 2013); and
- Where there are no NSW EPA endorsed thresholds the laboratory LOR has been adopted as an initial screening value for the purposes of this assessment.

Recreation Land Uses (Oval and Public Open Spaces)

The following criteria is to be adopted for areas of recreational land use.

- Criteria established in the HHRA (JBS&G 2016a);
- HILs for recreational land use NEPC (2013) - HIL-C;
- HSLs for petroleum hydrocarbons considering potential for vapour intrusion, coarse grained soil for recreational (HSL-C) land use at 0.0-1.0 m depth (NEPC 2013);
- As a conservative measure, generic and site specific EILs were derived through the added contaminant limits;
- Management Limits for TRH, coarse grained soils for recreational land use – NEPC (2013);
- ESLs for TRH fractions, BTEX and benzo(a)pyrene in coarse grained soil for recreational land use (NEPC 2013); and
- Where there are no NSW EPA endorsed thresholds the laboratory LOR has been adopted as an initial screening value for the purposes of this assessment.

Lot 12, Locomotive Work Shop and Pedestrian/Road Easements (Lots 4000 and 4007)

Lot 12, Lot 4007 and the Locomotive Workshop (Lot 4000) are proposed commercial uses excluding childcare facilities.

- Criteria established in the HHRA (JBS&G 2016a);
- HILs for commercial land use NEPC (2013) - HIL-D;
- HSLs for petroleum hydrocarbons considering potential for vapour intrusion, coarse grained soil for commercial (HSLD) land use at 0.0-1.0 m depth (NEPC 2013);
- As a conservative measure, generic and site specific EILs were derived through the added contaminant limits;
- Management Limits for TRH, coarse grained soils for commercial land use – NEPC (2013);
- ESLs for TRH fractions, BTEX and benzo(a)pyrene in coarse grained soil for commercial land use (NEPC 2013); and
- Where there are no NSW EPA endorsed thresholds the laboratory limit of reporting (LOR) has been adopted as an initial screening value for the purposes of this assessment.

Table 8.3 Health Based Soil Investigation Criteria and Hydrocarbon Management Limits (all units in mg/kg)

	Laboratory Method	Health Investigation/ Screening Levels			Management Limits[5]	
		HIL-A	HIL-C	HIL-D	Urban Residential, Parkland and Public Open Space	Commercial/Industrial
METALS						
Arsenic	ICP-AES (USEPA 200.7)	100	300	3 000	-	-
Cadmium	ICP-AES (USEPA 200.7)	20	90	900	-	-
Chromium	ICP-AES (USEPA 200.7)	100[1]	300[1]	3 600[1]	-	-
Chromium (VI)	Alkali leach colorimetric (APHA3500-Cr/USEAP3060A)	100	300	3 600	-	-
Copper	ICP-AES (USEPA 200.7)	6 000	17 000	240 000	-	-
Nickel	ICP-AES (USEPA 200.7)	400	1 200	6 000	-	-
Lead	ICP-AES (USEPA 200.7)	300	600	1 500	-	-
Zinc	ICP-AES (USEPA 200.7)	7 400	30 000	400 000	-	-
Mercury (inorganic)	Cold Vapour ASS (USEPA 7471A)	40[2]	80[2]	730[2]	-	-
PAHs						
Carcinogenic PAHs (as B(a)P TEQ)[3]	GCMS (USEPA8270)	3	3	40	-	
Total PAHs[4]	GCMS (USEPA8270)	300	300	4 000	-	-
BTEX						
Benzene	Purge Trap-GCMS (USEPA8260)	0.5[6]	NL[6]	3[6]	-	-
Toluene	Purge Trap-GCMS (USEPA8260)	160[6]	NL[6]	NL[6]	-	-
Ethylbenzene	Purge Trap-GCMS (USEPA8260)	55[6]	NL[6]	NL[6]	-	-
Total Xylenes	Purge Trap-GCMS (USEPA8260)	40[6]	NL[6]	230[6]	-	-
Naphthalene	Purge Trap-GCMS (USEPA8260)	3	NL	NL	-	-
TRH						
F1 C_6-C_{10}	TPH Purge Trap-GCMS (USEPA8260)	45[6,7]	NL[6,7]	260[6,7]	700[5]	700[5]
F2 >C_{10}-C_{16}	TPH Purge Trap-GCMS (USEPA8260)	110[6]	NL[6,7]	NL[6,7]	1 000[5]	1 000[5]
F3 >C_{16}-C_{34}	Purge Trap-GCFID (USEPA8000)	-	-	-	2 500	3 500
F4 >C_{34}-C_{40}	Purge Trap-GCFID (USEPA8000)	-	-	-	10 000	10 000
OCPs						
DDT + DDD + DDE	GCECD (USEPA8140,8080)	240	400	3 600	-	-
Aldrin + Dieldrin	GCECD (USEPA8140,8080)	6	10	45	-	-
Chlordane	GCECD (USEPA8140,8080)	50	70	530	-	-
Endosulfan	GCECD (USEPA8140,8080)	270	340	2 000	-	-
Endrin	GCECD (USEPA8140,8080)	10	20	100	-	-
Heptachlor	GCECD (USEPA8140,8080)	6	10	50	-	-

	Laboratory Method	Health Investigation/ Screening Levels			Management Limits[5]	
		HIL-A	HIL-C	HIL-D	Urban Residential, Parkland and Public Open Space	Commercial/Industrial
HCB	GCECD (USEPA8140,8080)	10	10	80	-	-
Methoxychlor	GCECD (USEPA8140,8080)	300	400	2 500	-	-
HERBICIDES/PESTICIDES						
2,4,5-T	GCECD (USEPA8140,8080)	600	800	5 000	-	-
2,4-D	GCECD (USEPA8140,8080)	900	1 300	9 000	-	-
MCPA	GCECD (USEPA8140,8080)	600	800	5 000	-	-
MCPB	GCECD (USEPA8140,8080)	600	800	5 000	-	-
Mecoprop	GCECD (USEPA8140,8080)	600	800	5 000	-	-
Picloram	GCECD (USEPA8140,8080)	4 500	5 700	35 000	-	-
Atrazine	GCECD (USEPA8140,8080)	320	400	2 500	-	-
Chlorpyrifos	GCECD (USEPA8140,8080)	160	250	2 000	-	-
Bifenthrin	GCECD (USEPA8140,8080)	600	730	4 500	-	-
PCBs						
Total PCBs	GCECD (USEPA8140,8080)	1	1	7	-	-
PHENOLS						
Phenol	GCECD (USEPA8140,8080)	3 000	40 000	240 000	-	-
VOCs						
PCE	Purge Trap-GCMS (USEPA8260)	1[8]	1[8]	1[8]	-	-
TCE	Purge Trap-GCMS (USEPA8260)	1[8]	1[8]	1[8]	-	-
Cis 1,2 DCE	Purge Trap-GCMS (USEPA8260)	1[8]	1[8]	1[8]	-	-
Trans 1,2 DCE	Purge Trap-GCMS (USEPA8260)	1[8]	1[8]	1[8]	-	-
VC	Purge Trap-GCMS (USEPA8260)	1[8]	1[8]	1[8]	-	-
OTHER						
Asbestos (surface soils)	-	No visible asbestos			-	-
Asbestos (top 0.5 m)	PLM / Dispersion Staining	No asbestos capable of being detected via the investigation, which comprises both visual identification and sample analysis by a NATA accredited laboratory [4]			-	-
Asbestos (below 0.5 m)	PLM / Dispersion Staining	No asbestos capable of being detected via the investigation, which comprises both visual identification and sample analysis by a NATA accredited laboratory [4]			-	-

Notes:

1. Guideline values presented are for Chromium (VI) in absence of total Chromium values. Where total Chromium results are elevated, samples will be analysed for Chromium (VI).
2. Guideline values are for inorganic mercury. Where elevated mercury concentrations are encountered and/or site information suggests the potential presence of elemental mercury and/or methyl mercury, consideration of applicability would be needed.

3. Carcinogenic PAHs calculated as per Benzo(a)pyrene Toxicity Equivalent Factor requirements presented in NEPC (2013)
4. Total PAHs calculated as per requirements presented in NEPC (2013).
5. Management Limits are based on coarse grained soil, with F1 and F2 concentrations inclusive of naphthalene and BTEX compounds.
6. Soil Health Screening Levels for Vapour Intrusion: Sand Soils. Values presented are those for 0 to <1 m bgl as the most conservative level. Reference should be made to results tables for further detail of levels at greater depths. NL: Non-limiting.
7. Values for F1 C6-C9 are obtained by subtracting BTEX (Sum) from laboratory result for C6-C9 TRH.
8. No EPA endorsed criteria, The LOR is proposed as a screening level in the absence of endorsed site specific criteria.

Table 8.4 Ecological Screening Levels and Soil Quality Guideline Values (all units in mg/kg)

	Laboratory Method	ESLs Urban Residential and public open space	SQGs (Aged)[3] Urban Residential and public open space	ESLs Commercial/Industrial	SQGs (Aged)[3] Commercial/industrial
METALS					
Arsenic	ICP-AES (USEPA 200.7)	-	100	-	160
Cadmium	ICP-AES (USEPA 200.7)	-	-	-	-
Chromium	ICP-AES (USEPA 200.7)	-	250	-	420
Chromium (VI)	Alkali leach colorimetric (APHA3500-Cr/USEAP3060A)	-	-	-	-
Copper	ICP-AES (USEPA 200.7)	-	210	-	300
Nickel	ICP-AES (USEPA 200.7)	-	270	-	460
Lead	ICP-AES (USEPA 200.7)	-	1 100	-	1 800
Zinc	ICP-AES (USEPA 200.7)	-	590	-	920
Mercury (inorganic)	Cold Vapour ASS (USEPA 7471A)	-	-	-	-
PAHs					
Benzo(a)pyrene	GCMS (USEPA8270)	0.7	-	1.4	
Naphthalene	GCMS (USEPA8270)	-	170	-	370
BTEX					
Benzene	Purge Trap-GCMS (USEPA8260)	50	-	75	-
Toluene	Purge Trap-GCMS (USEPA8260)	85	-	135	-
Ethylbenzene	Purge Trap-GCMS (USEPA8260)	70	-	165	-
Total Xylenes	Purge Trap-GCMS (USEPA8260)	105	-	180	-
TRH					
F1 C_6-C_{10}	TPH Purge Trap-GCMS (USEPA8260)	180[1]	-	215	
F2 >C_{10}-C_{16}	TPH Purge Trap-GCMS (USEPA8260)	120[2]	-	170	
F3 >C_{16}-C_{34}	Purge Trap-GCFID (USEPA8000)	300	-	1 700	
F4 >C_{34}-C_{40}	Purge Trap-GCFID (USEPA8000)	2 800	-	3 300	
OCPs					
DDT	GCECD (USEPA8140,8080)	-	180		640

Notes:

1. Values for F1 C6-C9 are obtained by subtracting BTEX (Sum) from laboratory result for C6-C9 TRH.
2. Values for F2 >C10-C16 are obtained by subtracting naphthalene from laboratory result for >C10-C16 TRH.
3. Based on a pH of 6.5, >2.5 % clay and a CEC of 20

In addition, as per the requirements of the ERA (JBS&G 2016b), growing media should have levels of constituents consistent with ecological protection criteria for 'urban residential and public open space' as provided to NEPC (2013), and levels of aldrin, dieldrin and polychlorinated biphenyls (PCBs) below laboratory detection limits;

8.5.1.1 Application of Soil Assessment Criteria

For soils to be considered as meeting the health/ecological based assessment criteria (i.e., not posing an unacceptable risk), the following criteria will be adopted:

Either:

- All contaminant concentrations were less than the adopted site assessment criteria,

Or:

- The upper 95% confidence limit on the average concentration for each analyte (calculated for samples collected from consistent soil horizons, stratigraphy or material types) was below the adopted criterion;
- No single analyte concentration exceeded 250% of the adopted criterion; and
- The standard deviation of the results was less than 50% of the criterion.

In addition to the numerical criteria, the following visual observations will also supplemented the assessment process:

- No visible asbestos containing material in addition to laboratory analysis results; and
- Consideration was given to odorous or discoloured soils (caused by contamination).

8.5.1.2 Material Characterisation for Off-site Disposal

Materials shall be classified in accordance with EPA (2014) Waste Classification Guidelines or an appropriate exemption as created under the Protection of the Environment Operations (Waste) Regulation 2014.

In addition, consideration was also be given to general immobilisation of contaminants in waste approvals issued in accordance with the provisions in Clause 28 of the Protection of the Environment Operations (Waste) Regulation 1996, including:

- General Approval of Immobilisation of Contaminants in Waste No. 2009/07 Metallurgical furnace slag or metallurgical furnace slag contaminated natural excavated materials; and
- General Approval of Immobilisation of Contaminants in Waste No. 1999/05 Ash, ash contaminated natural materials or coal-contaminated natural excavated materials.

8.5.2 Vapour Screening Criteria

Concentrations in vapour samples will initially be compared against published levels as presented in **Tables 8.3** and **8.4** where relevant, as sourced from the following:

- Health based Screening Levels (HSLs) for vapour intrusion – Residential and Commercial Land Use – NEPC (2013); and
- Interim Health based Investigation Levels (HILs) for soil vapour – Residential and Commercial Land Use – NEPC (2013).

Table 8.5: Vapour Sample Analytical Schedule (mg/m³) – HSL A / HIL A

Analytes	NEPC (2013) HSL-A / HIL-A			
Sand	0 m to <1 m bgl	1 m to <2 m bgl	2 m to <4 m bgl	4 m to <8 m bgl
Benzene	1	3	6	10
Toluene	1 300	3 800	7 300	15 000
Ethylbenzene	330	1 100	2 200	4 300
Total Xylenes	220	750	1 500	3 000
Naphthalene	0.8	3	6	10
F1 C_6-C_{10}	180	640	1 300	2 600
F2 >C_{10}-C_{16}	130	560	1 200	4 800
PCE	2	2	2	2
TCE	0.02	0.02	0.02	0.02
Cis 1,2 DCE	0.08[1]	0.08[1]	0.08[1]	0.08[1]
1,1,1 TCA	60	60	60	60
VC	0.03	0.03	0.03	0.03

Notes: 1. Any assessment of cis-1,2-DCE is considered to be sufficiently protective of potential exposures to the trans-1,2-DCE isomer consistent with NEPC (2013) recommendations noting the contrasting toxicity of each. In the event trans-1,2-DCE is reported at notable concentrations in either sub-slab or ambient vapour, consideration will be required in the HHRA process.

Table 8.6: Vapour Sample Analytical Schedule (mg/m³) – HSL D / HIL D

Analytes	NEPC (2013) HSL-D			
Sand	0 m to <1 m bgl	1 m to <2 m bgl	2 m to <4 m bgl	8 m + bgl
Benzene	4	10	30	65
Toluene	4 800	16 000	39 000	84 000
Ethylbenzene	1 300	4 600	11 000	25 000
Total Xylenes	840	3 200	8 000	18 000
Naphthalene	3	15	35	75
F1 C_6-C_{10}	680	2 800	7 000	15 000
F2 >C_{10}-C_{16}	500	2 400	NL	NL
PCE	8	8	8	8
TCE	0.08	0.08	0.08	0.08
Cis 1,2 DCE	0.3[1]	0.3[1]	0.3[1]	0.3[1]
1,1,1 TCA	230	230	230	230
VC	0.1	0.1	0.1	0.1

Notes: 1. Any assessment of cis-1,2-DCE is considered to be sufficiently protective of potential exposures to the trans-1,2-DCE isomer consistent with NEPC (2013) recommendations noting the contrasting toxicity of each. In the event trans-1,2-DCE is reported at notable concentrations in either sub-slab or ambient vapour, consideration will be required in the HHRA process.

8.5.3 Water

Groundwater at the site has been comprehensively assessed and a HHRA (JBS&G 2016a) and ERA (JBS&G 2016b) have been completed that conclude there is no risk to future site users or the environment from groundwater (currently or in the future). As a result, no additional groundwater assessment or validation of groundwater is proposed.

Notwithstanding the aforementioned, the following is proposed:

- As discussed in **Section 7.4.1**, following construction of the borrow pit, a program of groundwater monitoring will be undertaken consistent with those historically reported, as documented in JBS&G (2015a). Existing or replacement groundwater monitoring wells will be the subject of groundwater sampling events at three monthly intervals for a period of 12 months. Following completion of the four groundwater monitoring events, a qualitative assessment of groundwater quality/conditions will be completed providing conclusions on the status of groundwater leaving Lot 12 and the site.

- As discussed in **Section 5.6.3**, additional investigations are proposed to be undertaken to address the uncertainty around the TCE/PCE contamination detected in soil vapour beneath the Locomotive Workshop and better addressing the lateral extent of PCE/TCE in soil vapour at concentrations exceeding adopted screening criteria (including to the south). The target depth for the soil vapour investigations will consider the likely depth of future building foundations, including those of Lot 12 being down gradient of the Locomotive Workshop. A risk assessment will subsequently be conducted on the basis of the additional data and specific redevelopment scenarios in order to ensure that risks posed by PCE/TCE in soil vapour are appropriately managed.

8.6 Reporting

8.6.1 Validation Report

A validation report(s) shall be prepared at the completion of the remediation works. This report shall:

- Update relevant portions of the site description and CSM as prepared in this RAP relevant to the validation assessment footprint;
- Present all sampling field notes and laboratory data including calibration certificates for field monitoring equipment, environmental monitoring etc.;
- Undertake an assessment of QA/QC of analytical data generated by the works and identify data that is reliable for use in characterising the applicable portion of the site;
- Sort data into data sets as required by the decision rules;
- Assess whether sufficient data has been obtained to meet required limits on decision error;
- Undertake assessment to the decision rules and identify any environmental data which causes decision rules to be failed;
- Provide a summary of waste disposal activities and volumes of waste removed from the relevant portions of the site;
- Identify the requirements for the EMP (where appropriate) including inclusion of a survey clearly identifying the extent of the retained impacted material and associated capping; and
- Provide a comment on the suitability of the site portion for the proposed use and requirements for any ongoing monitoring/management (where applicable).

It is noted that remedial works are proposed to be staged. As such, staged remedial validation reporting and Site Auditor signoff will be required.

8.6.2 Long-Term Environmental Management Plan

In addition to the requirements of the validation report, long term management is required where residual contamination (e.g. capped impacted fill material) is retained on-site.

To this end a LTEMP will be prepared to detail the ongoing management and monitoring requirements for applicable portions of the site. The LTEMP will incorporate the requirements of the current EMPs (ES 2015a/DP) as relevant to the redeveloped site. The precise nature and extent of the management requirements will not be known until remediation/management works are conducted and the validation data obtained. The LTEMP will be prepared for the relevant portions of the site following the completion of the validation activities. There is a potential that several LTEMPs may be prepared as relevant to works stages.

The provisions in the LTEMP must be feasible (i.e., able to be implemented) and able to be legally enforceable (i.e., a mechanism exists, such as development consent conditions, to give the plan a basis in law).

The LTEMP will broadly comprise ongoing measures to:

- Maintaining accessible soils in the upper 0.5 m of the soil profile on the site;
- Maintaining permanent physical barriers; and
- Prevent any potential beneficial use of groundwater.

The LTEMP(s) are required to document the following elements:

- A statement of the objectives of the LTEMP – i.e., to ensure continued suitability of the site following remediation.
- Identification of residual environmental contamination issues at the site that require ongoing management/monitoring to meet the LTEMP objectives, including the type of contamination and location within the site (including a survey plan prepared by a registered surveyor).
- Documentation of environmental management measures which have been implemented to address the identified environmental issues at the site. This will mainly revolve around control and maintenance of physical separation layers.
- Description of management controls to limit the exposure of site users to known areas of contamination to acceptable levels.
- Description of responsibilities for implementing various elements of the provisions contained in the LTEMP.
- Timeframes for implementing the various control/monitoring, etc. elements outlined in the LTEMP.
- Environmental monitoring and reporting requirements (if required) for the future management of environmental impact underlying the site including:
    - Appropriate monitoring locations and depth within and down-gradient of any residual contamination;
    - Relevant assessment criteria to be used in evaluating monitoring results;
    - Frequency of monitoring and reporting;
    - Process for reviewing monitoring data and how decisions will be made regarding the ongoing management strategy;
    - The length of time for which monitoring is expected to continue;
- The regulatory authorities involved and the management inputs required from each;
- The integration of environmental management and monitoring measures for soil and groundwater;
- Health and safety requirements for particular activities;
- A program of review and audits;
- The relevant consent authority is satisfied that the inclusion of a development consent condition relating to the implementation of the LTEMP is acceptable; and
- Corrective action procedures to be implemented where LTEMP assessment criteria are breached.

9. Contingency Plan

A review of the proposed contamination-related aspects of the works associated with development the site has been undertaken and has identified a number of potential risks, outlined in the following sections that required the development of contingencies to ensure that the objectives of this RAP are met.

The Contingency Plan is required to be part of the remedial environmental plan (REMP), as described in **Section 10.1**, below, and part of the work health and safety plan (WHSP), as described in **Section 10.2**.

9.1 Unexpected Finds

The possibility exists for hazards that have not been identified to date to be present within fill materials or underlying pavements/building on the site. The nature of hazards which may be present and which may be discovered at the site are generally detectable through visual or olfactory means, for example:

- The presence of significant aggregates of friable asbestos materials (visible) as opposed to minor occurrences of fragments or fibre bundles in soil;
- Excessive quantities of Construction/Demolition Waste (visible);
- Hydrocarbon impacted materials (visible/odorous);
- Drums, waste pits, former pipework or underground storage tanks (USTs) (visible);
- Oily Ash and/or oily slag contaminated soils/fill materials (visible/odorous);
- Tarry like impacted soil/fill material (visible/odorous).

As a precautionary measure to ensure the protection of the workforce and surrounding community, should any of the abovementioned substances (or any other unexpected potentially hazardous substance) be identified, the procedure summarised in **Figure 9.1** is to be followed.

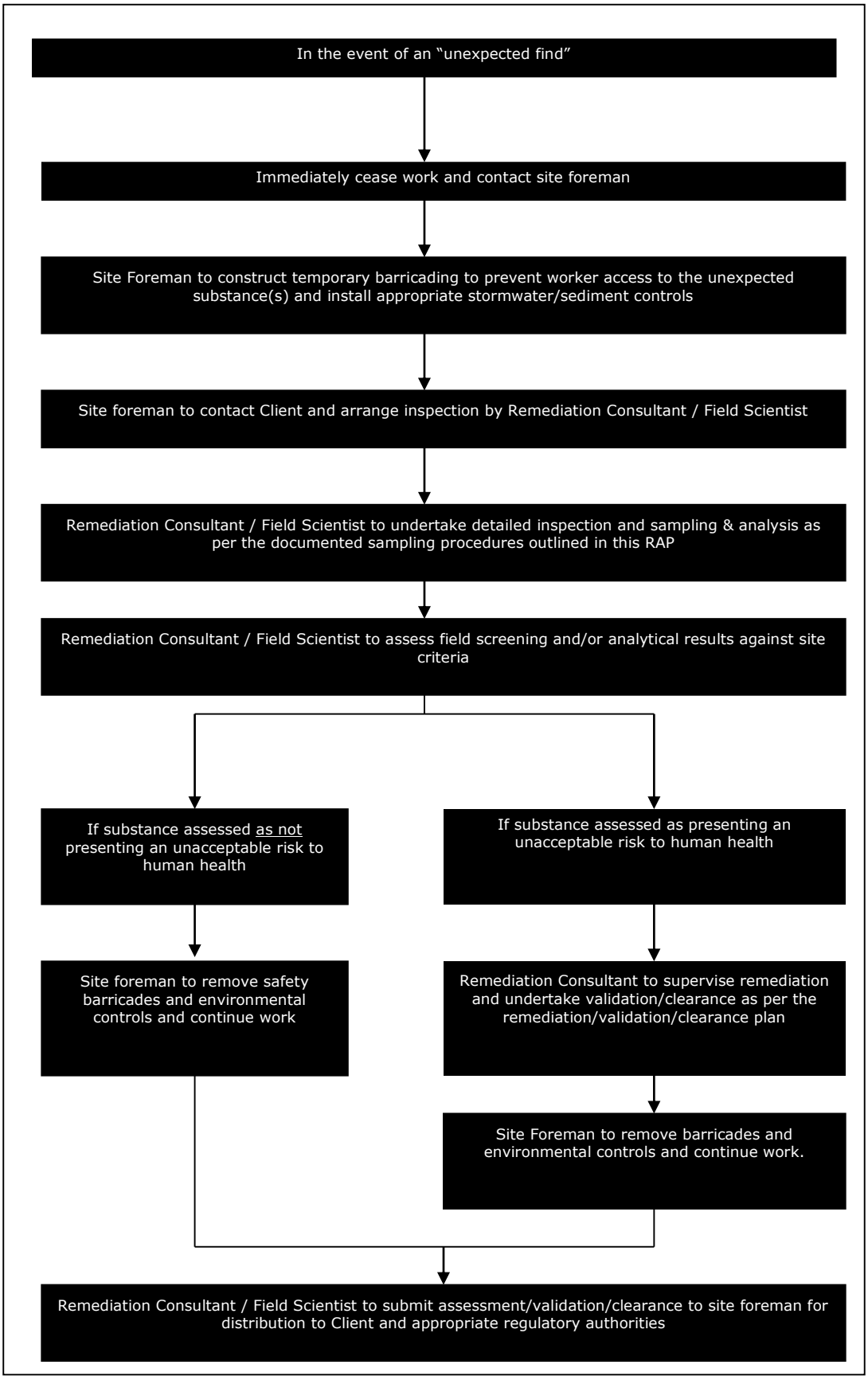
An enlarged version of the unexpected finds protocol, suitable for use on site, should be posted in the Site Office and referred to during the Site Specific Induction by the Remediation Contractor.

The sampling strategy for each “unexpected find” shall be designed by a suitably qualified environmental consultant. The strategy will, however, be aimed at determining the nature of the substance – that is, is it hazardous and, if so, is it at concentrations which pose an unacceptable risk to human health or the environment.

The sampling frequency of the identified substance/materials shall meet the minimum requirements outlined in EPA (1995) in addition to those outlined in **Section 7**.

Following removal of hardstands across the site, an inspection of the site’s surface for the presence of visible ACM in accordance with NEPC (2013) or other visual or olfactory indicators of contamination should be undertaken.

Figure 9.1 - Unexpected Finds Protocol



9.2 Change in Development Plans

In the event that the approved development plans are changed from those available at the time of preparation of this RAP, particularly where significant amendment of the extent of permanent paving at the site, consideration of the suitability of the proposed remedial strategy will be required.

9.3 Vapour beneath the Locomotive Workshop

Should soil vapour concentrations beneath the Locomotive Workshop be identified as representing a health risk to site occupants/users, then in-situ chemical stabilisation/remediation may be required.

9.4 Identification of Underground Storage Tank

There is the potential that an underground storage tank(s) may be encountered during demolition of the pavements or subsequent earthworks. In the event of such an occurrence, the Unexpected Finds Protocol as discussed in **Section 9.1** comprising inspection, testing and appropriate action as advised by the Field Scientist (**Section 9.1**).

9.5 Identification of Oily or Tarry Materials

In the event that oily/tarry materials are encountered, the provisions outlined in the unexpected finds protocol will be implemented, comprising inspection, testing and appropriate action as advised by the Field Scientist (**Section 9.1**).

Any suspected oily/tarry materials must be segregated from other excavated materials and placed in a designated area with appropriate odour and sediment controls until such time as appropriate assessment is completed and a methodology is confirmed for their appropriate management. In the event that the oily/tarry materials do not meet the Site Acceptance Criteria, then they shall be stored in a secure area for later treatment or classified and removed from the site for treatment and/or disposal at an appropriately licensed facility.

9.6 Material Storage Breach

In the event that any materials storage containment controls are breached and stockpiled materials classified as asbestos contaminated soil or otherwise have escaped (or have the potential to escape), then the management controls shall be rectified and investigations undertaken to review the adequacy of the controls and any improvements implemented. The REMP (**Section 10**) shall include a documented process for identifying and responding to such incidents.

9.7 Emissions Complaints

Due to the nature of the activities and type of contaminants identified at the site, there is a potential for complaints to be received from members of the public and/or occupants of surrounding properties relating to environmental emissions including:

- Noise and vibration arising from excavation, piling and other works;
- Dust emissions arising from excavation, material handling and placement; and
- Visibly impacted water quality in surface water discharge from the site.

Monitoring of all environmental emissions shall be undertaken during the works as detailed in the REMP (discussed in **Section 10**) and appropriate actions taken to further control emissions following receipt of a complaint. The REMP shall contain provision for contingency actions where excessive emissions occur, however it is anticipated that one or more of the following actions will be considered:

- Increased application of odour screening/masking chemicals on odorous materials;
- Disturbance of soils during meteorologically favourable periods only; and/or
- Covering of impacted soils.

10. Other Remediation Documents

10.1 Environmental Management

10.1.1 Preparation of a Remediation Environmental Management Plan

Prior to commencement of remediation works, a REMP shall be prepared by the Remediation Contractor, which documents the environmental monitoring and management measures required to be implemented during the remediation and construction related activities associated with the construction of the site.

The REMP shall address each of the nominated items in **Section 10.1.2** and shall include the Contingency Plan, referred to in **Section 9**, above. Additional environmental management requirements may be required as part of works to support the SSDA or subsequent development consent conditions.

10.1.2 Required Elements/Procedures

An assessment of the proposed activities and the associated elements required to be incorporated into the REMP is provided in **Table 10.1**. The REMP is required to address each of the required elements and procedures in full detail and to include detailed monitoring processes and procedures, corrective actions and reporting requirements.

Table 10.1 Required Elements of the REMP

Element	Specific Minimum Requirements to be included in REMP
1. Dust and Airborne Hazard Control	Dust and asbestos air monitoring. Provisions for dust control based on monitoring results.
2. Flora and Fauna	As appropriate.
3. Heritage/Archaeological	In accordance with relevant heritage/archaeological studies.
4. Visual Impacts	Visual monitoring at site boundary Specific colour requirements for various controls/measures, including PPE (e.g., navy coveralls)
5. Emergency Response	As appropriate. Procedures required for spill incident response including material storage breach.
6. Noise Control	Hours of operation, consistent with the consent conditions. Boundary monitoring at commencement of work site activities with potential for environmental noise emissions. Potential noise monitoring at nearest receptors. Procedures for control and management of noise emissions, as appropriate (e.g., restricted hours).
7. Traffic	Controls on vehicle movements on public roads. Controls on transport of tar impacted materials.
8. Protection of Adjoining Structures	As appropriate.
9. Odour Control	Management of all potential odour generating activities (i.e., excavation of petroleum hydrocarbon contaminated soils) with appropriate odour controls incorporating safeguards and monitoring. Daily monitoring of odour levels at site boundary during handling of malodorous materials. Procedures for addressing elevated odour monitoring results, including, but not limited to: reduction in earthworks activities within odorous material areas during adverse meteorological conditions; application of odour masking solutions at the odour source or between identified source(s) and receptor(s); review of biopile operation and covering identified potential odour sources by hydromulching or with less odorous materials.
10. Handling of Contaminated Soil and Groundwater	Soil and water management (stockpiling, site access, excavation pump out, reinstatement).
11. Soil Storage/Placement Areas	Soil and water management (stockpiling, site access, excavation pump out, reinstatement). Bunding.

Element	Specific Minimum Requirements to be included in REMP
	Heavy vehicle/personnel decontamination. Interim storage requirements for materials requiring later treatment. Site drainage requirements, incorporating clean/dirty areas and modifications to existing surface water and drainage controls beneath retained pavements. Monitoring as required.
12. Sediment Control	Bunding. Collection/treatment/handling impacted sediments.
13. Operation of Site Office	As appropriate.
14. Decontamination of Heavy Equipment	As appropriate.
15. Environmental Monitoring	Monitoring of dusts, noise, odour and fibres. Monitoring as required for vibration and water releases. Inspection checklists and field forms. Monitoring within the Locomotive Workshop is required as per the requirements of the EMP and HHRA.
16. Environmental Criteria	Soil and water criteria as sourced from RAP.
17. Material Classification	As detailed in this RAP. Materials tracking, including QA/QC inspection and sampling.
18. Community Relations Plan	Specific communication protocols, incorporating nomination of specific contact persons & details and requirements for communications/response register.
19. Incident Reporting	As appropriate, including standard form/checklist.
20. Security and Signage	Secure site perimeter. Site boundary signage.
21. EMP Review	As appropriate.
22. Training	As appropriate.
23. Contact Details	Company/personnel details, including names/phone numbers for: - Principal Contractor - Site Auditor - Remediation Consultant - Remediation Contractor - OH&S Compliance - Environmental Compliance
24. Stockpiling	All materials stockpiled onsite will be managed by the Remedial Contractor. Unique numbers will be provided for each stockpile, the source of the stockpile, its estimated volume, material characterisation and its location onsite (via GPS) will also be recorded consistent with the Material Tracking Plan provided as **Section 7.6**. The following procedures will be implemented by the Remedial Contractor: • No stockpiles of soil or other materials shall be placed on footpaths or nature strips unless prior Council approval has been obtained; • All stockpiles of soil or other materials shall be placed away from drainage lines gutters or stormwater pits or inlets; • All stockpiles of soil or other materials likely to generate dust or odours shall be covered; • All stockpiles of chemically contaminated soil shall be stored in a secure area and be covered if remaining more than 24 hours; and • All stockpiles of asbestos contaminated soils shall be kept damp and covered to minimise potential fibre release, and if left for more than 24 hours, be stored in a secure area.

10.1.3 Certification

Prior to commencement of remediation works, the Remediation Contractor is required to have the REMP endorsed as acceptable by the Environmental Consultant and Site Auditor appointed to validate the works.

A copy of the REMP and the endorsement to the satisfaction of Environmental Consultant and Site Auditor are required to be provided by the Principal Contractor/Remedial Contractor prior to commencement of remediation works.

10.1.4 Hours of Site Operation/Duration of Works

Remediation works shall be completed in accordance with the permissible hours of work and noise as nominated in of the Development Consent.

The appointed remediation contractor will be required to include a proposed schedule of remediation works within the REMP submitted for endorsement as discussed above.

10.2 Health and Safety

10.2.1 Work Health and Safety Management Plan

A Work Health & Safety Management Plan (WHSP) shall be prepared by the Remediation Contractor prior to commencement of remediation works. The Plan shall contain procedures and requirements that are to be implemented as a minimum during the works, in addition to the Contingency Plan, referred to in **Section 9**.

The objectives of the WHSP are:

- To apply standard procedures that minimises risks resulting from the works;
- To ensure all employees are provided with appropriate training, equipment and support to consistently perform their duties in a safe manner; and
- To have procedures to protect other site workers and the general public.

These objectives will be achieved by:

- Assignment of responsibilities;
- An evaluation of hazards;
- Establishment of personal protection standards, mandatory safety practices and procedures;
- Monitoring of potential hazards and implementation of corrective measures; and
- Provision for contingencies that may arise while operations are being conducted at the site.

10.2.2 Additional Site-Specific Elements/Procedures

In addition to the normal construction-related matters, the WHSP shall address the following site-specific specific hazards associated with the works relating to the management of contaminated soil and groundwater:

- Under/aboveground services, specifically former petroleum infrastructure (if encountered);
- Use of plant and machinery within confined spaces (i.e. tank pit excavations);
- Contact to asbestos contaminated soils, including AF/FA impacted soils (friable asbestos);
- Contact with contaminated soil (heavy metals, TRH and PAHs), groundwater and vapours, including requirements for specific Personal Protective Equipment (PPE); and
- Heat/cold stress.

10.2.3 Asbestos

During the remedial works, perimeter asbestos in air monitoring will be conducted at each applicable remedial works area boundary when soil with AF/FA are being disturbed. Air monitoring will be conducted on a daily basis at relevant locations whilst disturbance of asbestos contaminated areas takes place.

Air monitoring will be conducted during any ground disturbance activities within impacted soil at the site to verify that implementation of appropriate control measures have been successful at managing the risk of air borne fibre generation. Air monitoring will be undertaken in accordance with the requirements of the National Occupational Health and Safety Commission (NOHSC) Asbestos Code of Practice and Guidance Notes, in particular the *Guidance note for the estimation of airborne asbestos dust* [NOHSC 3002:2005].

10.2.4 Additional Consideration of Chemical Contaminants

In addition to general assessment of the potential for exposure to chemical contaminants the WHSP should also include specific consideration of additional contaminants such as lead and polycyclic aromatic hydrocarbons distributed throughout fill materials.

As a precautionary measure, the WHSP should include the requirement for the plan to be revised in the event of an unexpected find of contaminated material during remediation and/or construction.

When working with contaminated materials in general, care needs to be taken to ensure that the contamination is not introduced to the worker via ingestion, inhalation or absorption. The WHSP must detail the PPE and decontamination requirements to be followed to control the risks posed by potential exposure to chemical contaminants at the site.

11. Conclusions and Recommendations

11.1 Conclusions

Overall, it is considered that the proposed actions outlined in this RAP conform to the requirements of the *Contaminated Sites Guidelines for the NSW Site Auditor Scheme (2nd Edition)* (DEC 2006) because they are: technically feasible; environmentally justifiable; and consistent with relevant laws policies and guidelines endorsed by NSW EPA.

Subject to the successful implementation of the measures described in this RAP and the recommendations below, it is concluded that the site can be made suitable for the intended uses and that the risks posed by contamination can be managed in such a way as to be adequately protective of human health and the environment.

11.2 Recommendations

It is recommended that the processes outlined in this RAP be implemented and that the following documentation be developed and implemented to ensure the risks and impacts during remediation works are controlled in an appropriate manner:

- A REMP, to document the monitoring and management measures required to control the environmental impacts of the works and ensure the validation protocols are being addressed; and
- A WHSP to document the procedures to be followed to manage the risks posed to the health of the remediation workforce.

The REMP and WHSP will require to be cognisant of the potential occurrence and storage / handling of asbestos contaminated soils.

Upon completion of the works, or within various specific areas, validation report(s) are required to be submitted by the Remediation Consultant to the Site Auditor for certification that the site, or relevant portion(s) are suitable for the proposed uses. Implementation of the EMP (ES 2015a), and a long-term Environment Management Plan (LTEMP) prepared by the Remediation Consultant for Site Auditor for approval, is required.

12. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

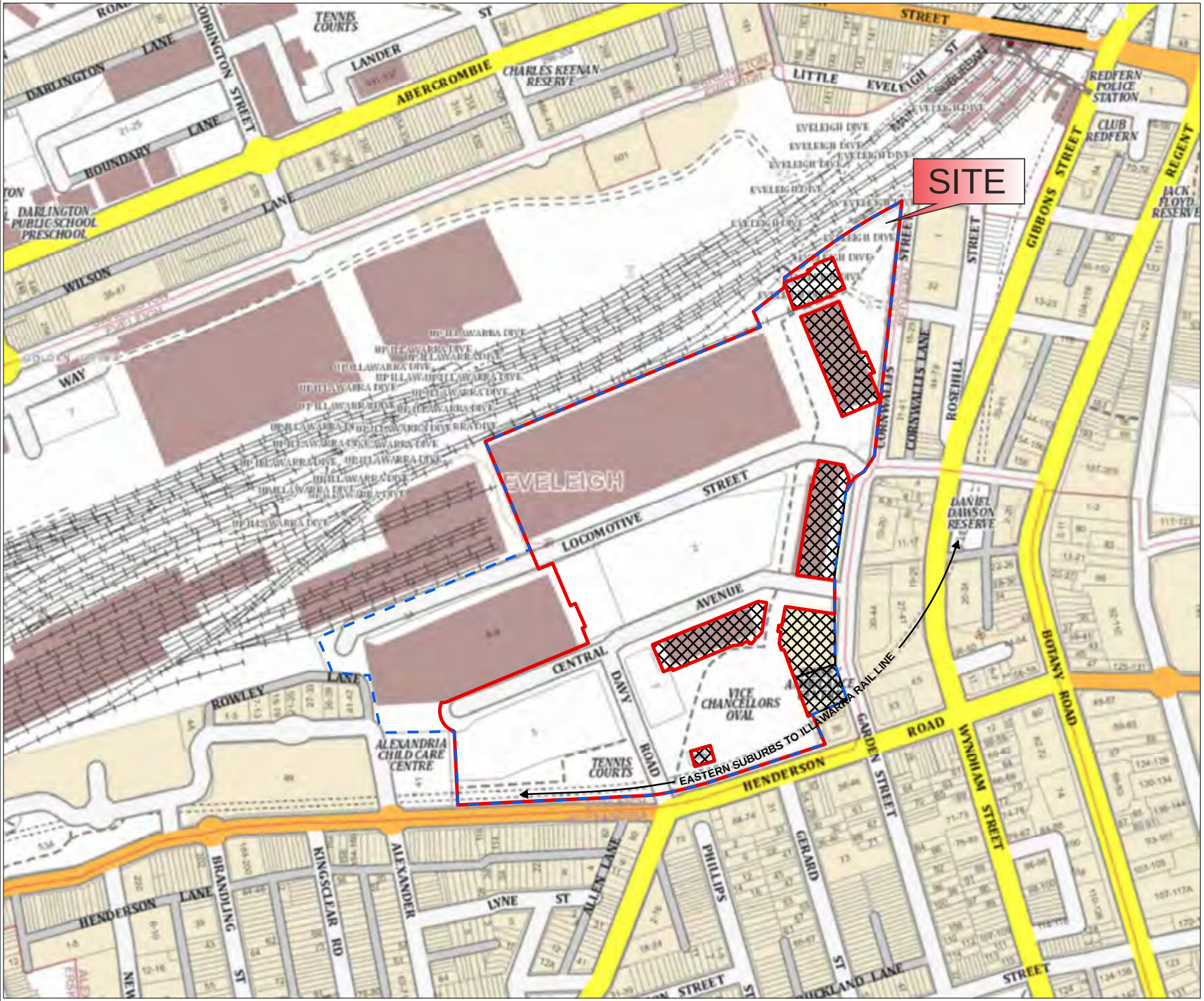
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Figures



Legend:

- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries Excluded from "The Site"

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

Scale 1:4,500

0 50 100
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SITE LOCATION

FIGURE 1:

File Name: 51142_01
Reference: https://maps.six.nsw.gov.au/



Legend:

- Approximate Boundary - ATP
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"
- UST (Inferred Historical Location)

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

Scale 1:3,500

0 40 80
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SITE LAYOUT

FIGURE 2:

File Name: 51142_02
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

ID	Easting	Northing
1	333246.146	6247884.562
2	333244.717	6247874.719
3	333249.004	6247868.846
4	333269.800	6247811.219
5	333273.907	6247812.619
6	333284.633	6247786.774
7	333132.920	6247742.202
8	332964.732	6247733.630
9	332961.638	6247797.811
10	332950.268	6247822.948
11	333078.318	6247874.821
12	333047.076	6247944.192
13	333035.035	6247939.195
14	332988.564	6248050.651
15	333228.276	6248150.135
16	333222.423	6248163.545
17	333249.014	6248184.579
18	333249.411	6248193.311
19	333351.804	6248259.986
20	333327.992	6248038.132
21	333318.864	6248024.242
22	333309.736	6248018.685
23	333303.883	6248008.013
24	333305.757	6248018.320
25	333300.730	6248030.093
26	333279.166	6248033.798
27	333277.976	6248026.257
28	333272.816	6248012.763
29	333259.852	6247933.917
30	333293.088	6247929.437
31	333293.229	6247899.961
32	333250.115	6247906.787
33	333247.099	6247890.118



Legend:

- Approximate Boundary - ATP Site
- Cadastral Boundaries
- Approximate Boundary - The Site

Lot and DP Boundaries

- Lot 8 DP1136859
- Lot 9 DP1136859
- Lot 10 DP1136859
- Lot 12 DP1136859
- Lot 4007 DP1194309
- Lot 4000 DP1194309
- Cadastral Boundaries Excluded from "The Site"
- Site Coordinate Location

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

Scale 1:2,500

0 40 80
metres

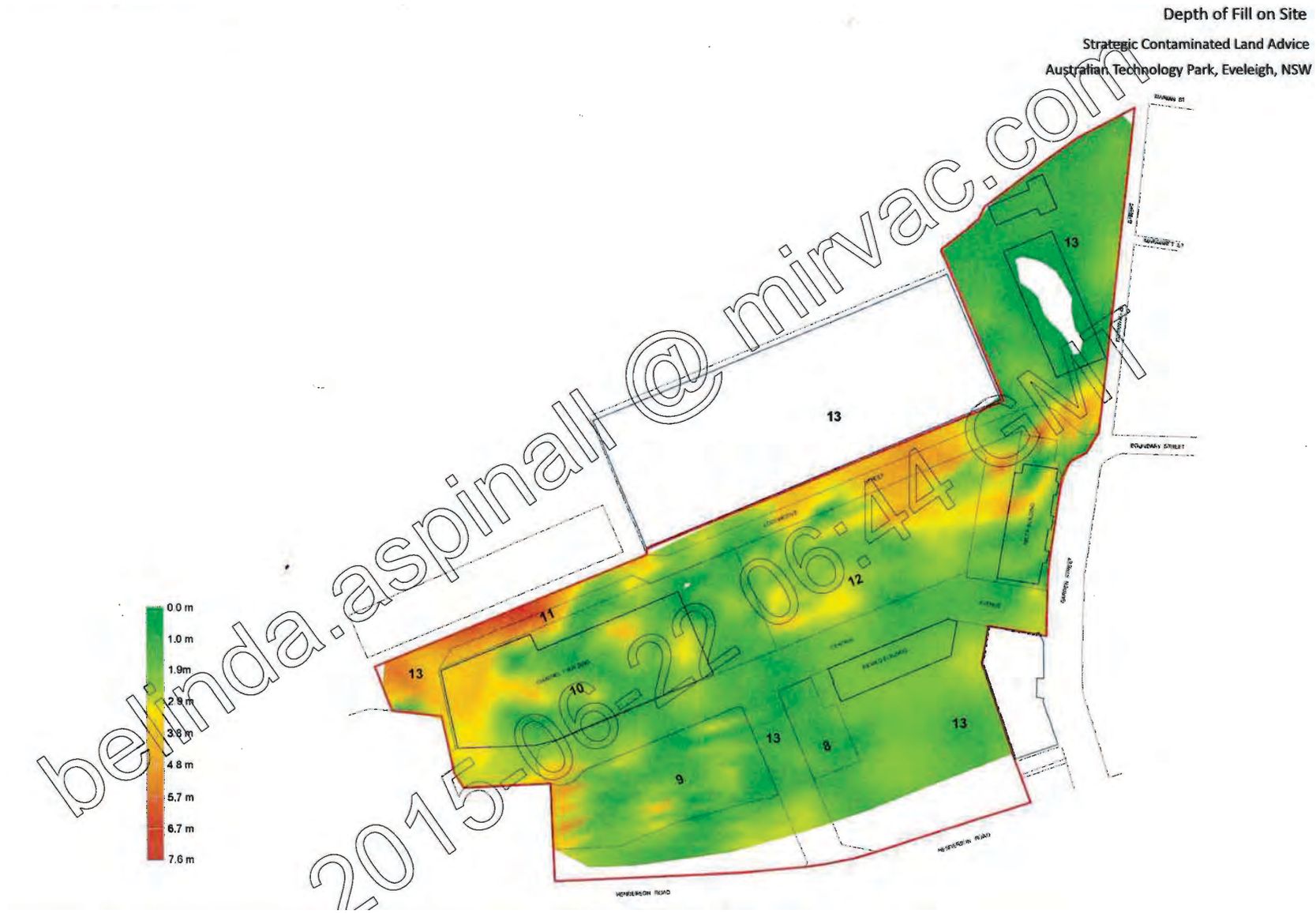
Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park Eveleigh, NSW

CADASTRE - LOT AND DP LOCATION

FIGURE 3:

File Name: 51142_03
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



belinda.aspinall@mirvac.com
2015-06-22 06:44 GMT

Legend:

JBS&G

Client: Mirvac

Version: R02 Rev B	Date: 23-Nov-2015
Drawn By: RF	Checked By: NC

Scale: Approximate

0 50 100
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

DEPTH OF FILL

FIGURE 4:

File Name: 51142_04
Reference: Adopted from Environmental Strategies, 2013, Strategic Contaminated Land Advice - Figure 5A



Legend:

- Approximate Boundary - ATP Site
- Approximate Boundary - "The Site"
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2015
Drawn By: RF	Checked By: NC

Scale: 1:3,500

0 40 80
metres

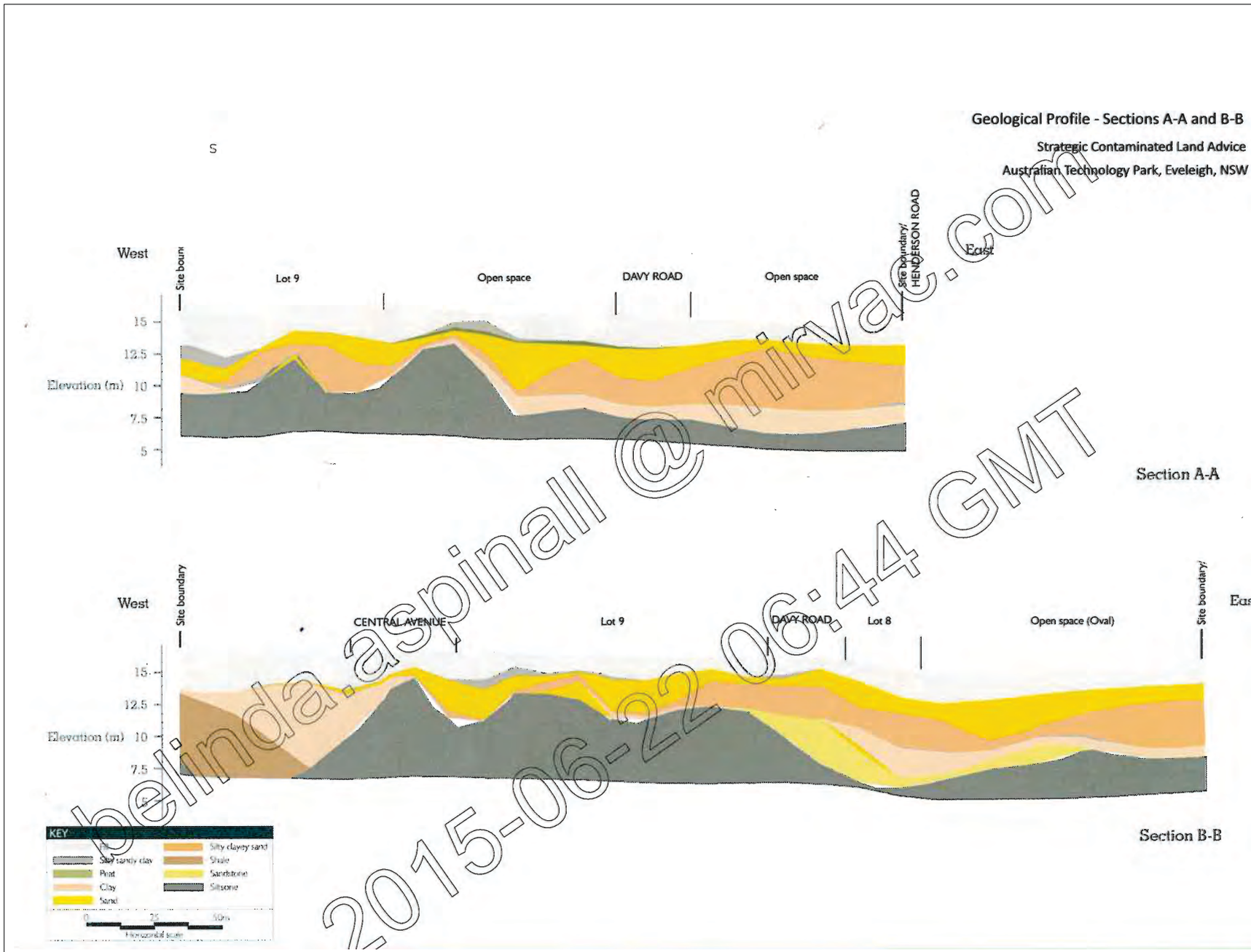
Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

CROSS SECTION LOCATIONS

FIGURE 5:

File Name: 51142_03
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



belinda.aspinall @ mirvac.com
2015-06-22 06:44 GMT

Legend:

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 16-Jun-2016
Drawn By: RF	Checked By: NC

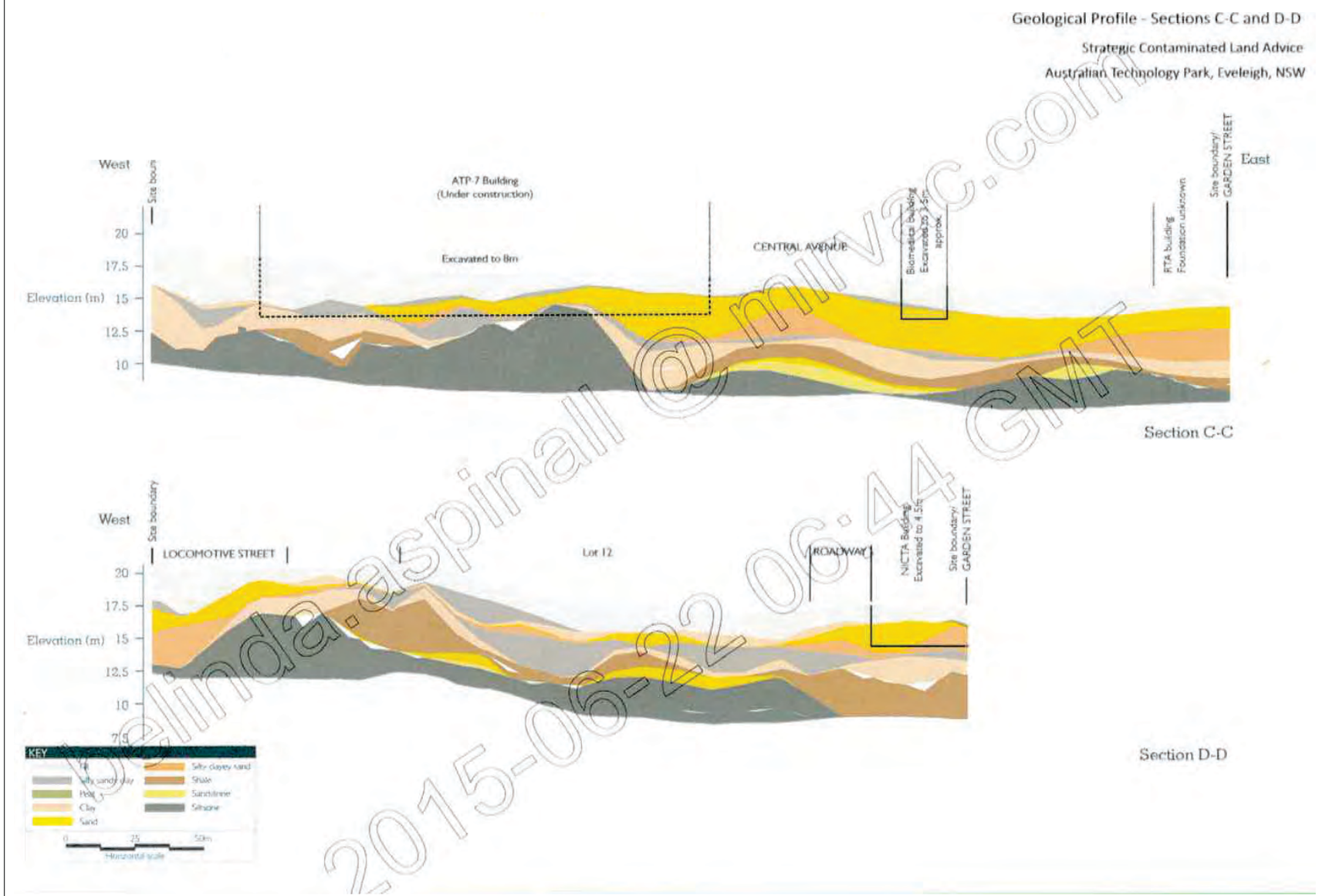
Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SECTIONS A-A and B-B

FIGURE 5a:

File Name: 51142_05a
Reference: Adopted from Environmental Strategies, 2013, Strategic Contaminated Land Advice - Figure 7A



Delinda.aspinall@mirvac.com
2015-06-22 06:44 GMT

Legend:

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: .15-Jun-2016
Drawn By: RF	Checked By: NC

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SECTIONS C-C to D-D

FIGURE 5b:

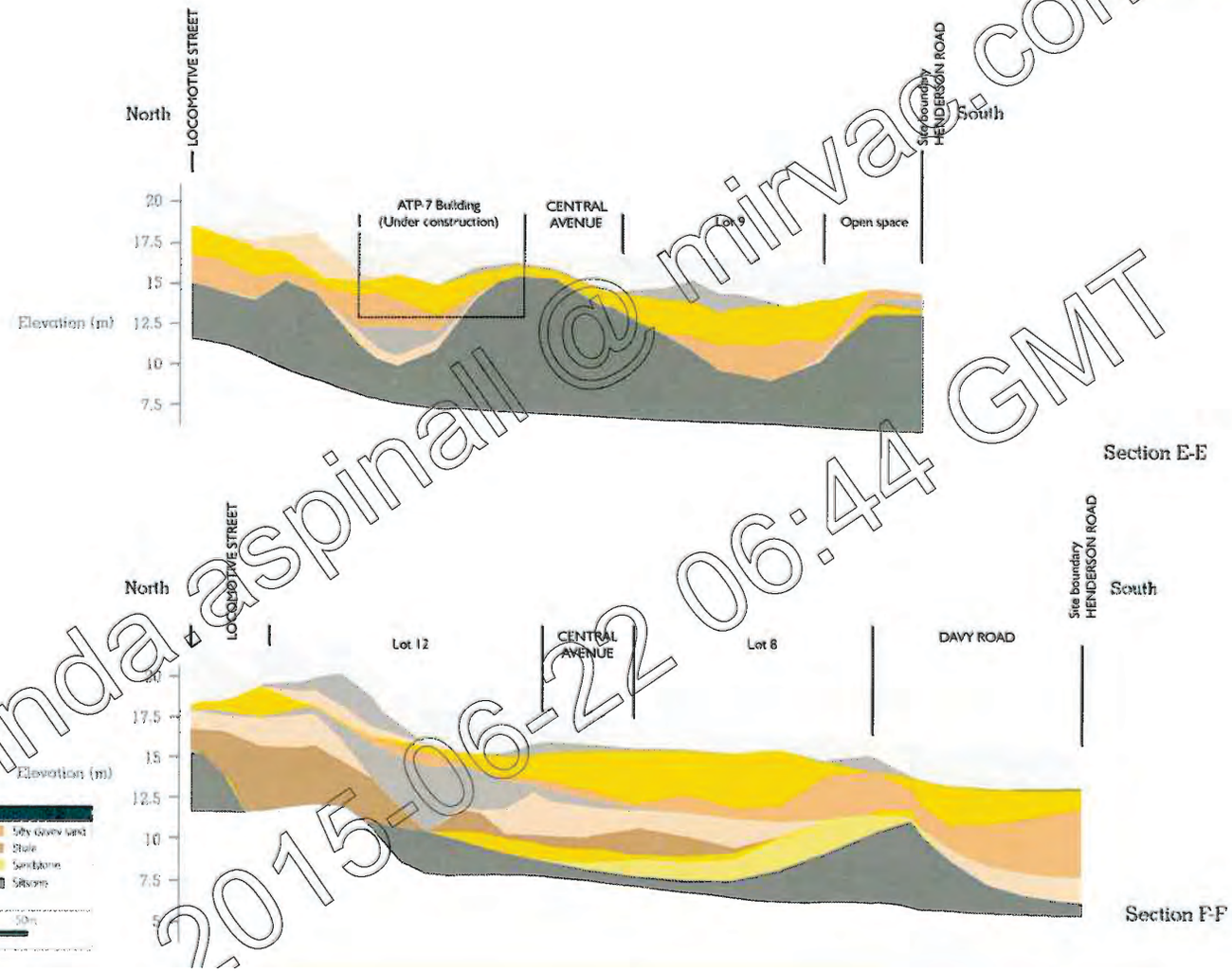
File Name: 51142_05b
Reference: Adopted from Environmental Strategies, 2013, Strategic Contaminated Land Advice - Figure 7B

5

Geological Profile - Sections E-E and F-F

Strategic Contaminated Land Advice

Australian Technology Park, Eveleigh, NSW



belinda.aspinall@mirvac.com 2015-06-22 06:44 GMT

Legend:

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SECTIONS E-E and F-F

FIGURE 5c:

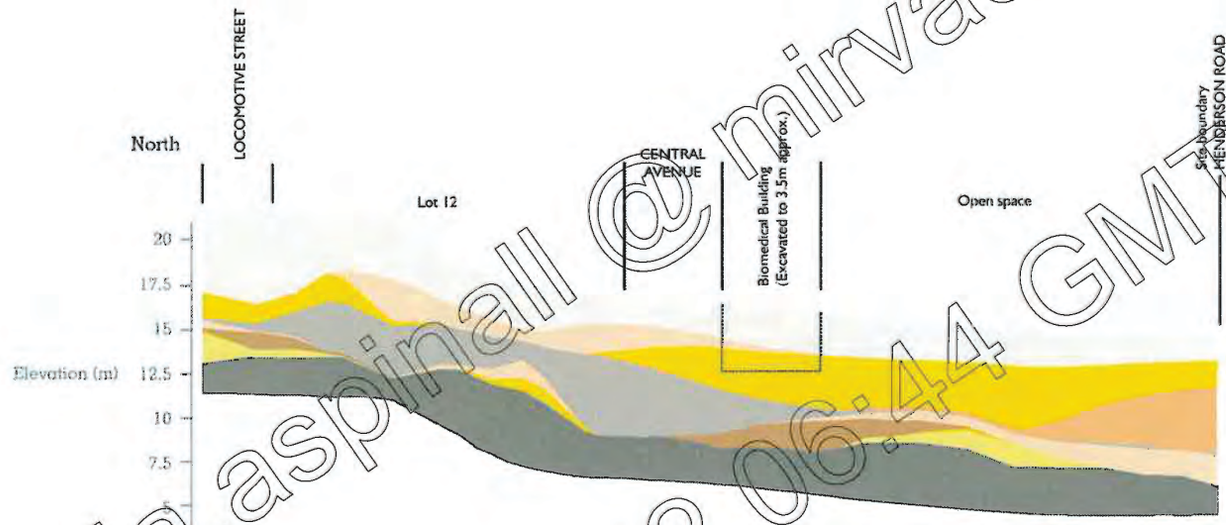
File Name: 51142_05c
Reference: Adopted from Environmental Strategies, 2013, Strategic Contaminated Land Advice - Figure 7C

S

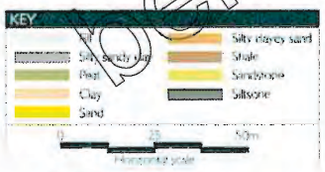
Geological Profile - Section G-G

Strategic Contaminated Land Advice

Australian Technology Park, Eveleigh, NSW



Section G-G



melinda.aspinall @mirvac.com 2015-06-22 06:44 GMT

Legend:

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

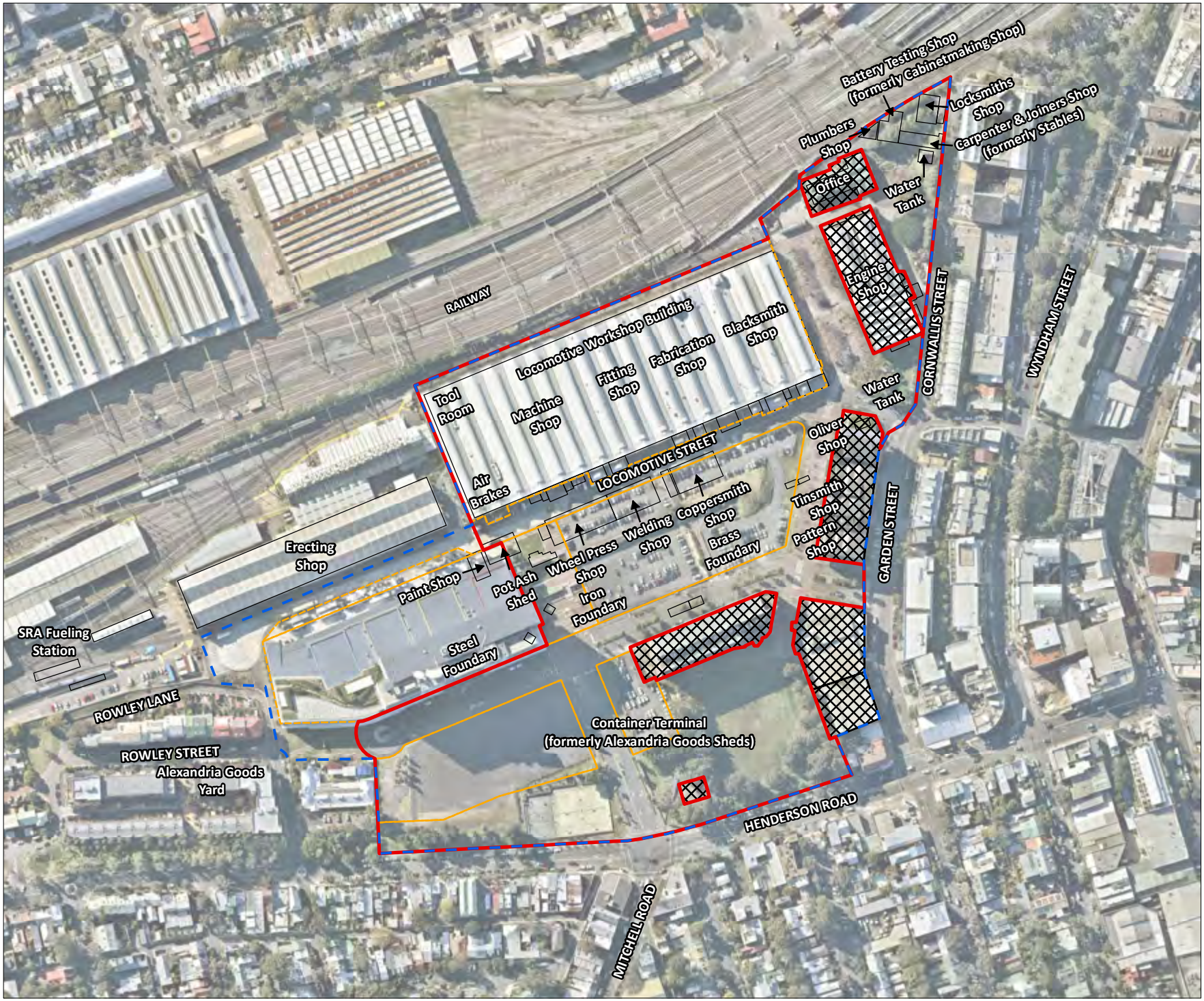
Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SECTIONS G-G

FIGURE 5d:

File Name: 51142_05d
Reference: Adopted from Environmental Strategies, 2013, Strategic Contaminated Land Advice - Figure 7D



Legend:

- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"
- Historic Site Layout

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

Scale 1:3,500

0 40 80
metres

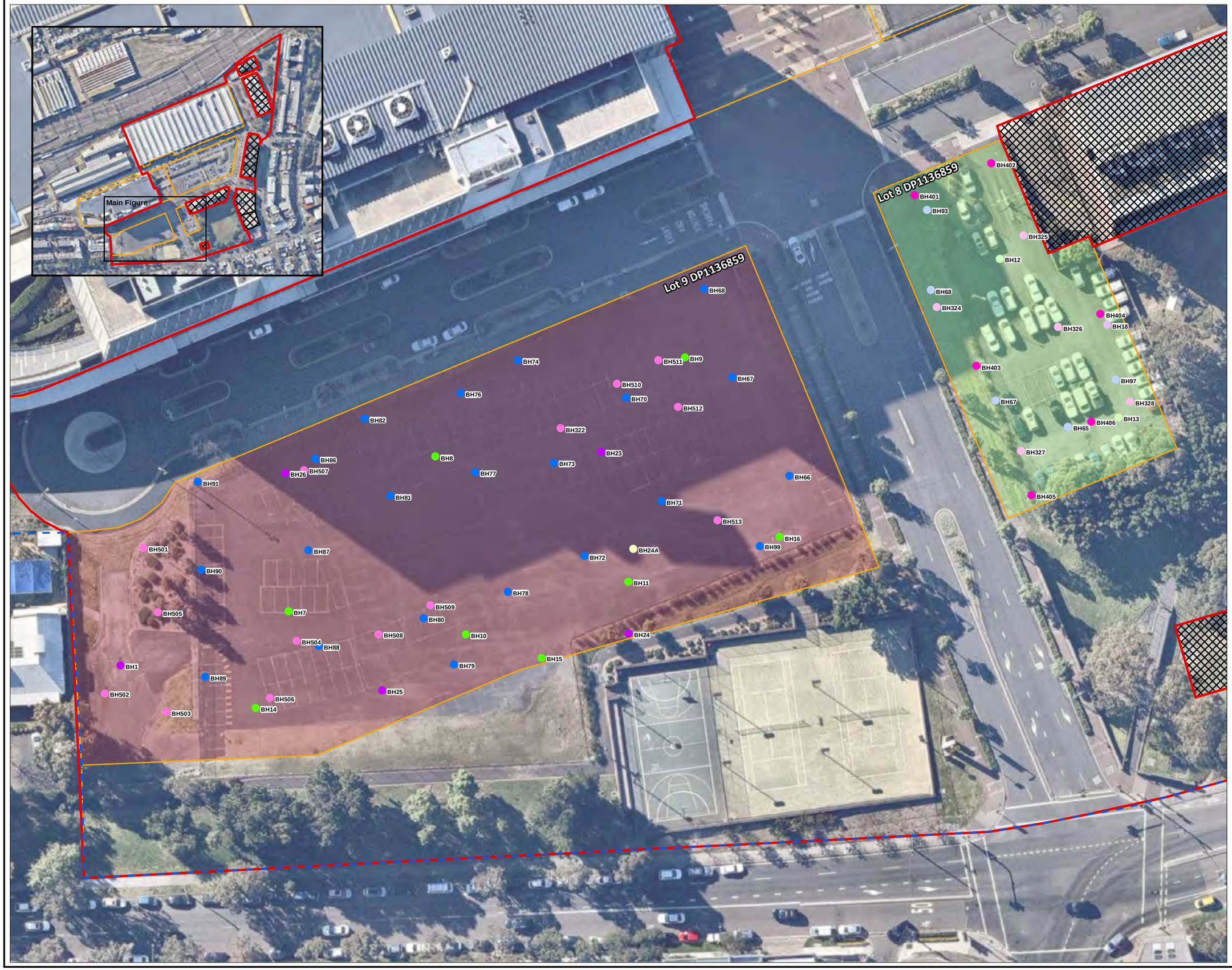
Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

HISTORICAL SITE LAYOUT

FIGURE 6:

File Name: 51142_06
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



Legend:

Historical Soil Sample Locations

- CMPS&F 1994 (ES 2014b) - Lot 9
- DP 2005a - Lot 8
- DP 2008 (ES 2014b) - Lot 9
- DP 2008a - Lot 8
- ES 2014a - Lot 8
- ES 2014b - Lot 9
- HLA 2001 (DP 2005a) - Lot 8
- HLA 2001 (ES 2014b) - Lot 9
- HLA 2001 (ES 2014e) - Lot 8
- JET 1993 (DP 2005a) - Lot 8
- JET 1993 (ES 2014b) - Lot 9
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Lot & DP

- Lot 8 DP1136859
- Lot 9 DP1136859

JBS&G

Job No: 51142	
Client: Mirvac	
Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

Scale 1:650

0 14
metres

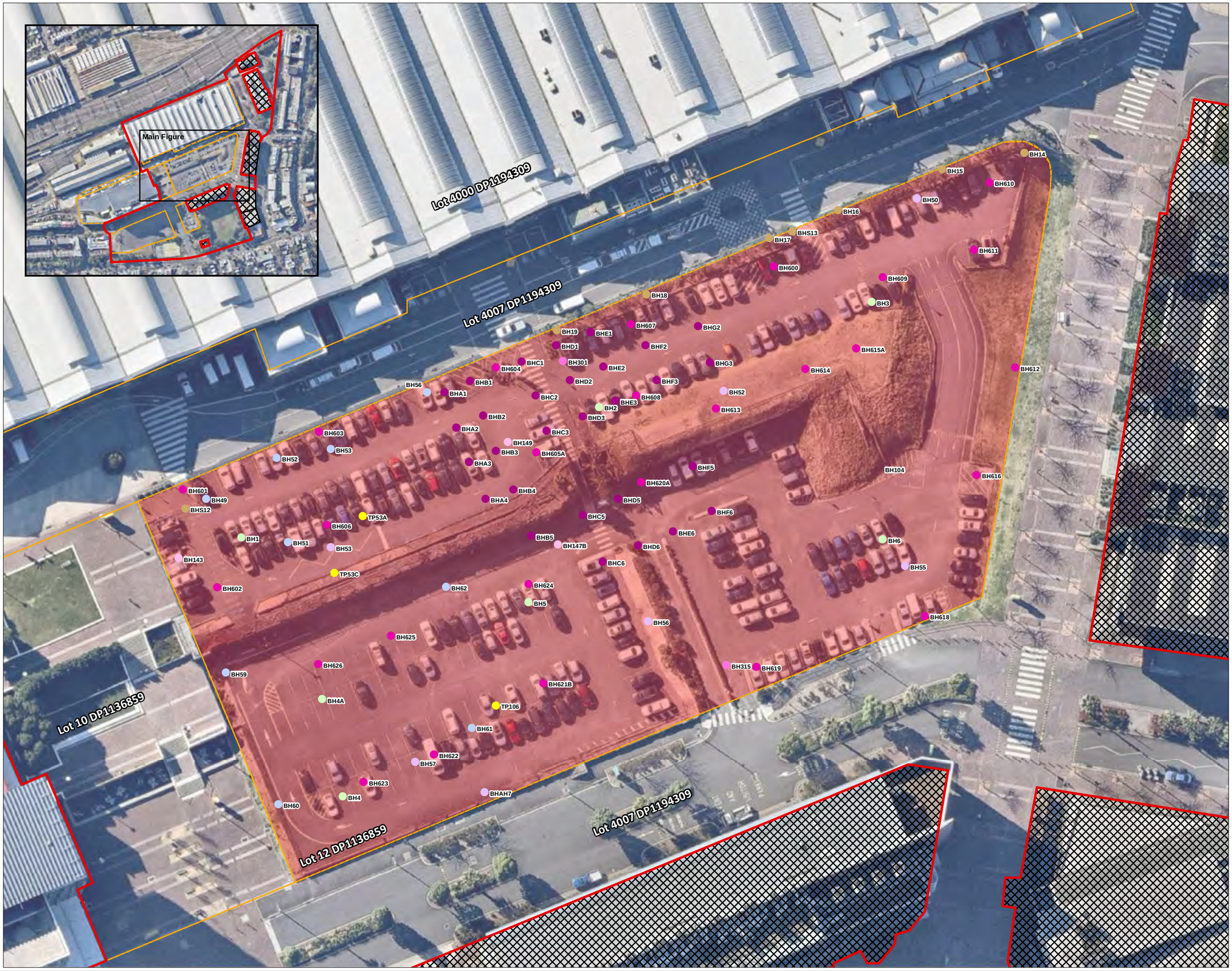
Coord. Sys. GDA 1994 MGA Zone 56

Australia Technology Park Eveleigh, NSW

HISTORIC SOIL SAMPLE LOCATIONS LOT 8 AND 9

FIGURE 7A:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_07a.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



Legend:

Historical Soil Sample Locations

- CMP&F 1993 (ES 2014e) - Lot 12
- CMPS&F 1994 (ES 2014c) - Lot 12
- DP 2003 (ES 2014c) - Lot 12
- DP 2005a - Lot 12
- DP 2008 (ES 2014c) - Lot 12
- DP 2009 (ES 2014c) - Lot 12
- ES 2014 (ES 2014c) - Lot 12
- GETEX 2013 (ES 2014c) - Lot 12
- HLA 2001 (ES 2014c) - Lot 12
- JET 1993 (ES 2014c) - Lot 12
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Lot & DP

- Lot 12 DP1136859

JBS&G

Job No: 51142	
Client: Mirvac	
Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

Scale 1:650

0 14
metres

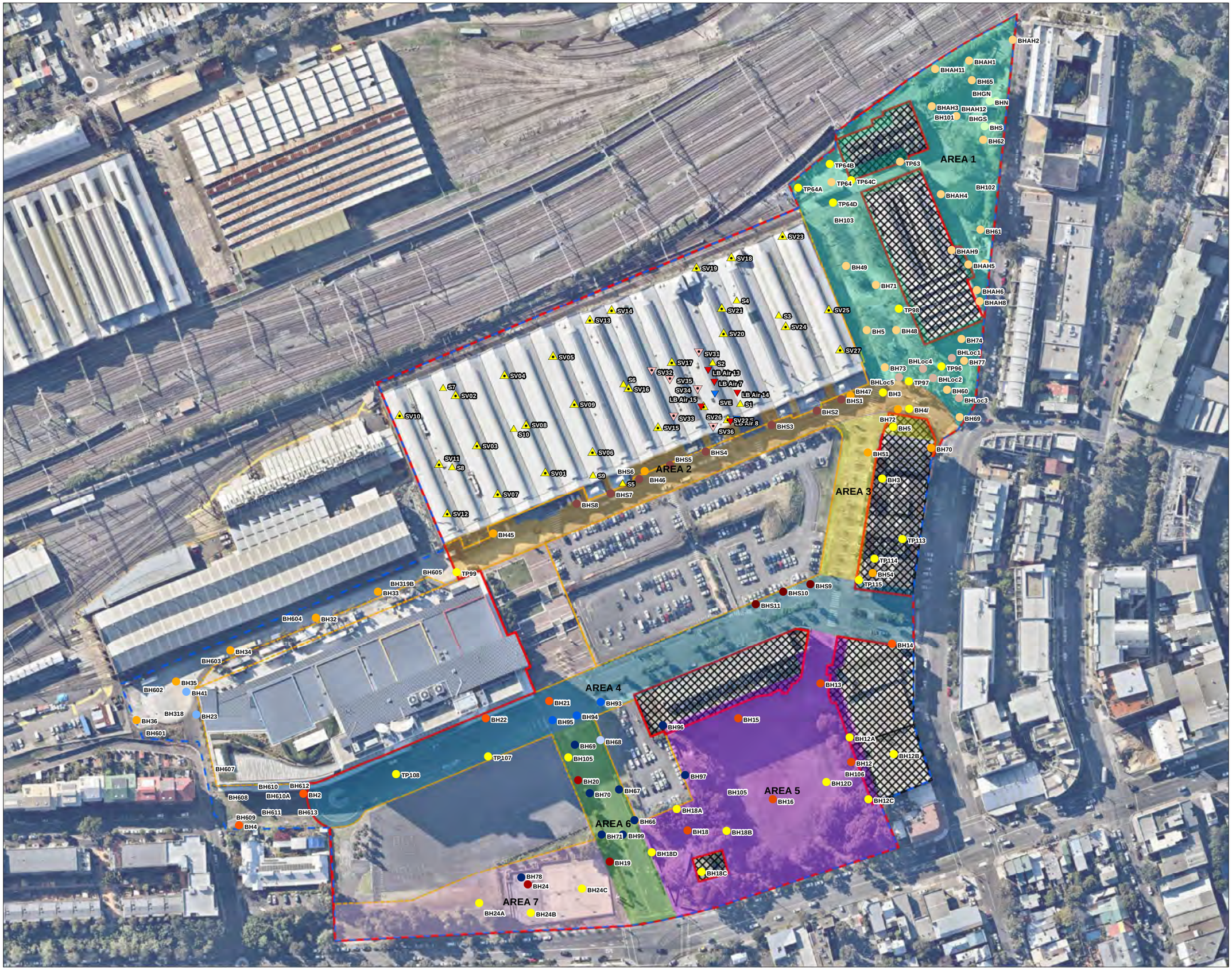
Coord. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

HISTORIC SOIL SAMPLE LOCATIONS LOT 12

FIGURE 7B:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_07b.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



Legend:

Historical Ambient Air and Soil Vapour Locations

- Ambient Air DP 2010c
- Ambient Air ES 2015a
- Soil Vapour ES 2015a
- Soil Vapour Location - JBS&G May 20 2016
- Soil Vapour Location - JBS&G May 5-6 2016

Historical Soil Sample Locations

- CMPS&F 1993 (ES 2014e) - Lot 13 Area 1
- ES 2010 (ES2014e) - Lot 13 Area 1
- GETEX 2011-2013 (ES 2014e) - Lot 13 Area 1
- GETEX 2011-2013 (ES 2014e) - Lot 13 Area 2
- GETEX 2011-2013 (ES 2014e) - Lot 13 Area 4
- HLA 2001 (DP 2005a) - Lot 13 Area 6
- HLA 2001 (ES 2014e) - Lot 13 Area 2
- HLA 2001 (ES 2014e) - Lot 13 Area 4
- HLA 2001 (ES 2014e) - Lot 13 Area 5
- HLA 2001 (ES 2014e) - Lot 13 Area 6
- HLA 2001 (ES 2014e) - Lot 13 Area 7
- JET 1993 (ES 2014e) - Lot 13 Area 1
- JET 1993 (ES 2014e) - Lot 13 Area 2
- JET 1993 (ES 2014e) - Lot 13 Area 4
- JET 1993 (ES 2014e) - Lot 13 Area 5
- JET 1993 (ES 2014e) - Lot 13 Area 6
- JET 1993 (ES 2014e) - Lot 13 Area 7
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Development Area - Lot 4007

- AREA 1
- AREA 2
- AREA 3
- AREA 4
- AREA 5
- AREA 6
- AREA 7

JBS&G

Job No: 51142

Client: Mirvac

Version: R02 Rev 0 | Date: 15-Jun-2016

Drawn By: RF | Checked By: NC

Scale 1:2,000

0 40
metres

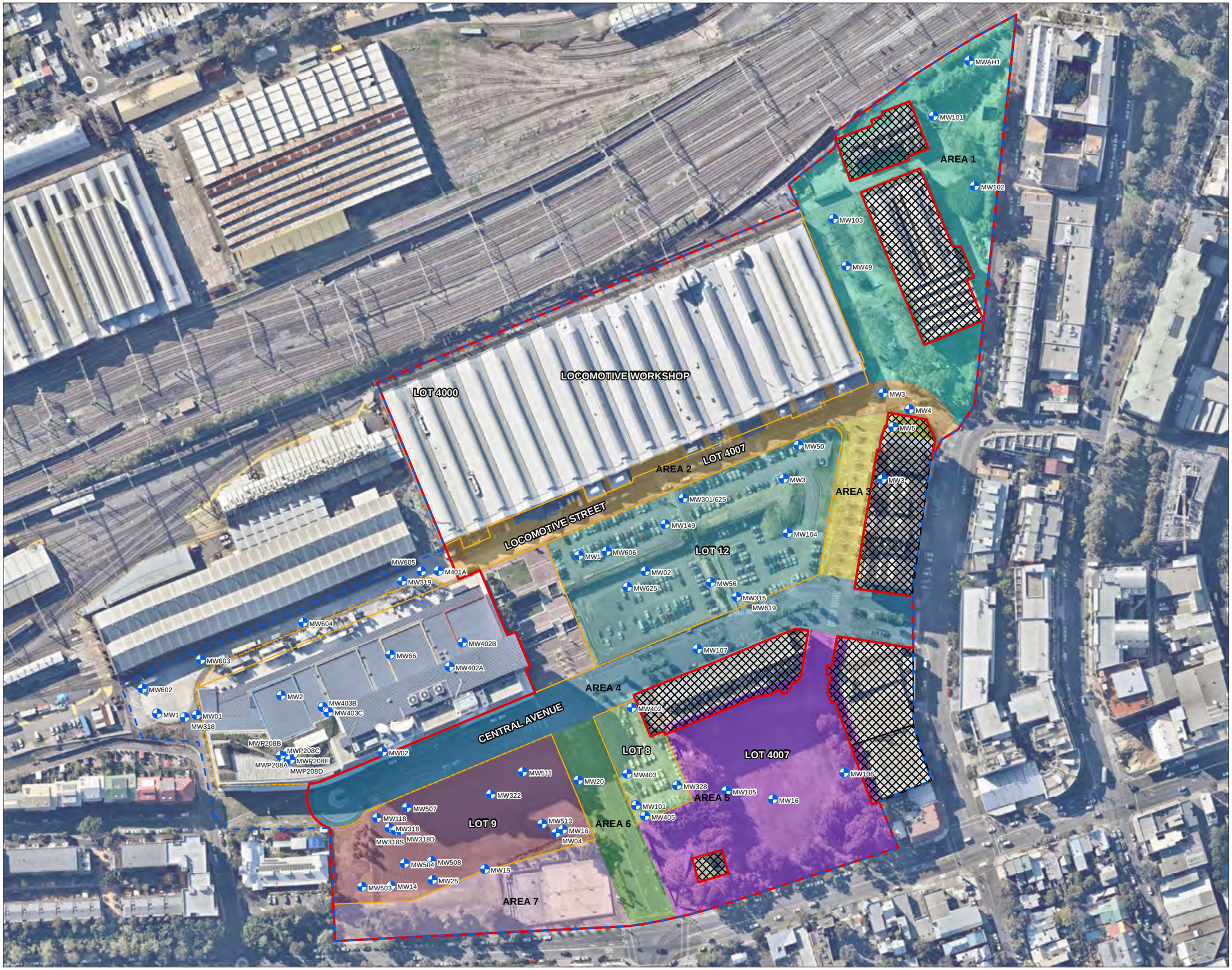
Coord. Sys. GDA 1994 MGA Zone 56

Australia Technology Park Eveleigh, NSW

HISTORIC SOIL/SOIL VAPOUR SAMPLE LOCATIONS LOTS 4000 AND 4007

FIGURE 7C:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_07c.mxd
Reference:



Legend:

- Historical Groundwater Monitoring Location
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Development Area - Lot 4007

- AREA 1
- AREA 2
- AREA 3
- AREA 4
- AREA 5
- AREA 6
- AREA 7

Lot & DP

- Lot 12 DP1136859
- Lot 8 DP1136859
- Lot 9 DP1136859

JBS&G

Job No: 51142	
Client: Mirvac	
Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC
Scale 1:2,000	

0 40
metres

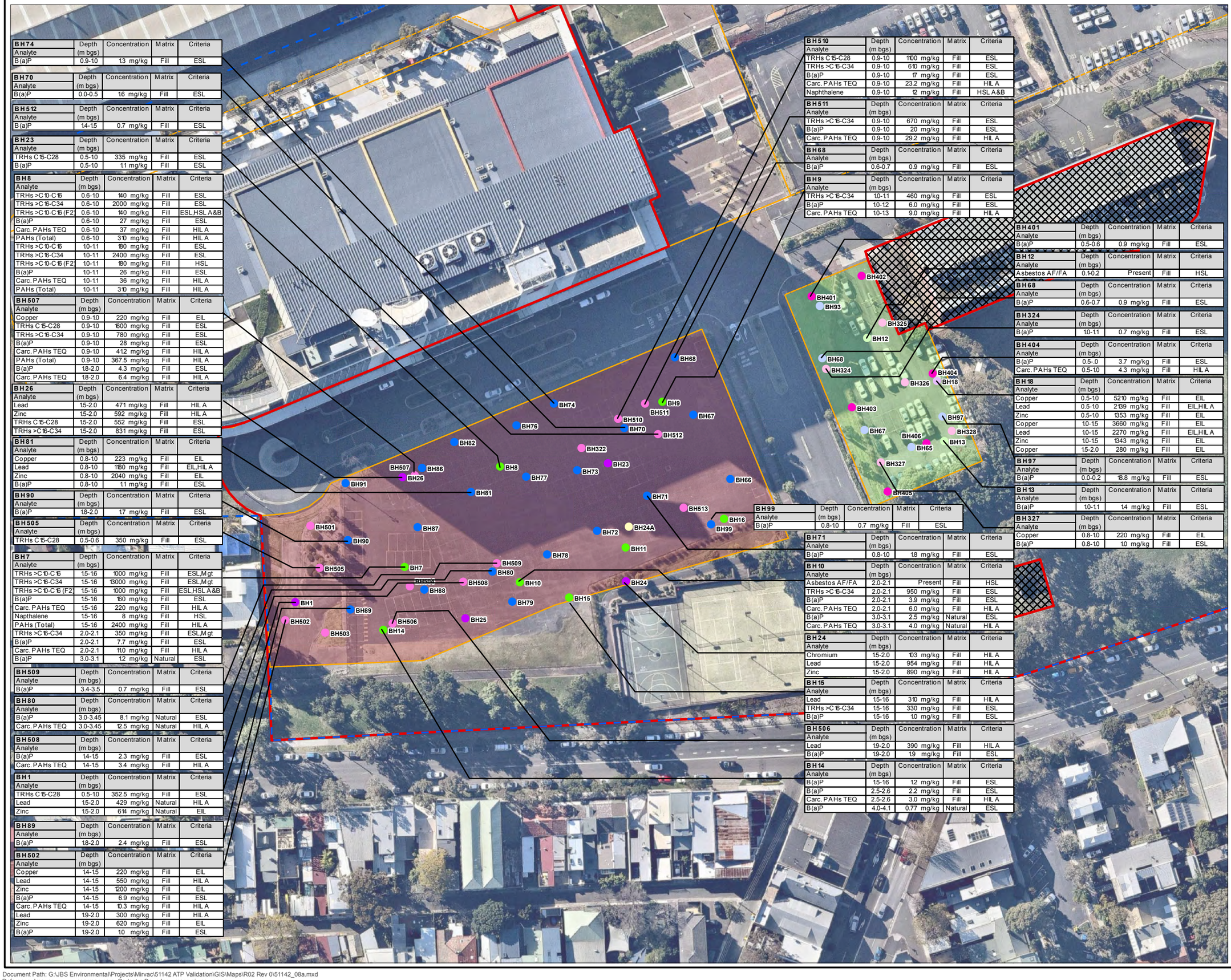
Coord. Sys. GDA 1994 MGA Zone 56

Australia Technology Park Eveleigh, NSW

HISTORIC GROUNDWATER MONITORING WELL LOCATIONS

FIGURE 7D:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_07d.mxd
Reference:



BH74	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.9-10	13 mg/kg	Fill	ESL

BH70	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.0-0.5	16 mg/kg	Fill	ESL

BH512	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	14-15	0.7 mg/kg	Fill	ESL

BH23	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C15-C28	0.5-10	335 mg/kg	Fill	ESL
B(a)P	0.5-10	1.1 mg/kg	Fill	ESL

BH8	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs >C10-C16	0.6-10	140 mg/kg	Fill	ESL
TRHs >C16-C34	0.6-10	2000 mg/kg	Fill	ESL
TRHs >C10-C16 (F2	0.6-10	140 mg/kg	Fill	ESL,HSL A&B
B(a)P	0.6-10	27 mg/kg	Fill	ESL
Carc. PAHs TEQ	0.6-10	37 mg/kg	Fill	HIL A
PAHs (Total)	0.6-10	310 mg/kg	Fill	HIL A
TRHs >C10-C16	10-11	180 mg/kg	Fill	ESL
TRHs >C16-C34	10-11	2400 mg/kg	Fill	ESL
TRHs >C10-C16 (F2	10-11	180 mg/kg	Fill	HSL
B(a)P	10-11	26 mg/kg	Fill	ESL
Carc. PAHs TEQ	10-11	36 mg/kg	Fill	HIL A
PAHs (Total)	10-11	310 mg/kg	Fill	HIL A

BH507	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.9-10	220 mg/kg	Fill	EIL
TRHs C15-C28	0.9-10	1600 mg/kg	Fill	ESL
TRHs >C16-C34	0.9-10	780 mg/kg	Fill	ESL
B(a)P	0.9-10	28 mg/kg	Fill	ESL
Carc. PAHs TEQ	0.9-10	412 mg/kg	Fill	HIL A
PAHs (Total)	0.9-10	367.5 mg/kg	Fill	HIL A
B(a)P	18-2.0	4.3 mg/kg	Fill	ESL
Carc. PAHs TEQ	18-2.0	6.4 mg/kg	Fill	HIL A

BH26	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Lead	1.5-2.0	471 mg/kg	Fill	HIL A
Zinc	1.5-2.0	592 mg/kg	Fill	HIL A
TRHs C15-C28	1.5-2.0	552 mg/kg	Fill	ESL
TRHs >C16-C34	1.5-2.0	831 mg/kg	Fill	ESL

BH81	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.8-10	223 mg/kg	Fill	EIL
Lead	0.8-10	1180 mg/kg	Fill	EIL,HIL A
Zinc	0.8-10	2040 mg/kg	Fill	EIL
B(a)P	0.8-10	1.1 mg/kg	Fill	ESL

BH90	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	1.8-2.0	1.7 mg/kg	Fill	ESL

BH505	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C15-C28	0.5-0.6	350 mg/kg	Fill	ESL

BH7	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs >C10-C16	1.5-1.6	1000 mg/kg	Fill	ESL,M,gt
TRHs >C16-C34	1.5-1.6	13000 mg/kg	Fill	ESL,M,gt
TRHs >C10-C16 (F2	1.5-1.6	1000 mg/kg	Fill	ESL,HSL A&B
B(a)P	1.5-1.6	160 mg/kg	Fill	ESL
Carc. PAHs TEQ	1.5-1.6	220 mg/kg	Fill	HIL A
Napthalene	1.5-1.6	8 mg/kg	Fill	HSL
PAHs (Total)	1.5-1.6	2400 mg/kg	Fill	HIL A
TRHs >C16-C34	2.0-2.1	350 mg/kg	Fill	ESL,M,gt
B(a)P	2.0-2.1	7.7 mg/kg	Fill	ESL
Carc. PAHs TEQ	2.0-2.1	110 mg/kg	Fill	HIL A
B(a)P	3.0-3.1	12 mg/kg	Natural	ESL

BH509	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	3.4-3.5	0.7 mg/kg	Fill	ESL

BH80	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	3.0-3.45	8.1 mg/kg	Natural	ESL
Carc. PAHs TEQ	3.0-3.45	12.5 mg/kg	Natural	HIL A

BH508	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	1.4-1.5	2.3 mg/kg	Fill	ESL
Carc. PAHs TEQ	1.4-1.5	3.4 mg/kg	Fill	HIL A

BH1	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C15-C28	0.5-1.0	352.5 mg/kg	Fill	ESL
Lead	1.5-2.0	429 mg/kg	Natural	HIL A
Zinc	1.5-2.0	614 mg/kg	Natural	EIL

BH89	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	1.8-2.0	2.4 mg/kg	Fill	ESL

BH502	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	1.4-1.5	220 mg/kg	Fill	EIL
Lead	1.4-1.5	550 mg/kg	Fill	HIL A
Zinc	1.4-1.5	1200 mg/kg	Fill	EIL
B(a)P	1.4-1.5	6.9 mg/kg	Fill	ESL
Carc. PAHs TEQ	1.4-1.5	10.3 mg/kg	Fill	HIL A
Lead	1.9-2.0	300 mg/kg	Fill	HIL A
Zinc	1.9-2.0	620 mg/kg	Fill	EIL
B(a)P	1.9-2.0	1.0 mg/kg	Fill	ESL

BH510	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C15-C28	0.9-1.0	1100 mg/kg	Fill	ESL
TRHs >C16-C34	0.9-1.0	610 mg/kg	Fill	ESL
B(a)P	0.9-1.0	17 mg/kg	Fill	ESL
Carc. PAHs TEQ	0.9-1.0	23.2 mg/kg	Fill	HIL A
Naphthalene	0.9-1.0	12 mg/kg	Fill	HSL A&B

BH511	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs >C16-C34	0.9-1.0	670 mg/kg	Fill	ESL
B(a)P	0.9-1.0	20 mg/kg	Fill	ESL
Carc. PAHs TEQ	0.9-1.0	29.2 mg/kg	Fill	HIL A

BH68	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.6-0.7	0.9 mg/kg	Fill	ESL

BH9	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs >C16-C34	10-11	460 mg/kg	Fill	ESL
B(a)P	10-12	6.0 mg/kg	Fill	ESL
Carc. PAHs TEQ	10-13	9.0 mg/kg	Fill	HIL A

BH99	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.8-1.0	0.7 mg/kg	Fill	ESL

BH71	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.8-1.0	1.8 mg/kg	Fill	ESL

BH10	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Asbestos AF/FA	2.0-2.1	Present	Fill	HSL
TRHs >C16-C34	2.0-2.1	950 mg/kg	Fill	ESL
B(a)P	2.0-2.1	3.9 mg/kg	Fill	ESL
Carc. PAHs TEQ	2.0-2.1	6.0 mg/kg	Fill	HIL A
B(a)P	3.0-3.1	2.5 mg/kg	Natural	ESL
Carc. PAHs TEQ	3.0-3.1	4.0 mg/kg	Natural	HIL A

BH24	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Chromium	1.5-2.0	103 mg/kg	Fill	HIL A
Lead	1.5-2.0	954 mg/kg	Fill	HIL A
Zinc	1.5-2.0	890 mg/kg	Fill	HIL A

BH15	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Lead	1.5-1.6	310 mg/kg	Fill	HIL A
TRHs >C16-C34	1.5-1.6	330 mg/kg	Fill	ESL
B(a)P	1.5-1.6	1.0 mg/kg	Fill	ESL

BH506	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Lead	1.9-2.0	390 mg/kg	Fill	HIL A
B(a)P	1.9-2.0	1.9 mg/kg	Fill	ESL

BH14	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	1.5-1.6	1.2 mg/kg	Fill	ESL
B(a)P	2.5-2.6	2.2 mg/kg	Fill	ESL
Carc. PAHs TEQ	2.5-2.6	3.0 mg/kg	Fill	HIL A
B(a)P	4.0-4.1	0.77 mg/kg	Natural	ESL

BH401	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.5-0.6	0.9 mg/kg	Fill	ESL

BH12	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Asbestos AF/FA	0.1-0.2	Present	Fill	HSL

BH68	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.6-0.7	0.9 mg/kg	Fill	ESL

BH324	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	10-11	0.7 mg/kg	Fill	ESL

BH404	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.5-.0	3.7 mg/kg	Fill	ESL
Carc. PAHs TEQ	0.5-1.0	4.3 mg/kg	Fill	HIL A

BH18	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-1.0	5210 mg/kg	Fill	EIL
Lead	0.5-1.0	2139 mg/kg	Fill	EIL,HIL A
Zinc	0.5-1.0	1353 mg/kg	Fill	EIL
Copper	10-15	3660 mg/kg	Fill	EIL
Lead	10-15	2270 mg/kg	Fill	EIL,HIL A
Zinc	10-15	1343 mg/kg	Fill	EIL
Copper	1.5-2.0	280 mg/kg	Fill	EIL

BH97	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.0-0.2	18.8 mg/kg	Fill	ESL

BH13	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	10-11	14 mg/kg	Fill	ESL

BH327	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.8-1.0	220 mg/kg	Fill	EIL
B(a)P	0.8-1.0	1.0 mg/kg	Fill	ESL

Legend:

Historical Soil Sample Locations

- CMPS&F 1994 (ES 2014b) - Lot 9
- DP 2005a - Lot 8
- DP 2008 (ES 2014b) - Lot 9
- DP 2008a - Lot 8
- ES 2014a - Lot 8
- ES 2014b - Lot 9
- HLA 2001 (DP 2005a) - Lot 8
- HLA 2001 (ES 2014b) - Lot 9
- HLA 2001 (ES 2014e) - Lot 8
- JET 1993 (DP 2005a) - Lot 8
- JET 1993 (ES 2014b) - Lot 9
- Approximate Boundary - ATP
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Lot & DP

- Lot 8 DP1136859
- Lot 9 DP1136859

JBS&G

Job No: 51142

Client: Mirvac

Version: R02 Rev 0 | Date: 15-Jun-2016

Drawn By: RF | Checked By: NC

Scale 1:1,000

0 20
metres

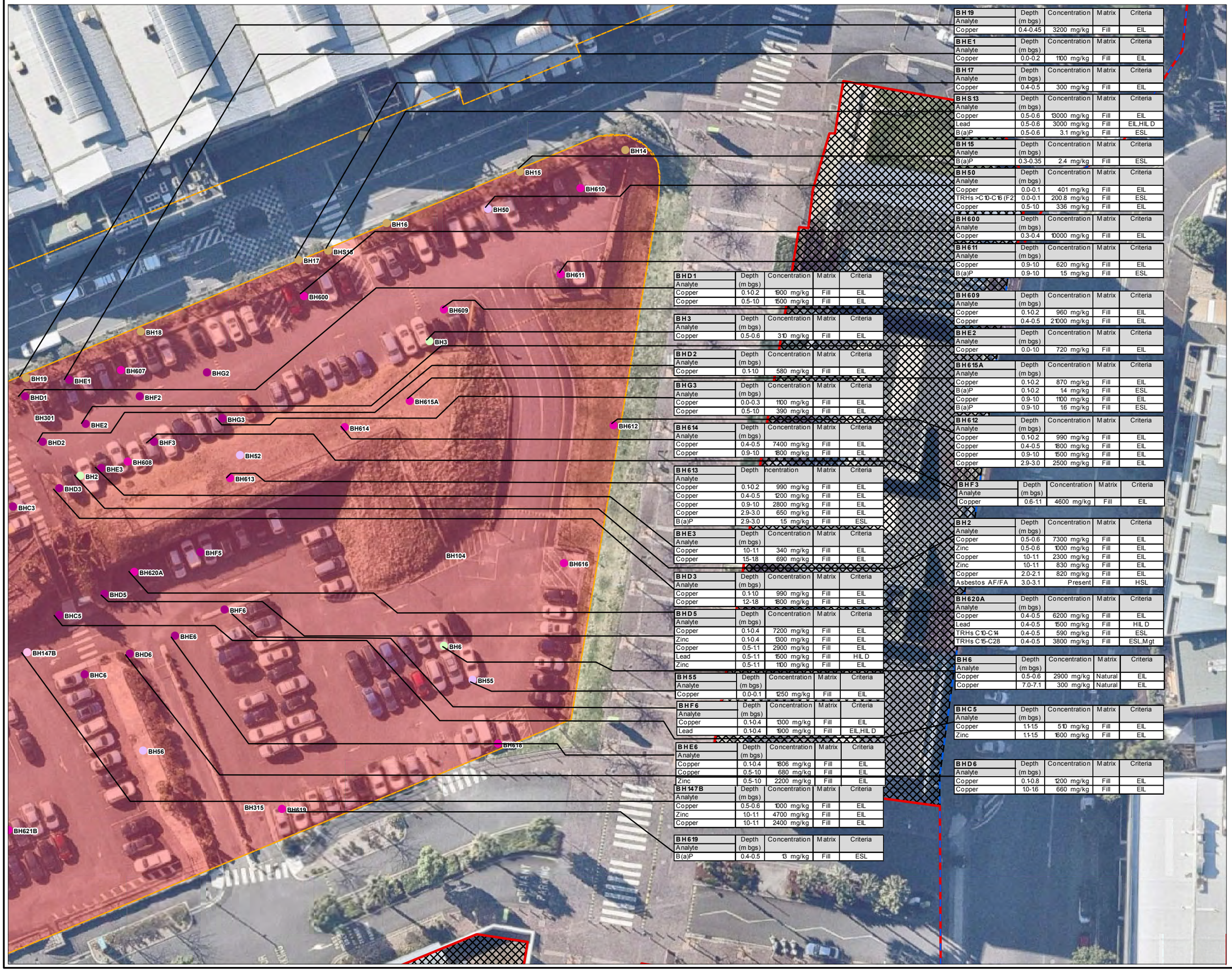
Coord. Sys. GDA 1994 MGA Zone 56

Australia Technology Park Eveleigh, NSW

HISTORIC EXCEEDANCES IN SOIL AND REMEDIAL EXTENT - LOT 8 AND 9

FIGURE 8A:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_08a.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



BH19	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.4-0.45	3200 mg/kg	Fill	EIL

BHE1	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.2	1100 mg/kg	Fill	EIL

BH17	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.4-0.5	300 mg/kg	Fill	EIL

BHS13	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-0.6	13000 mg/kg	Fill	EIL
Lead	0.5-0.6	3000 mg/kg	Fill	EIL,HIL D
B(a)P	0.5-0.6	3.1 mg/kg	Fill	ESL

BH15	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.3-0.35	2.4 mg/kg	Fill	ESL

BH50	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	401 mg/kg	Fill	EIL
TRHs >C10-C16 (F2	0.0-0.1	200.8 mg/kg	Fill	ESL
Copper	0.5-1.0	336 mg/kg	Fill	EIL

BH600	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.3-0.4	10000 mg/kg	Fill	EIL

BH611	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.9-1.0	620 mg/kg	Fill	EIL
B(a)P	0.9-1.0	15 mg/kg	Fill	ESL

BHD1	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.2	1900 mg/kg	Fill	EIL
Copper	0.5-1.0	1500 mg/kg	Fill	EIL

BH609	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.2	960 mg/kg	Fill	EIL
Copper	0.4-0.5	21000 mg/kg	Fill	EIL

BH3	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-0.6	310 mg/kg	Fill	EIL

BHE2	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-1.0	720 mg/kg	Fill	EIL

BHD2	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-1.0	580 mg/kg	Fill	EIL

BH615A	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.2	870 mg/kg	Fill	EIL
B(a)P	0.1-0.2	14 mg/kg	Fill	ESL
Copper	0.9-1.0	1100 mg/kg	Fill	EIL
B(a)P	0.9-1.0	16 mg/kg	Fill	ESL

BHG3	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.3	1100 mg/kg	Fill	EIL
Copper	0.5-1.0	390 mg/kg	Fill	EIL

BH612	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.2	990 mg/kg	Fill	EIL
Copper	0.4-0.5	1800 mg/kg	Fill	EIL
Copper	0.9-1.0	1500 mg/kg	Fill	EIL
Copper	2.9-3.0	2500 mg/kg	Fill	EIL

BH614	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.4-0.5	7400 mg/kg	Fill	EIL
Copper	0.9-1.0	1800 mg/kg	Fill	EIL

BHF3	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.6-1.1	4600 mg/kg	Fill	EIL

BH613	Depth	ncentration	Matrix	Criteria
Analyte				
Copper	0.1-0.2	990 mg/kg	Fill	EIL
Copper	0.4-0.5	1200 mg/kg	Fill	EIL
Copper	0.9-1.0	2800 mg/kg	Fill	EIL
Copper	2.9-3.0	650 mg/kg	Fill	EIL
B(a)P	2.9-3.0	15 mg/kg	Fill	ESL

BH2	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-0.6	7300 mg/kg	Fill	EIL
Zinc	0.5-0.6	1000 mg/kg	Fill	EIL
Copper	1.0-1.1	2300 mg/kg	Fill	EIL
Zinc	1.0-1.1	830 mg/kg	Fill	EIL
Copper	2.0-2.1	820 mg/kg	Fill	EIL
Asbestos AF/FA	3.0-3.1	Present	Fill	HSL

BHE3	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	1.0-1.1	340 mg/kg	Fill	EIL
Copper	1.5-1.8	690 mg/kg	Fill	EIL

BH620A	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.4-0.5	6200 mg/kg	Fill	EIL
Lead	0.4-0.5	1500 mg/kg	Fill	HIL D
TRHs C10-C14	0.4-0.5	590 mg/kg	Fill	ESL
TRHs C15-C28	0.4-0.5	3800 mg/kg	Fill	ESL,Mgt

BHD3	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-1.0	990 mg/kg	Fill	EIL
Copper	1.2-1.8	1800 mg/kg	Fill	EIL

BH6	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-0.6	2900 mg/kg	Natural	EIL
Copper	7.0-7.1	300 mg/kg	Natural	EIL

BHD5	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.4	7200 mg/kg	Fill	EIL
Zinc	0.1-0.4	1300 mg/kg	Fill	EIL
Copper	0.5-1.1	2900 mg/kg	Fill	EIL
Lead	0.5-1.1	1500 mg/kg	Fill	HIL D
Zinc	0.5-1.1	1100 mg/kg	Fill	EIL

BHC5	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	1.1-1.5	510 mg/kg	Fill	EIL
Zinc	1.1-1.5	1600 mg/kg	Fill	EIL

BH55	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	1250 mg/kg	Fill	EIL

BHF6	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.4	1300 mg/kg	Fill	EIL
Lead	0.1-0.4	1900 mg/kg	Fill	EIL,HIL D

BHD6	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.8	1200 mg/kg	Fill	EIL
Copper	1.0-1.6	660 mg/kg	Fill	EIL

BHE6	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.4	1806 mg/kg	Fill	EIL
Copper	0.5-1.0	680 mg/kg	Fill	EIL
Zinc	0.5-1.0	2200 mg/kg	Fill	EIL

BH147B	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-0.6	1000 mg/kg	Fill	EIL
Zinc	1.0-1.1	4700 mg/kg	Fill	EIL
Copper	1.0-1.1	2400 mg/kg	Fill	EIL

BH619	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.4-0.5	13 mg/kg	Fill	ESL

Legend:

Historical Soil Sample Locations

- CMP&F 1993 (ES 2014e) - Lot 12
- CMPS&F 1994 (ES 2014c) - Lot 12
- DP 2003 (ES 2014c) - Lot 12
- DP 2005a - Lot 12
- DP 2008 (ES 2014c) - Lot 12
- DP 2009 (ES 2014c) - Lot 12
- ES 2014 (ES 2014c) - Lot 12
- GETEX 2013 (ES 2014c) - Lot 12
- HLA 2001 (ES 2014c) - Lot 12
- JET 1993 (ES 2014c) - Lot 12
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

JBS&G

Job No: 51142

Client: Mirvac

Version: R02 Rev 0 | Date: 14-Jun-2016

Drawn By: RF | Checked By: NC

Scale 1:500

0 11

metres

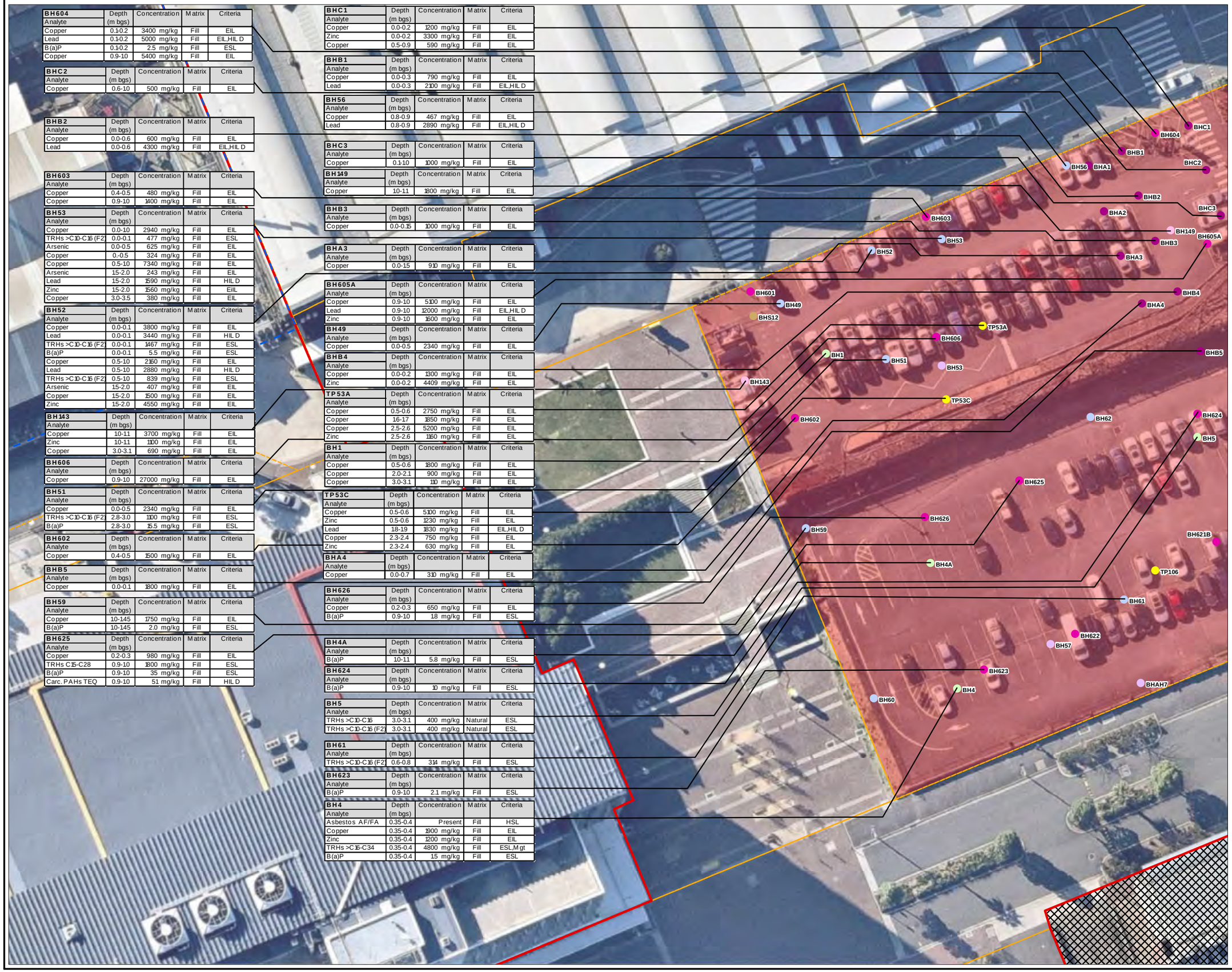
Coord. Sys. GDA 1994 MGA Zone 56

Australia Technology Park Eveleigh, NSW

HISTORIC EXCEEDANCES IN SOIL AND REMEDIAL EXTENT - LOT 12 EAST

FIGURE 8B EAST:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_08bE.mxd
Reference: Imagery - www.nearmap.com; Cadastre Boundary -maps.six.nsw.gov.au



BH604	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.2	3400 mg/kg	Fill	EIL
Lead	0.1-0.2	5000 mg/kg	Fill	EIL,HIL D
B(a)P	0.1-0.2	2.5 mg/kg	Fill	ESL
Copper	0.9-1.0	5400 mg/kg	Fill	EIL

BHC2	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.6-1.0	500 mg/kg	Fill	EIL

BHB2	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.6	600 mg/kg	Fill	EIL
Lead	0.0-0.6	4300 mg/kg	Fill	EIL,HIL D

BH603	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.4-0.5	480 mg/kg	Fill	EIL
Copper	0.9-1.0	1400 mg/kg	Fill	EIL

BH53	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-1.0	2940 mg/kg	Fill	EIL
TRHs >C10-C16 (F2	0.0-0.1	477 mg/kg	Fill	ESL
Arsenic	0.0-0.5	625 mg/kg	Fill	EIL
Copper	0.-0.5	324 mg/kg	Fill	EIL
Copper	0.5-1.0	7340 mg/kg	Fill	EIL
Arsenic	1.5-2.0	243 mg/kg	Fill	EIL
Lead	1.5-2.0	1590 mg/kg	Fill	HIL D
Zinc	1.5-2.0	1560 mg/kg	Fill	EIlL
Copper	3.0-3.5	380 mg/kg	Fill	EIL

BH52	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	3800 mg/kg	Fill	EIL
Lead	0.0-0.1	3440 mg/kg	Fill	HIL D
TRHs >C10-C16 (F2	0.0-0.1	1467 mg/kg	Fill	ESL
B(a)P	0.0-0.1	5.5 mg/kg	Fill	ESL
Copper	0.5-1.0	2160 mg/kg	Fill	EIL
Lead	0.5-1.0	2880 mg/kg	Fill	HIL D
TRHs >C10-C16 (F2	0.5-1.0	839 mg/kg	Fill	ESL
Arsenic	1.5-2.0	407 mg/kg	Fill	EIL
Copper	1.5-2.0	1500 mg/kg	Fill	EIL
Zinc	1.5-2.0	4550 mg/kg	Fill	EIL

BH143	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	10-11	3700 mg/kg	Fill	EIL
Zinc	10-11	1100 mg/kg	Fill	EIL
Copper	3.0-3.1	690 mg/kg	Fill	EIL

BH606	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.9-1.0	27000 mg/kg	Fill	EIL

BH51	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.5	2340 mg/kg	Fill	EIL
TRHs >C10-C16 (F2	2.8-3.0	1100 mg/kg	Fill	ESL
B(a)P	2.8-3.0	15.5 mg/kg	Fill	ESL

BH602	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.4-0.5	1500 mg/kg	Fill	EIL

BHB5	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	1800 mg/kg	Fill	EIL

BH59	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	10-14.5	1750 mg/kg	Fill	EIL
B(a)P	10-14.5	2.0 mg/kg	Fill	ESL

BH625	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.2-0.3	980 mg/kg	Fill	EIL
TRHs C15-C28	0.9-1.0	1800 mg/kg	Fill	ESL
B(a)P	0.9-1.0	35 mg/kg	Fill	ESL
Carc. PAHs TEQ	0.9-1.0	51 mg/kg	Fill	HIL D

BHC1	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.2	1200 mg/kg	Fill	EIL
Zinc	0.0-0.2	3300 mg/kg	Fill	EIL
Copper	0.5-0.9	590 mg/kg	Fill	EIL

BHB1	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.3	790 mg/kg	Fill	EIL
Lead	0.0-0.3	2100 mg/kg	Fill	EIL,HIL D

BH56	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.8-0.9	467 mg/kg	Fill	EIL
Lead	0.8-0.9	2890 mg/kg	Fill	EIL,HIL D

BHC3	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-1.0	1000 mg/kg	Fill	EIL

BH149	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	10-11	1800 mg/kg	Fill	EIL

BHB3	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.15	1000 mg/kg	Fill	EIL

BHA3	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-1.5	910 mg/kg	Fill	EIL

BH605A	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.9-1.0	5100 mg/kg	Fill	EIL
Lead	0.9-1.0	12000 mg/kg	Fill	EIL,HIL D
Zinc	0.9-1.0	1600 mg/kg	Fill	EIL

BH49	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.5	2340 mg/kg	Fill	EIL

BHB4	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.2	1300 mg/kg	Fill	EIL
Zinc	0.0-0.2	4409 mg/kg	Fill	EIL

TP53A	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-0.6	2750 mg/kg	Fill	EIL
Copper	1.6-1.7	1850 mg/kg	Fill	EIL
Copper	2.5-2.6	5200 mg/kg	Fill	EIL
Zinc	2.5-2.6	1160 mg/kg	Fill	EIL

BH1	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-0.6	1800 mg/kg	Fill	EIL
Copper	2.0-2.1	900 mg/kg	Fill	EIL
Copper	3.0-3.1	110 mg/kg	Fill	EIL

TP53C	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-0.6	5100 mg/kg	Fill	EIL
Zinc	0.5-0.6	1230 mg/kg	Fill	EIL
Lead	1.8-1.9	1830 mg/kg	Fill	EIL,HIL D
Copper	2.3-2.4	750 mg/kg	Fill	EIL
Zinc	2.3-2.4	630 mg/kg	Fill	EIL

BHA4	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.7	310 mg/kg	Fill	EIL

BH626	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.2-0.3	650 mg/kg	Fill	EIL
B(a)P	0.9-1.0	1.8 mg/kg	Fill	ESL

BH4A	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	1.0-1.1	5.8 mg/kg	Fill	ESL

BH624	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.9-1.0	1.0 mg/kg	Fill	ESL

BH5	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs >C10-C16	3.0-3.1	400 mg/kg	Natural	ESL
TRHs >C10-C16 (F2)	3.0-3.1	400 mg/kg	Natural	ESL

BH61	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs >C10-C16 (F2)	0.6-0.8	314 mg/kg	Fill	ESL

BH623	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.9-1.0	2.1 mg/kg	Fill	ESL

BH4	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Asbestos AF/FA	0.35-0.4	Present	Fill	HSL
Copper	0.35-0.4	1900 mg/kg	Fill	EIL
Zinc	0.35-0.4	1200 mg/kg	Fill	EIL
TRHs >C16-C34	0.35-0.4	4800 mg/kg	Fill	ESL,Mgt
B(a)P	0.35-0.4	1.5 mg/kg	Fill	ESL

Legend:

Historical Soil Sample Locations

- CMP&F 1993 (ES 2014e) - Lot 12
- CMPS&F 1994 (ES 2014c) - Lot 12
- DP 2003 (ES 2014c) - Lot 12
- DP 2005a - Lot 12
- DP 2008 (ES 2014c) - Lot 12
- DP 2009 (ES 2014c) - Lot 12
- ES 2014 (ES 2014c) - Lot 12
- GETEX 2013 (ES 2014c) - Lot 12
- HLA 2001 (ES 2014c) - Lot 12
- JET 1993 (ES 2014c) - Lot 12
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Lot & DP

- Lot 12 DP1136859

JBS&G

Job No: 51142

Client: Mirvac

Version: R02 Rev 0 | Date: 14-Jun-2016

Drawn By: RF | Checked By: NC

Scale 1:500

0 11
metres

Coord. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

HISTORIC EXCEEDANCES IN SOIL AND REMEDIAL EXTENT - LOT 12 WEST

FIGURE 8B WEST:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_08bW.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



SVE	Date	Concentration	Criteria
Analyte			
TCE	Dec-14	0.235 mg/m³	HIL D
TCE	Apr-15	0.117 mg/m³	HIL D

SV17_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	10.67 mg/m³	HIL D

SV34_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	6.167 mg/m³	HIL D

SV35_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	2.333 mg/m³	HIL D

SV32_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	0.233 mg/m³	HIL D

SV26_FRONT	Date	Concentration	Criteria
Analyte			
Tetrachloroethene	May-16	0.917 mg/m³	HIL D
Trichloroethene	May-16	0.25 mg/m³	HIL D

SV36_FRONT	Date	Concentration	Criteria
Analyte			
Tetrachloroethene	May-16	3.167 mg/m³	HIL D
Trichloroethene	May-16	0.567 mg/m³	HIL D

SVF	Date	Concentration	Criteria
Analyte			
TCE	Dec-14	0.307 mg/m³	HIL D

SV03_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	0.183 mg/m³	HIL D

SV07_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	0.5 mg/m³	HIL D

BH13	Depth (m bgs)	Concentration	Matrix	Criteria
Analyte				
TRHs >C10-C16(F2)	0.5-10	182 mg/kg	Fill	ESL

BH15	Depth (m bgs)	Concentration	Matrix	Criteria
Analyte				
Lead	0.0-0.1	876 mg/kg	Fill	HIL C

BH97	Depth (m bgs)	Concentration	Matrix	Criteria
Analyte				
B(a)P	0.2	18.8 mg/kg	Fill	ESL
Carc. PAHs TEQ	0.2	25 mg/kg	Fill	HIL C

BH12	Depth (m bgs)	Concentration	Matrix	Criteria
Analyte				
Zinc	0.5-10	739 mg/kg	Fill	EIL
TRHs C15-C28	0.5-10	536 mg/kg	Fill	ESL
TRHs C15-C36	0.5-10	727 mg/kg	Fill	ESL
TRHs >C10-C16(F2)	0.5-10	543 mg/kg	Fill	ESL
B(a)P	0.5-10	4.1 mg/kg	Fill	ESL
Carc. PAHs TEQ	0.5-10	6.8 mg/kg	Fill	HIL C

BH18	Depth (m bgs)	Concentration	Matrix	Criteria
Analyte				
Copper	0.5-10	5210 mg/kg	Fill	EIL
Lead	0.5-10	2139 mg/kg	Fill	EIL,HIL C
Zinc	0.5-10	1353 mg/kg	Fill	EIL
Copper	1.5-2.0	280 mg/kg	Natural	EIL

BH18B	Depth (m bgs)	Concentration	Matrix	Criteria
Analyte				
Copper	1.5	210 mg/kg	Fill	EIL
Copper	2.0	4650 mg/kg	Natural	EIL
Lead	2.0	1240 mg/kg	Natural	EIL,HIL C
Zinc	2.0	1150 mg/kg	Natural	EIL

BH24	Depth (m bgs)	Concentration	Matrix	Criteria
Analyte				
Lead	1.5-2.0	954 mg/kg	Fill	HIL C
Zinc	1.5-2.0	890 mg/kg	Fill	EIL

BH24B	Depth (m bgs)	Concentration	Matrix	Criteria
Analyte				
Copper	1.5	1450 mg/kg	Fill	EIL
Lead	1.5	5500 mg/kg	Fill	EIL,HIL C
Zinc	1.5	4200 mg/kg	Fill	EIL

Legend:

Historical Ambient Air and Soil Vapour Locations

- Ambient Air DP 2010c
- Ambient Air ES 2015a
- Soil Vapour ES 2015a
- Soil Vapour Location - JBS&G May 20 2016
- Soil Vapour Location - JBS&G May 5-6 2016

Historical Soil Sample Locations

- CMPS&F 1993 (ES 2014e) - Lot 13 Area 1
- ES 2010 (ES2014e) - Lot 13 Area 1
- GETEX 2011-2013 (ES 2014e) - Lot 13 Area 1
- GETEX 2011-2013 (ES 2014e) - Lot 13 Area 2
- GETEX 2011-2013 (ES 2014e) - Lot 13 Area 4
- HLA 2001 (DP 2005a) - Lot 13 Area 6
- HLA 2001 (ES 2014e) - Lot 13 Area 2
- HLA 2001 (ES 2014e) - Lot 13 Area 4
- HLA 2001 (ES 2014e) - Lot 13 Area 5
- HLA 2001 (ES 2014e) - Lot 13 Area 6
- HLA 2001 (ES 2014e) - Lot 13 Area 7
- JET 1993 (ES 2014e) - Lot 13 Area 1
- JET 1993 (ES 2014e) - Lot 13 Area 2
- JET 1993 (ES 2014e) - Lot 13 Area 4
- JET 1993 (ES 2014e) - Lot 13 Area 5
- JET 1993 (ES 2014e) - Lot 13 Area 6
- JET 1993 (ES 2014e) - Lot 13 Area 7
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Development Area - Lot 4007

- AREA 1
- AREA 2
- AREA 3
- AREA 4
- AREA 5
- AREA 6
- AREA 7

JBS&G

Job No: 51142

Client: Mirvac

Version: R02 Rev 0 | Date: 15-Jun-2016

Drawn By: RF | Checked By: NC

Scale 1:2,500

0 50
metres

Coord. Sys. GDA 1994 MGA Zone 56

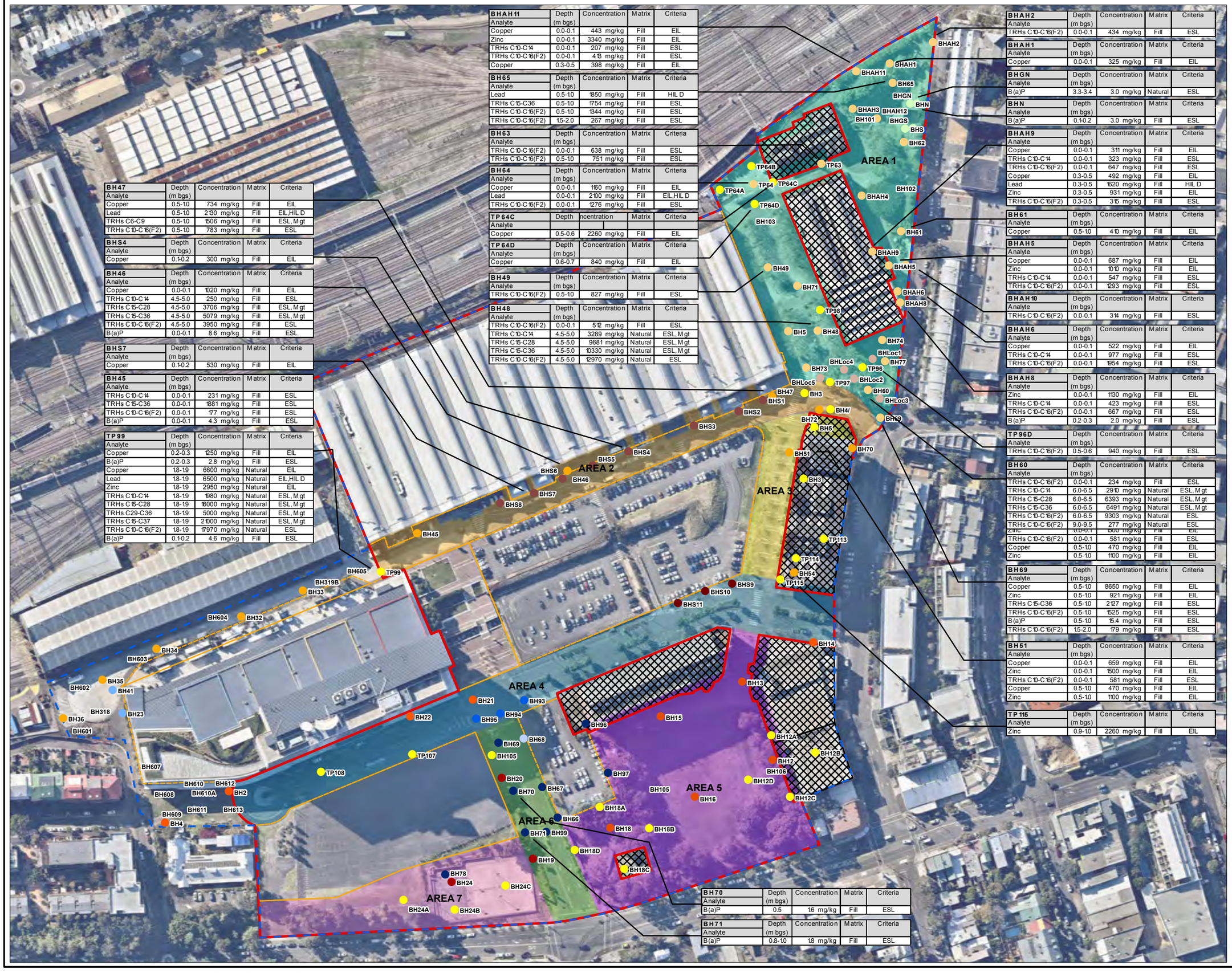
Australia Technology Park Eveleigh, NSW

HISTORIC EXCEEDANCES IN SOIL/SOIL VAPOUR - LOTS 4000 AND 4007, AREA 5 AND AREA 7 (RECREATIONAL)

FIGURE 8C:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_08c (Rec).mxd

Reference:



BHAH11	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	443 mg/kg	Fill	EIL
Zinc	0.0-0.1	3340 mg/kg	Fill	EIL
TRHs C10-C14	0.0-0.1	207 mg/kg	Fill	ESL
TRHs C10-C16(F2)	0.0-0.1	413 mg/kg	Fill	ESL
Copper	0.3-0.5	398 mg/kg	Fill	EIL

BH65	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Lead	0.5-1.0	1850 mg/kg	Fill	HIL D
TRHs C15-C36	0.5-1.0	1754 mg/kg	Fill	ESL
TRHs C10-C16(F2)	0.5-1.0	1344 mg/kg	Fill	ESL
TRHs C10-C16(F2)	1.5-2.0	267 mg/kg	Fill	ESL

BH63	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C10-C16(F2)	0.0-0.1	638 mg/kg	Fill	ESL
TRHs C10-C16(F2)	0.5-1.0	751 mg/kg	Fill	ESL

BH64	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	1160 mg/kg	Fill	EIL
Lead	0.0-0.1	2100 mg/kg	Fill	EIL,HIL D
TRHs C10-C16(F2)	0.0-0.1	1276 mg/kg	Fill	ESL

TP64C	Depth	ncentration	Matrix	Criteria
Analyte				
Copper	0.5-0.6	2260 mg/kg	Fill	EIL

TP64D	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.6-0.7	840 mg/kg	Fill	EIL

BH49	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C10-C16(F2)	0.5-1.0	827 mg/kg	Fill	ESL

BH48	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C10-C16(F2)	0.0-0.1	512 mg/kg	Fill	ESL
TRHs C10-C14	4.5-5.0	3289 mg/kg	Natural	ESL, Mgt
TRHs C15-C28	4.5-5.0	9681 mg/kg	Natural	ESL, Mgt
TRHs C15-C36	4.5-5.0	10330 mg/kg	Natural	ESL, Mgt
TRHs C10-C16(F2)	4.5-5.0	12970 mg/kg	Natural	ESL

BH47	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-1.0	734 mg/kg	Fill	EIL
Lead	0.5-1.0	2130 mg/kg	Fill	EIL,HIL D
TRHs C6-C9	0.5-1.0	1506 mg/kg	Fill	ESL, Mgt
TRHs C10-C16(F2)	0.5-1.0	783 mg/kg	Fill	ESL

BHS4	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.2	300 mg/kg	Fill	EIL

BH46	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	1020 mg/kg	Fill	EIL
TRHs C10-C14	4.5-5.0	250 mg/kg	Fill	ESL
TRHs C15-C28	4.5-5.0	3706 mg/kg	Fill	ESL, Mgt
TRHs C15-C36	4.5-5.0	5079 mg/kg	Fill	ESL, Mgt
TRHs C10-C16(F2)	4.5-5.0	3950 mg/kg	Fill	ESL
B(a)P	0.0-0.1	8.6 mg/kg	Fill	ESL

BHS7	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.1-0.2	530 mg/kg	Fill	EIL

BH45	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C10-C14	0.0-0.1	231 mg/kg	Fill	ESL
TRHs C15-C36	0.0-0.1	1881 mg/kg	Fill	ESL
TRHs C10-C16(F2)	0.0-0.1	177 mg/kg	Fill	ESL
B(a)P	0.0-0.1	4.3 mg/kg	Fill	ESL

TP99	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.2-0.3	1250 mg/kg	Fill	EIL
B(a)P	0.2-0.3	2.8 mg/kg	Fill	ESL
Copper	18-19	6600 mg/kg	Natural	EIL
Lead	18-19	6500 mg/kg	Natural	EIL,HIL D
Zinc	18-19	2950 mg/kg	Natural	EIL
TRHs C10-C14	18-19	1980 mg/kg	Natural	ESL, Mgt
TRHs C15-C28	18-19	16000 mg/kg	Natural	ESL, Mgt
TRHs C29-C36	18-19	5000 mg/kg	Natural	ESL, Mgt
TRHs C15-C37	18-19	21000 mg/kg	Natural	ESL, Mgt
TRHs C10-C16(F2)	18-19	17970 mg/kg	Natural	ESL
B(a)P	0.1-0.2	4.6 mg/kg	Fill	ESL

BH70	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.5	16 mg/kg	Fill	ESL

BH71	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.8-1.0	18 mg/kg	Fill	ESL

BHAH2	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C10-C16(F2)	0.0-0.1	434 mg/kg	Fill	ESL

BHAH1	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	325 mg/kg	Fill	EIL

BHGN	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	3.3-3.4	3.0 mg/kg	Natural	ESL

BHN	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
B(a)P	0.1-0.2	3.0 mg/kg	Fill	ESL

BHAH9	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	311 mg/kg	Fill	EIL
TRHs C10-C14	0.0-0.1	323 mg/kg	Fill	ESL
TRHs C10-C16(F2)	0.0-0.1	647 mg/kg	Fill	ESL
Copper	0.3-0.5	492 mg/kg	Fill	EIL
Lead	0.3-0.5	1620 mg/kg	Fill	HIL D
Zinc	0.3-0.5	931 mg/kg	Fill	EIL
TRHs C10-C16(F2)	0.3-0.5	315 mg/kg	Fill	ESL

BH61	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-1.0	410 mg/kg	Fill	EIL

BHAH5	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	687 mg/kg	Fill	EIL
Zinc	0.0-0.1	1010 mg/kg	Fill	EIL
TRHs C10-C14	0.0-0.1	547 mg/kg	Fill	ESL
TRHs C10-C16(F2)	0.0-0.1	1293 mg/kg	Fill	ESL

BHAH10	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C10-C16(F2)	0.0-0.1	314 mg/kg	Fill	ESL

BHAH6	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	522 mg/kg	Fill	EIL
TRHs C10-C14	0.0-0.1	977 mg/kg	Fill	ESL
TRHs C10-C16(F2)	0.0-0.1	1954 mg/kg	Fill	ESL

BHAH8	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Zinc	0.0-0.1	1130 mg/kg	Fill	EIL
TRHs C10-C14	0.0-0.1	423 mg/kg	Fill	ESL
TRHs C10-C16(F2)	0.0-0.1	667 mg/kg	Fill	ESL
B(a)P	0.2-0.3	2.0 mg/kg	Fill	ESL

TP96D	Depth	Concentration	Matrix	Criteria
Analyte				
TRHs C10-C16(F2)	0.5-0.6	940 mg/kg	Fill	ESL

BH60	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
TRHs C10-C16(F2)	0.0-0.1	234 mg/kg	Fill	ESL
TRHs C10-C14	6.0-6.5	2910 mg/kg	Natural	ESL, Mgt
TRHs C15-C28	6.0-6.5	6393 mg/kg	Natural	ESL, Mgt
TRHs C15-C36	6.0-6.5	6491 mg/kg	Natural	ESL, Mgt
TRHs C10-C16(F2)	6.0-6.5	9303 mg/kg	Natural	ESL
TRHs C10-C16(F2)	9.0-9.5	277 mg/kg	Natural	ESL
Zinc	0.0-0.1	800 mg/kg	Fill	EIL
TRHs C10-C16(F2)	0.0-0.1	581 mg/kg	Fill	ESL
Copper	0.5-1.0	470 mg/kg	Fill	EIL
Zinc	0.5-1.0	1100 mg/kg	Fill	EIL

BH69	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.5-1.0	8650 mg/kg	Fill	EIL
Zinc	0.5-1.0	921 mg/kg	Fill	EIL
TRHs C15-C36	0.5-1.0	2127 mg/kg	Fill	ESL
TRHs C10-C16(F2)	0.5-1.0	1525 mg/kg	Fill	ESL
B(a)P	0.5-1.0	15.4 mg/kg	Fill	ESL
TRHs C10-C16(F2)	1.5-2.0	179 mg/kg	Fill	ESL

BH51	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Copper	0.0-0.1	659 mg/kg	Fill	EIL
Zinc	0.0-0.1	1500 mg/kg	Fill	EIL
TRHs C10-C16(F2)	0.0-0.1	581 mg/kg	Fill	ESL
Copper	0.5-1.0	470 mg/kg	Fill	EIL
Zinc	0.5-1.0	1100 mg/kg	Fill	EIL

TP115	Depth	Concentration	Matrix	Criteria
Analyte	(m bgs)			
Zinc	0.9-1.0	2260 mg/kg	Fill	EIL

Legend:

Historical Soil Sample Locations

- CMPS&F 1993 (ES 2014e) - Lot 13 Area 1
- ES 2010 (ES2014e) - Lot 13 Area 1
- GETEX 2011-2013 (ES 2014e) - Lot 13 Area 1
- GETEX 2011-2013 (ES 2014e) - Lot 13 Area 2
- GETEX 2011-2013 (ES 2014e) - Lot 13 Area 4
- HLA 2001 (DP 2005a) - Lot 13 Area 6
- HLA 2001 (ES 2014e) - Lot 13 Area 2
- HLA 2001 (ES 2014e) - Lot 13 Area 4
- HLA 2001 (ES 2014e) - Lot 13 Area 5
- HLA 2001 (ES 2014e) - Lot 13 Area 6
- HLA 2001 (ES 2014e) - Lot 13 Area 7
- JET 1993 (ES 2014e) - Lot 13 Area 1
- JET 1993 (ES 2014e) - Lot 13 Area 2
- JET 1993 (ES 2014e) - Lot 13 Area 4
- JET 1993 (ES 2014e) - Lot 13 Area 5
- JET 1993 (ES 2014e) - Lot 13 Area 6
- JET 1993 (ES 2014e) - Lot 13 Area 7
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Development Area - Lot 4007

- AREA 1
- AREA 2
- AREA 3
- AREA 4
- AREA 5
- AREA 6
- AREA 7

JBS&G

Job No: 51142

Client: Mirvac

Version: R02 Rev 0 | Date: 15-Jun-2016

Drawn By: RF | Checked By: NC

Scale 1:2,000

0 40

metres

Coord. Sys. GDA 1994 MGA Zone 56

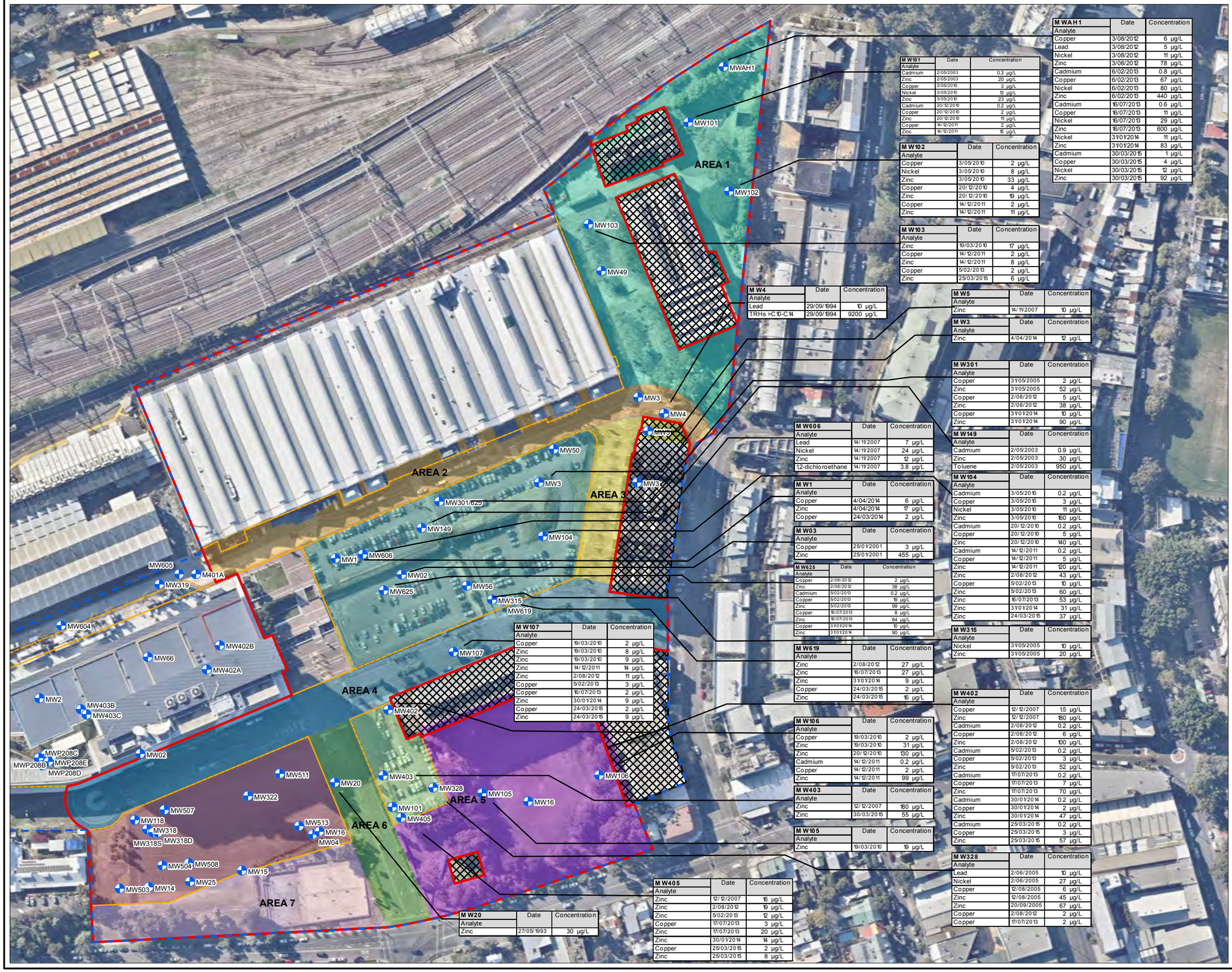
Australia Technology Park Eveleigh, NSW

HISTORIC EXCEEDANCES IN SOIL - LOT 4007, AREA 1,2,3,4,6 (COMMERCIAL / INDUSTRIAL)

FIGURE 8D:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_08d (Roads).mxd

Reference:



MWAH1	Date	Concentration
Analyte		
Copper	3/08/2012	6 µg/L
Lead	3/08/2012	5 µg/L
Nickel	3/08/2012	11 µg/L
Zinc	3/08/2012	78 µg/L
Cadmium	6/02/2013	0.8 µg/L
Copper	6/02/2013	67 µg/L
Nickel	6/02/2013	80 µg/L
Zinc	6/02/2013	440 µg/L
Cadmium	16/07/2013	0.6 µg/L
Copper	16/07/2013	11 µg/L
Nickel	16/07/2013	29 µg/L
Zinc	16/07/2013	600 µg/L
Nickel	31/01/2014	11 µg/L
Zinc	31/01/2014	83 µg/L
Cadmium	30/03/2015	1 µg/L
Copper	30/03/2015	4 µg/L
Nickel	30/03/2015	12 µg/L
Zinc	30/03/2015	92 µg/L

MW101	Date	Concentration
Analyte		
Cadmium	2/05/2003	0.3 µg/L
Zinc	2/05/2003	20 µg/L
Copper	3/05/2010	3 µg/L
Nickel	3/05/2010	13 µg/L
Zinc	3/05/2010	23 µg/L
Cadmium	20/12/2010	0.2 µg/L
Copper	20/12/2010	2 µg/L
Zinc	20/12/2010	11 µg/L
Copper	14/12/2011	2 µg/L
Zinc	14/12/2011	15 µg/L

MW102	Date	Concentration
Analyte		
Copper	3/05/2010	2 µg/L
Nickel	3/05/2010	8 µg/L
Zinc	3/05/2010	33 µg/L
Copper	20/12/2010	4 µg/L
Zinc	20/12/2010	19 µg/L
Copper	14/12/2011	2 µg/L
Zinc	14/12/2011	11 µg/L

MW103	Date	Concentration
Analyte		
Zinc	19/03/2010	17 µg/L
Copper	14/12/2011	2 µg/L
Zinc	14/12/2011	8 µg/L
Copper	5/02/2013	2 µg/L
Zinc	25/03/2015	6 µg/L

MW4	Date	Concentration
Analyte		
Lead	29/09/1994	10 µg/L
TRHs >C10-C14	29/09/1994	9200 µg/L

MW5	Date	Concentration
Analyte		
Zinc	14/11/2007	10 µg/L

MW3	Date	Concentration
Analyte		
Zinc	4/04/2014	12 µg/L

MW301	Date	Concentration
Analyte		
Copper	31/05/2005	2 µg/L
Zinc	31/05/2005	52 µg/L
Copper	2/08/2012	5 µg/L
Zinc	2/08/2012	38 µg/L
Copper	31/01/2014	10 µg/L
Zinc	31/01/2014	90 µg/L

MW606	Date	Concentration
Analyte		
Lead	14/11/2007	7 µg/L
Nickel	14/11/2007	24 µg/L
Zinc	14/11/2007	12 µg/L
12-dichloroethane	14/11/2007	3.8 µg/L

MW1	Date	Concentration
Analyte		
Copper	4/04/2014	6 µg/L
Zinc	4/04/2014	17 µg/L
Copper	24/03/2014	2 µg/L

MW03	Date	Concentration
Analyte		
Copper	25/01/2001	3 µg/L
Zinc	25/01/2001	455 µg/L

MW625	Date	Concentration
Analyte		
Copper	2/08/2012	2 µg/L
Zinc	2/08/2012	38 µg/L
Cadmium	5/02/2013	0.2 µg/L
Copper	5/02/2013	19 µg/L
Zinc	5/02/2013	99 µg/L
Copper	16/07/2013	8 µg/L
Zinc	16/07/2013	64 µg/L
Copper	31/01/2014	10 µg/L
Zinc	31/01/2014	90 µg/L

MW104	Date	Concentration
Analyte		
Cadmium	3/05/2010	0.2 µg/L
Copper	3/05/2010	3 µg/L
Nickel	3/05/2010	11 µg/L
Zinc	3/05/2010	160 µg/L
Cadmium	20/12/2010	0.2 µg/L
Copper	20/12/2010	5 µg/L
Zinc	20/12/2010	140 µg/L
Cadmium	14/12/2011	0.2 µg/L
Copper	14/12/2011	5 µg/L
Zinc	14/12/2011	120 µg/L
Zinc	2/08/2012	43 µg/L
Copper	5/02/2013	10 µg/L
Zinc	5/02/2013	60 µg/L
Zinc	16/07/2013	53 µg/L
Zinc	31/01/2014	31 µg/L
Zinc	24/03/2015	37 µg/L

MW149	Date	Concentration
Analyte		
Cadmium	2/05/2003	0.9 µg/L
Zinc	2/05/2003	30 µg/L
Toluene	2/05/2003	950 µg/L

MW315	Date	Concentration
Analyte		
Nickel	31/05/2005	10 µg/L
Zinc	31/05/2005	20 µg/L

MW107	Date	Concentration
Analyte		
Copper	19/03/2010	2 µg/L
Zinc	19/03/2010	8 µg/L
Zinc	19/03/2010	9 µg/L
Zinc	14/12/2011	14 µg/L
Zinc	2/08/2012	11 µg/L
Copper	5/02/2013	3 µg/L
Copper	16/07/2013	2 µg/L
Zinc	30/01/2014	9 µg/L
Copper	24/03/2015	2 µg/L
Zinc	24/03/2015	9 µg/L

MW619	Date	Concentration
Analyte		
Zinc	2/08/2012	27 µg/L
Zinc	16/07/2013	27 µg/L
Zinc	31/01/2014	9 µg/L
Copper	24/03/2015	2 µg/L
Zinc	24/03/2015	16 µg/L

MW402	Date	Concentration
Analyte		
Copper	12/12/2007	15 µg/L
Zinc	12/12/2007	180 µg/L
Cadmium	2/08/2012	0.2 µg/L
Copper	2/08/2012	6 µg/L
Zinc	2/08/2012	100 µg/L
Cadmium	5/02/2013	0.2 µg/L
Copper	5/02/2013	3 µg/L
Zinc	5/02/2013	52 µg/L
Cadmium	17/07/2013	0.2 µg/L
Copper	17/07/2013	7 µg/L
Zinc	17/07/2013	70 µg/L
Cadmium	30/01/2014	0.2 µg/L
Copper	30/01/2014	2 µg/L
Zinc	30/01/2014	47 µg/L
Cadmium	25/03/2015	0.2 µg/L
Copper	25/03/2015	3 µg/L
Zinc	25/03/2015	57 µg/L

MW106	Date	Concentration
Analyte		
Copper	19/03/2010	2 µg/L
Zinc	19/03/2010	31 µg/L
Zinc	20/12/2010	130 µg/L
Cadmium	14/12/2011	0.2 µg/L
Copper	14/12/2011	2 µg/L
Zinc	14/12/2011	99 µg/L

MW403	Date	Concentration
Analyte		
Zinc	12/12/2007	180 µg/L
Zinc	30/03/2015	55 µg/L

MW105	Date	Concentration
Analyte		
Zinc	19/03/2010	19 µg/L

MW328	Date	Concentration
Analyte		
Lead	2/06/2005	10 µg/L
Nickel	2/06/2005	27 µg/L
Copper	12/08/2005	6 µg/L
Zinc	12/08/2005	45 µg/L
Zinc	20/09/2005	67 µg/L
Copper	2/08/2012	2 µg/L
Copper	17/07/2013	2 µg/L

MW405	Date	Concentration
Analyte		
Zinc	12/12/2007	16 µg/L
Zinc	2/08/2012	19 µg/L
Zinc	5/02/2013	12 µg/L
Copper	17/07/2013	3 µg/L
Zinc	17/07/2013	20 µg/L
Zinc	30/01/2014	14 µg/L
Copper	25/03/2015	2 µg/L
Zinc	25/03/2015	8 µg/L

MW20	Date	Concentration
Analyte		
Zinc	27/05/1993	30 µg/L

Legend:

- Historical Groundwater Monitoring Location
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Development Area - Lot 4007

- AREA 1
- AREA 2
- AREA 3
- AREA 4
- AREA 5
- AREA 6
- AREA 7

Lot & DP

- Lot 12 DP1136859
- Lot 8 DP1136859
- Lot 9 DP1136859

Note: Location of MW6 in Lot 13 Area 3 and MW315 in Lot 9 unknown

JBS&G

Job No: 51142

Client: Mirvac

Version: R02 Rev 0 | Date: 15-Jun-2016

Drawn By: RF | Checked By: NC

Scale 1:2,000

0 40

metres

Coord. Sys. GDA 1994 MGA Zone 56

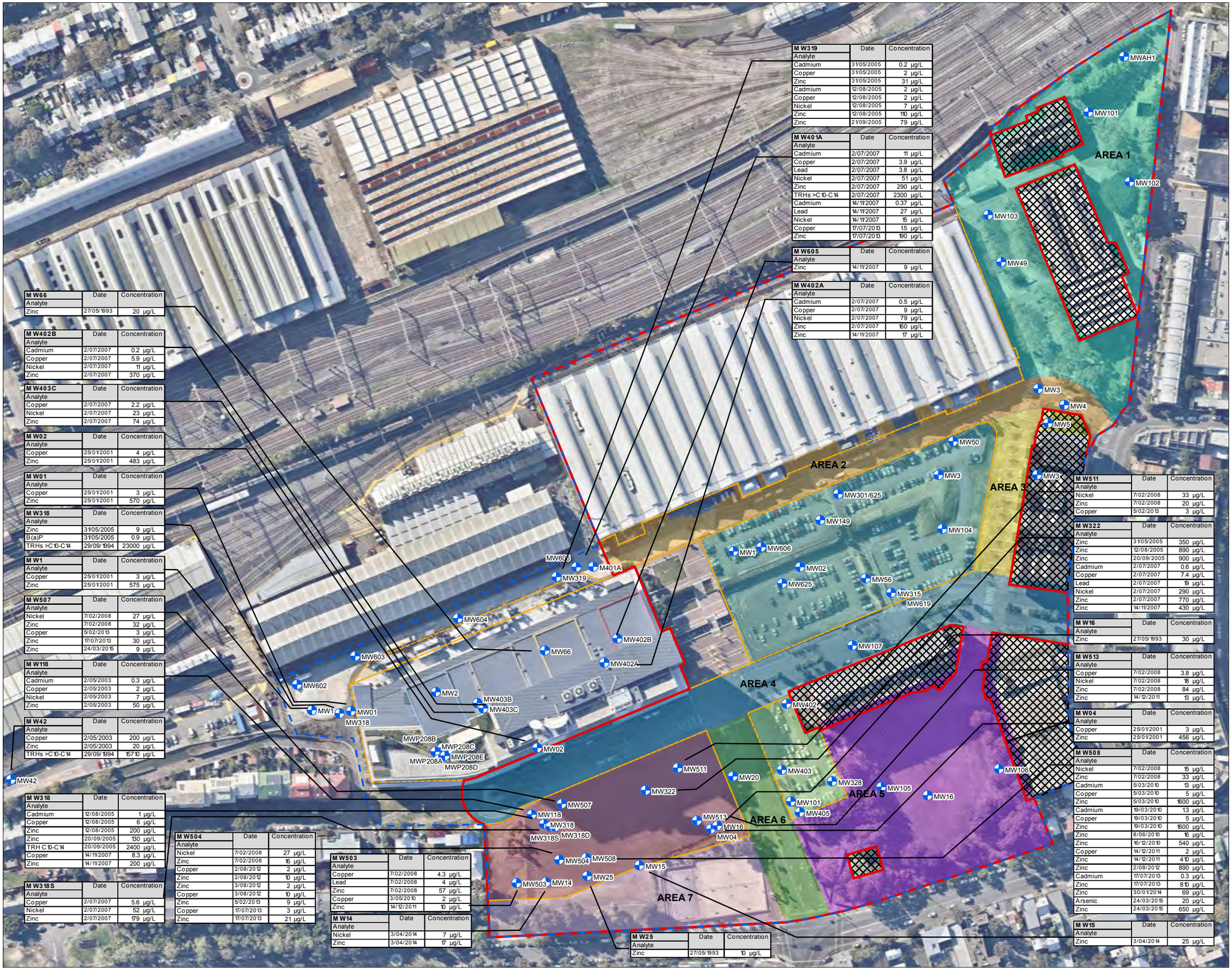
Australia Technology Park Eveleigh, NSW

HISTORIC EXCEEDANCES IN GROUNDWATER

FIGURE 8E EAST:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_08eE.mxd

Reference:



M W66	Date	Concentration
Analyte		
Zinc	27/05/1993	20 µg/L

M W402B	Date	Concentration
Analyte		
Cadmium	2/07/2007	0.2 µg/L
Copper	2/07/2007	5.9 µg/L
Nickel	2/07/2007	11 µg/L
Zinc	2/07/2007	370 µg/L

M W403C	Date	Concentration
Analyte		
Copper	2/07/2007	2.2 µg/L
Nickel	2/07/2007	23 µg/L
Zinc	2/07/2007	74 µg/L

M W02	Date	Concentration
Analyte		
Copper	25/01/2001	4 µg/L
Zinc	25/01/2001	483 µg/L

M W01	Date	Concentration
Analyte		
Copper	25/01/2001	3 µg/L
Zinc	25/01/2001	570 µg/L

M W318	Date	Concentration
Analyte		
Zinc	31/05/2005	9 µg/L
B(a)P	31/05/2005	0.9 µg/L
TRHs >C10-C14	29/09/1994	23000 µg/L

M W1	Date	Concentration
Analyte		
Copper	25/01/2001	3 µg/L
Zinc	25/01/2001	575 µg/L

M W507	Date	Concentration
Analyte		
Nickel	7/02/2008	27 µg/L
Zinc	7/02/2008	32 µg/L
Copper	5/02/2013	3 µg/L
Zinc	17/07/2013	30 µg/L
Zinc	24/03/2015	9 µg/L

M W118	Date	Concentration
Analyte		
Cadmium	2/05/2003	0.3 µg/L
Copper	2/05/2003	2 µg/L
Nickel	2/05/2003	7 µg/L
Zinc	2/05/2003	50 µg/L

M W42	Date	Concentration
Analyte		
Copper	2/05/2003	200 µg/L
Zinc	2/05/2003	20 µg/L
TRHs >C10-C14	29/09/1994	1570 µg/L

M W318	Date	Concentration
Analyte		
Cadmium	12/08/2005	1 µg/L
Copper	12/08/2005	6 µg/L
Zinc	12/08/2005	200 µg/L
Zinc	20/09/2005	130 µg/L
TRH C10-C14	20/09/2005	2400 µg/L
Copper	14/11/2007	8.3 µg/L
Zinc	14/11/2007	200 µg/L

M W318S	Date	Concentration
Analyte		
Copper	2/07/2007	5.6 µg/L
Nickel	2/07/2007	52 µg/L
Zinc	2/07/2007	179 µg/L

M W504	Date	Concentration
Analyte		
Nickel	7/02/2008	27 µg/L
Zinc	7/02/2008	16 µg/L
Copper	2/08/2012	2 µg/L
Zinc	2/08/2012	10 µg/L
Zinc	3/08/2012	2 µg/L
Copper	3/08/2012	10 µg/L
Zinc	5/02/2013	9 µg/L
Copper	17/07/2013	3 µg/L
Zinc	17/07/2013	21 µg/L

M W503	Date	Concentration
Analyte		
Copper	7/02/2008	4.3 µg/L
Lead	7/02/2008	4 µg/L
Zinc	7/02/2008	57 µg/L
Copper	3/05/2010	2 µg/L
Zinc	14/12/2011	10 µg/L

M W14	Date	Concentration
Analyte		
Nickel	3/04/2014	7 µg/L
Zinc	3/04/2014	17 µg/L

M W25	Date	Concentration
Analyte		
Zinc	27/05/1993	10 µg/L

M W319	Date	Concentration
Analyte		
Cadmium	31/05/2005	0.2 µg/L
Copper	31/05/2005	2 µg/L
Zinc	31/05/2005	31 µg/L
Cadmium	12/08/2005	2 µg/L
Copper	12/08/2005	2 µg/L
Nickel	12/08/2005	7 µg/L
Zinc	12/08/2005	110 µg/L
Zinc	21/09/2005	79 µg/L

M W401A	Date	Concentration
Analyte		
Cadmium	2/07/2007	11 µg/L
Copper	2/07/2007	3.9 µg/L
Lead	2/07/2007	3.8 µg/L
Nickel	2/07/2007	51 µg/L
Zinc	2/07/2007	290 µg/L
TRHs >C10-C14	2/07/2007	2300 µg/L
Cadmium	14/11/2007	0.37 µg/L
Lead	14/11/2007	27 µg/L
Nickel	14/11/2007	15 µg/L
Copper	17/07/2013	1.5 µg/L
Zinc	17/07/2013	190 µg/L

M W605	Date	Concentration
Analyte		
Zinc	14/11/2007	9 µg/L

M W402A	Date	Concentration
Analyte		
Cadmium	2/07/2007	0.5 µg/L
Copper	2/07/2007	9 µg/L
Nickel	2/07/2007	79 µg/L
Zinc	2/07/2007	160 µg/L
Zinc	14/11/2007	17 µg/L

M W511	Date	Concentration
Analyte		
Nickel	7/02/2008	33 µg/L
Zinc	7/02/2008	20 µg/L
Copper	5/02/2013	3 µg/L

M W322	Date	Concentration
Analyte		
Zinc	31/05/2005	350 µg/L
Zinc	12/08/2005	890 µg/L
Zinc	20/09/2005	900 µg/L
Cadmium	2/07/2007	0.6 µg/L
Copper	2/07/2007	7.4 µg/L
Lead	2/07/2007	19 µg/L
Nickel	2/07/2007	290 µg/L
Zinc	2/07/2007	770 µg/L
Zinc	14/11/2007	430 µg/L

M W16	Date	Concentration
Analyte		
Zinc	27/05/1993	30 µg/L

M W513	Date	Concentration
Analyte		
Copper	7/02/2008	3.8 µg/L
Nickel	7/02/2008	18 µg/L
Zinc	7/02/2008	84 µg/L
Zinc	14/12/2011	13 µg/L

M W04	Date	Concentration
Analyte		
Copper	25/01/2001	3 µg/L
Zinc	25/01/2001	456 µg/L

M W508	Date	Concentration
Analyte		
Nickel	7/02/2008	15 µg/L
Zinc	7/02/2008	33 µg/L
Cadmium	5/03/2010	13 µg/L
Copper	5/03/2010	5 µg/L
Zinc	5/03/2010	1600 µg/L
Cadmium	19/03/2010	13 µg/L
Copper	19/03/2010	5 µg/L
Zinc	19/03/2010	1600 µg/L
Zinc	8/06/2010	16 µg/L
Zinc	16/12/2010	540 µg/L
Copper	14/12/2011	2 µg/L
Zinc	14/12/2011	410 µg/L
Zinc	2/08/2012	890 µg/L
Cadmium	17/07/2013	0.3 µg/L
Zinc	17/07/2013	810 µg/L
Zinc	30/01/2014	69 µg/L
Arsenic	24/03/2015	20 µg/L
Zinc	24/03/2015	650 µg/L

M W15	Date	Concentration
Analyte		
Zinc	3/04/2014	25 µg/L

Legend:

- Historical Groundwater Monitoring Location
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Cadastral Boundaries Excluded from "The Site"

Development Area - Lot 4007

- AREA 1
- AREA 2
- AREA 3
- AREA 4
- AREA 5
- AREA 6
- AREA 7

Lot & DP

- Lot 12 DP1136859
- Lot 8 DP1136859
- Lot 9 DP1136859

Note: Location of MW6 in Lot 13 Area 3 and MW315 in Lot 9 unknown

JBS&G

Job No: 51142

Client: Mirvac

Version: R02 Rev 0 | Date: 15-Jun-2016

Drawn By: RF | Checked By: NC

Scale 1:2,000

0 40

metres

Coord. Sys. GDA 1994 MGA Zone 56

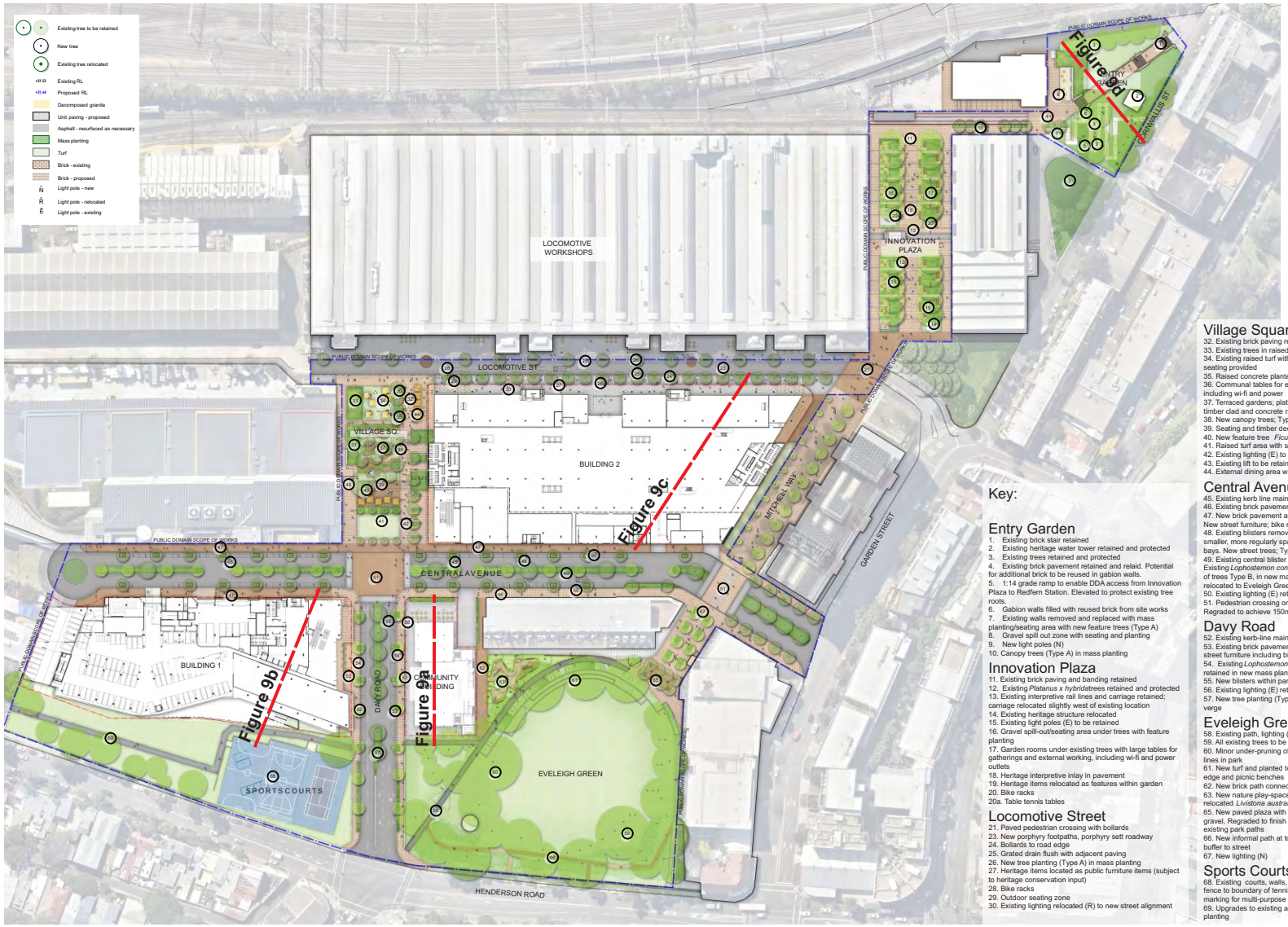
Australia Technology Park Eveleigh, NSW

HISTORIC EXCEEDANCES IN GROUNDWATER

FIGURE 8E WEST:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R02 Rev 0\51142_08eW.mxd

Reference:



Key:

Entry Garden
1. Existing brick stair retained
2. Existing heritage water tower retained and protected
3. Existing trees retained and protected
4. Existing brick pavement retained and relaid. Potential for additional brick to be reused in gabion walls.
5. 1:14 grade ramp to enable DDA access from Innovation Plaza to Redfern Station. Elevated to protect existing tree roots.
6. Gabion walls filled with reused brick from site works
7. Existing walls removed and replaced with mass planting/seating area with new feature trees (Type A)
8. Gravel spill out zone with seating and planting
9. New light poles (N)
10. Canopy trees (Type A) in mass planting

Innovation Plaza
11. Existing brick paving and banding retained
12. Existing *Platanus x hybrida* trees retained and protected
13. Existing interpretive rail lines and carriage retained; carriage relocated slightly west of existing location
14. Existing heritage structure relocated
15. Existing light poles (E) to be retained
16. Gravel spill-out/seating area under trees with feature planting
17. Garden rooms under existing trees with large tables for gatherings and external working, including wi-fi and power outlets
18. Heritage interpretive inlay in pavement
19. Heritage items relocated as features within garden
20. Bike racks
20a. Table tennis tables

Locomotive Street
21. Paved pedestrian crossing with bollards
23. New porphyry footpaths, porphyry sett roadway
24. Bollards to road edge
25. Grated drain flush with adjacent paving
26. New tree planting (Type A) in mass planting
27. Heritage items located as public furniture items (subject to heritage conservation input)
28. Bike racks
29. Outdoor seating zone
30. Existing lighting relocated (R) to new street alignment

Village Square
32. Existing brick paving retained
33. Existing trees in raised planters retained
34. Existing raised turf with concrete edge retained. New seating provided
35. Raised concrete planters with tree and mass planting
36. Communal tables for external working within garden, including wi-fi and power
37. Terraced gardens; platforms and bench seating within timber clad and concrete raised planters
38. New canopy trees; Type P, in mass planting
39. Seating and timber deck for informal events/gathering
40. New feature tree *Ficus macrophylla*
41. Raised turf area with seating edge
42. Existing lighting (E) to be retained
43. Existing lift to be retained
44. External dining area with seating and umbrellas

Central Avenue
45. Existing kerb line maintained
46. Existing brick pavement retained
47. New brick pavement as consistent footpath treatment. New street furniture; bike racks and street benches.
48. Existing blisters removed and replaced with new, smaller, more regularly spaced blisters between parking bays. New street trees; Type A, in mass planting
49. Existing central blister extended as continuous verge. Existing *Lophostemon confertus* trees retained. Interplanting of trees Type B, in new mass planting. Existing palms relocated to Eveleigh Green play-space
50. Existing lighting (E) retained
51. Pedestrian crossing on brick intersection surface. Regraded to achieve 150mm kerb and gutter at intersection

Davy Road
52. Existing kerb-line maintained
53. Existing brick pavement footpath maintained with new street furniture including bike racks and benches
54. Existing *Lophostemon confertus* street trees to be retained in new mass planting
55. New blisters within parking lane; mass planted
56. Existing lighting (E) retained
57. New tree planting (Type B) and under-story to central verge

Eveleigh Green
58. Existing path, lighting (E) and bridge retained
59. All existing trees to be retained and protected
60. Minor under-pruning of *Casuarina sp.* to improve sight lines in park
61. New turf and planted terraces with concrete seating edge and picnic benches
62. New brick path connection to park
63. New nature play-space with mass planted garden and relocated *Livistona australis*
65. New paved plaza with grove tree planting (Type P) in gravel. Regraded to finish flush with upper terrace and existing park paths
66. New informal path at top of bank within mass planted buffer to street
67. New lighting (N)

Sports Courts
68. Existing courts, walls, lighting and edges retained. New fence to boundary of tennis court. New surface and line-marking for multi-purpose courts
69. Upgrades to existing asphalt footpath and new mass planting

Australian Technology Park
State Significant Development Application

ASPECT Studios™

Dwg. Name	Landscape Master Plan	Drawn	BP | EC	Scale	1:800 @A1	Dwg. No	14080_LA_001
Client	Mirvac Projects Pty Ltd	Checked	NB | SC	Date	Dec 2015	Revision	B

Legend:

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

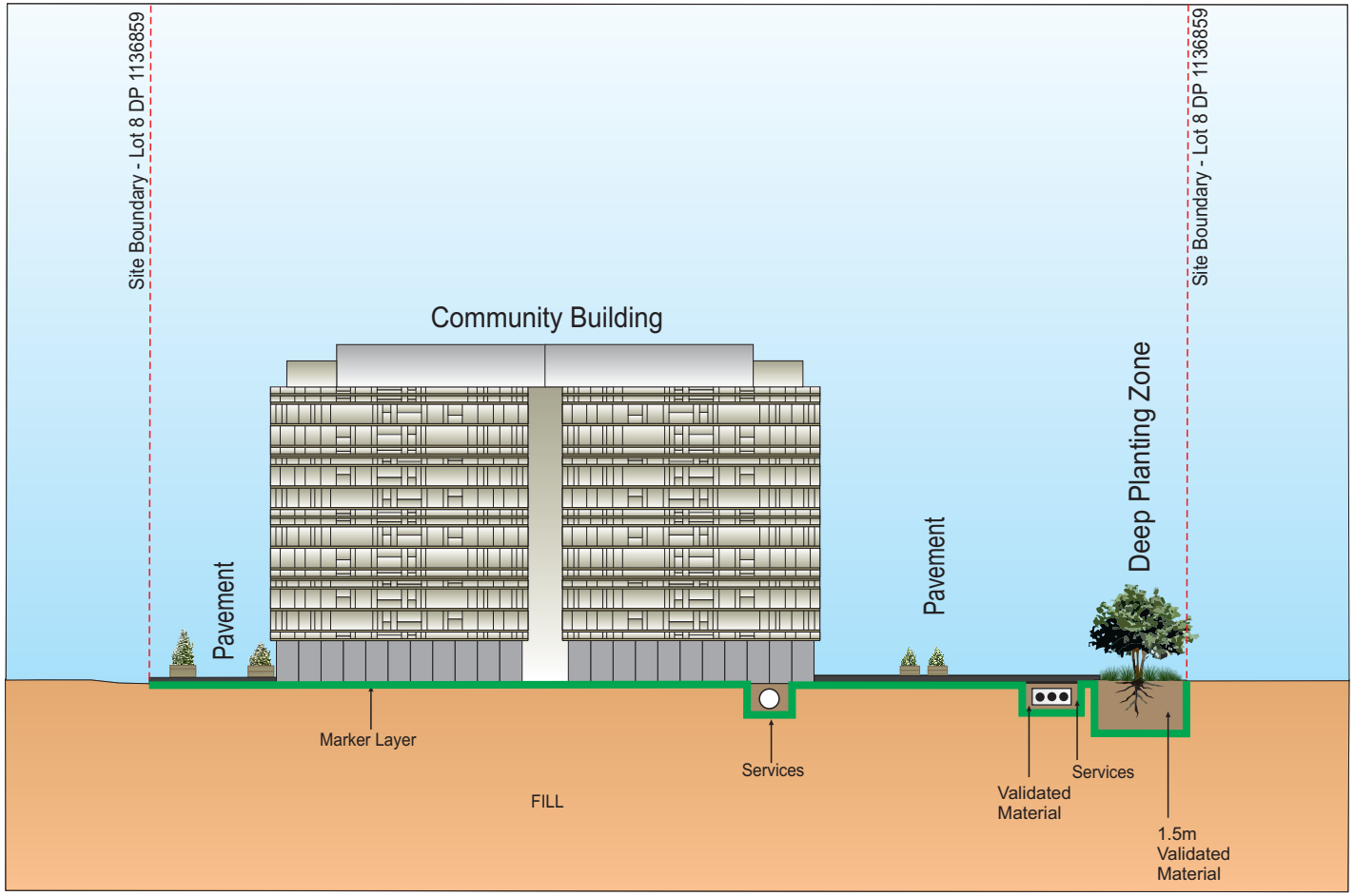
Not to Scale

Australia Technology Park
Eveleigh, NSW

CROSS SECTION SCHEMATIC REPRESENTATION OF CAPPING ARRANGEMENTS

FIGURE 9:

File Reference: 51142_09



Legend:

- Marker Layer
- Validated Material

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

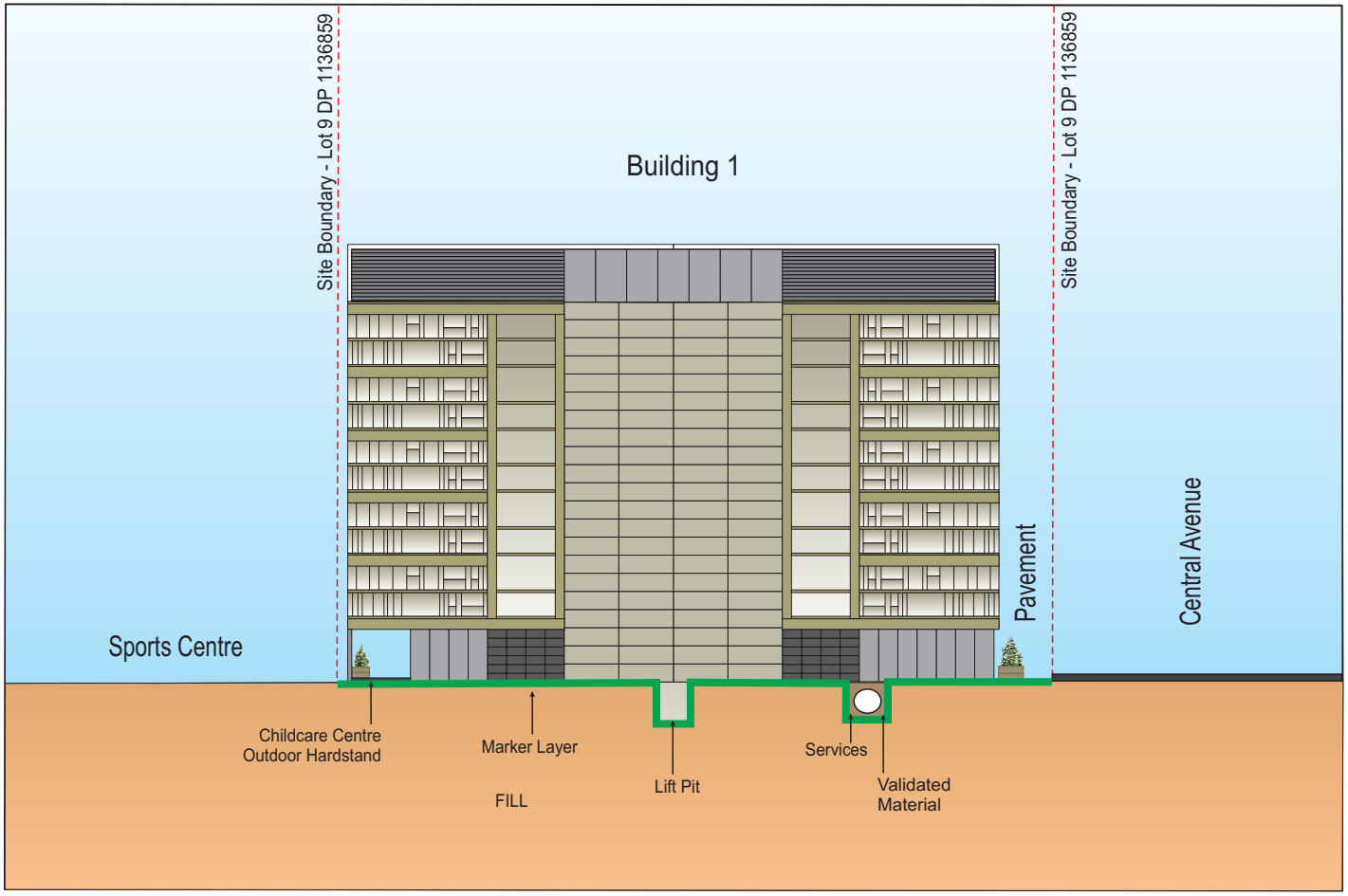
Not to Scale

Australia Technology Park
Eveleigh, NSW

SCHEMATIC REPRESENTATION OF CAPPING ARRANGEMENTS - LOT 8 DP1136859

FIGURE 9a:

File Reference: 51142_09a



Legend:

- Marker Layer
- Validated Material

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

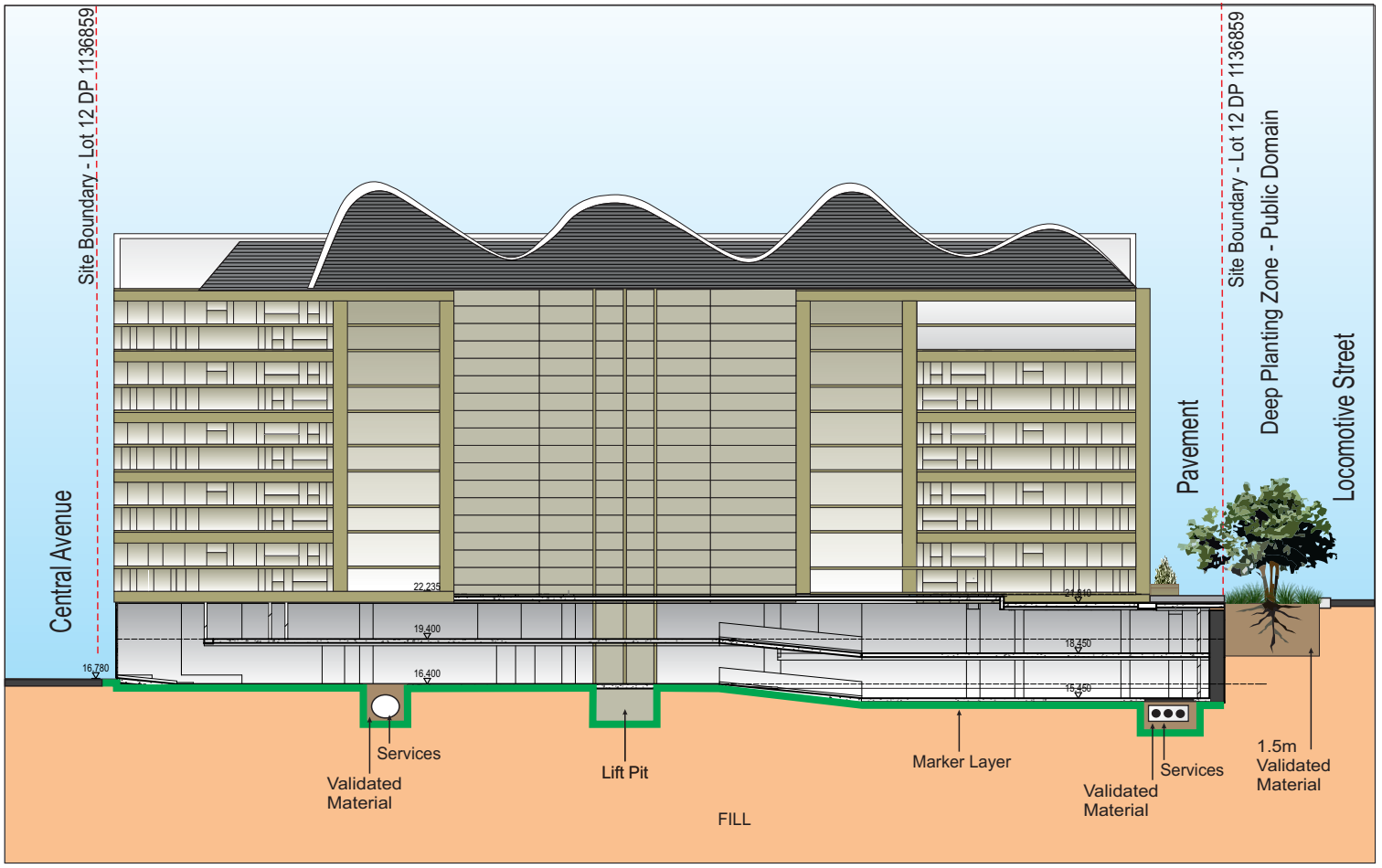
Not to Scale

Australia Technology Park
Eveleigh, NSW

SCHEMATIC REPRESENTATION OF CAPPING ARRANGEMENTS - LOT 9 DP1136859

FIGURE 9b:

File Reference: 51142_09c



Legend:

- Marker Layer
- Validated Material

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 14-Jun-2016
Drawn By: RF	Checked By: NC

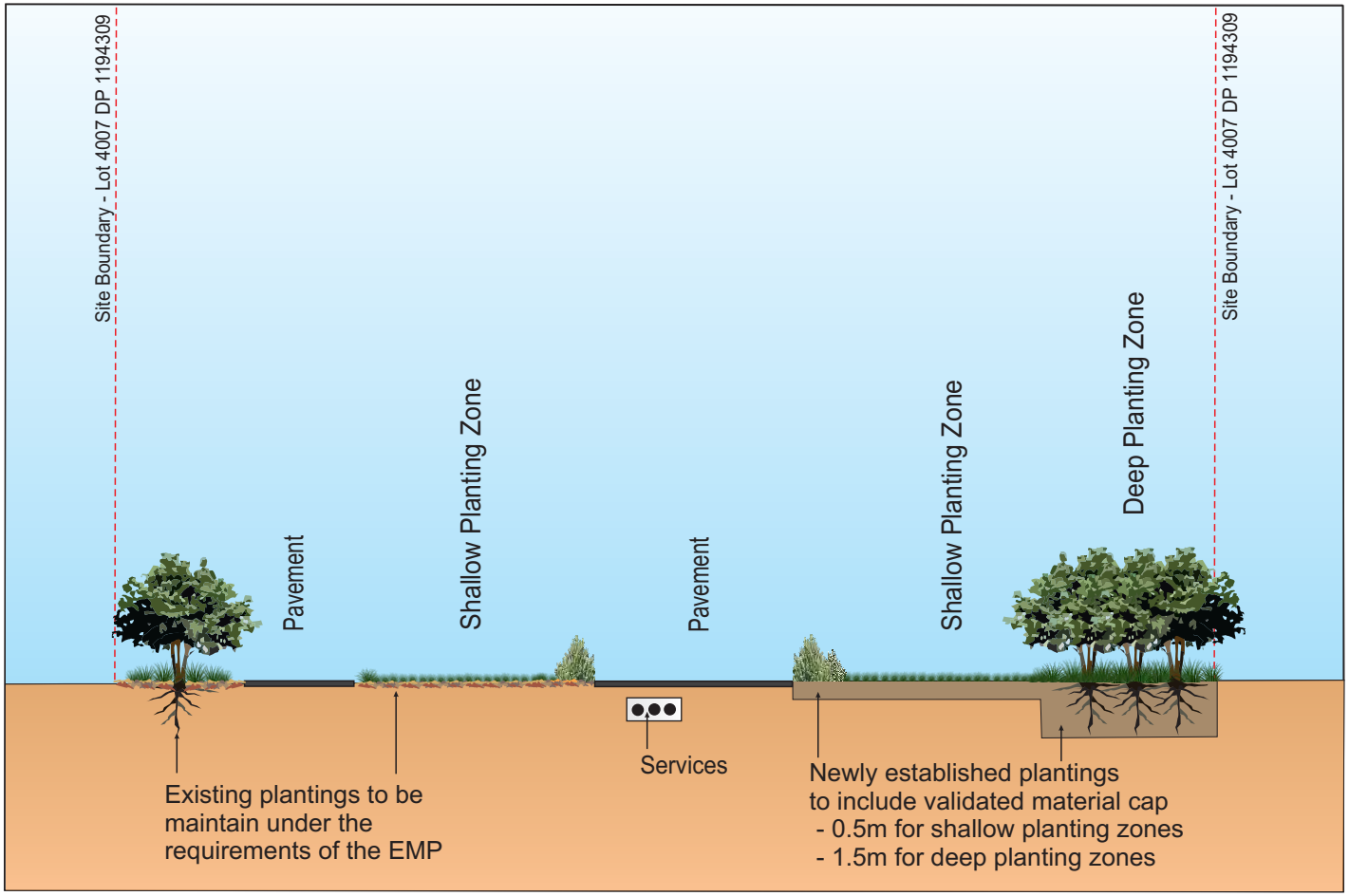
Not to Scale

Australia Technology Park
Eveleigh, NSW

SCHEMATIC REPRESENTATION OF CAPPING ARRANGEMENTS - LOT 12 DP1136859

FIGURE 9c:

File Reference: 51142_09c



Legend:

- Marker Layer
- Validated Material

JBS&G

Client: Mirvac

Version: R02 Rev 0	Date: 15-Jun-2016
Drawn By: RF	Checked By: NC

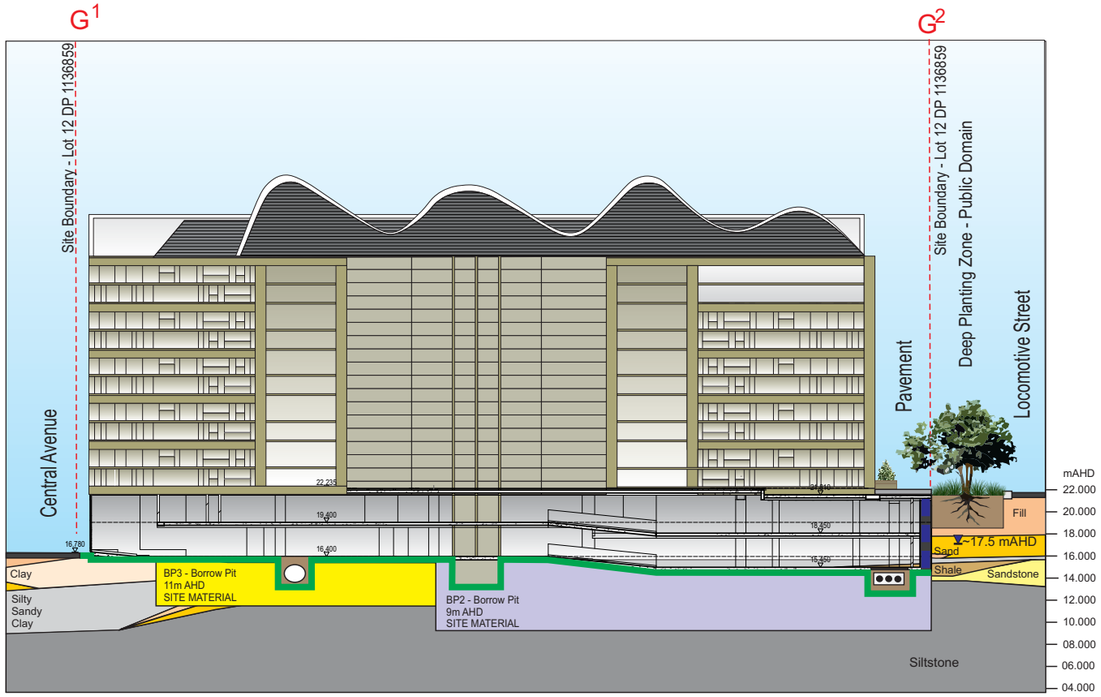
Not to Scale

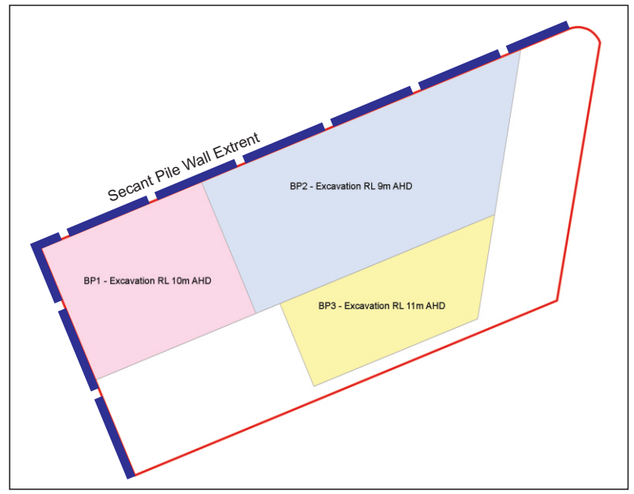
Australia Technology Park
Eveleigh, NSW

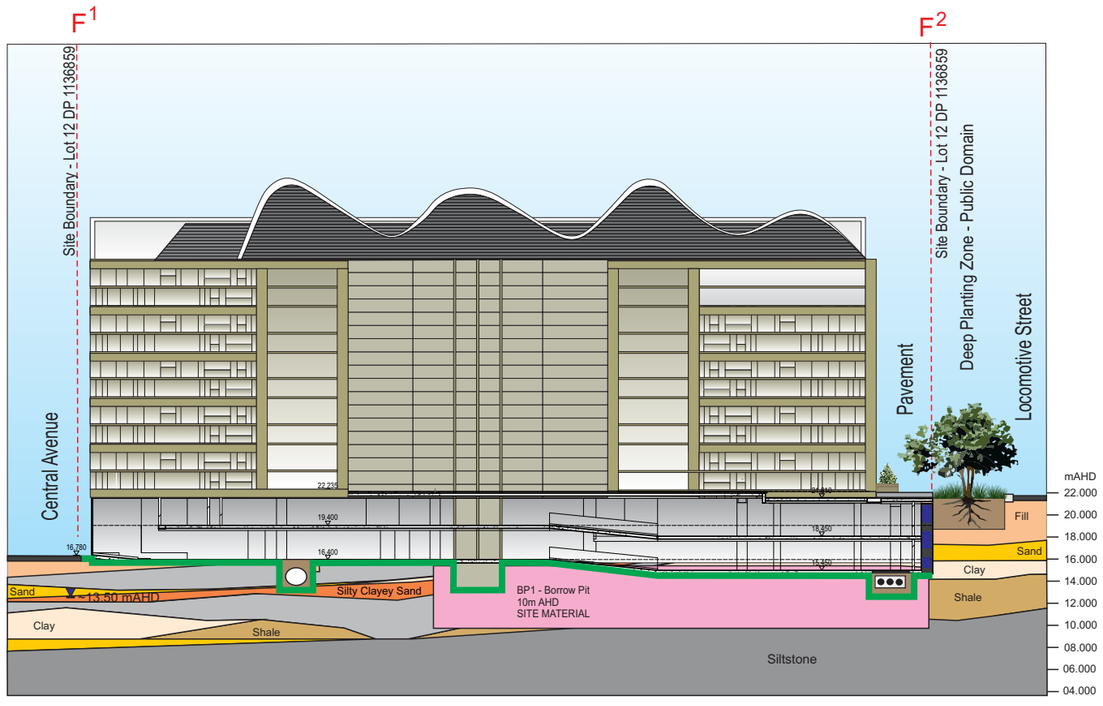
SCHEMATIC REPRESENTATION OF CAPPING ARRANGEMENTS - LOT 4007 DP1194309 - AREA 1 PUBLIC DOMAIN

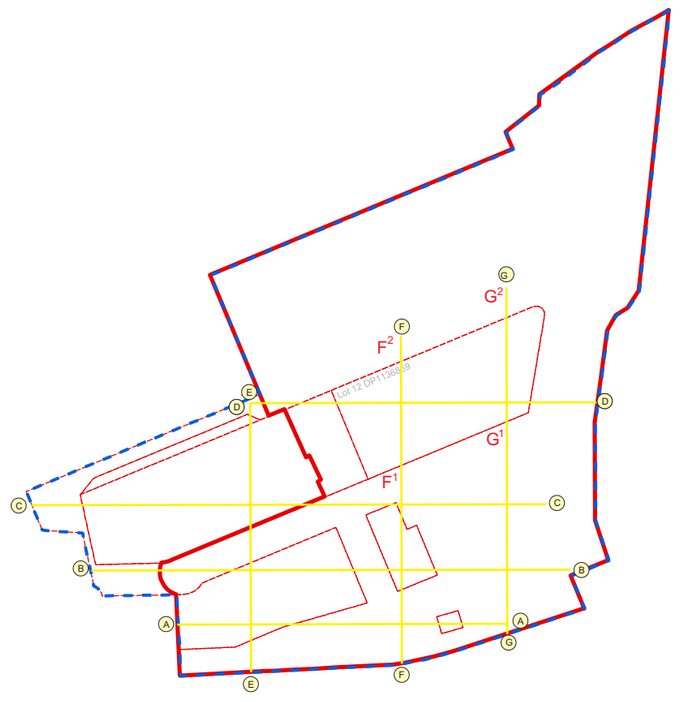
FIGURE 9d:

File Reference: 51142_09c









Legend:

- Approximate Site Boundary

Borrow Pit Locations

- BP1 - Excavation RL 10m AHD
- BP2 - Excavation RL 9m AHD
- BP3 - Excavation RL 11m AHD
- Site Material

Lithology

- Silty Sandy Clay
- Clay
- Sand
- Silty Clayey Sand
- Shale
- Sandstone
- Siltstone
- Secant Pile Wall

JBS&G

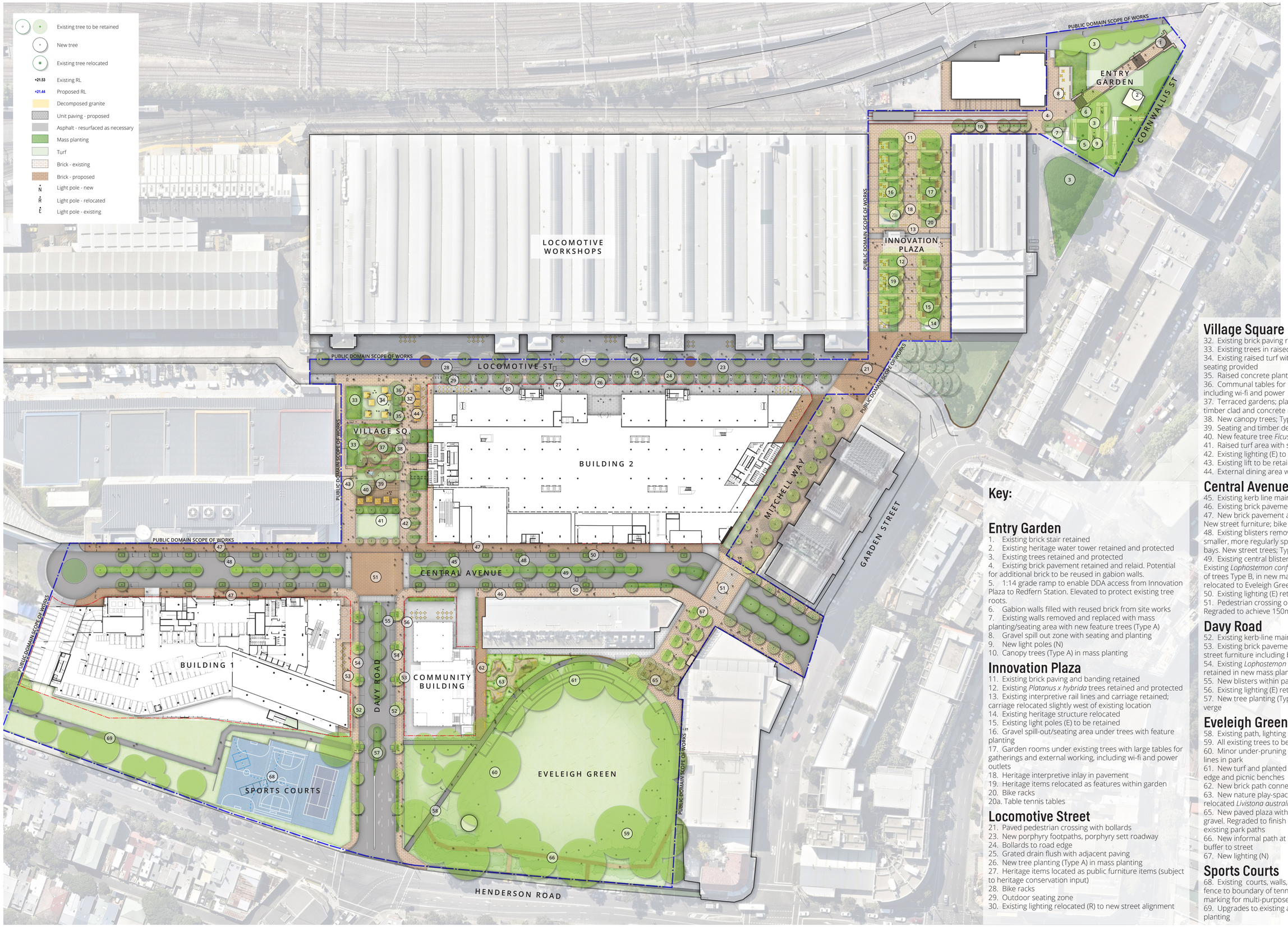
Job No: 51142	
Client: Mirvac	
Version: R02 Rev 1	Date: 23-Jun-2016
Drawn By: RF	Checked By: NC
Not to Scale	
Coord. Sys. GDA 1994 MGA Zone 56	

Australia Technology Park
Eveleigh, NSW

BORROW PIT EXTENT AND CONSTRUCTION
- LOT 12 DP1136859

FIGURE 10:

Appendix A Design Plans, Landscaping and Staging



Australian Technology Park

State Significant Development Application

Key:

Entry Garden

1. Existing brick stair retained
2. Existing heritage water tower retained and protected
3. Existing trees retained and protected
4. Existing brick pavement retained and relaid. Potential for additional brick to be reused in gabion walls.
5. 1:14 grade ramp to enable DDA access from Innovation Plaza to Redfern Station. Elevated to protect existing tree roots.
6. Gabion walls filled with reused brick from site works
7. Existing walls removed and replaced with mass planting/seating area with new feature trees (Type A)
8. Gravel spill out zone with seating and planting
9. New light poles (N)
10. Canopy trees (Type A) in mass planting

Innovation Plaza

11. Existing brick paving and banding retained
12. Existing *Platanus x hybrida* trees retained and protected
13. Existing interpretive rail lines and carriage retained; carriage relocated slightly west of existing location
14. Existing heritage structure relocated
15. Existing light poles (E) to be retained
16. Gravel spill-out/seating area under trees with feature planting
17. Garden rooms under existing trees with large tables for gatherings and external working, including wi-fi and power outlets
18. Heritage interpretive inlay in pavement
19. Heritage items relocated as features within garden
20. Bike racks

20a. Table tennis tables

Locomotive Street

21. Paved pedestrian crossing with bollards
23. New porphyry footpaths, porphyry sett roadway
24. Bollards to road edge
25. Grated drain flush with adjacent paving
26. New tree planting (Type A) in mass planting
27. Heritage items located as public furniture items (subject to heritage conservation input)
28. Bike racks
29. Outdoor seating zone
30. Existing lighting relocated (R) to new street alignment

Village Square

32. Existing brick paving retained
33. Existing trees in raised planters retained
34. Existing raised turf with concrete edge retained. New seating provided
35. Raised concrete planters with tree and mass planting
36. Communal tables for external working within garden, including wi-fi and power
37. Terraced gardens; platforms and bench seating within timber clad and concrete raised planters
38. New canopy trees; Type P, in mass planting
39. Seating and timber deck for informal events/gathering
40. New feature tree *Ficus macrophylla*
41. Raised turf area with seating edge
42. Existing lighting (E) to be retained
43. Existing lift to be retained
44. External dining area with seating and umbrellas

Central Avenue

45. Existing kerb line maintained
46. Existing brick pavement retained
47. New brick pavement as consistent footpath treatment. New street furniture; bike racks and street benches.
48. Existing blisters removed and replaced with new, smaller, more regularly spaced blisters between parking bays. New street trees; Type A, in mass planting
49. Existing central blister extended as continuous verge. Existing *Lophostemon confertus* trees retained. Interplanting of trees Type B, in new mass planting. Existing palms relocated to Eveleigh Green play-space
50. Existing lighting (E) retained
51. Pedestrian crossing on brick intersection surface. Regraded to achieve 150mm kerb and gutter at intersection

Davy Road

52. Existing kerb-line maintained
53. Existing brick pavement footpath maintained with new street furniture including bike racks and benches
54. Existing *Lophostemon confertus* street trees to be retained in new mass planting
55. New blisters within parking lane; mass planted
56. Existing lighting (E) retained
57. New tree planting (Type B) and under-story to central verge

Eveleigh Green

58. Existing path, lighting (E) and bridge retained
59. All existing trees to be retained and protected
60. Minor under-pruning of *Casaurina sp.* to improve sight lines in park
61. New turf and planted terraces with concrete seating edge and picnic benches
62. New brick path connection to park
63. New nature play-space with mass planted garden and relocated *Livistona australis*
65. New paved plaza with grove tree planting (Type P) in gravel. Regraded to finish flush with upper terrace and existing park paths
66. New informal path at top of bank within mass planted buffer to street
67. New lighting (N)

Sports Courts

68. Existing courts, walls, lighting and edges retained. New fence to boundary of tennis court. New surface and line-marking for multi-purpose courts
69. Upgrades to existing asphalt footpath and new mass planting

ASPECT Studios™

N

Dwg. Name	**Landscape Master Plan**	Drawn	**BP | EC**	Scale	1:800 @A1	Dwg. No	**14080_LA_001**
Client	**Mirvac Projects Pty Ltd**	Checked	**NB | SC**	Date	**Dec 2015**	Revision	**B**



TREE STRATEGY - PRINCIPLES

- "Right tree for right space"' - ensure the selected tree species respond to site specifics and design intent.
- Provide street comfort, shade, wind protection and appropriate scale.
- Rationalise existing tree planting palette.
- Celebrate and emphasize entry experiences
- Utilise best practice in urban tree establishment
- Comply with site requirement such as maintaining key views and managing tree litter
- Reference to the City Of Sydney Tree Species Master Plan overarching selection criteria


1


2



3


4

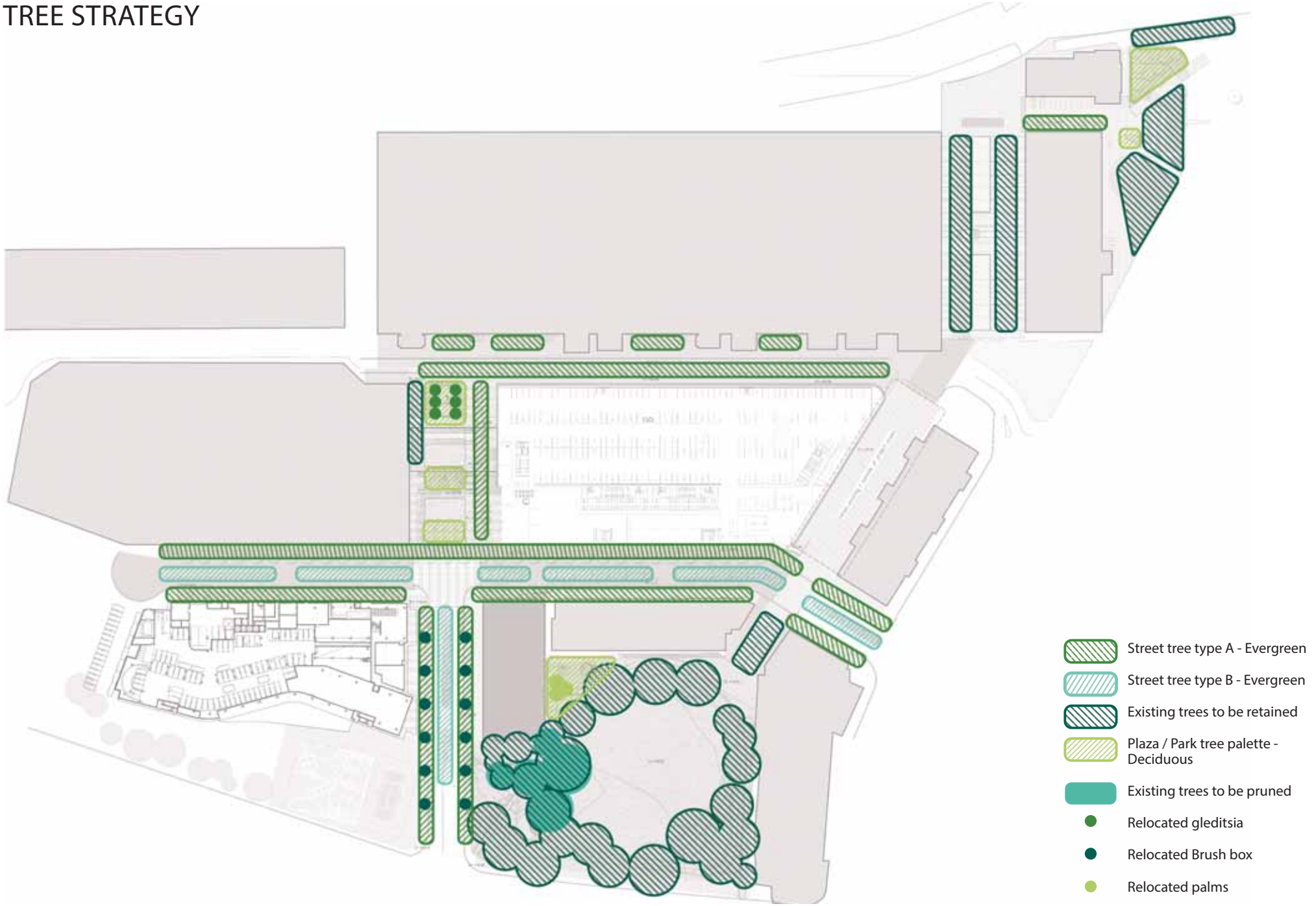

5


6

EXISTING CONDITIONS

1. Plane trees create dappled shade and comfort in locomotive square.
2. A mix of tree and understory species to central boulevard creates an inconsistant and messy streetscape.
3. Spacing between trees on Davey St is too large
4. Existing trees to be under pruned to create visual connections.
5. Protect and retain great mature feature trees throughout the site.
6. 'Not the right tree in right space' provides no amenity and comfort.

TREE STRATEGY



STREET TREE TYPE A - EVERGREEN





HARPULIA PENDULA - TULIPWOOD

Scale: 9m x 6m
Form: High branching rounded broad dome habit.
Native: Yes
Evergreen: Yes
CoS MP: N





WATERHOUSIA FLORIBUNDA'GREEN AVENUE'- GREEN AVENUE LILLY PILLY

Scale: 12 x 7m
Form: Rounded to broad habit
Native: Yes
Evergreen: Yes
CoS MP: Y





TRISTANIOPSIS LAURINA - LUSCIOUS WATER GUM

Scale: 8m x 8m
Form: High branching rounded habit
Native: Yes
Evergreen: Yes
CoS MP: Y





GLOCHIDION FERDINANDI - CHEESE TREE

Scale: 8m x 5m
Form: High branching bushy / broad rounded habit
Native: Yes
Evergreen: Yes
CoS MP: N

STREET TREE TYPE B - EVERGREEN









BRACHYCHITON POPULNEUS - KURRAJONG

Scale: 20m x 6m
Form: pyramidal when young, overall narrow shape growing wider with age; dense foliage
Native: Yes
Evergreen: Yes
CoS MP: N

AGATHIS ROBUSTA - OLD KAURI PINE

Scale: 20m x 6m
Form: Branching clear truncked columnar upright habit.
Native: Yes
Evergreen: Yes
CoS MP: N

SQUARE PLAZA TREE TYPES - DECIDUOUS





LIRIODENDRON TULIPIFERA - TULIP TREE

Scale: 20m x 5m
Form: pyramidal crown when young, becoming oval in shape with time.
Native: No
Evergreen: No
CoS MP: Y





GLEDITSIATRIACANTHOSINERMIS-THORNLESS HONEY LOCUST

Scale: 18m x 9m
Form: Broad round weeping habit
Native: No
Evergreen: No
CoS MP: N





PISTACIA CHINENSIS - CHINESE PISTACHIO

Scale: 8m x 6m
Form: Rounded habit.
Native: No
Evergreen: No
CoS MP: Y

STAGE 2

STAGE 3

STAGE 1

Existing Building
Excluded

STAGE 2

STAGE 1

STAGE 1

STAGE 2

STAGE 2

KEYPLAN:

STAGE 1

STAGE 2

STAGE 3

mirvac

Project: AUSTRALIAN TECHNOLOGY PARK

Title: OVERALL PROJECT STAGING
REV 1 30.07.2015

North

NOTE: THE LOCATION OF CONSTRUCTION PLANT, EQUIPMENT, WORK ZONES AND ACCESS ROUTES ARE SUBJECT TO FINAL PLANNING BY MIRVAC

STAGE 1

ACCESS TO AREA FOR DURATION OF CONSTRUCTION ONLY

ACCESS TO EXISTING BUILDING

STAGE 1

STAGE 1

STAGE 2

SITE COMPOUND

STAGE 2

KEYPLAN:

- PEDESTRIAN CROSSING (Subject to Authority Approval)
- CONSTRUCTION VEHICLE ROUTES
- PEDESTRIAN ROUTES
- CONSTRUCTION WORK ZONE
- DEDICATED PEDESTRIAN WALKWAY
- MAN & MATERIAL HOIST
- TOWER CRANE
- A-CLASS HOARDING
- B CLASS HOARDING

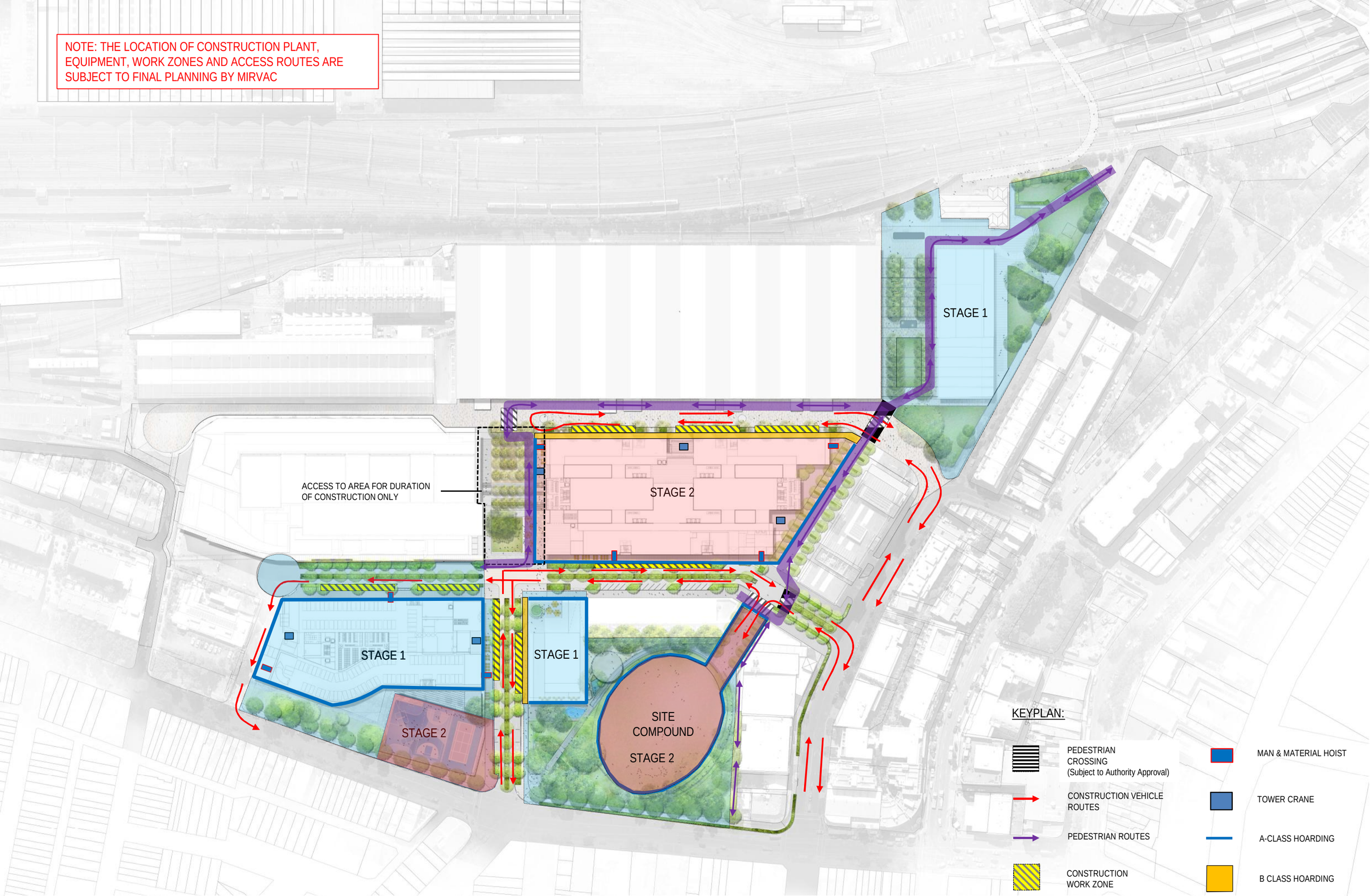
mirvac

Project: AUSTRALIAN TECHNOLOGY PARK

Title: SITE PLAN DURING STAGE 1 CONSTRUCTION
REV 1 30.07.2015

North

NOTE: THE LOCATION OF CONSTRUCTION PLANT, EQUIPMENT, WORK ZONES AND ACCESS ROUTES ARE SUBJECT TO FINAL PLANNING BY MIRVAC



KEYPLAN:

- PEDESTRIAN CROSSING (Subject to Authority Approval)
- CONSTRUCTION VEHICLE ROUTES
- PEDESTRIAN ROUTES
- CONSTRUCTION WORK ZONE
- DEDICATED PEDESTRIAN WALKWAY
- MAN & MATERIAL HOIST
- TOWER CRANE
- A-CLASS HOARDING
- B CLASS HOARDING

mirvac

Project: AUSTRALIAN TECHNOLOGY PARK

Title: SITE PLAN DURING STAGE 1 AND STAGE 2 CONSTRUCTION
REV 1 30.07.2015

North

NOTE: THE LOCATION OF CONSTRUCTION PLANT, EQUIPMENT, WORK ZONES AND ACCESS ROUTES ARE SUBJECT TO FINAL PLANNING BY MIRVAC

STAGE 2

STAGE 1

ACCESS TO AREA FOR DURATION OF CONSTRUCTION ONLY

STAGE 2

STAGE 1

STAGE 1

STAGE 2

STAGE 2

KEYPLAN:

- PEDESTRIAN CROSSING (Subject to Authority Approval)
- CONSTRUCTION VEHICLE ROUTES
- PEDESTRIAN ROUTES
- CONSTRUCTION WORK ZONE
- DEDICATED PEDESTRIAN WALKWAY
- MAN & MATERIAL HOIST
- TOWER CRANE
- A-CLASS HOARDING
- B CLASS HOARDING

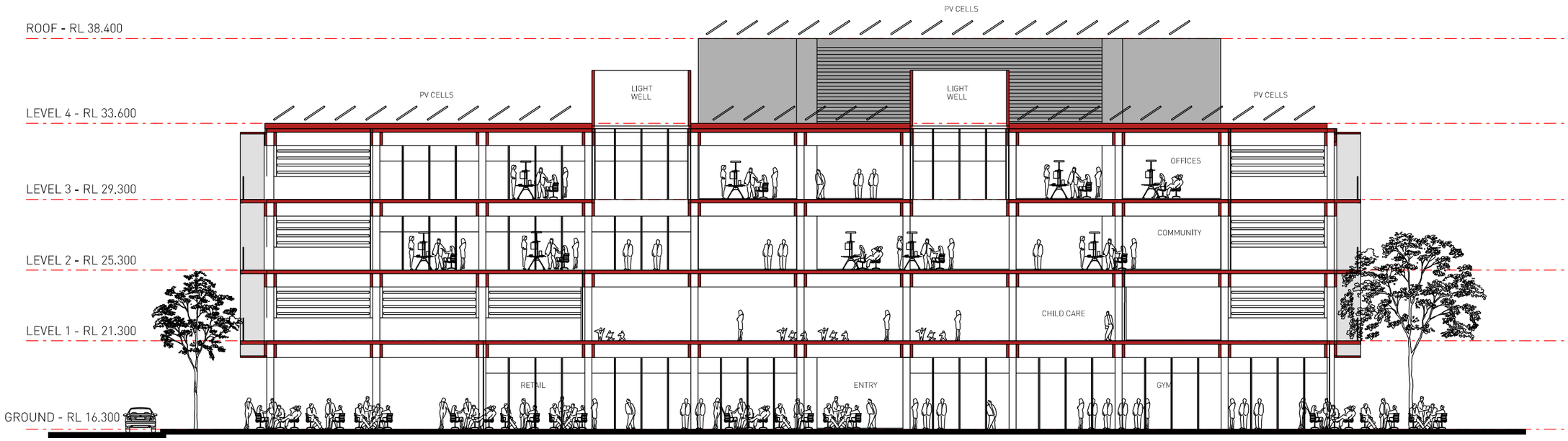
mirvac

Project: AUSTRALIAN TECHNOLOGY PARK

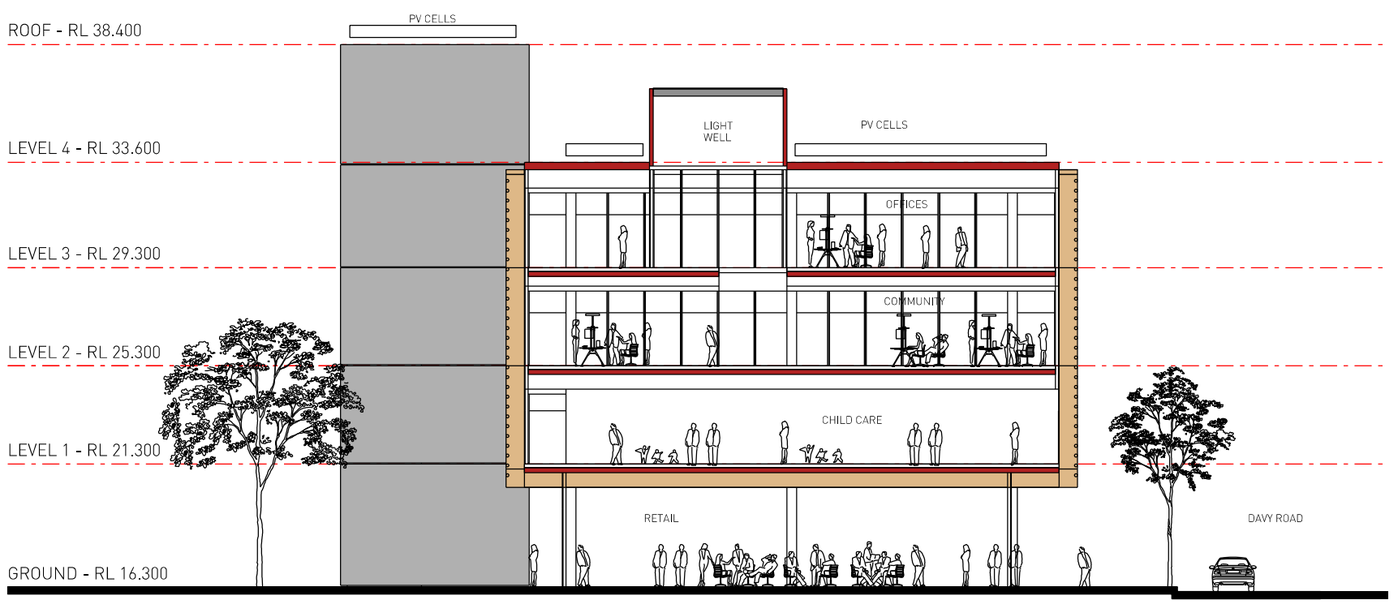
Title: SITE PLAN FOLLOWING COMPLETION OF STAGE 1
REV 1 30.07.2015

North

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219
© SISSONS ARCHITECTS PTY LTD 2015 ABN 31 621 375 129



SECTION A-A NORTH SOUTH



SECTION B-B EAST WEST

fjmt +SISSONS
francis-jones morehen thorp

Elevations

1:250 @ A3, 1:125 @ A1

16/12/15

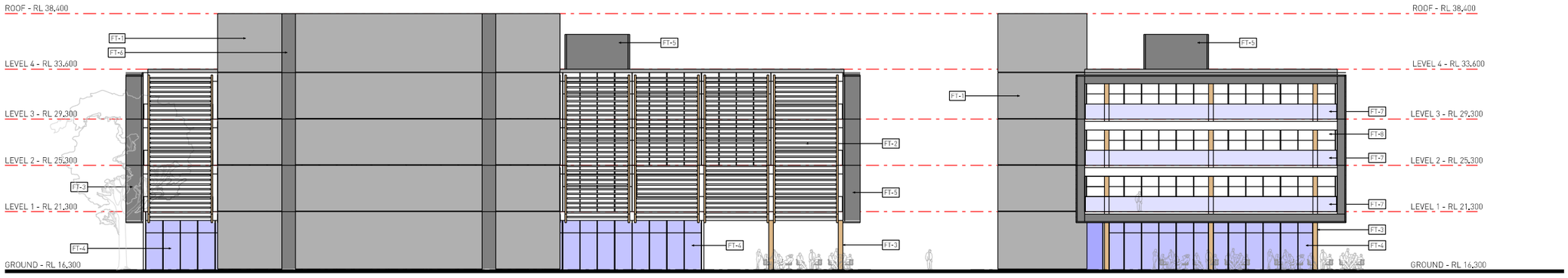
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 3

SisArch-AR-DWG-31060_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219
© SISSONS ARCHITECTS PTY LTD 2015 ABN 31 621 375 129

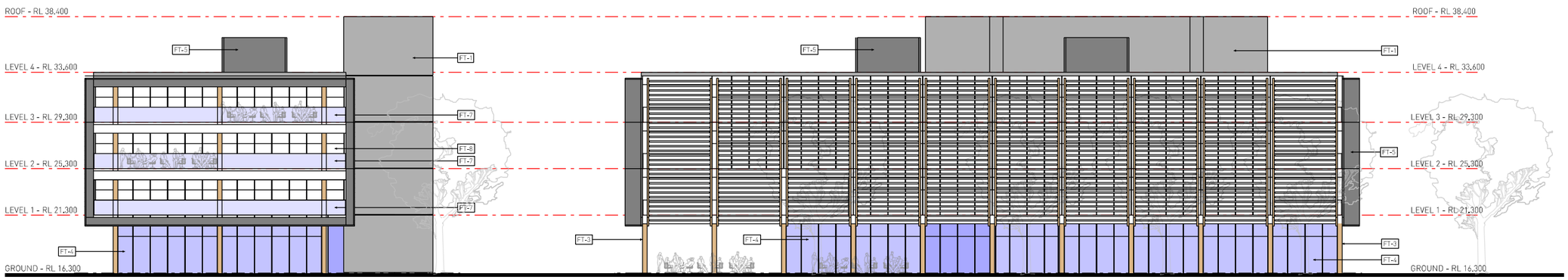
FACADE TYPE LEGEND

- FT-1 CONCRETE FINISH
- FT-2 SILVER ALUMINIUM TUBE SUN SCREENS
- FT-3 COLOURED STRUCTURE
- FT-4 RETAIL SHOPFRONTS
- FT-5 DARK GREY CLADDING - ACP OR SIMILAR
- FT-6 DARK GREY VENTILATION SLOTS
- FT-7 CLEAR GLASS BALUSTRADES
- FT-8 CLEAR GLASS



EAST ELEVATION

NORTH ELEVATION



SOUTH ELEVATION

WEST ELEVATION

fjmt +SISSONS
francis-jones morehen thorp

Elevations

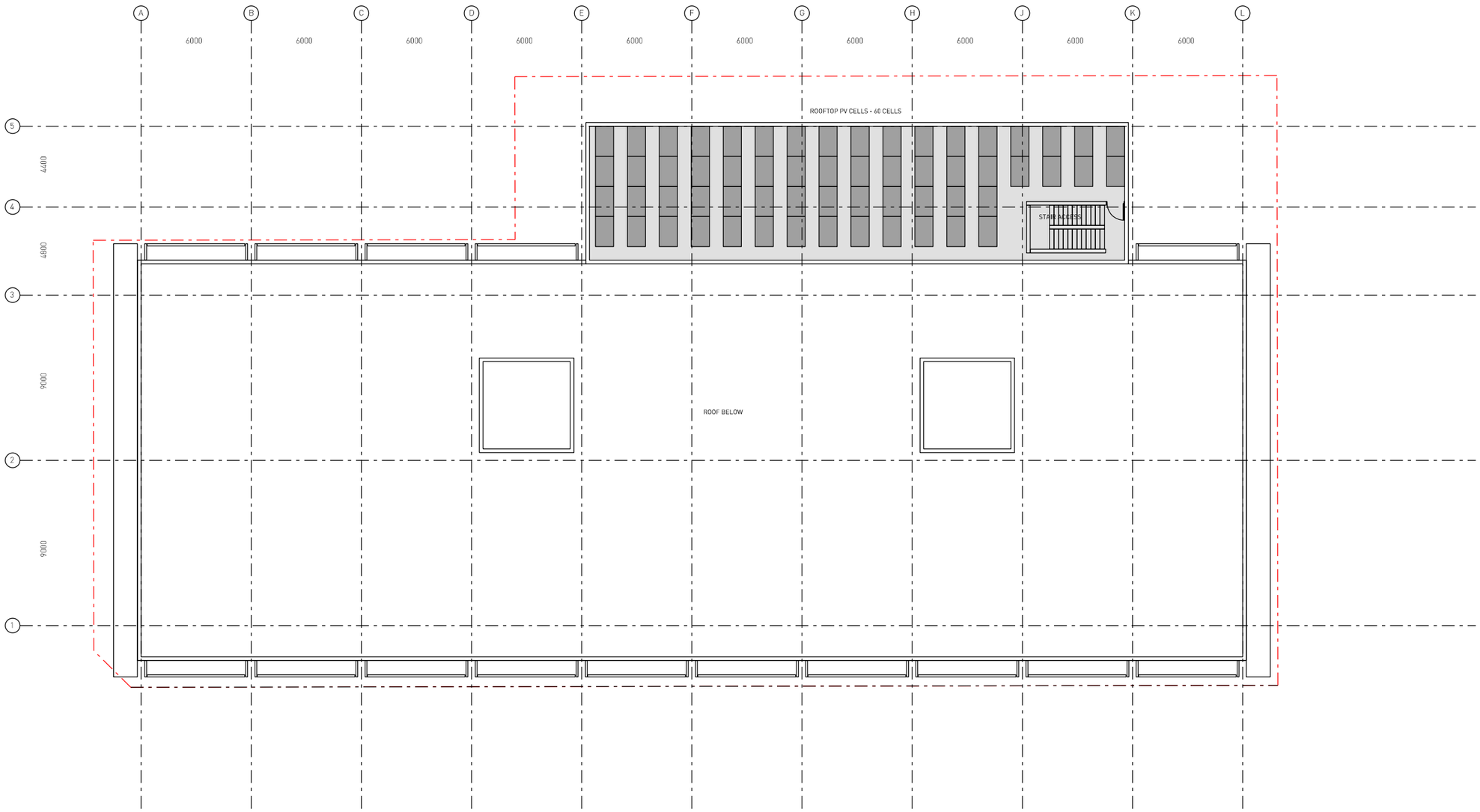
1:200 @ A3, 1:100 @ A1

16/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 3

SisArch-AR-DWG-31050_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219
© SISSONS ARCHITECTS PTY LTD 2015 ABN 31 621 375 129



fjmt +SISSONS
francis-jones morehen thorp

Roof Plan

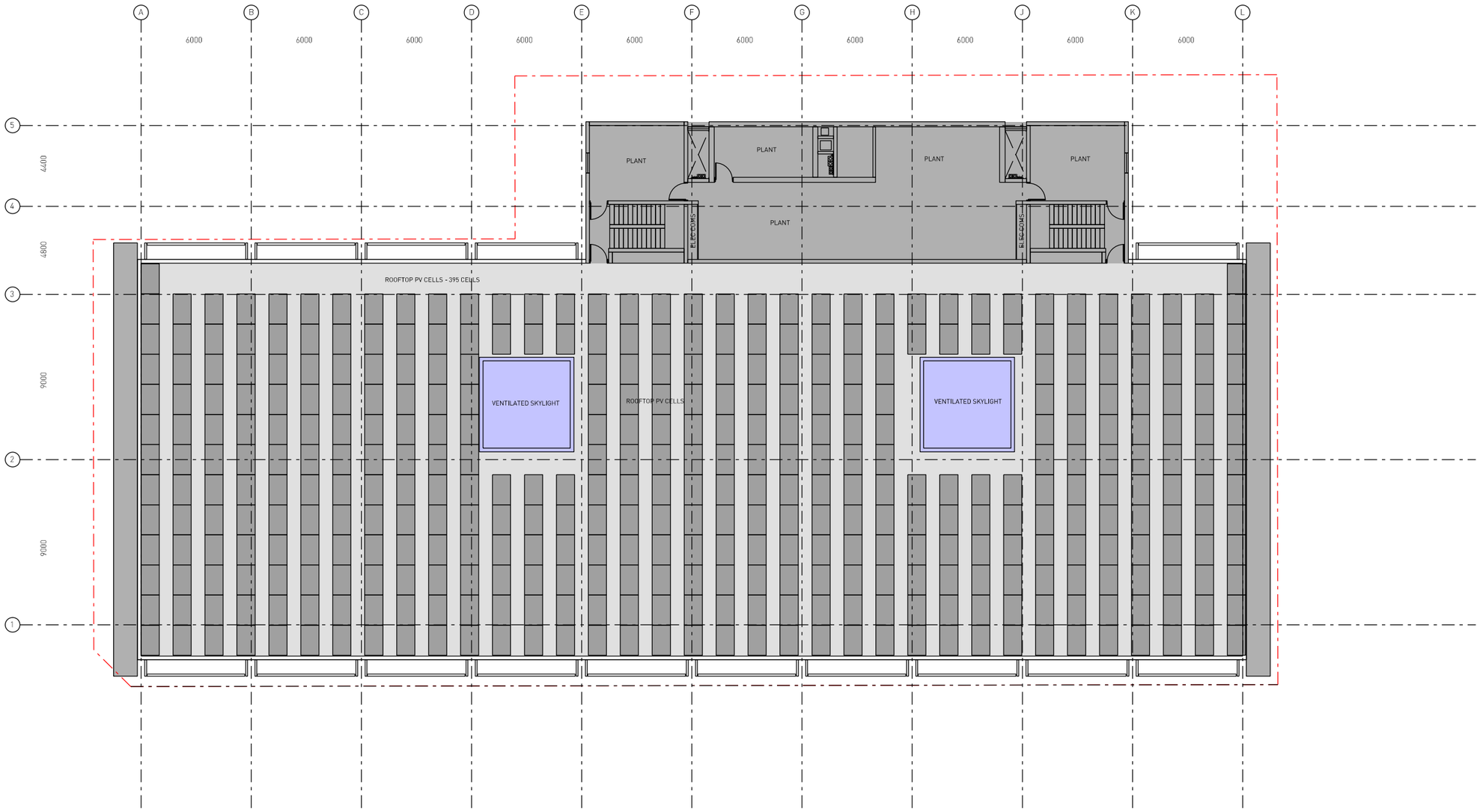
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 3

0 2.5 5 12.5m
1:250 @ A3, 1:125 @ A1

16/12/15

SisArch-AR-DWG-31005_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219
© SISSONS ARCHITECTS PTY LTD 2015 ABN 31 621 375 129



fjmt +SISSONS
francis-jones morehen thorp

Level 04 Plant GA Plan

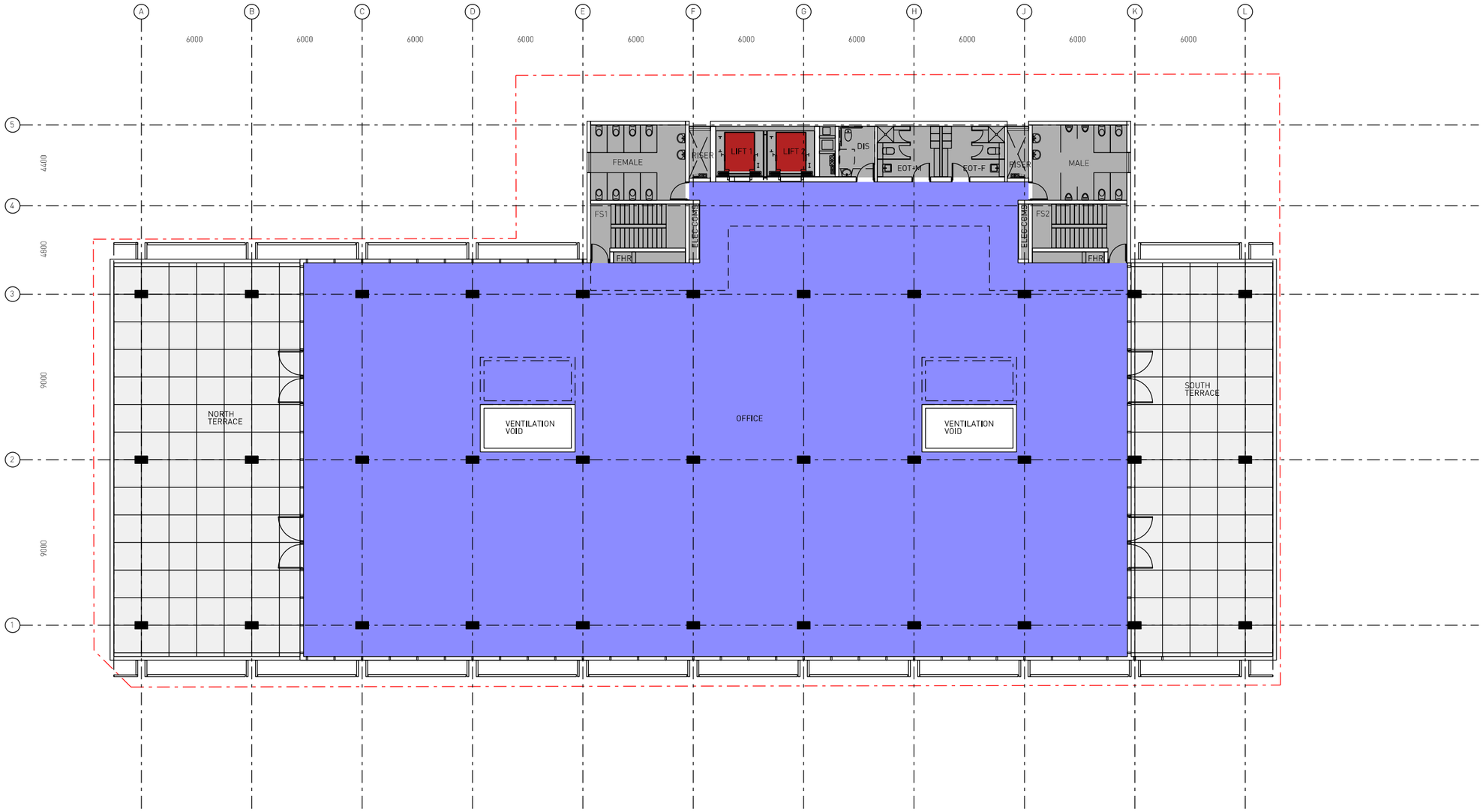
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 3

0 2.5 5 12.5m
1:250 @ A3, 1:125 @ A1

16/12/15

SisArch-AR-DWG-31004_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219
© SISSONS ARCHITECTS PTY LTD 2015 ABN 31 621 375 129



fjmt +SISSONS
francis-jones morehen thorp

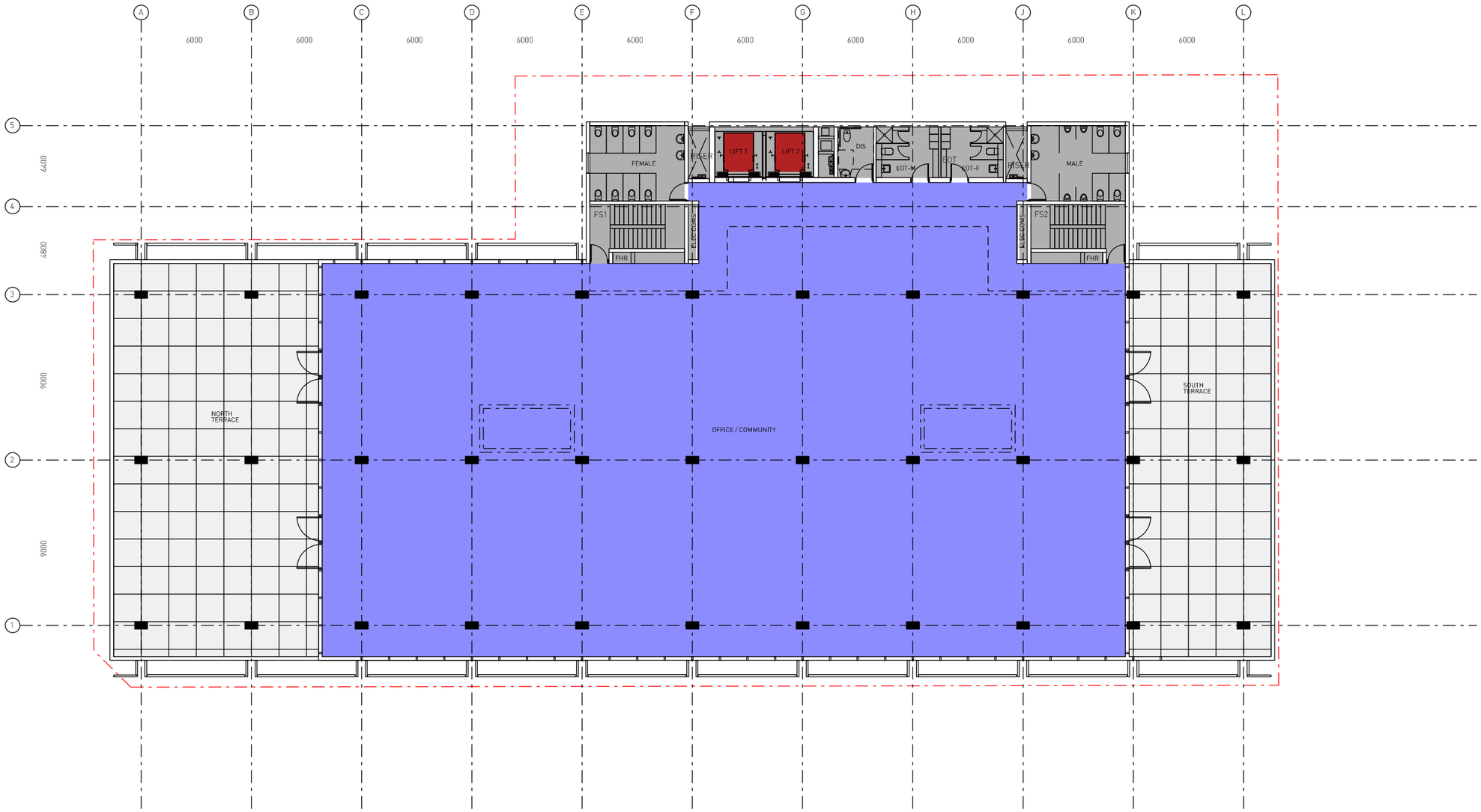
Level 03 GA Plan

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 3

0 2.5 5 12.5m
1:250 @ A3, 1:125 @ A1
16/12/15

SisArch-AR-DWG-31003_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219
© SISSONS ARCHITECTS PTY LTD 2015 ABN 31 621 375 129



fjmt +SISSONS
francis-jones morehen thorp

Level 02 GA Plan

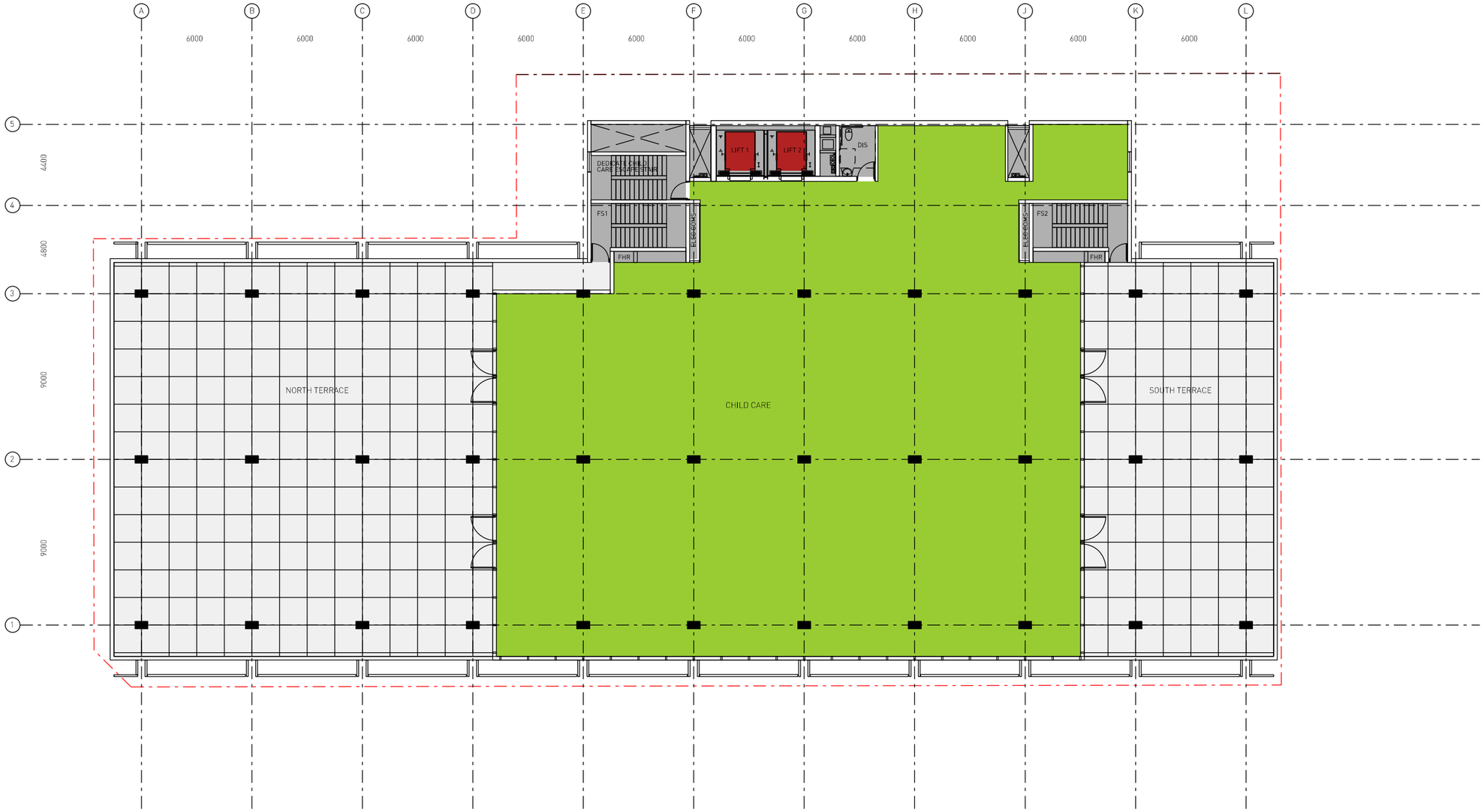
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 3

0 2.5 5 12.5m
1:250 @ A3, 1:125 @ A1

16/12/15

SisArch-AR-DWG-31002_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219
© SISSONS ARCHITECTS PTY LTD 2015 ABN 31 621 375 129



fjmt +SISSONS
francis-jones morehen thorp

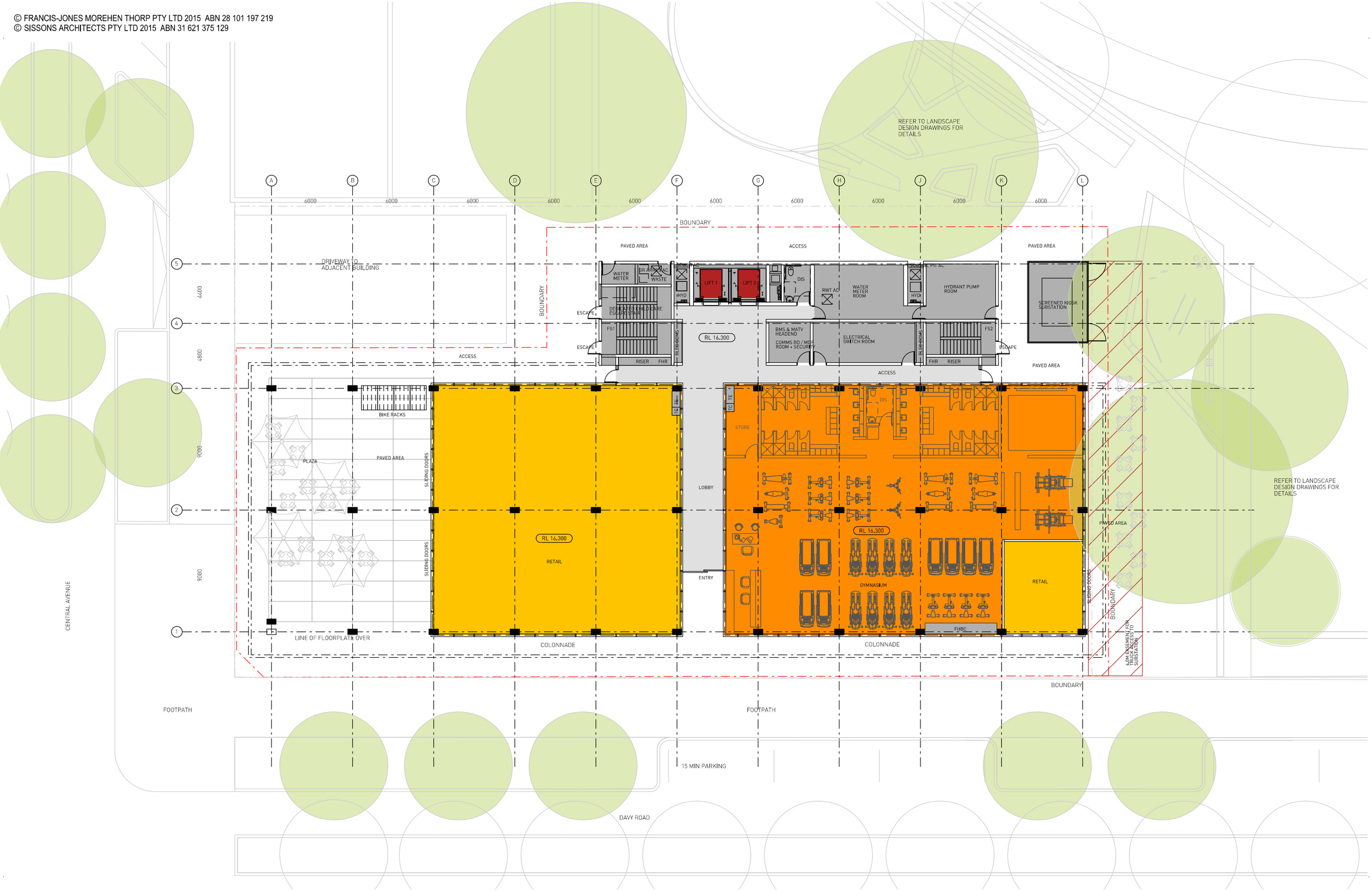
Level 01 GA Plan

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 3

0 2.5 5 12.5m
1:250 @ A3, 1:125 @ A1
16/12/15

SisArch-AR-DWG-31001_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219
© SISSONS ARCHITECTS PTY LTD 2015 ABN 31 621 375 129



fjmt +SISSONS
francis-jones morehen thorp

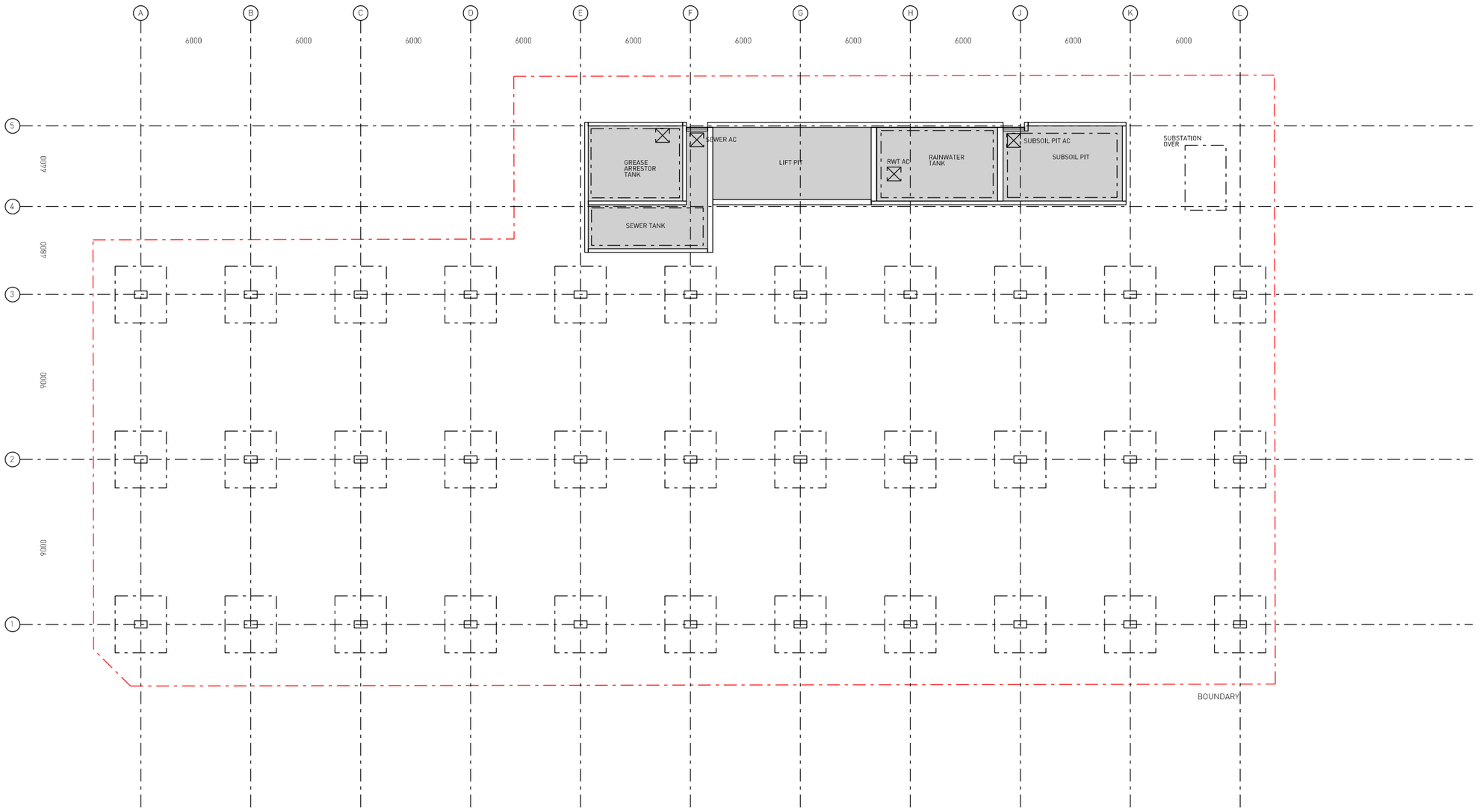
Ground Level GA Plan

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 3

0 2.5 5 12.5m
1:250 @ A3, 1:125 @ A1
16/12/15

SisArch-AR-DWG-3100G_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219
© SISSONS ARCHITECTS PTY LTD 2015 ABN 31 621 375 129



fjmt +SISSONS
francis-jones morehen thorp

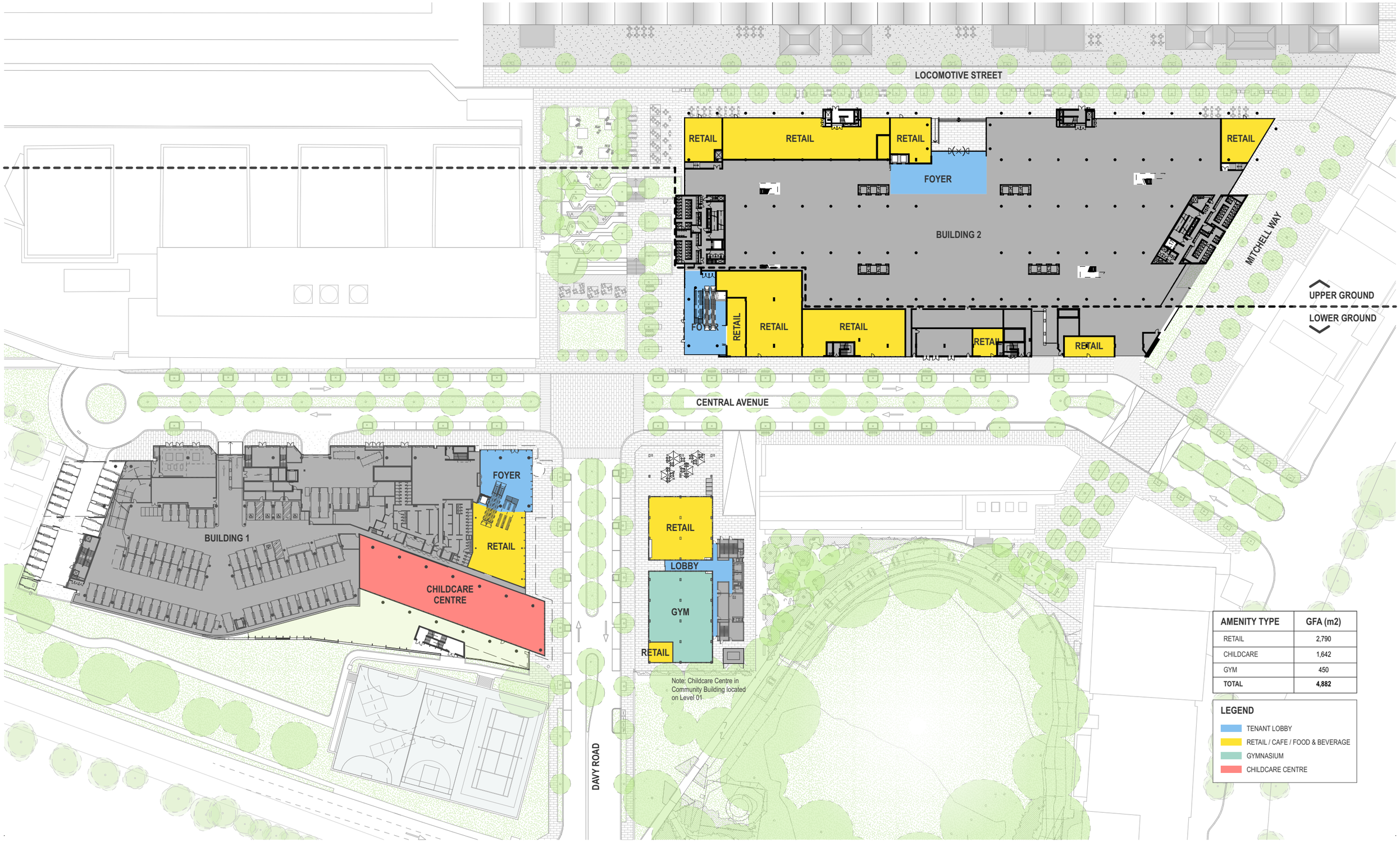
Below Ground GA Plan

0 2.5 5 12.5m
1:250 @ A3, 1:125 @ A1
16/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 3

SisArch-AR-DWG-3100B_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



AMENITY TYPE	GFA (m2)
RETAIL	2,790
CHILDCARE	1,642
GYM	450
TOTAL	**4,882**

LEGEND

- TENANT LOBBY
- RETAIL / CAFE / FOOD & BEVERAGE
- GYMNASIUM
- CHILDCARE CENTRE

fjmt + SISSONS
francis-jones morehen thorp

Site Retail Plan UG + LG

MIRVAC - AUSTRALIAN TECHNOLOGY PARK

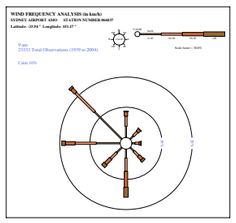
0 10 20 50m
1:1000 @ A3

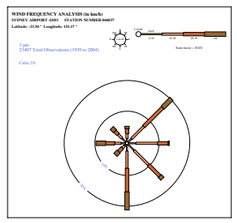
16/12/15

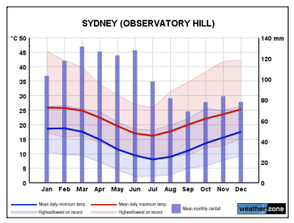
For Approval fjmt-AR-DWG-G1003_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219

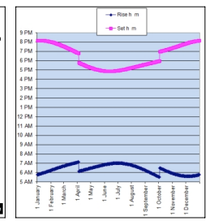
CARRIAGE WORKSHOPS
PAINTSHOP
RAILWAY TRACKS
RAILWAY TRACKS
COOLING NORTH EASTERLY AFTERNOON BREEZES (WARMER MONTHS)
REDFERN STATION
MARIAN STREET
EXISTING INTERNATIOAL BUSINESS CENTRE
HERITAGE WATER TOWER
ENTRY GARDEN
N
LOCOMOTIVE WORKSHOP
LARGE ERECTING SHOP
WINTER SUN PATH
CITY VIEWS FROM L2 & ABOVE
INNOVATION PLAZA
REVAMPED PUBLICLY ACCESSIBLE RECREATION SPACE
EXISTING NATIONAL INNOVATION CENTRE
MARGARET STREET
PREDOMINANT PEDESTRIAN MOVEMENT FROM REDFERN STATION
GIBBONS STREET
CORNWALLIS STREET
CORNWALLIS LANE
ROSEHILL STREET
LOCOMOTIVE STREET
LOCOMOTIVE STREET
WESTERLY WINDS (COOLER MONTHS)
W
EXISTING BUILDING CHANNEL SEVEN
VILLAGE SQUARE
REVAMPED PUBLICLY ACCESSIBLE RECREATION SPACE
LOT 12 BUILDING 2
MITCHELL WAY
GATEWAY ENTRY TOWARDS LOCOMOTIVE STREET
EXISTING NICTA BUILDING
BOUNDARY STREET
WILLIAM LANE
REGENT STREET
COPE STREET
SUMMER SUN PATH
CENTRAL AVENUE
GARDEN STREET
DANIEL DAWSON PLAYGROUND
SPORTS FIELD
ROWLEY LANE
ALEXANDER STREET
EXISTING CHILDCARE CENTRE
LOT 9 BUILDING 1
EXISTING BIOMEDICAL BUILDING
LOT 8 COMMUNITY BUILDING
GATEWAY ENTRY FROM GARDEN STREET
E
EXISTING TRANSPORT MANAGEMENT CENTRE
WYNDHAM STREET
DISTRICT VIEWS
DISTRICT VIEWS
VIEWS OVER COMMUNITY BUILDING
TENNIS & MULTIPURPOSE COURTS
VICE CHANCELLORS OVAL
EXISTING AMBULANCE CENTRE
HENDERSON ROAD
LOW-DENSITY SHOPHOUSES & RESIDENTIAL DEVELOPMENT
DAVY ROAD
EXISTING ALEXANDRIA HOTEL
GATEWAY ENTRY FROM HENDERSON ROAD
HENDERSON LANE
ALEXANDRIA POST SHOP
ALBERT LANE
MITCHELL ROAD
GERARD STREET
HENDERSON ROAD
LYNE STREET
SOUTHERLY WINDS (WARMER MONTHS)
S


SYDNEY 0900 ANNUAL WIND ROSE


SYDNEY 1500 ANNUAL WIND ROSE



MEAN ANNUAL TEMPERATURES AND RAINFALL



SUNRISE AND SUNSET (2010)

fjmt + SISSONS
francis-jones morehen thorp

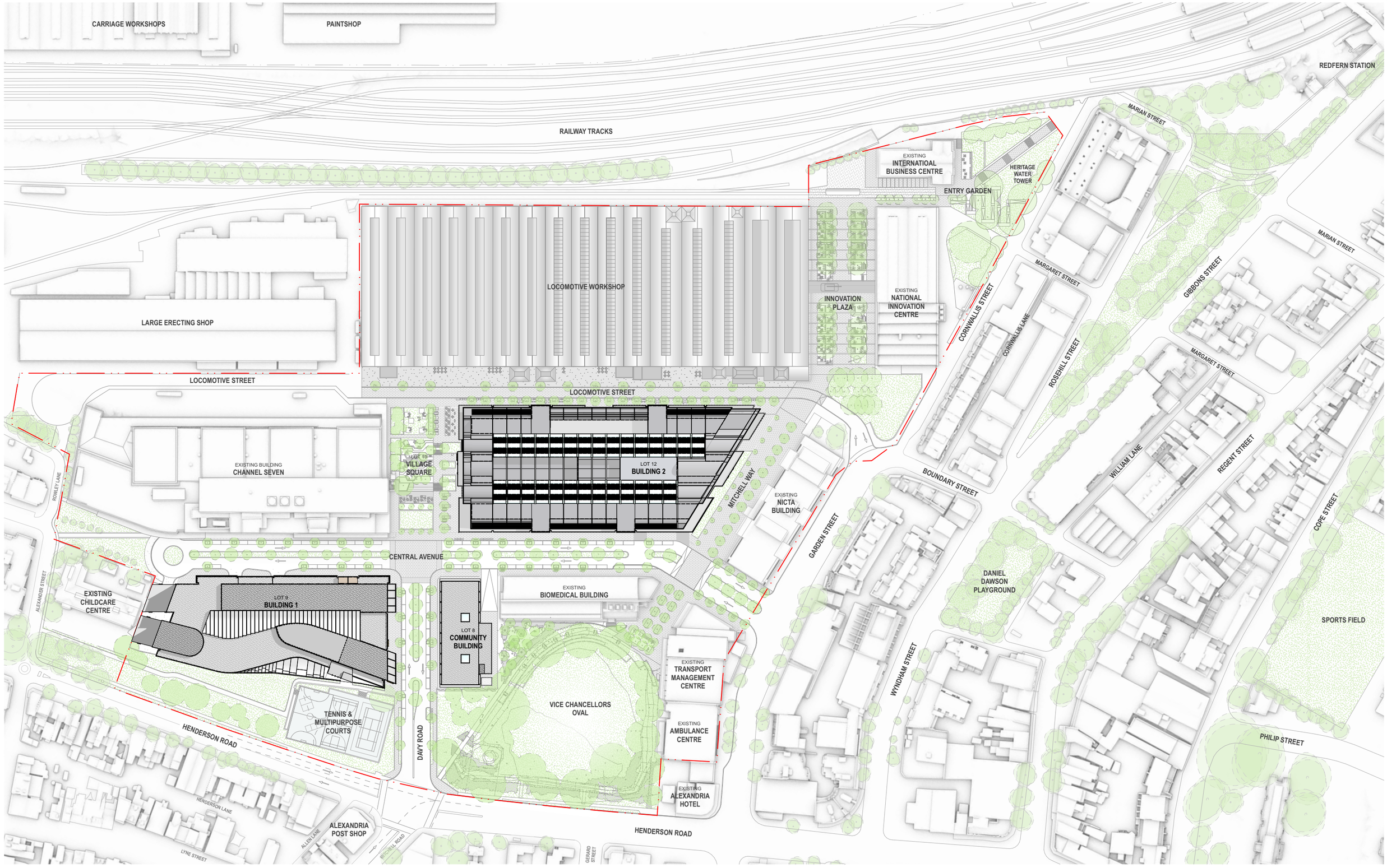
Site Analysis

MIRVAC - AUSTRALIAN TECHNOLOGY PARK

0 20 50 100m
1:2000 @ A3
16/12/15

For Approval **fjmt-AR-DWG-G1002_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Site Plan

MIRVAC - AUSTRALIAN TECHNOLOGY PARK

0 20 50 100m
1:2000 @ A3
16/12/15

For Approval **fjmt-AR-DWG-G1001_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219

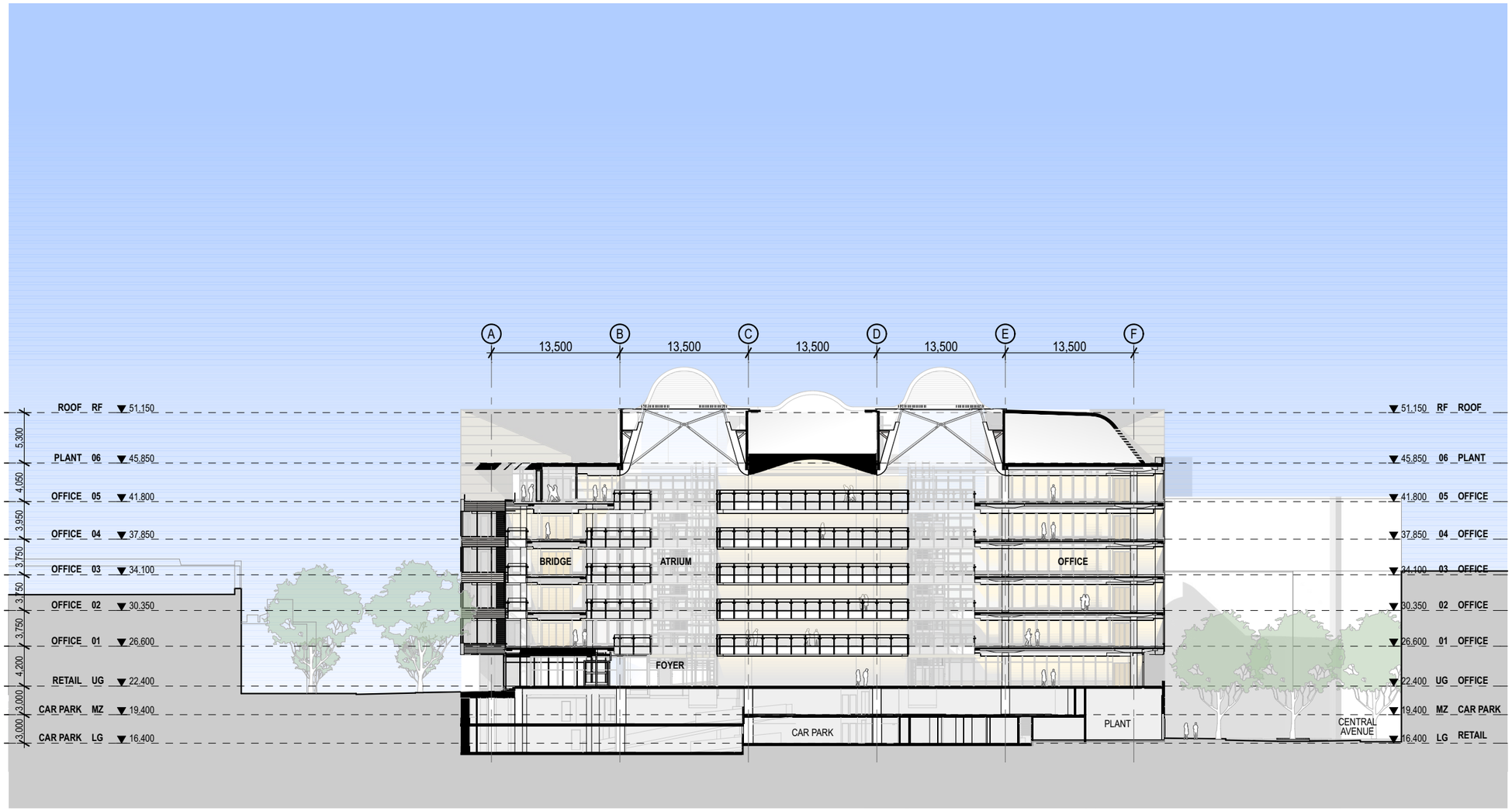


REDEVELOPMENT OF THE AUSTRALIAN TECHNOLOGY PARK

State Significant Development Application

Drawing Number	Rev	Drawing Name
fjmt-AR-DWG-G1000	DA0	Drawing List
GENERAL		
fjmt-AR-DWG-G1001	DA0	Site Plan
fjmt-AR-DWG-G1002	DA0	Site Analysis Plan
fjmt-AR-DWG-G1003	DA0	Site Retail Plan
BUILDING 1		
fjmt-AR-DWG-1100L	DA0	Lower Ground GA Plan
fjmt-AR-DWG-1100M	DA0	Mezzanine GA Plan
fjmt-AR-DWG-1100U	DA0	Lower Ground GA Plan
fjmt-AR-DWG-11001	DA0	Level 01 GA Plan
fjmt-AR-DWG-11002	DA0	Level 02 GA Plan
fjmt-AR-DWG-11003	DA0	Level 03 GA Plan
fjmt-AR-DWG-11004	DA0	Level 04 GA Plan
fjmt-AR-DWG-11005	DA0	Level 05 GA Plan
fjmt-AR-DWG-11006	DA0	Level 06 GA Plan
fjmt-AR-DWG-11007	DA0	Level 07 GA Plan
fjmt-AR-DWG-11008	DA0	Plant Level GA Plan
fjmt-AR-DWG-11009	DA0	Roof Plan
fjmt-AR-DWG-11050	DA0	Elevations - East & South
fjmt-AR-DWG-11051	DA0	Elevations - West & North
fjmt-AR-DWG-11052	DA0	Sections
fjmt-AR-DWG-11053	DA0	Sections
BUILDING 2		
fjmt-AR-DWG-2100L	DA0	Lower Ground GA Plan
fjmt-AR-DWG-2100M	DA0	Mezzanine GA Plan
fjmt-AR-DWG-2100U	DA0	Lower Ground GA Plan
fjmt-AR-DWG-21001	DA0	Level 01 GA Plan
fjmt-AR-DWG-21002	DA0	Level 02 GA Plan
fjmt-AR-DWG-21003	DA0	Level 03 GA Plan
fjmt-AR-DWG-21004	DA0	Level 04 GA Plan
fjmt-AR-DWG-21005	DA0	Level 05 GA Plan
fjmt-AR-DWG-21006	DA0	Plant Level GA Plan
fjmt-AR-DWG-21007	DA0	Roof Plan
fjmt-AR-DWG-21050	DA0	Elevations - North & West
fjmt-AR-DWG-21051	DA0	Elevations - South & East
fjmt-AR-DWG-21052	DA0	Sections
fjmt-AR-DWG-21053	DA0	Sections
fjmt-AR-DWG-21054	DA0	Sections
COMMUNITY BUILDING		
SisArch-AR-DWG-3100B	DA0	Below Ground GA Plan
SisArch-AR-DWG-3100G	DA0	Ground Level GA Plan
SisArch-AR-DWG-31001	DA0	Level 01 GA Plan
SisArch-AR-DWG-31002	DA0	Level 02 GA Plan
SisArch-AR-DWG-31003	DA0	Level 03 GA Plan
SisArch-AR-DWG-31004	DA0	Level 04 Plant Level GA Plan
SisArch-AR-DWG-31005	DA0	Roof Plan
SisArch-AR-DWG-31050	DA0	Elevations
SisArch-AR-DWG-31060	DA0	Sections

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Sections

0 5 10 20m
1:500 @ A3

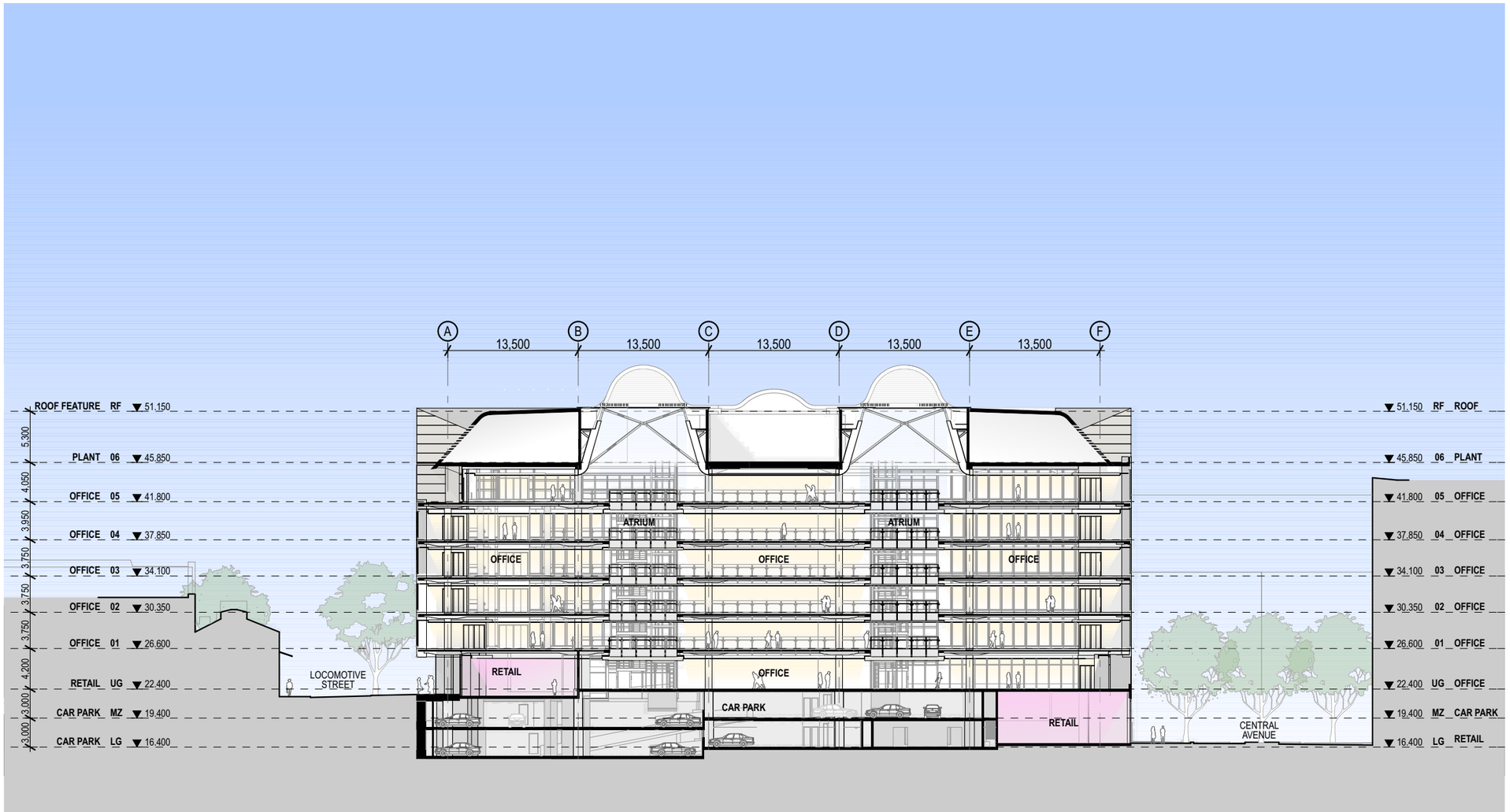
16/12/2015

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

For Approval

fjmt-AR-DWG-21054_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Sections

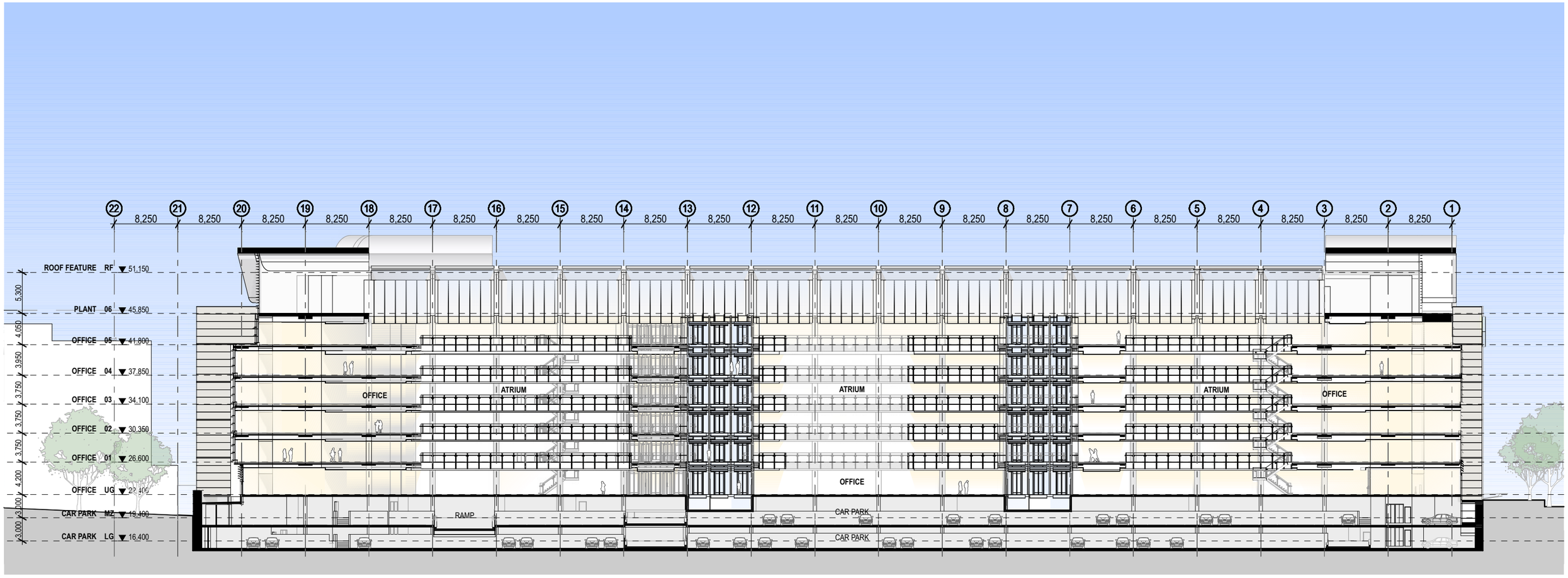
0 5 10 20m
1:500 @ A3

16/12/2015

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

For Approval **fjmt-AR-DWG-21053_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Sections

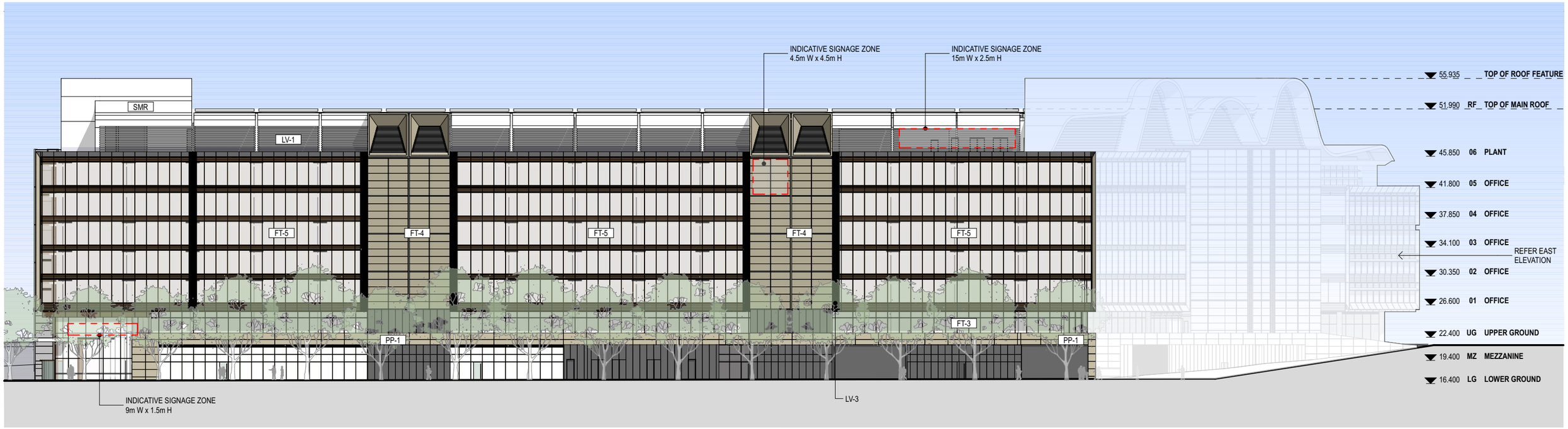
0 5 10 20m
1:500 @ A3

16/12/2015

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

For Approval **fjmt-AR-DWG-21052_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219





FACADE TYPES

FT-1:	GLAZED CURTAIN WALL WITH ALUMINIUM SUNSHADES
FT-2:	GLAZED CURTAIN WALL WITH RIBBED ALUMINIUM SPANDRELS, EXTERNAL ALUMINIUM FRAME WITH HORIZONTAL SUNSHADES
FT-3:	RETAIL GLAZING TYPICAL WITH LOUVRED ZONE AT HIGH LEVEL
FT-4:	CORE CLADDING, PREFINISHED THROUGH COLOUR SOLID PANELS
FT-5:	GLAZED CURTAIN WALL WITH RIBBED ALUMINIUM SPANDRELS
FT-7 :	GLAZED SCREEN WITH EXTERNAL SUNSHADING
FT-8:	LEVEL 5 FULL HEIGHT GLAZED WINDOW WALL WITH AREAS OF OPERABLE DOORS
FT-9:	GLAZED LOUVRES WITH ACTUATORS (MAKEUP FOR SMOKE RELIEF)
GB	GLASS BALUSTRADE SYSTEM
PP-1:	PREFINISHED MASONRY PANEL SURROUNDS WITH COMBINATION OF RETAIL GLAZING, SOLID CLADDING & METAL LOUVRE INFILL
SMR:	METAL ROOFING - ROLLED WHERE INDICATED
LV1:	ALUMINUM LOUVRES TYPE 1
LV2:	ALUMINIUM LOUVRES TYPE 2
LV3:	INFILL RIBBED CLADDING

fjmt + SISSONS
francis-jones morehen thorp

Elevations - South & East

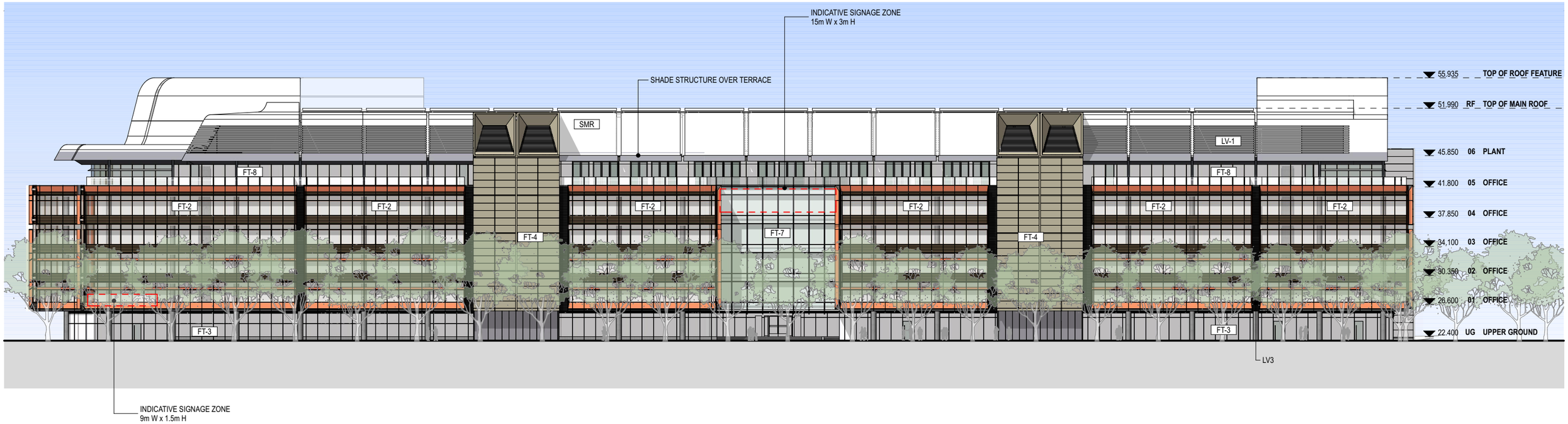
0 5 10 20m
1:500 @ A3

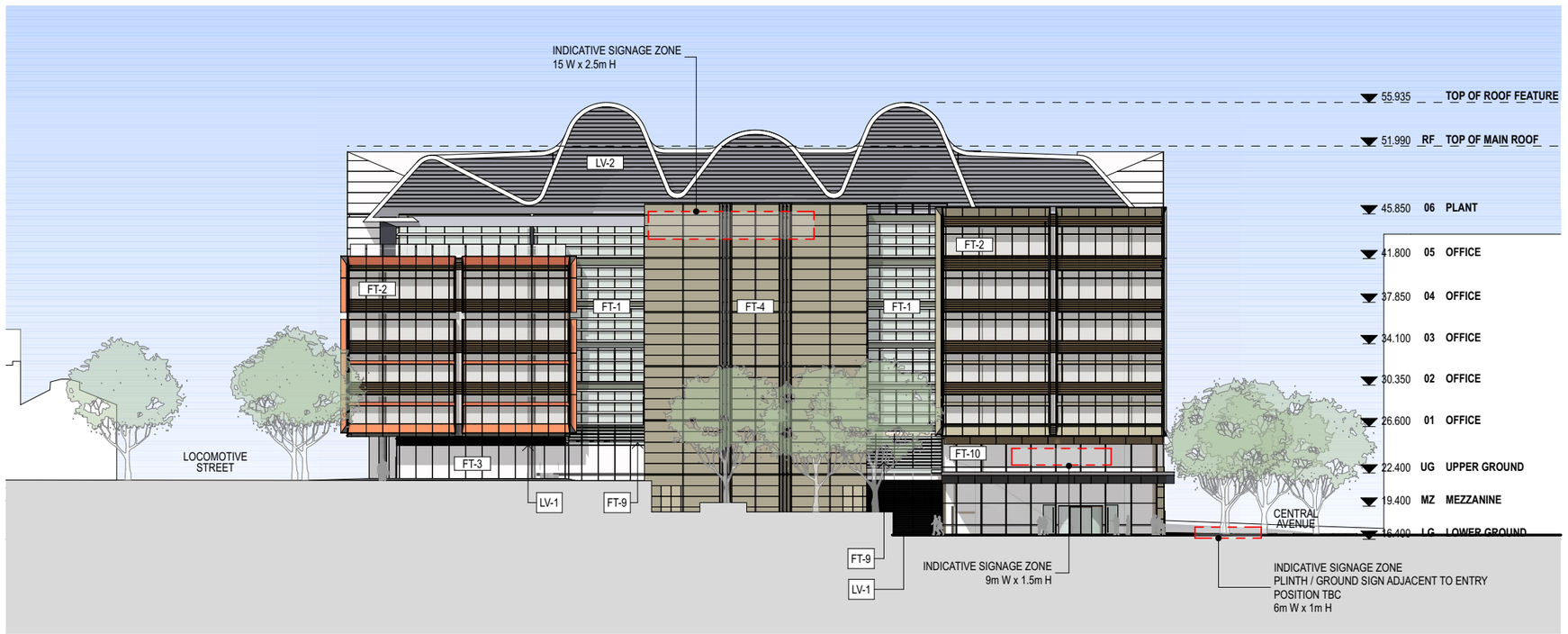
17/12/2015

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

For Approval **fjmt-AR-DWG-21051_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219





FACADE TYPES

FT-1:	GLAZED CURTAIN WALL WITH ALUMINIUM SUNSHADES
FT-2:	GLAZED CURTAIN WALL WITH RIBBED ALUMINIUM SPANDRELS, EXTERNAL ALUMINIUM FRAME WITH HORIZONTAL SUNSHADES
FT-3:	RETAIL GLAZING TYPICAL WITH LOUVRED ZONE AT HIGH LEVEL
FT-4:	CORE CLADDING, PREFINISHED THROUGH COLOUR SOLID PANELS
FT-5:	GLAZED CURTAIN WALL WITH RIBBED ALUMINIUM SPANDRELS
FT-7 :	GLAZED SCREEN WITH EXTERNAL SUNSHADING
FT-8:	LEVEL 5 FULL HEIGHT GLAZED WINDOW WALL WITH AREAS OF OPERABLE DOORS
FT-9:	GLAZED LOUVRES WITH ACTUATORS (MAKEUP FOR SMOKE RELIEF)
GB	GLASS BALUSTRADE SYSTEM
PP-1:	PREFINISHED MASONRY PANEL SURROUNDS WITH COMBINATION OF RETAIL GLAZING, SOLID CLADDING & METAL LOUVRE INFILL
SMR:	METAL ROOFING - ROLLED WHERE INDICATED
LV1:	ALUMINUM LOUVRES TYPE 1
LV2:	ALUMINIUM LOUVRES TYPE 2
LV3:	INFILL RIBBED CLADDING

fjmt + SISSONS
francis-jones morehen thorp

Elevations - North & West

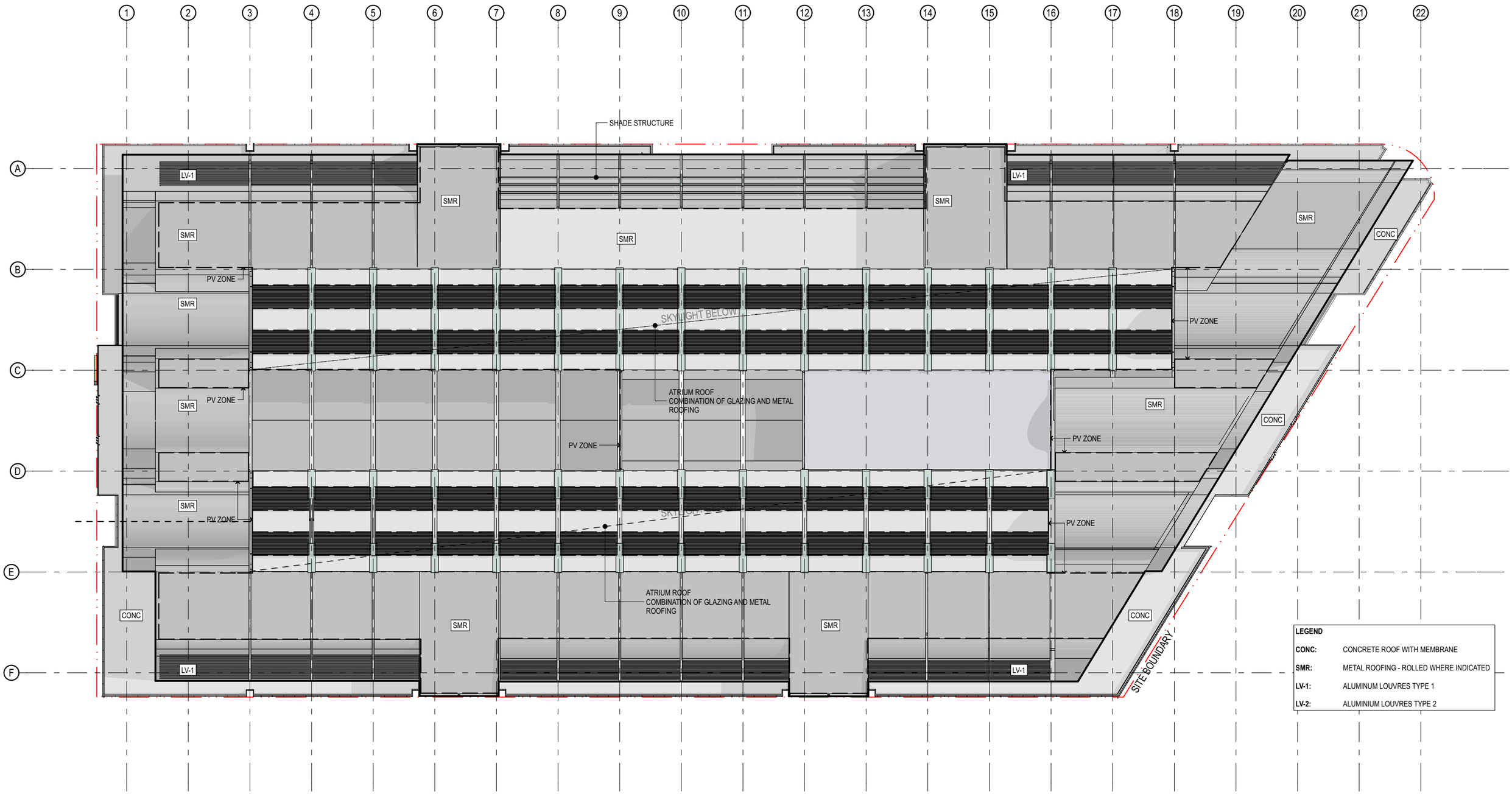
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

0 5 10 20m
1:500 @ A3

17/12/2015

For Approval **fjmt-AR-DWG-21050_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Roof Plan

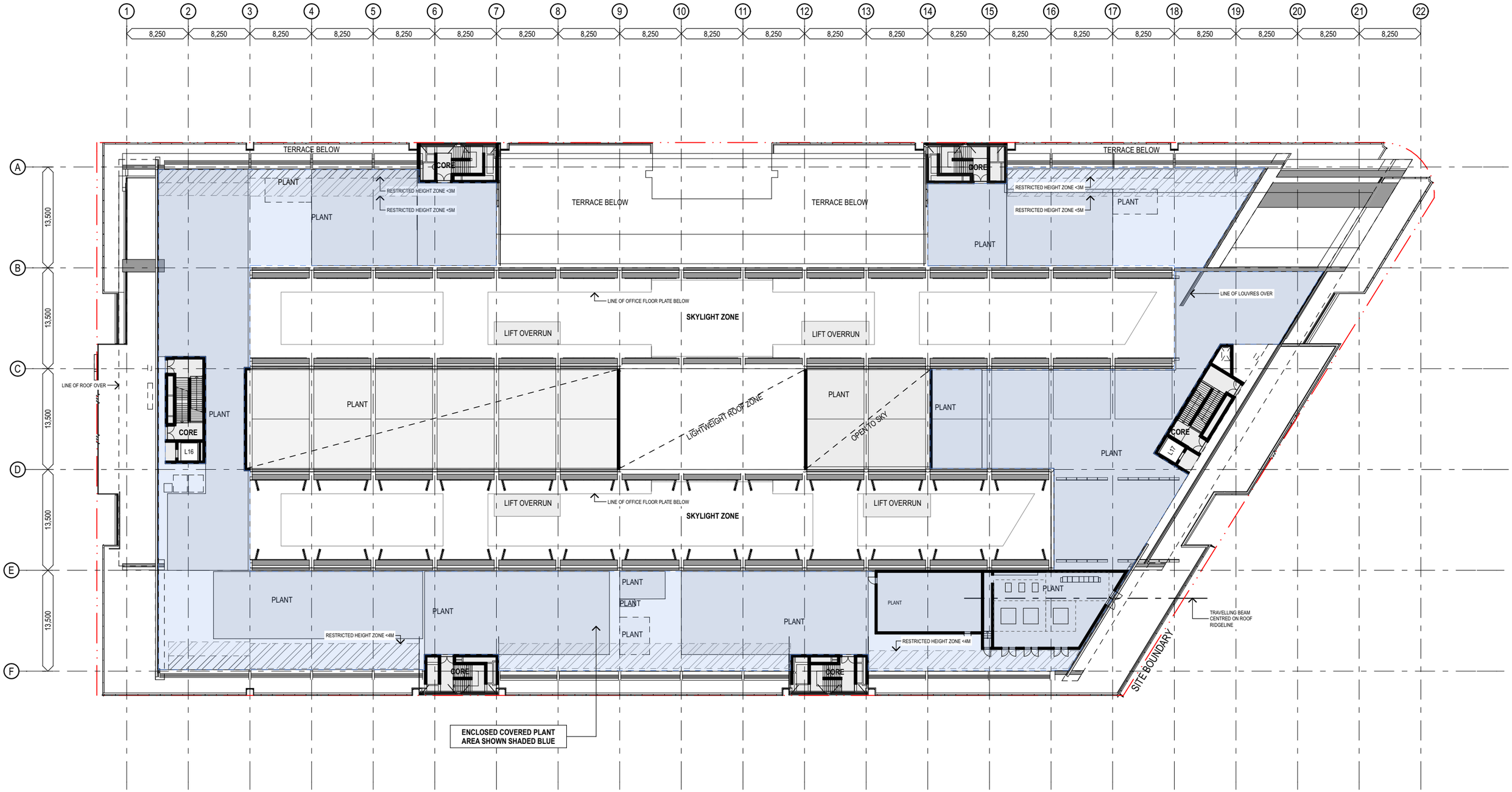
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

0 5 10 20m
1:500 @ A3

16/12/2015

For Approval **fjmt-AR-DWG-21007_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 6 Plan

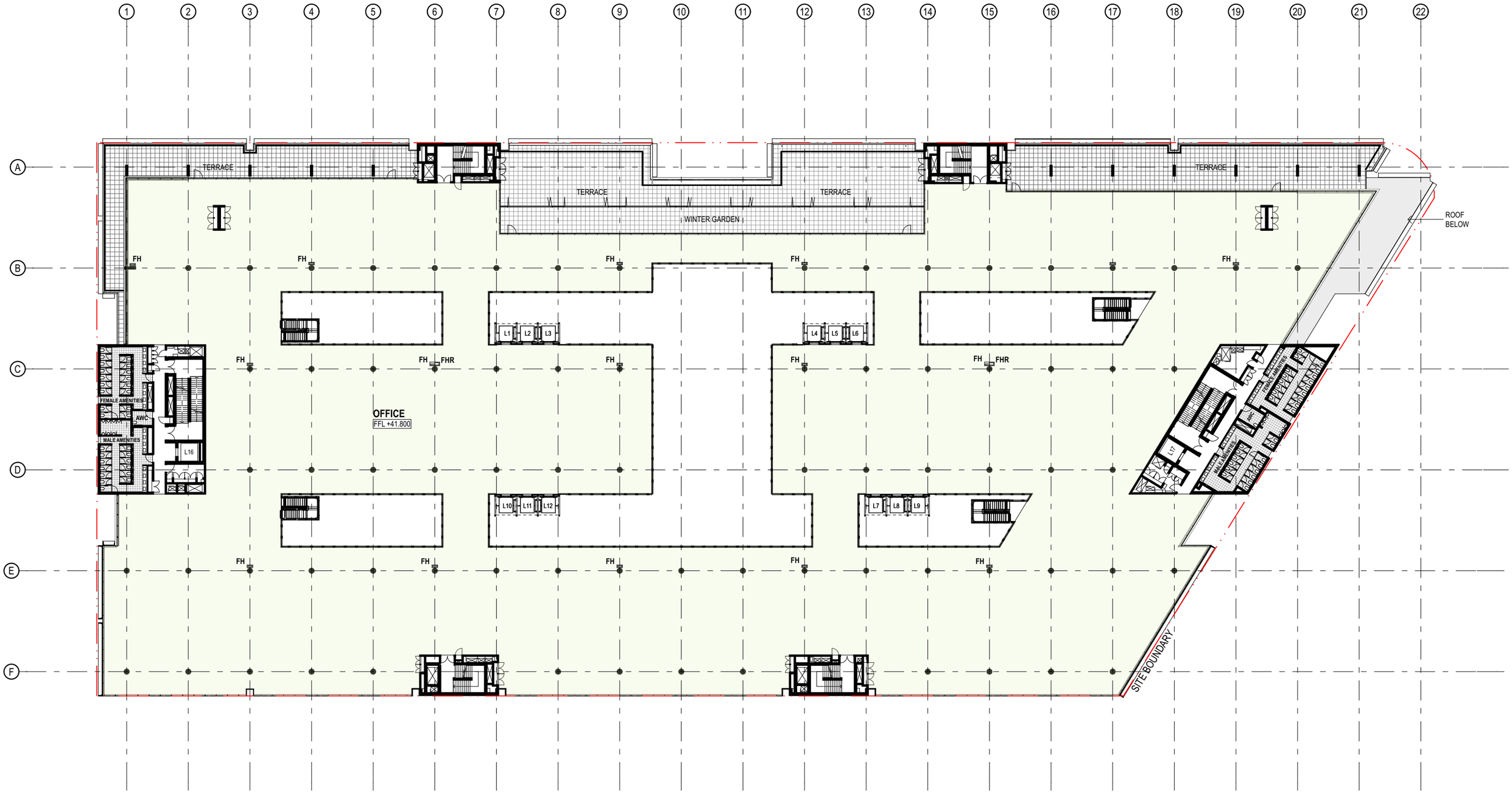
0 5 10 20m
1:500 @ A3

16/12/2015

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

For Approval **fjmt-AR-DWG-21006_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 5 Plan

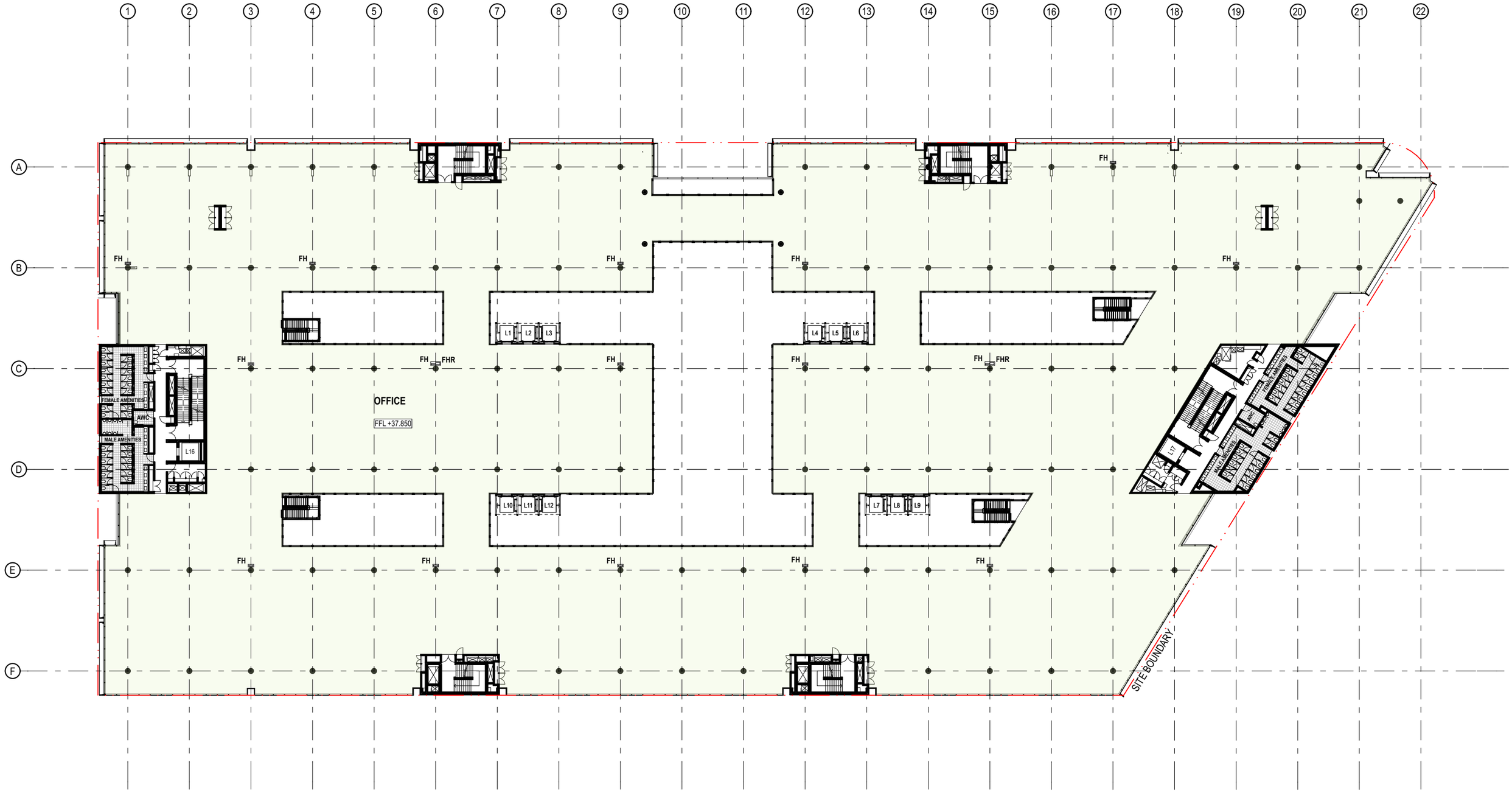
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

0 5 10 20m
1:500 @ A3

16/12/2015

For Approval **fjmt-AR-DWG-21005_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 4 Plan

0 5 10 20m
1:500 @ A3

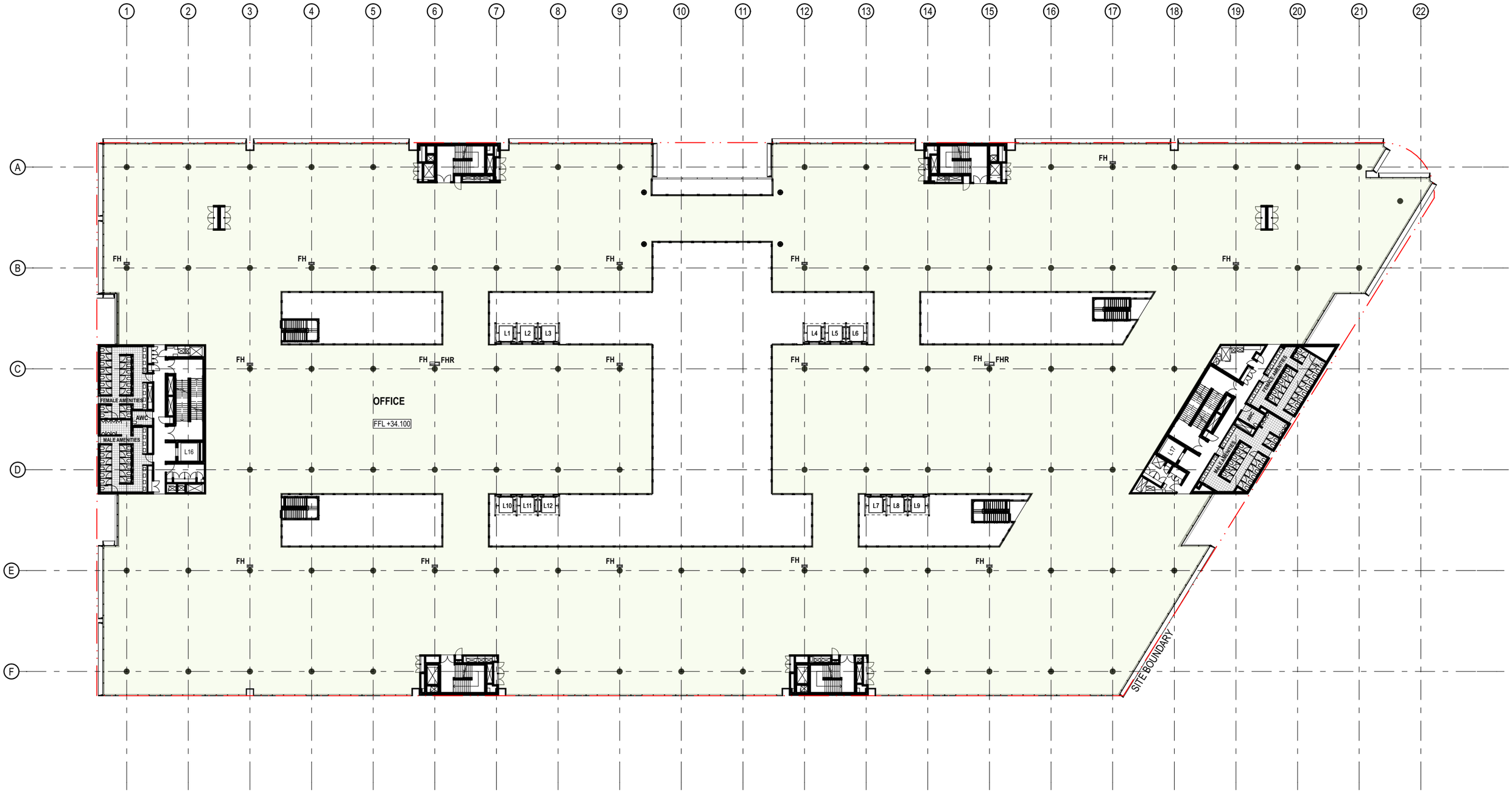
16/12/2015

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

For Approval

fjmt-AR-DWG-21004_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 3 Plan

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

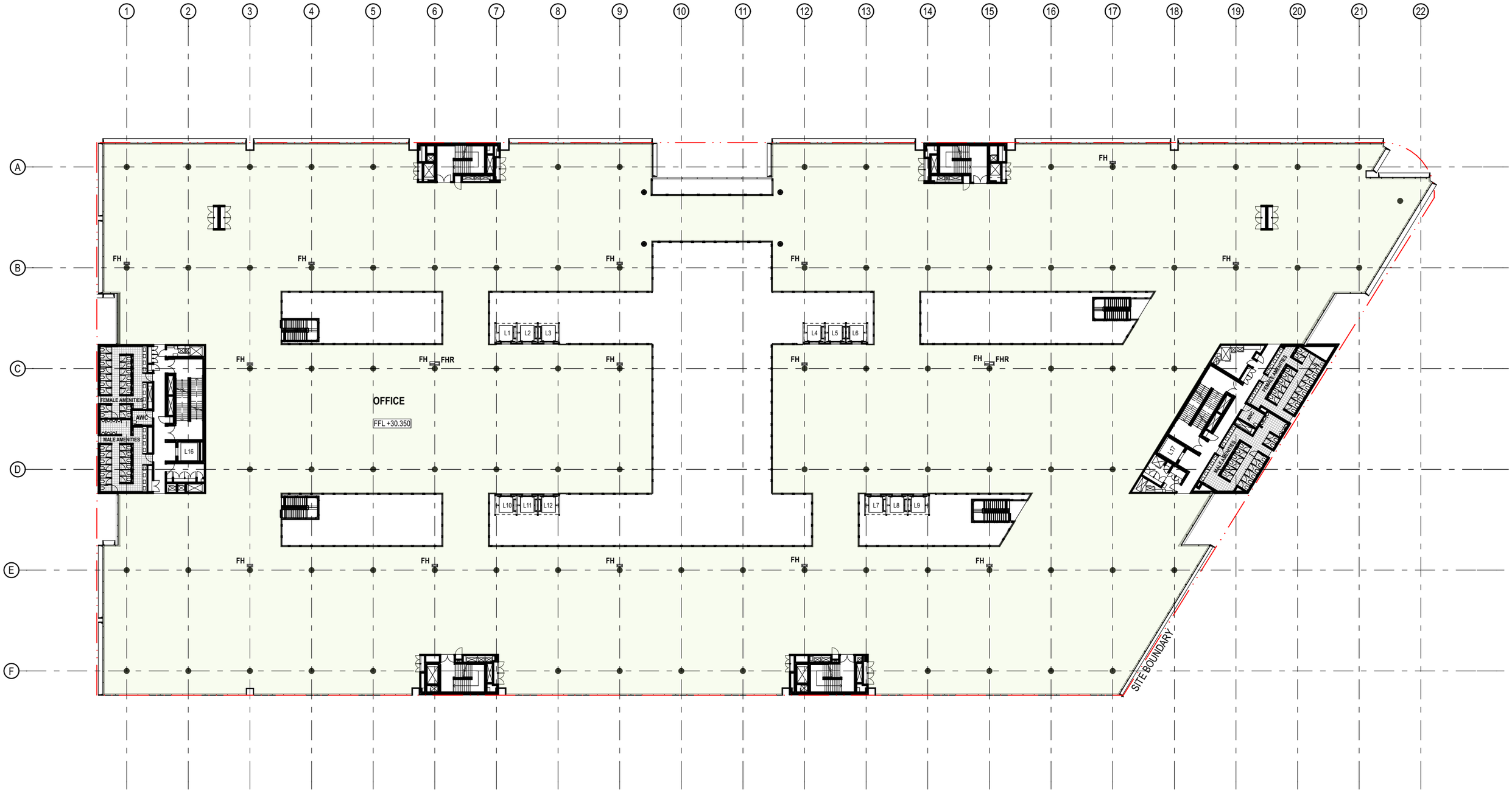
0 5 10 20m
1:500 @ A3

16/12/2015

For Approval

fjmt-AR-DWG-21003_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 2 Plan

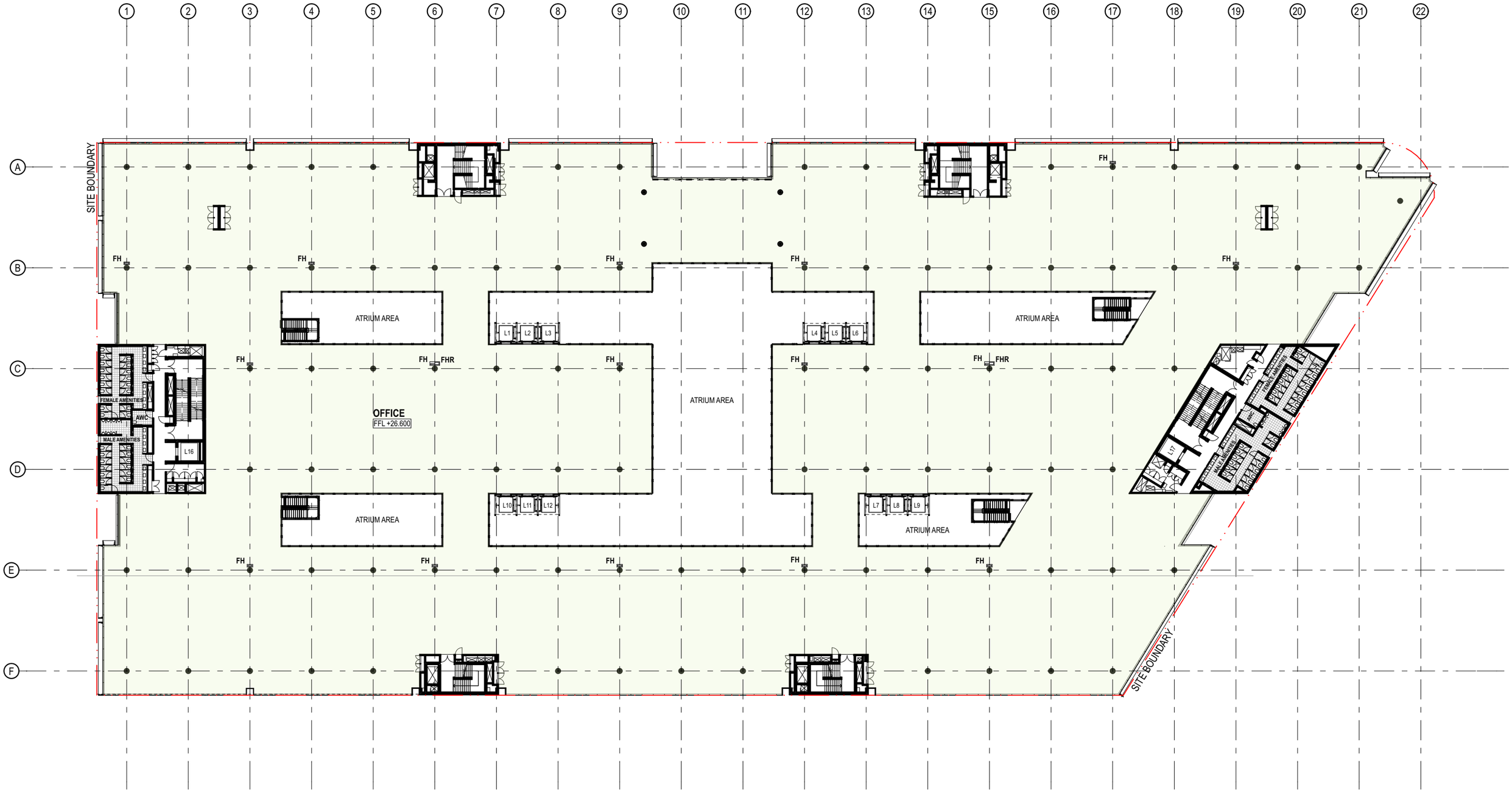
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

0 5 10 20m
1:500 @ A3

16/12/2015

For Approval **fjmt-AR-DWG-21002_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 1 Plan

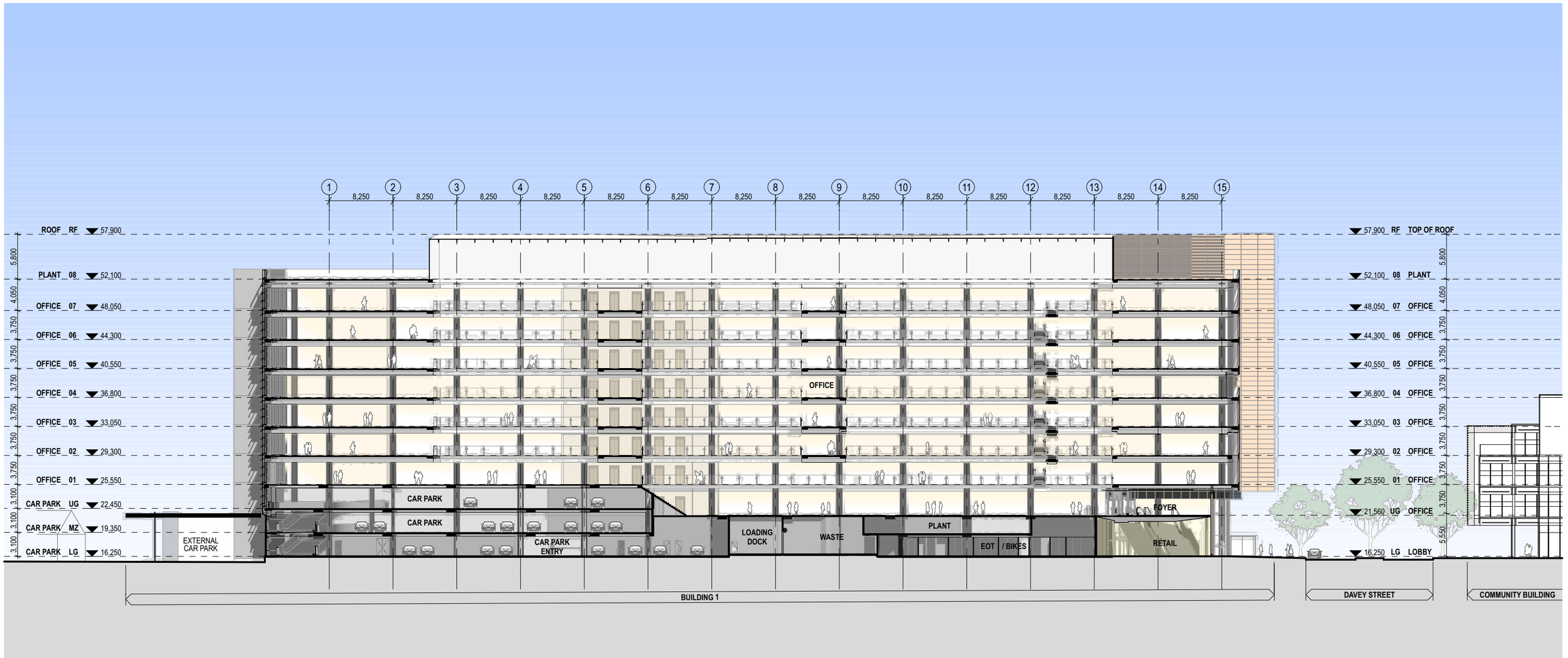
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

0 5 10 20m
1:500 @ A3

16/12/2015

For Approval **fjmt-AR-DWG-21001_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Sections

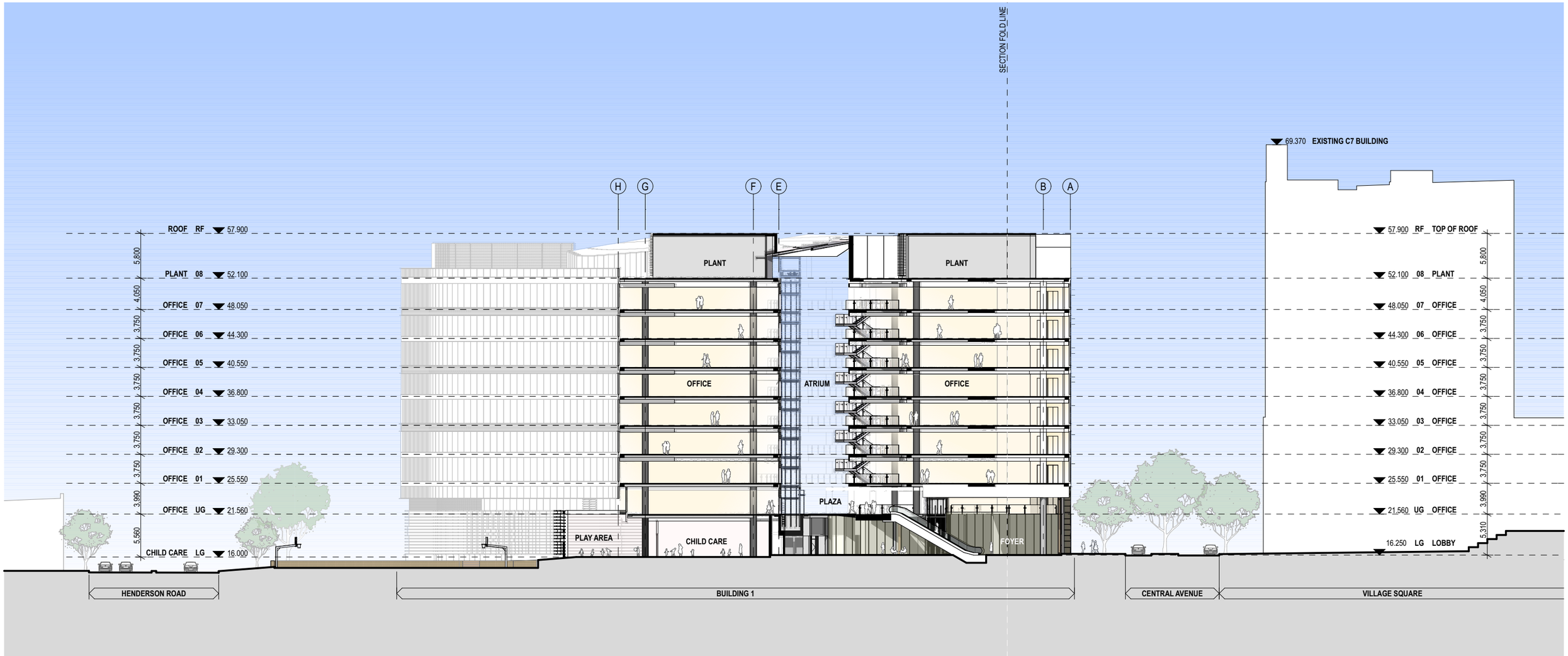
0 5 10 20m
1:500 @ A3

17/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

For Approval **fjmt-AR-DWG-11053_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Sections

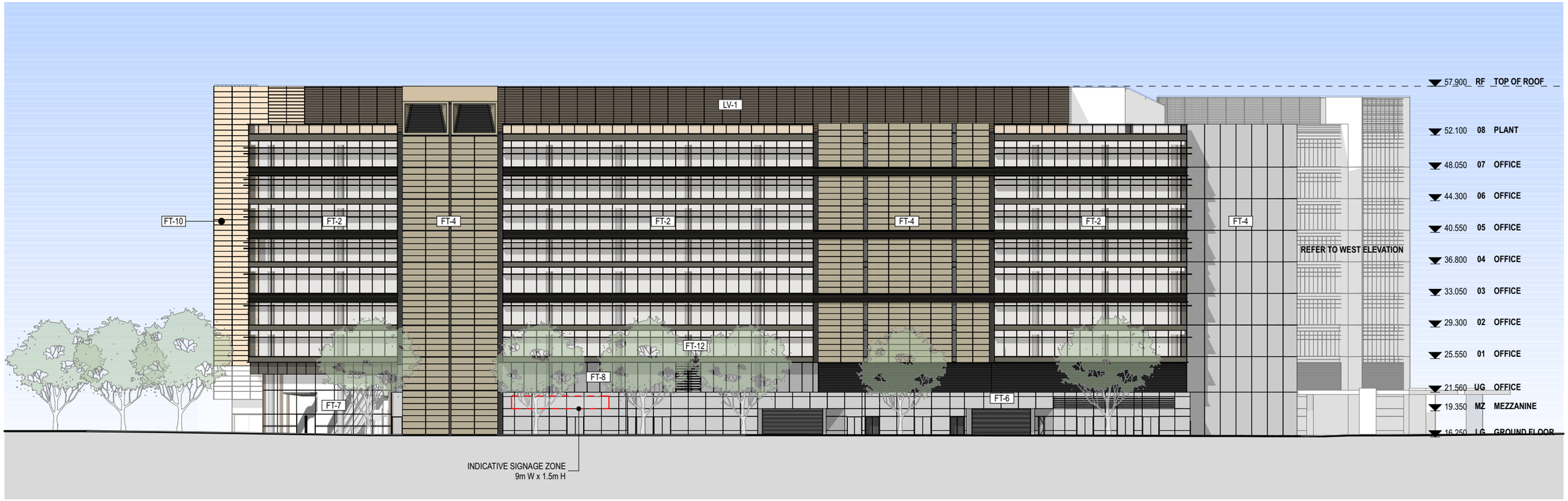
0 5 10 20m
1:500 @ A3

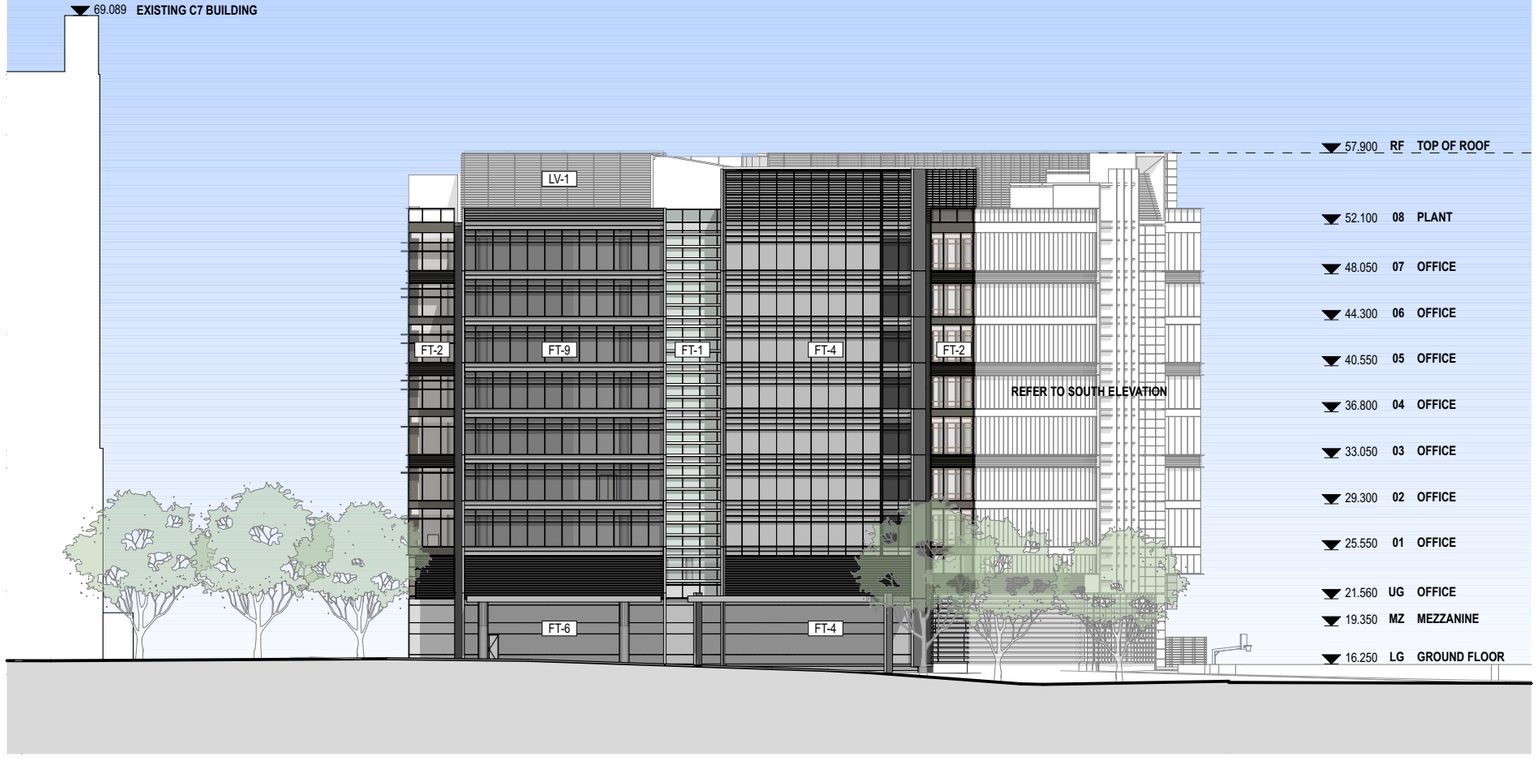
16/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

For Approval **fjmt-AR-DWG-11052_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219





FACADE TYPES

FT-1:	GLAZED CURTAIN WALL WITH FLAT SPANDRELS AND ALUMINIUM SUNSHADES
FT-2:	GLAZED CURTAIN WALL WITH COMBINATION OF FLAT AND PROFILED SPANDRELS. - HORIZONTAL SUNSHADES TO NORTH FACADE - FRIT PATTERN OR SIMILAR TREATMENT TO SOUTH FACADE
FT-3:	RETAIL GLAZING TYPICAL
FT-4:	CORE CLADDING, PREFINISHED THROUGH COLOUR SOLID PANELS
FT-5 :	CORE CLADDING
FT-6 :	SOLID CLADDING AND ALUMINIUM LOUVRES TO CARPARK
FT-7 :	LOBBY GLAZING
FT-8:	FULL HEIGHT GLAZED WINDOW WALL
FT-9:	GLAZED CURTAIN WALL WITH PROFILED SPANDREL AND ALUMINIUM SUNSHADES
FT-10:	SOLID PANEL CLADDING
FT-11:	GLAZED CURTAIN WALL WITH ALUMINIUM BATTENS
FT-12:	GLAZED LOUVRES WITH ACTUATORS
LV-1:	ALUMINIUM LOUVRES TO PLANT
SC-1:	METAL ARCHITECTURAL SCREEN WITH SOLID AND BATTENS

fjmt + SISSONS
francis-jones morehen thorp

Elevations - West & North

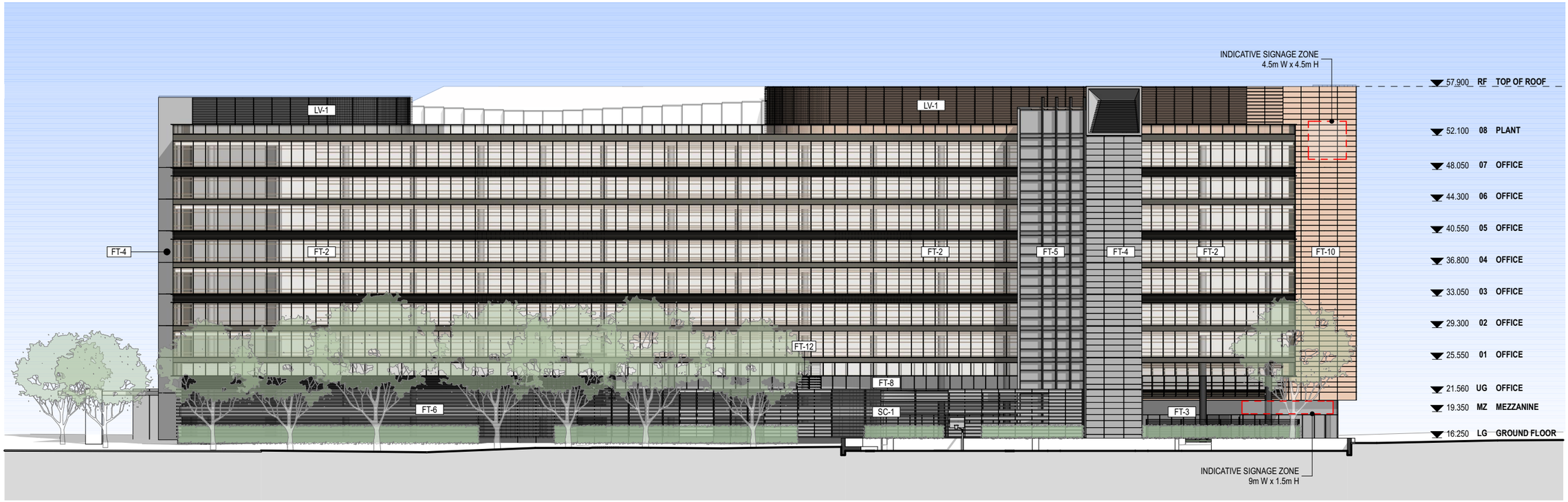
0 5 10 20m
1:500 @ A3

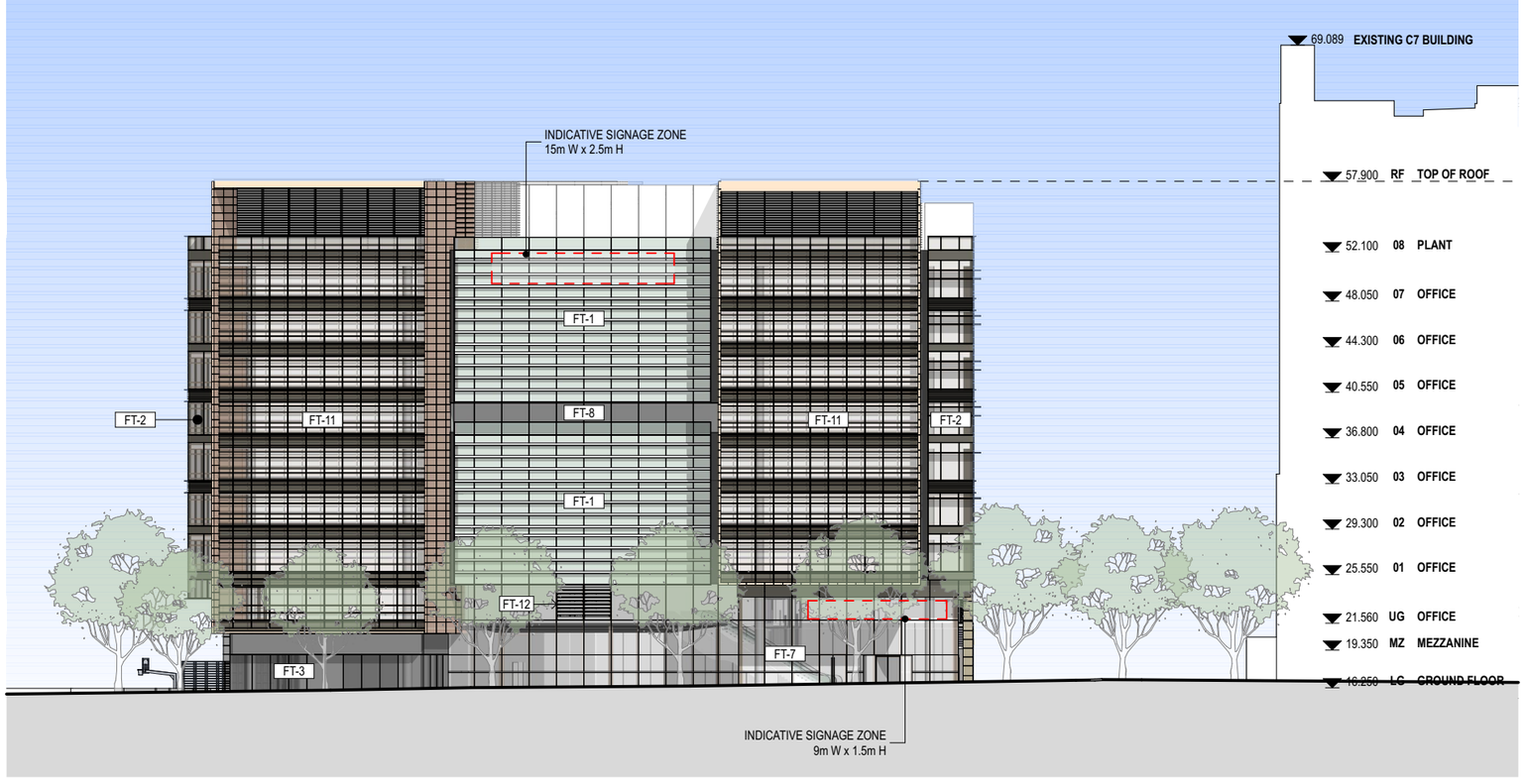
17/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

For Approval fjmt-AR-DWG-11051_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219





FACADE TYPES

FT-1:	GLAZED CURTAIN WALL WITH FLAT SPANDRELS AND ALUMINIUM SUNSHADES
FT-2:	GLAZED CURTAIN WALL WITH COMBINATION OF FLAT AND PROFILED SPANDRELS. - HORIZONTAL SUNSHADES TO NORTH FACADE - FRIT PATTERN OR SIMILAR TREATMENT TO SOUTH FACADE
FT-3:	RETAIL GLAZING TYPICAL
FT-4:	CORE CLADDING, PREFINISHED THROUGH COLOUR SOLID PANELS
FT-5 :	CORE CLADDING
FT-6 :	SOLID CLADDING AND ALUMINIUM LOUVRES TO CARPARK
FT-7 :	LOBBY GLAZING
FT-8:	FULL HEIGHT GLAZED WINDOW WALL
FT-9:	GLAZED CURTAIN WALL WITH PROFILED SPANDREL AND ALUMINIUM SUNSHADES
FT-10:	SOLID PANEL CLADDING
FT-11:	GLAZED CURTAIN WALL WITH ALUMINIUM BATTENS
FT-12:	GLAZED LOUVRES WITH ACTUATORS
LV-1:	ALUMINIUM LOUVRES TO PLANT
SC-1:	METAL ARCHITECTURAL SCREEN WITH SOLID AND BATTENS

fjmt + SISSONS
francis-jones morehen thorp

Elevations - East & South

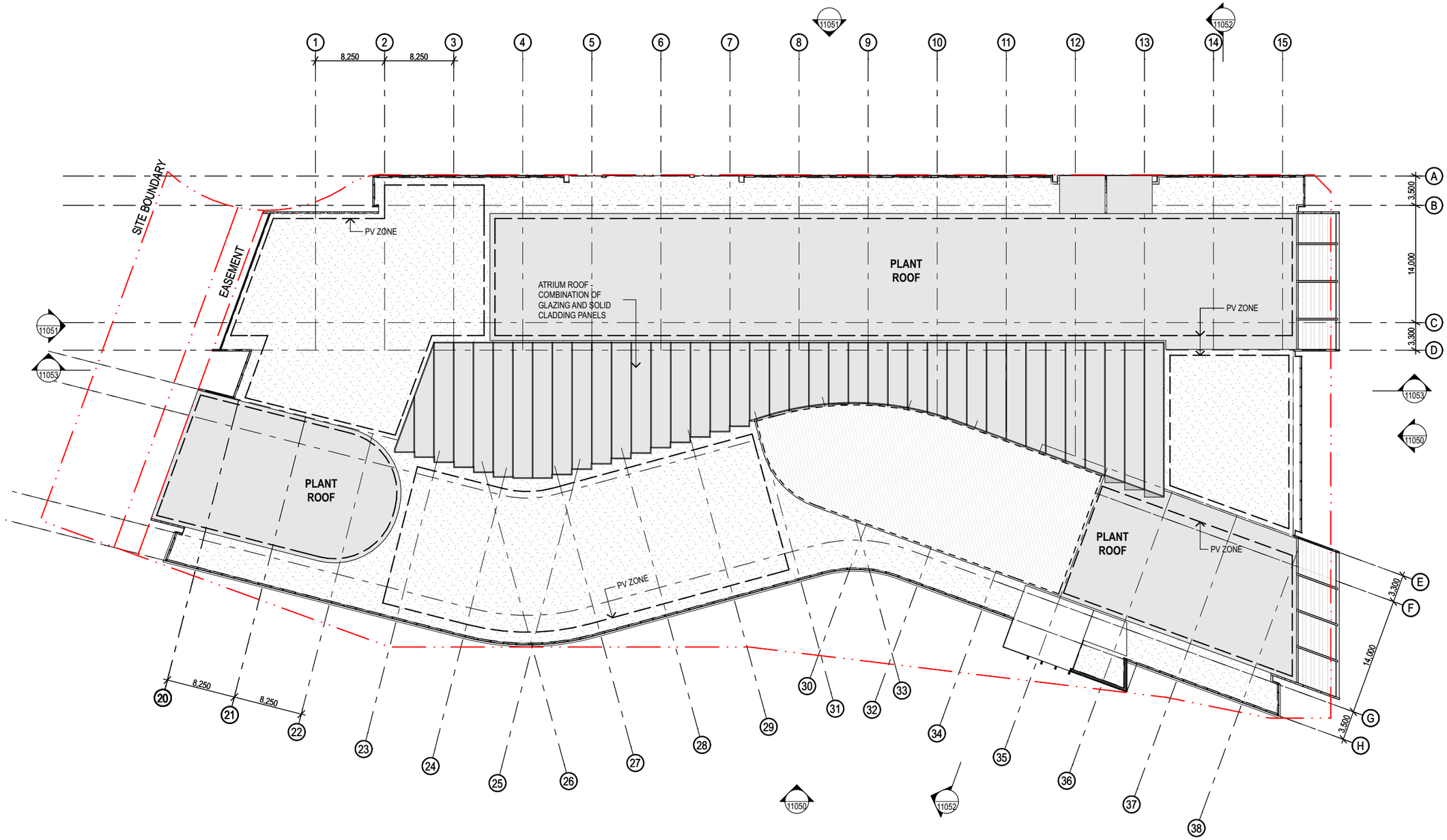
0 5 10 20m
1:500 @ A3

17/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

For Approval **fjmt-AR-DWG-11050_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Roof Plan

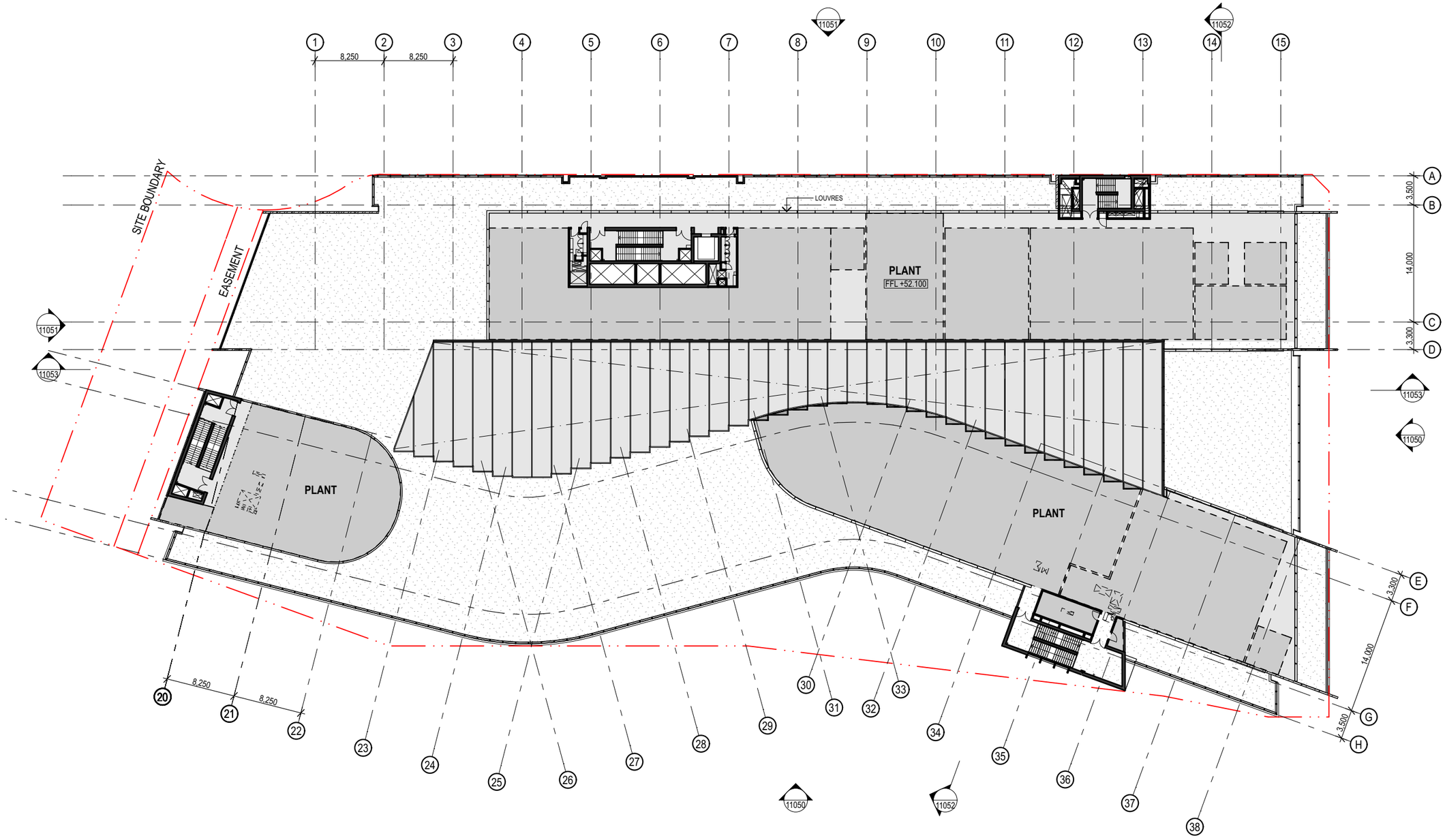
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

0 5 10 20m
1:500 @ A3

16/12/15

For Approval **fjmt-AR-DWG-11009_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Plant Level Floor Plan

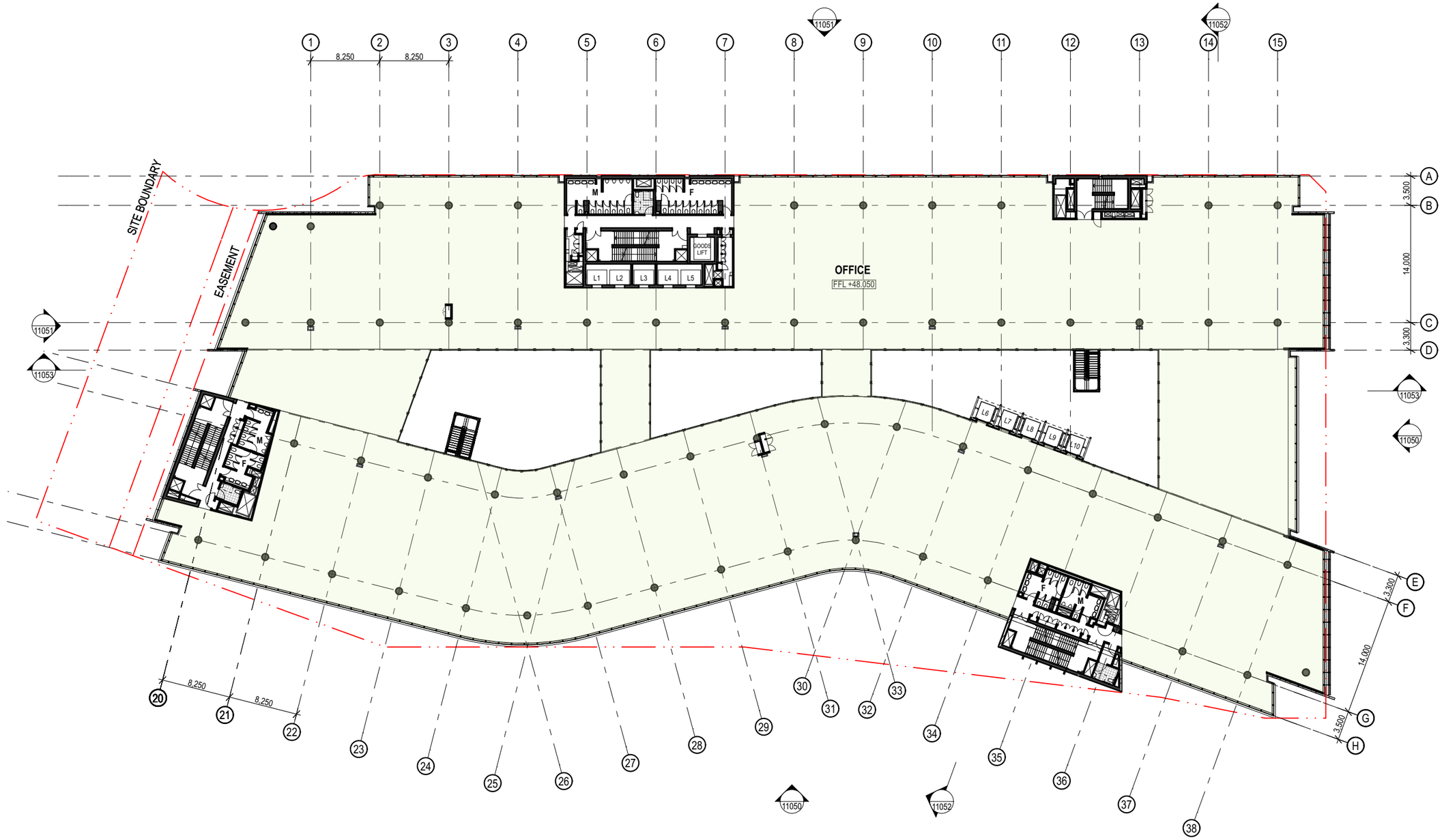
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

0 5 10 20m
1:500 @ A3

16/12/15

For Approval **fjmt-AR-DWG-11008_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 07 Plan

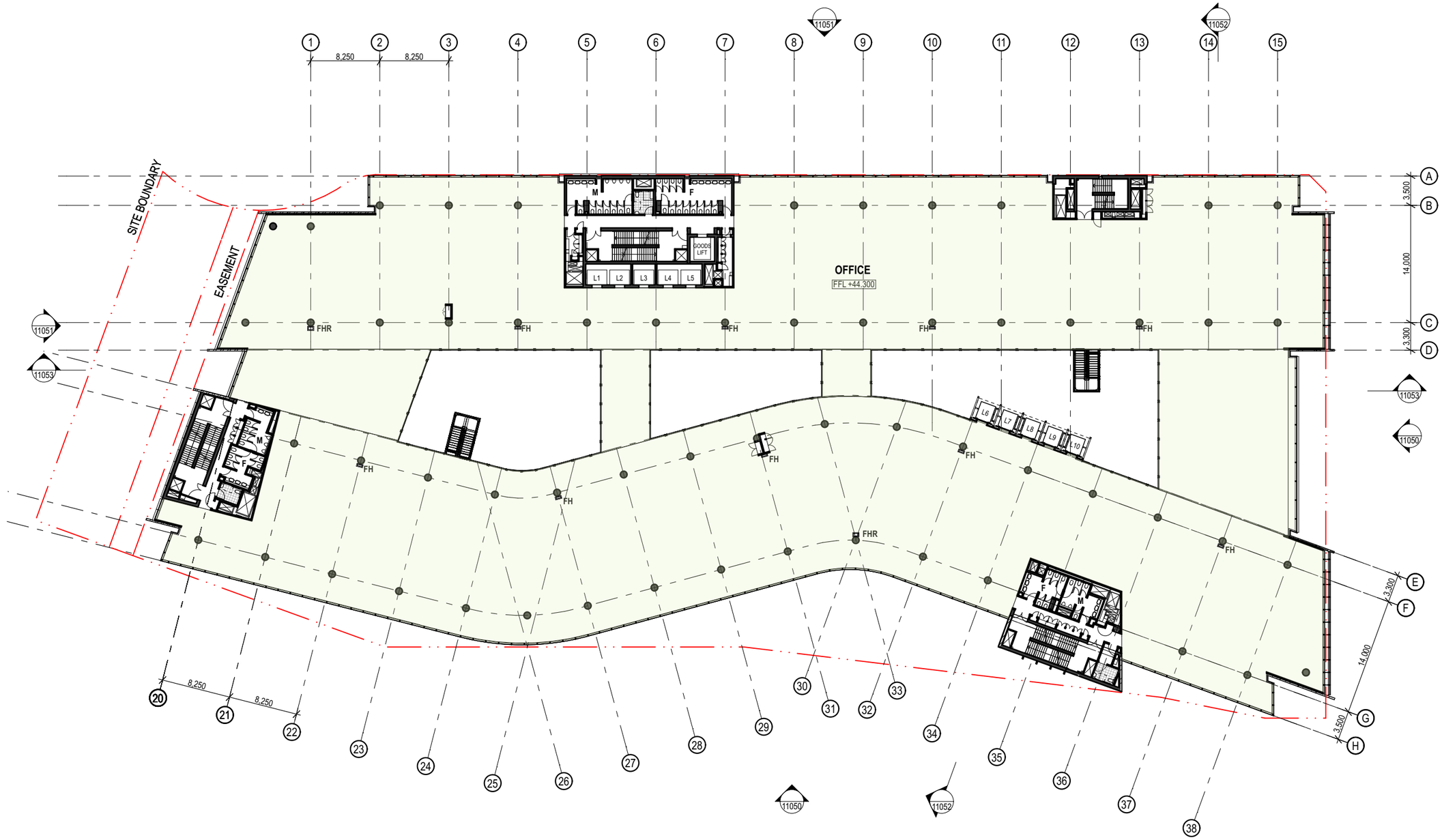
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

0 5 10 20m
1:500 @ A3

16/12/15

For Approval **fjmt-AR-DWG-11007_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 06 Plan

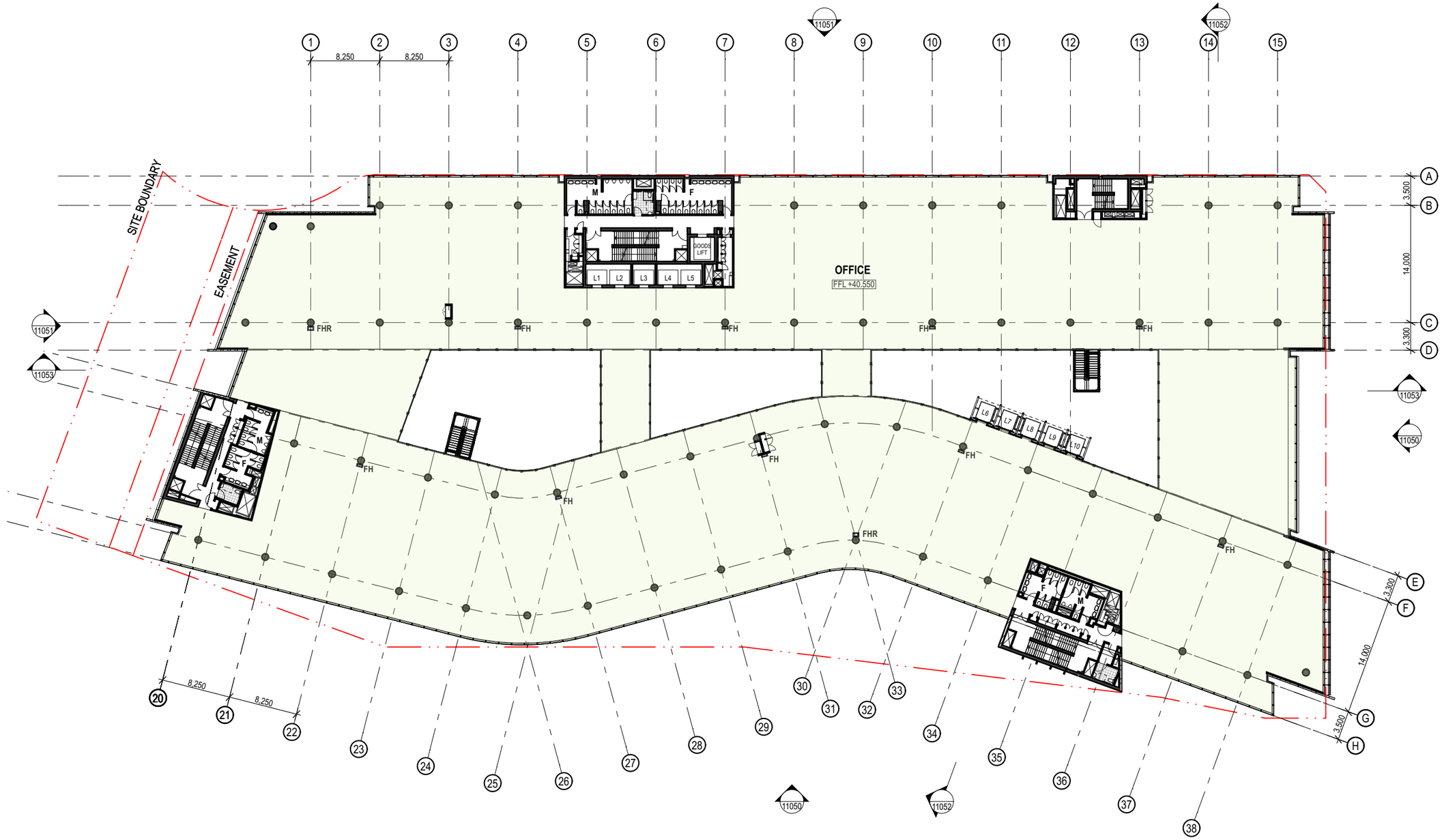
0 5 10 20m
1:500 @ A3

16/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

For Approval **fjmt-AR-DWG-11006_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 05 Plan

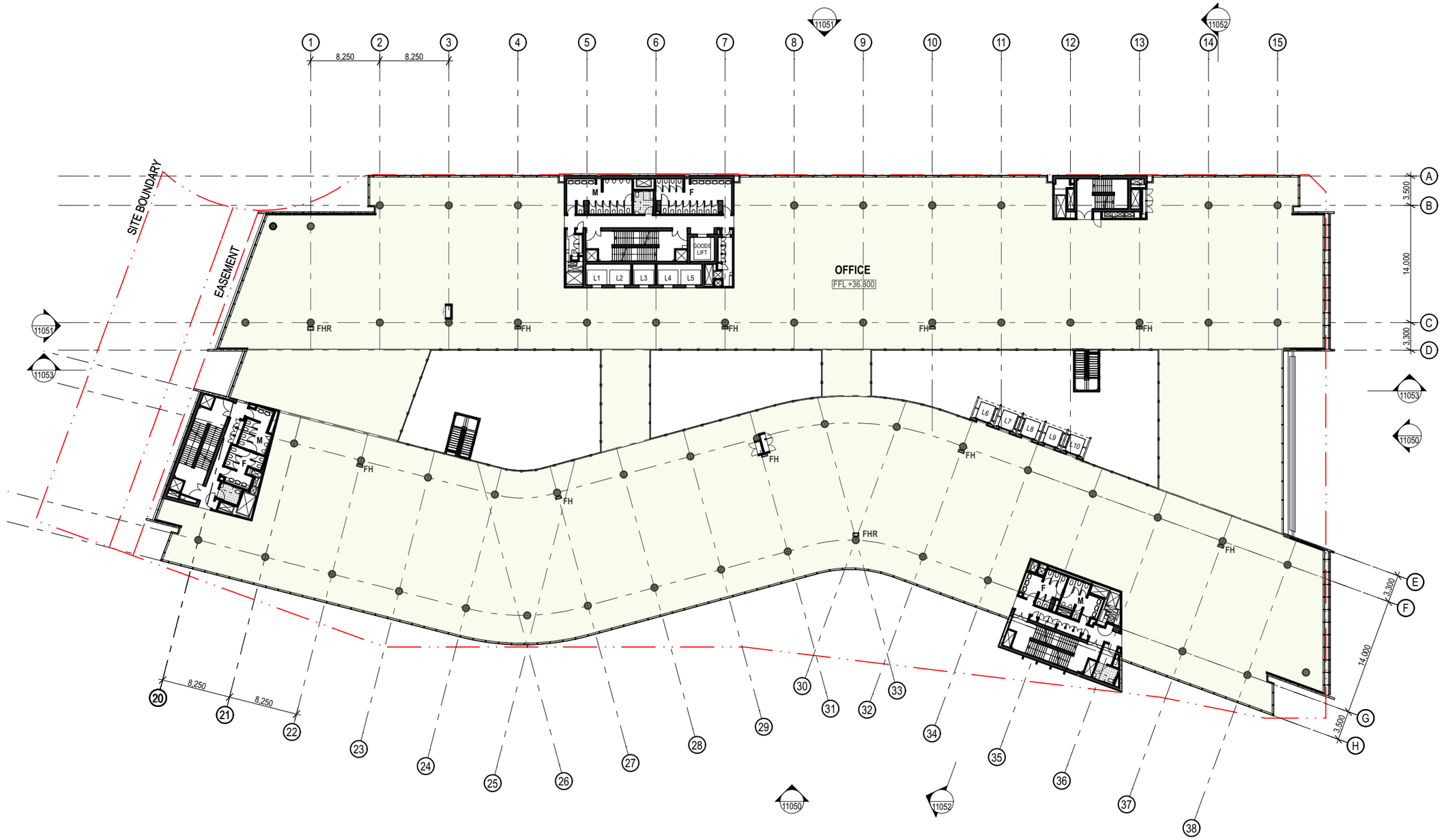
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

0 5 10 20m
1:500 @ A3

16/12/15

For Approval **fjmt-AR-DWG-11005_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 04 Plan

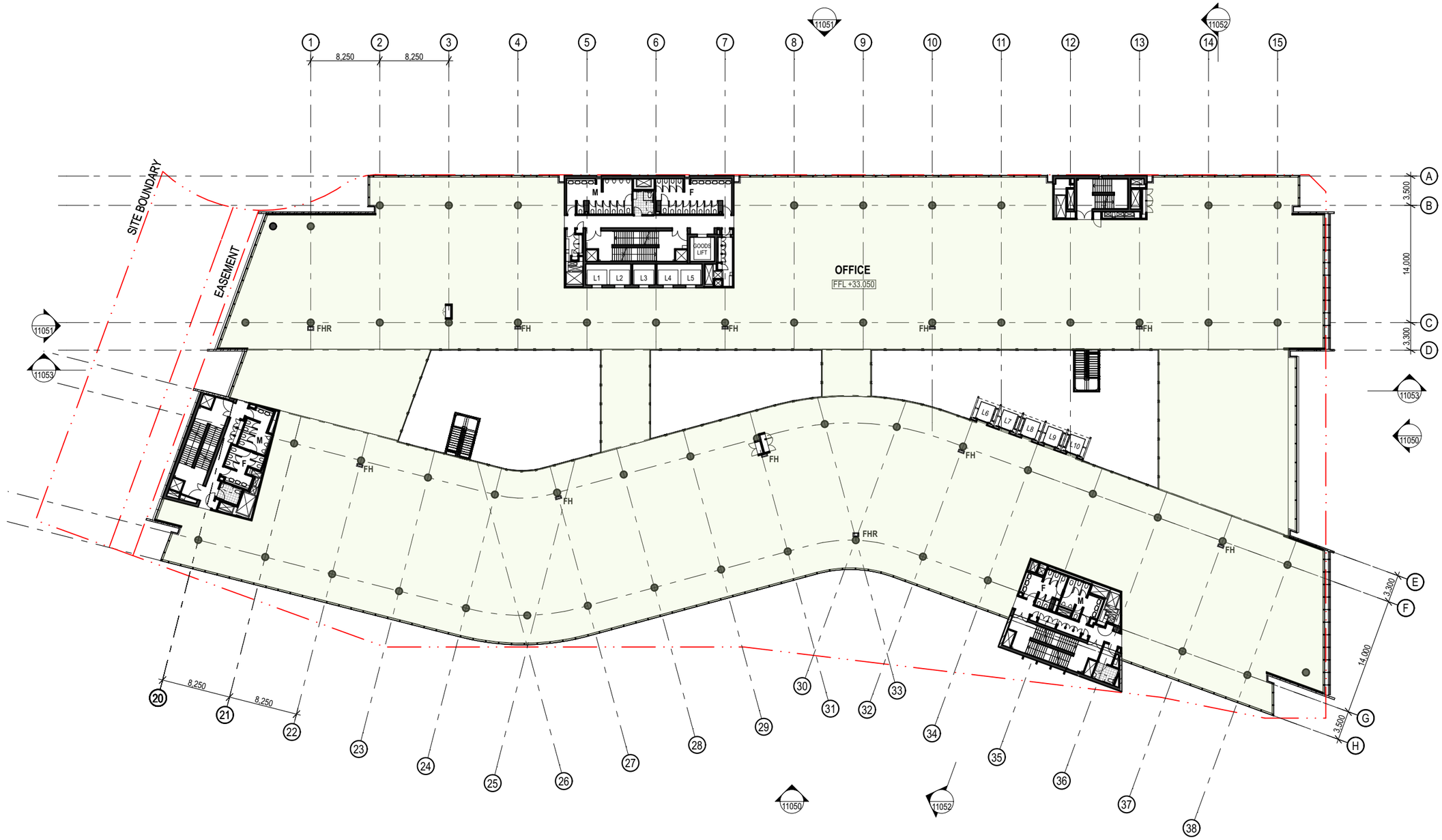
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

0 5 10 20m
1:500 @ A3

16/12/15

For Approval **fjmt-AR-DWG-11004_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 03 Plan

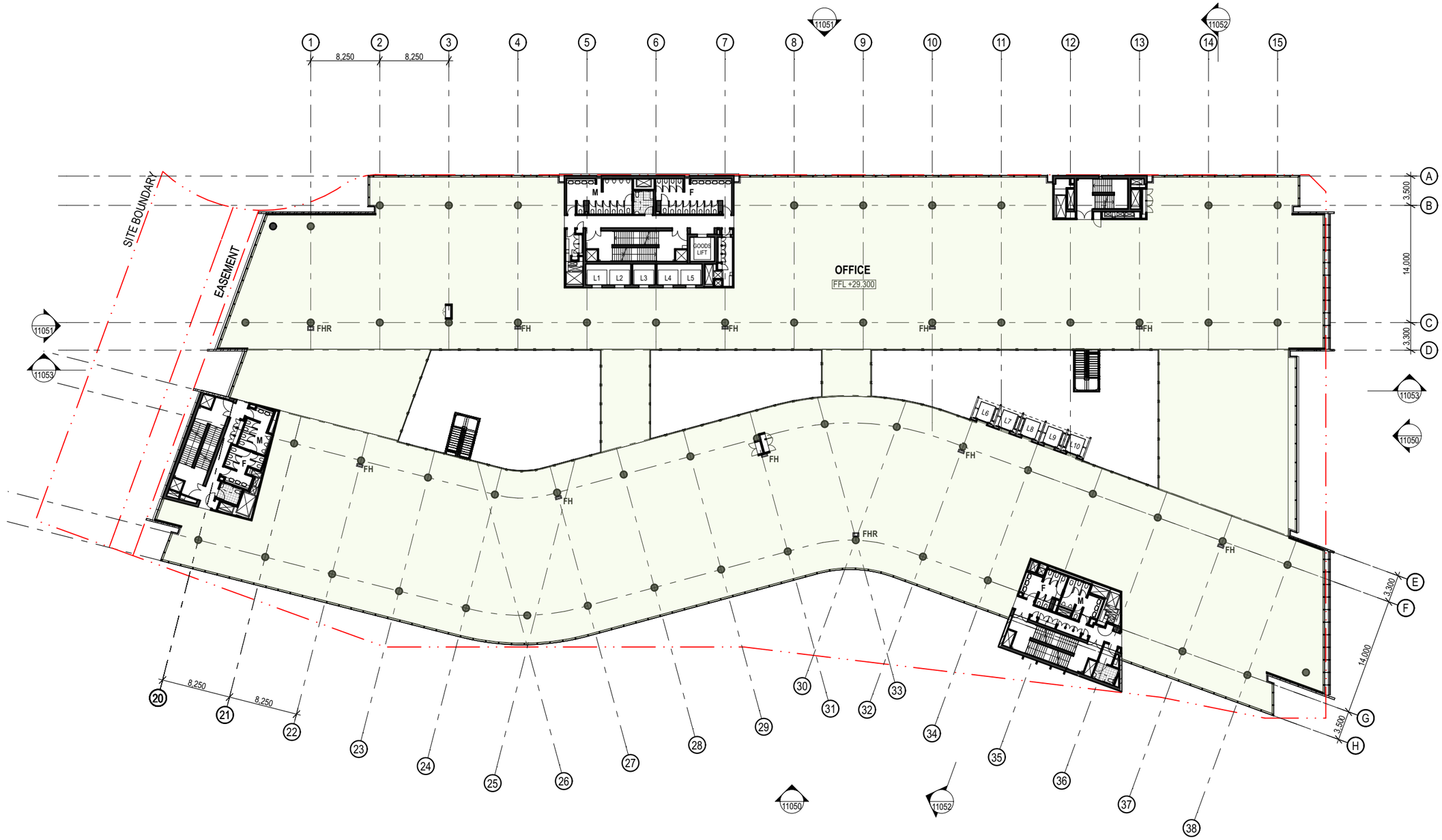
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

0 5 10 20m
1:500 @ A3

16/12/15

For Approval **fjmt-AR-DWG-11003_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 02 Plan

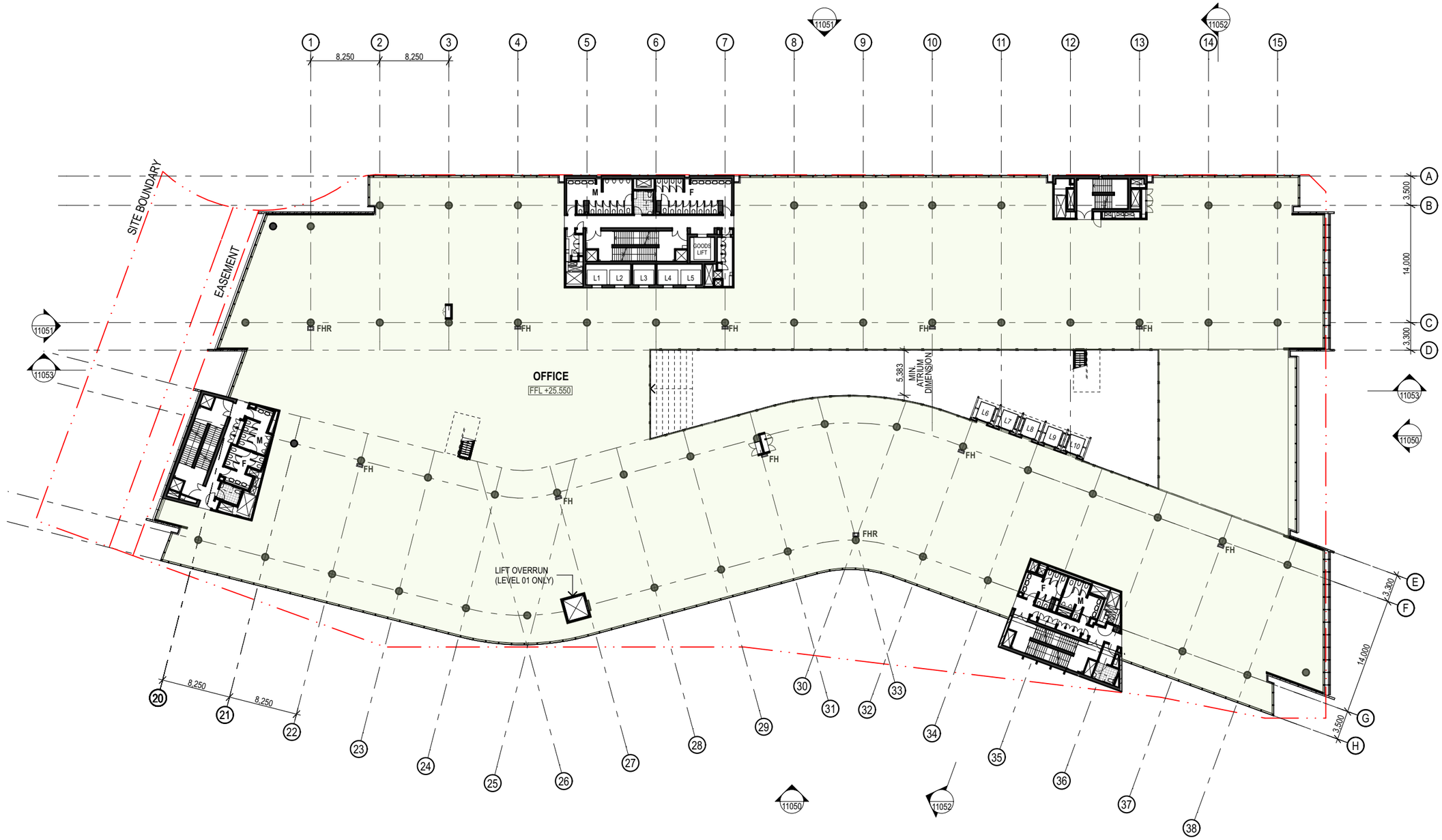
0 5 10 20m
1:500 @ A3

16/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

For Approval **fjmt-AR-DWG-11002_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Level 01 Plan

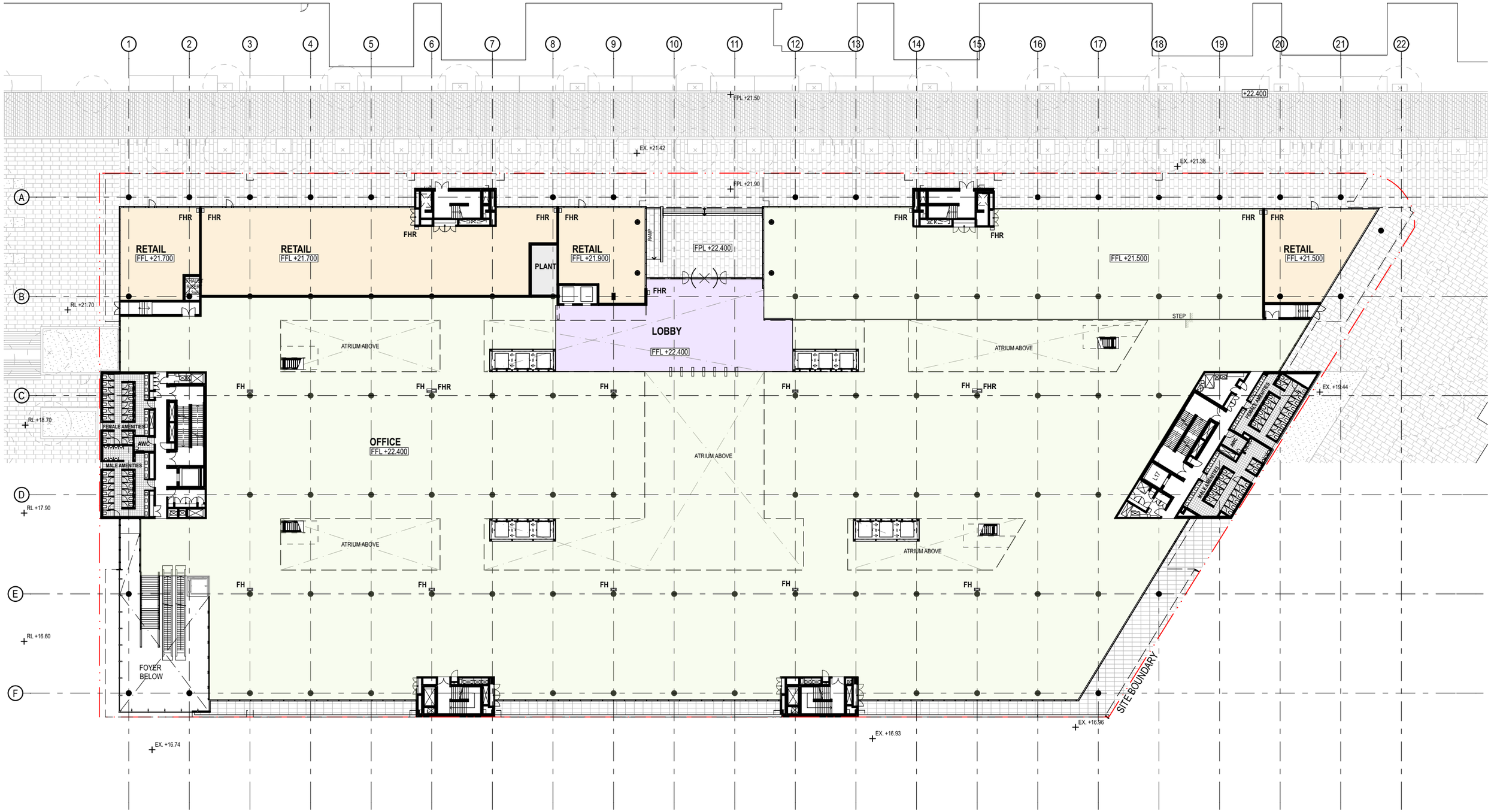
0 5 10 20m
1:500 @ A3

16/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

For Approval **fjmt-AR-DWG-11001_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



fjmt + SISSONS
francis-jones morehen thorp

Upper Ground Plan

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

0 5 10 20m
1:500 @ A3

17/12/2015

For Approval **fjmt-AR-DWG-2100U_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219

CP FAN ROOM
EXHAUST RISER 4.2m²
PLENUM
5,800
REDUCED HEAD HEIGHT NOMINAL 2.2m PLENUM OVER
LIFT PIT ABOVE
CAR PARK
Total: 264 car spaces
FFL +18.450
FFL +19.400
RAMP 1:10
RAMP 1:20
RAMP
PLANT
L16
FAN
L15
AHU
L13
L14
RL +18.70
RL +17.90
RL +16.60
FOYER BELOW
CAFE BELOW
RETAIL BELOW
SUB STATION BELOW
CAR PARK ENTRY BELOW
LOADING DOCK BELOW
SPRINKLER TANK 59m2 AT LG + 115m2 AT MEZZ = 175KL
HYDRANT TANK 5.6 x 3.0 x 5.5m = 90KL
WATER
GAS
SECURITY
SITE BOUNDARY
EX. +16.96

fjmt + SISSONS
francis-jones morehen thorp

Mezzanine Floor Plan

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

0 5 10 20m
1:500 @ A3

16/12/2015

For Approval **fjmt-AR-DWG-2100M_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219

CP FAN ROOM
ACC. EOT
PLENUM
CP FAN ROOM
1,002
5,800
SEWER PUMP-OUT PIT (INDICATIVE)
STORMWATER PUMP-OUT PIT (INDICATIVE)
FFL +15.450
300 7,200 300
RAMP 1:10
RAMP 1:20
350 5,060 350
CONCRETE UPSTAND
RAMP 1:10
RAMP 1:10
PLENUM
RAIN WATER TANKS
RAINWATER TANK (concrete) 13.9m x 6.3m 2.8m = 141KL
REDUCED HEAD HEIGHT NOMINAL 2.2m PLENUM OVER
5,800
PLENUM
CAR PARK
(213 car spaces + 12 accessible car spaces)
Total: 225 car spaces
FFL +16.400
PLENUM
L16
RAIN WATER REUSE
COMMS
FAN ROOM
FCC
COMMS
PLANT
COLD WATER TANK 5x5x2.4m = 60KL
HV CONTROL ROOM
PLANT
RL +17.90
RL +16.60
LOBBY FFL +16.800
RETAIL FFL +16.800
RETAIL FFL +16.800
RETAIL FFL +16.800
EOT BIKE PARKING (320 SPACES)
LOADING CORRIDOR
CL DSD
FEMALE
EOT FACILITIES
MALE
SWITCH ROOM
SUBSTATION 01
SPRINKLER VALVE & PUMP
SPRINKLER TANK 59m2 AT LG + 116m2 AT MEZZ = 175KL
BOOSTER
RETAIL FFL +16.800
RAMP
PLANT
WASTE
FAN
DIESEL PUMP
MAIL ROOM
SERVICE BAY X 3 (2300 X 5400)
COURIER X3 (2300 X 5400)
MOTORCYCLE X 2 (2300 X 1200)
HYDRANT TANK 5.6x2.0x2.5m = 28KL
HYDRANT PUMP
MRV BAY 1
MRV BAY 2
5,147
DIESEL TANK 1 (U/G) 4.0 x 6.0m
DIESEL TANK 2 (U/G) 4.0 x 6.0m
GREASE ARRESTOR (U/G) 7.0 x 6.0m
LOADING DOCK FFL +16.400
RETAIL FFL +16.930
RAMP
DOCK OFFICE
SITE BOUNDARY
BICYCLE ACCESS
3,000
10,881
EX. +16.74
EX. +16.930
EX. +16.96

fjmt + SISSONS
francis-jones morehen thorp

Lower Ground Plan

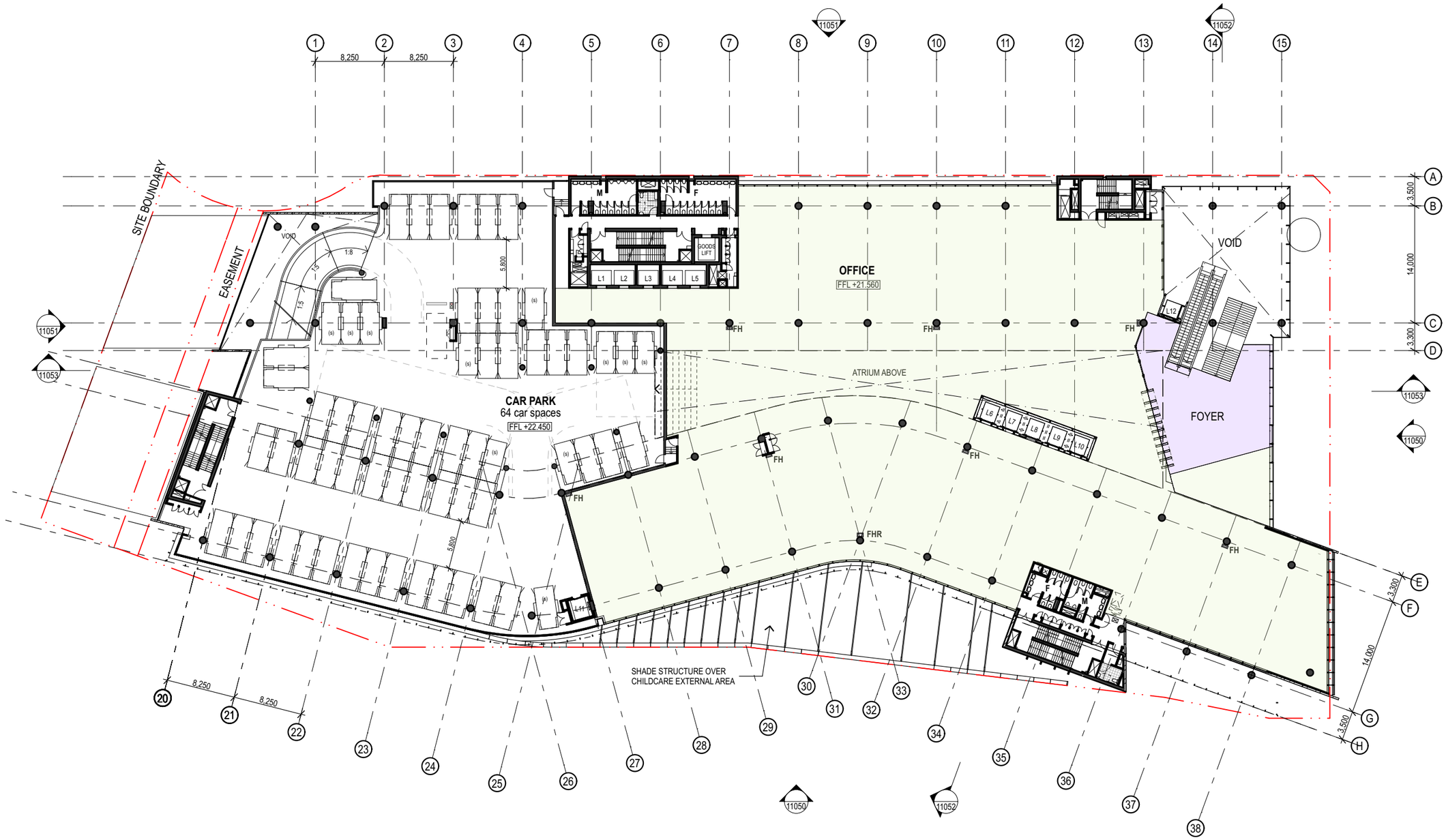
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 2

0 5 10 20m
1:500 @ A3

16/12/2015

For Approval **fjmt-AR-DWG-2100L_DA0**

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



TOTAL CAR SPACES:
Lower Ground (93 spaces) + Mezzanine (60 spaces) + Upper Ground (64 spaces) = 217 car spaces

fjmt + SISSONS
francis-jones morehen thorp

Upper Ground Floor Plan

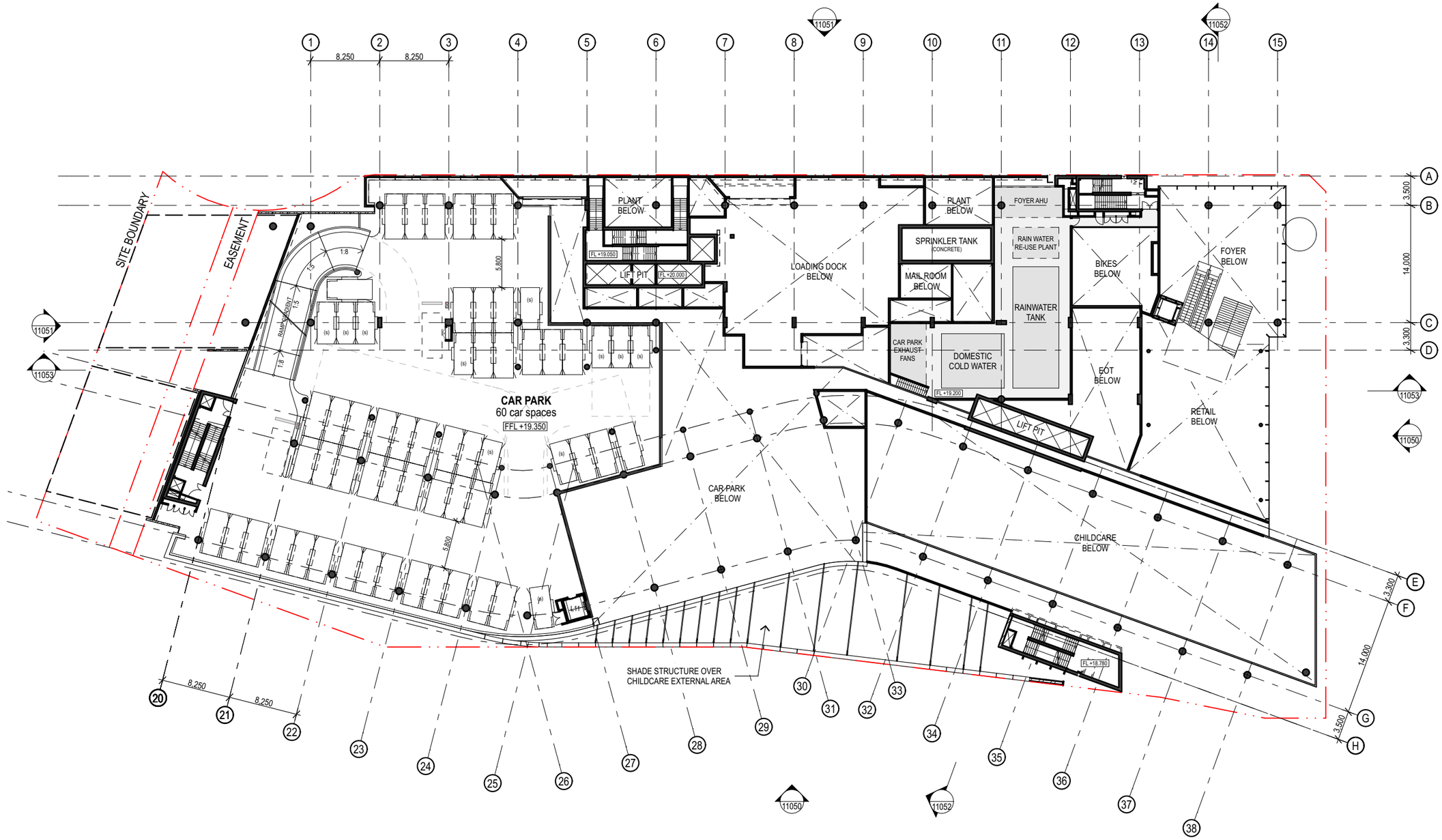
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

0 5 10 20m
1:500 @ A3

17/12/15

For Approval fjmt-AR-DWG-1100U_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



TOTAL CAR SPACES:
Lower Ground (93 spaces) + Mezzanine (60 spaces) + Upper Ground (64 spaces) = 217 car spaces

fjmt + SISSONS
francis-jones morehen thorp

Mezzanine Plan

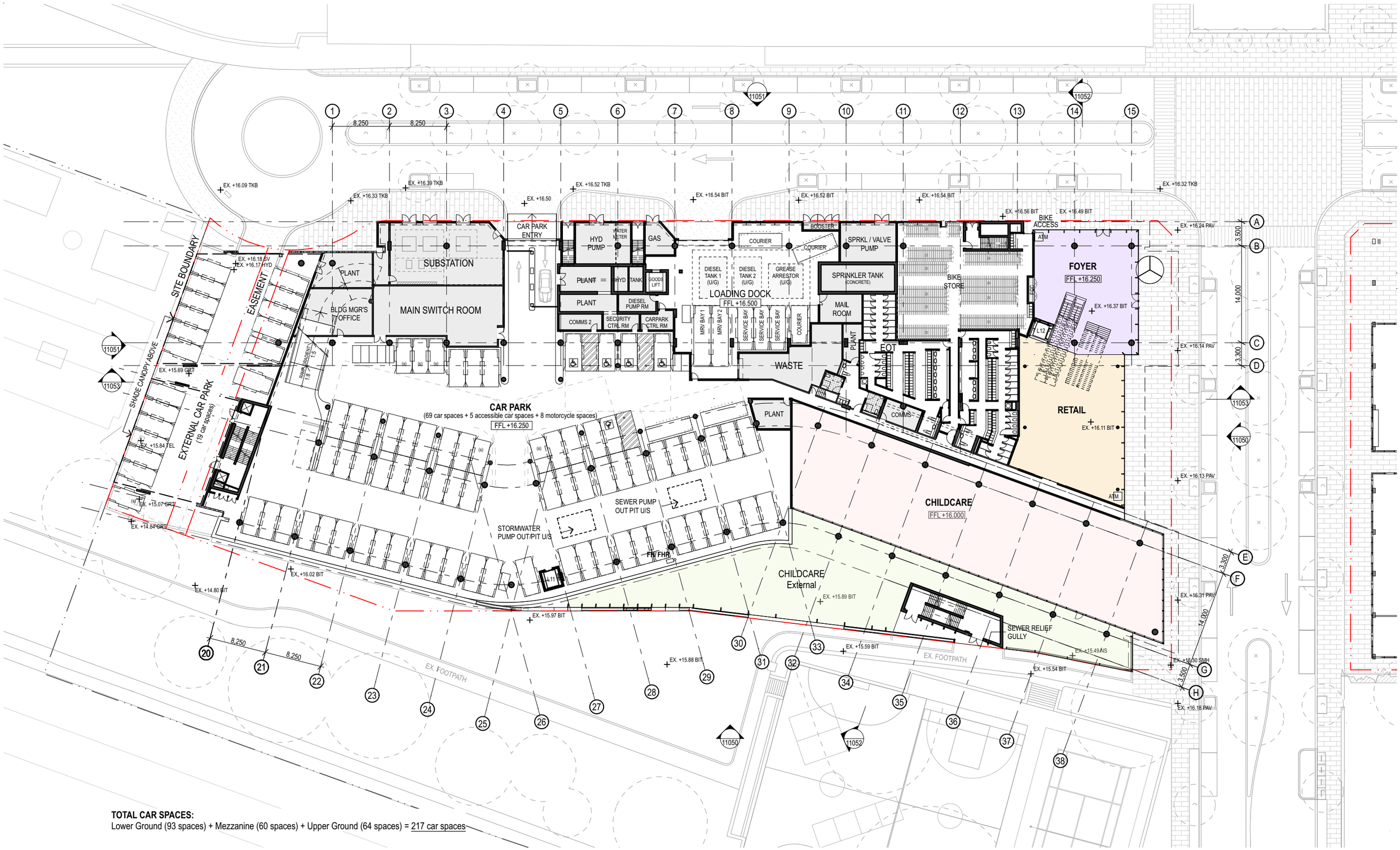
MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

0 5 10 20m
1:500 @ A3

16/12/15

For Approval fjmt-AR-DWG-1100M_DA0

© FRANCIS-JONES MOREHEN THORP PTY LTD 2015 ABN 28 101 197 219



TOTAL CAR SPACES:
Lower Ground (93 spaces) + Mezzanine (60 spaces) + Upper Ground (64 spaces) = 217 car spaces

fjmt + SISSONS
francis-jones morehen thorp

Lower Ground Floor Plan

0 5 10 20m
1:500 @ A3

16/12/15

MIRVAC - AUSTRALIAN TECHNOLOGY PARK - BUILDING 1

For Approval **fjmt-AR-DWG-1100L_DA0**

Appendix B JBS&G (2016c) Fill Retention Documentation

JBS&G 51142/102714 Rev B
R005 (Fill Retention Assessment - ATP) Rev B

27 May 2016

Barry Steedman
Mirvac Projects Pty Ltd
Via email: barry.steedman@mirvac.com

Retention of Lot 12 Fill Materials - Factual Data Report

Dear Barry,

1. Introduction and Background

JBS&G Australia Pty Ltd (JBS&G) has been engaged by Mirvac Projects Pty Ltd (Mirvac, the client) to provide environmental consultancy services associated with the remediation and redevelopment of a portion of the Australian Technology Park (ATP), herein referred to as the site (**Figures 1** and **2**, **Attachment 2**). The site is legally identified as Lots 8, 9, 12 in Deposited Plan (DP) 1136859, Part Lot 13 in DP 1136859 and Part Lot 10 in DP 1136859 (**Figure 3, Attachment 2**) and occupies an area of 11.6 ha. The site includes the Locomotive Workshop, public roads/domains (road reserves and pedestrian easements, recreational facilities and the eastern most extent of Lot 10 DP 1136859) and Developable Lots (Lots 8, 9 and 12). With the notable exception of the Locomotive Workshop, the footprints of existing ATP precinct structures (including the International Business Centre, National Innovation Centre, Traffic Management Centre (formally the RTA Building), Ambulance Service Building and Biomedical Building footprints) within Lot 13 in DP 113659 fall outside the site boundaries, as shown on **Figure 2** (**Attachment 2**).

During site preparation works, Mirvac have identified the potential for retention of surplus fill materials resultant from site development activities to minimise waste generation and help achieve a green star rating. Specifically, Mirvac has identified the potential to retain fill materials resultant from Lot 12 development activities underlying the proposed commercial building footprint.

As part of JBS&G's engagement, Mirvac has requested JBS&G undertake assessment of fill within Lot 12 for potential ecological suitability for on-site retention. This letter report presents the data obtained in a factual manner to enable subsequent assessment to be undertaken.

2. Objective

The objective of the investigation is to document the concentration of soil contaminants within Lot 12. The results of the investigation will be used to assist in the preparation of a subsequent ecological risk assessment (ERA) for proposed redevelopment of the site.

The secondary objective of the assessment was to assess the potential occurrence of acid sulphate soils (ASS)/potential acid sulphate soils (PASS) with natural soils at depth within Lot 12.

3. Site History and Setting

A detailed review of the site setting and history is presented in JBS&G (2015a[1]). Relevant information to this assessment is summarised herein.

3.1 Locomotive Workshop Location, Description and Proposed Retention Details

Lot 12 in Deposited Plan 1136859 (the assessment area) is located within the central site extent and occupies and area of approximately 11 850 m^2.

Lot 12 is largely level, surfaced with bituminous concrete pavements with minor areas of exposed soils (garden beds). Lot 12 is noted to comprise two tiers, an upper level flush with the Locomotive Street road frontage, and a low level flush with the Central Avenue road frontage. An earthen/concrete embankment retaining wall of approximately 3 m in height separates the two tiers. Lot 12 is currently used as an overflow car parking facility.

Development of Lot 12 is proposed to accommodate a seven storey building comprising of parking, retail and commercial uses. The carpark will be partially sunken and constructed at-grade given the tiered site topography. A portion of materials from the 'upper tier' of the current carpark at Lot 12 will require excavation to achieve design levels. .

The concrete slab of the future building will serve as a physical barrier to retained fill. Surface treatments external to the building are proposed to comprise hardstands (paved areas underlain by a concrete slab or similar). No landscaping (garden beds or similar) is proposed.

No direct exposures will be present following site development activities. A marker layer will underlie physical barriers (hardstands), denoting the extent of retained fill. Details of the remedial strategy proposed in this portion of the site are documented in the remedial action plan (RAP, JBS&G 2016a[2]).

Based on communications with Mirvac, suitable surplus fill materials resultant from Lot 12 development works are proposed to be retained beneath the commercial building to be constructed on Lot 12.

As discussed above, the surface elevation of Lot 12 are currently split between the upper car park at approximately relative level (RL) 21.5 m Australian Height Datum (AHD) and the lower car park at RL 16 m AHD to 17 m AHD. The proposed construction basal level for the proposed multi-storey commercial building range from RL 15.45 m AHD within the northern Lot extent to RL 16.4 m AHD within the southern Lot extent.

To minimise waste generation and help achieve a green star rating, Mirvac propose to excavate fill materials, natural soils and bedrock to depths ranging to approximately 9 AHD m to 11 m AHD. The proposed excavation location/layout is shown on **Figure 4** (**Attachment 2**).

As discussed in JBS&G (2016a), fill materials have been reported to be approximately 4.0 m to 6.0 m thick within the north Lot extent (northern car park) and approximately 1.5 m to 2.0 m thick within the southern Lot extent (southern car park).

Excavated natural soils (clay) and bedrock are proposed to be beneficially reused within the broader site. Excavated fill materials from Lot 12 are proposed to be retained in the Lot 12 excavation.

---

1 *Mirvac Projects Pty Ltd – Australian Technology Park Detailed Site Assessment, 2 Locomotive Street, Eveleigh NSW*. JBS&G Australia Pty Ltd dated 9 December 2015 (JBS&G 2015a)

2 *Mirvac Projects Pty Ltd – Australian Technology Park Remedial Action Plan, 2 Locomotive Street, Eveleigh NSW*. JBS&G Australia Pty Ltd dated 27 May 2016 Revision D (JBS&G 2016a)

Based on the above, it is anticipated approximately 39 000 m^3 of fill materials are proposed to be retained.

Based on review of JBS&G (2015a), groundwater beneath Lot 12 has been reported at depths of approximately RL 10 m AHD to RL 13 m AHD, possibly seasonally influenced and perched within fill materials and natural clay soils.

As such, based on the above, should fill materials be retained, potential remain for materials currently above the saturated zone to be placed below the water table.

4. Methodology

4.1 Fill and ASS/PASS Assessment Activities

As discussed above, fill materials across the entire Lot 12 extent are proposed to be excavated and retained below the future Lot 12 multi storey commercial building. Furthermore, fill materials currently above the water table may be re-instated below the water table. As such, sampling on a systematic grid basis skewed to areas of historical elevated total and/or toxicity characteristic leaching procedure (TCLP) contaminant concentrations was considered the most appropriate methodology to assess suitability of fill materials for retention beneath the proposed commercial development.

Sampling was conducted at eighteen locations via the use of a drill rig fitted with a 100 mm solid fight auger and push tube attachments.

A jar and 1 kg bulk sample was collected at each sample location, per 1.0 m in depth, until the program depth was achieved (natural soils) or prior refusal. Samples were submitted for a variety of organic and inorganic contaminants, and heavy metal, total recoverable hydrocarbons (TRH) and polycyclic aromatic hydrocarbons (PAH) Australian standard leaching procedure (ASLP) analysis. Selected soil samples of natural material were also analysed for PASS/ASS (SPOCAS).

Given the aggressively of ASLP analysis and potential to over predict potential rates of leaching of soils, and to replicate the excavation, stockpiling and homogenisation process as a result of earth works, JBS&G also submitted six 5 kg samples of fill materials for column leach analysis in accordance with ASTM (D4874-95[3]).

Bulk samples were amassed as follows:

- Samples from BH03/0-1.0, BH04/0-1.0, BH05/0-1.0, BH06/0-1.0 and BH07/0-1.0 were combined and submitted for analysis;
- Samples from BH03/1.0-2.0, BH04/1.0-2.0, BH05/1.0-2.0 and BH07/1.0-2.0 were combined and submitted for analysis;
- Samples from BH09/0-1.0, BH10/0-1.0, BH12/0-1.0, BH13/0-1.0 and BH14/0-1.0 were combined and submitted for analysis;
- Samples from BH09/1.0-2.0, BH10/1.0-2.0, BH12/1.0-2.0 and BH13/1.0-2.0 were combined and submitted for analysis;
- Samples from BH08/0-1.0, BH15/0-1.0, BH16/0-1.0, BH17/0-1.0 and BH18/0-1.0 were combined and submitted for analysis; and

[3] ASTM Designation: D4874-95 (Reapproved 2014) – Standard Test Method for Leaching Solid Material in a Column Apparatus (ASTM D4875-95).

- Samples from BH08/1.0-2.0, BH15/1.0-2.0, BH16/1.0-2.0, BH17/1.0-2.0 and BH18/1.0-2.0 were combined and submitted for analysis.

As per the ASTM D4874-95, the laboratory was instructed to apply distilled water to the top of the columns, and collect the leachate for analysis at approximately one, two, four and eight pore volumes.

During laboratory analysis, the laboratory collected and analysed the accumulative pore volumes eluted from each column over a 24 hour period. Upon receipt of the results, JBS&G requested that the samples be rerun as per the ASTM D4874-95 and collected at one, two, four and eight pore volumes.

Leachate samples were filtered through a 0.45 µm filter subsequent to collection.

Based on the sampling density (1 sample/per approx. 1 000 m^3 of fill material (ASLP and column test) completed, sufficient sampling and analysis is considered to have been completed to allow an assessment of fill contaminant conditions, specifically leachability potential.

Four samples were submitted for SPOCAS to allow assessment of ASS/PASS properties.

Field logs documenting encountered lithology are presented in **Attachment 4**. In summary fill materials were identified to be underlain by clay soil and in turn shale bedrock.

4.2 Laboratory Analysis

JBS&G contracted project laboratories which are NATA accredited for the required analyses. Primary samples were sent to Eurofins MGT Pty Ltd (Eurofins) and secondary samples sent to Envirolab Services Pty Ltd (Envirolab). In addition to laboratory quality requirements, the laboratories were required to meet JBS&G's internal Quality Assurance requirements. The analytical schedule is presented in **Table 4.1**.

Table 4.1: Analytical Schedule

Sample Type	No. of Sampling Locations	Analyses (exc. QA/QC)
Soil (fill and natural)	Eighteen sample locations	Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn) – 46 samples PAH – 46 samples TRH – 46 samples BTEX – 20 samples VOCs – 20 Samples Asbestos – 19 samples OCPs/PCBs – 19 samples ASLP (metals/PAHs) – 36 samples Silica Gel Clean Up – 4 samples SPOCAS – 4 samples
Water (bulk sample (leachability assessment)	6 bulk samples were submitted from which leachate samples at one, two, four and eight pore volumes was requested	ASTM (D4874-95) heavy metals ASTM (D4874-95) TRH ASTM (D4874-95) PAHs

In addition to the above analyses, for QA/QC purposes field duplicates and triplicates were analysed at a rate of 1/20 primary samples for primary fill soil samples. Rinsate samples were obtained from non-disposable sampling equipment, plus a single trip spike and single trip blank accompanied the soil sampling event.

4.3 Quality Assurance / Quality Control

The pre-determined data quality indicators (DQIs) established for the project are discussed below in relation to precision, accuracy, representativeness, comparability and completeness (PARCCs parameters), and are shown in **Table 4.2**.

- **Precision** - measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples.
- **Accuracy** - measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- **Representativeness** – expresses the degree which sample data accurately and precisely represent a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- **Comparability** - expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- **Completeness** – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.
- **Sensitivity** – expresses the appropriateness of the chosen laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

Table 4.2: Summary of Quality Assurance / Quality Control (QA/QC) Program

Data Quality Indicator	Frequency	Data Quality Criteria
Precision		
Blind duplicates (intra laboratory)	1 / 20 samples	<50% RPD[1]
Split duplicates (inter laboratory)	1 / 20 samples	<50% RPD[1]
Laboratory duplicates	1 / 20 samples	<50% RPD[1]
Accuracy		
Surrogate spikes	All organic samples	70-130%
Laboratory control samples	1 per lab batch	<LOR
Matrix spikes	1 per lab batch	70-130%
Representativeness		
Sampling appropriate for media and analytes		-
Samples extracted and analysed within holding times.	-	organics (14 days), inorganics (6 months)
Trip spike	1 per sampling batch	70-130% recovery
Storage blank	1 per sampling batch	<LOR
Laboratory blank	1 per sampling batch	<LOR
Rinsate blank	1 per sampling batch	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All samples	All samples
Standard analytical methods used for all analyses	All samples	All samples
Consistent field conditions, sampling staff and laboratory analysis	All samples	All samples
Limits of reporting appropriate and consistent	All samples	All samples
Completeness		
Sample description and COCs completed and appropriate	All samples	All samples
Appropriate documentation	All samples	All samples
Satisfactory frequency and result for QC samples	All QA/QC samples	-

Data Quality Indicator	Frequency	Data Quality Criteria
Data from critical samples is considered valid	-	Critical samples valid
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted Site assessment criteria	All Samples	LOR<= Site assessment criteria

1 Relative percent difference

If any of the DQIs are not met, further assessment will be necessary to determine whether the non-conformance will significantly affect the usefulness of the data. Corrective actions may include requesting further information from samplers and/or analytical laboratories, downgrading of the quality of the data or alternatively, re-collection of the data.

5. Summary of QA / QC Results

5.1 QA / QC Results

The QA / QC results are summarised in **Table 5.1**, presented in **Attachment 4** and discussed in **Section 5.2.** Laboratory certificates of analysis are provided in **Attachment 5**.

Table 5.1: Summary of QA/QC Results

Data Quality Indicator	Results	DQO met?
Precision		
Blind duplicates (intra laboratory)	0-196% RPD The primary and duplicate samples targeting asbestos were in agreement. Intra laboratory samples were analysed at a rate of 1 in 20 samples. 3/46 samples for metals, PAH, TRH (6.5%), 2/20 samples for BTEX and VOCs (10%) and 2/19 samples for asbestos, OCPs and PCBs (10.5%).	Partial[1]
Blind duplicates (inter laboratory)	0-198 % RPD The primary and duplicate samples targeting asbestos were in agreement. Intra laboratory samples were analysed at a rate of 1 in 20 samples. 3/46 samples for metals, PAH, TRH (6.5%), 2/20 samples for BTEX and VOCs (10%) and 2/19 samples for asbestos, OCPs and PCBs (10.5%).	Partial[1]
Laboratory duplicates	0-50% RPD Intra laboratory samples were analysed at a rate of 1 in 20 samples.	Yes
Accuracy		
Laboratory control samples	70 - 130% recovery 1 per lab batch	Yes
Surrogate spikes	50-135% 1 per lab batch	Partial[1]
Matrix spikes	70 - 130% recovery 1 per lab batch	Yes
Representativeness		
Samples extracted and analysed within holding times.	All primary and duplicate samples were extracted within appropriate holding times	Yes
Appropriate media for analysis	Appropriate media was sampled and submitted for analysis	Yes
Trip spike	92-98 % recovery 1 per lab batch	Yes
Storage blank	<LOR 1 per lab batch	Yes
Rinsate blank	<LOR A rinsate blank was collected during the soil sampling event.	Yes
Standard operating procedures for sample collection & handling	A single field staff member used same standard operating procedures throughout works.	Yes
Comparability		
Standard analytical methods used for all analyses	Standard analytical methods used as detailed in **Appendix D**. It is noted that no laboratory in NSW is NATA accredited for ASTM (D4874-95) analysis.	Partial[1]

Data Quality Indicator	Results	DQO met?
Consistent field conditions, sampling staff and laboratory analysis	Sampling was conducted by the same field staff members. Standard operating procedures were conducted throughout the works. Field conditions remained the same throughout the works. The primary and secondary labs remained consistent throughout the investigation.	Yes
Limits of reporting appropriate and consistent	Limits of reporting were consistent and appropriate.	Yes
Completeness		
Soil description and COCs completed and appropriate	All field logs and COCs were completed appropriately.	Yes
Appropriate documentation	All field documentation was appropriately completed.	Yes
Satisfactory frequency and result for QC samples	The QC results are considered adequate for the purposes of the investigation.	Yes
Data from critical samples	Samples were analysed at locations where potential for contamination was observed.	Yes
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	Analytical methods and limits of recovery were considered appropriate for media and adopted site assessment criteria for all soil analytes.	Yes

Notes:

[1] See discussion of DQI exceedances below.

5.2 Soil QA/QC Discussion

5.2.1 Precision

Soil Blind Duplicates (intra laboratory)

The rates of blind duplicate sampling and analysis for soils was 3 blind duplicate samples for heavy metals, PAH, TRH (6.5%), two blind duplicate samples for BTEX and VOCs (10%) and two blind duplicate samples for asbestos, OCPs and PCBs (10.5%).

RPDs were generally within the DQI with the exception of the following:

- Chromium in soil sample BH05/3.5-4.0 (13 mg/kg) and QC01 (32 mg/kg) with a RPD of 84 mg/kg;
- Copper in soil sample BH05/3.5-4.0 (530 mg/kg) and QC01 (<5 mg/kg) with a RPD of 196 mg/kg;
- Lead in soil sample BH05/3.5-4.0 (150 mg/kg) and QC01 (6.6 mg/kg) with a RPD of 183 mg/kg;
- Nickel in soil sample BH05/3.5-4.0 (16 mg/kg) and QC01 (<5 mg/kg) with a RPD of 105 mg/kg;
- Zinc in soil sample BH05/3.5-4.0 (220 mg/kg) and QC01 (<5 mg/kg) with a RPD of 191 mg/kg;
- Arsenic in soil sample BH07/3.0-4.0 (3.6 mg/kg) and QC02 (54 mg/kg) with a RPD of 175 mg/kg; and
- Lead in soil sample BH07/3.0-4.0 (20 mg/kg) and QC02 (<5 mg/kg) with a RPD of 175 mg/kg.

High RPDs can be expected in heterogeneous materials including soils impacted with slag which have not been homogenised or when analyte concentrations are close to the LOR. As such, the elevated RPDs are considered not to affect the overall reliability and precision of the data set.

Soil Split Duplicates (inter laboratory)

The rates of split blind duplicate sampling and analysis for soils was 3 blind duplicate samples for heavy metals, PAH, TRH (6.5%), two blind duplicate samples for BTEX and VOCs (10%) and two blind duplicate samples for asbestos, OCPs and PCBs (10.5%).

RPDs were generally within the DQI with the exception of the following:

- Copper in soil sample BH05/3.5-4.0 (530 mg/kg) and QC01A (2 mg/kg) with a RPD of 198 mg/kg;
- Lead in soil sample BH05/3.5-4.0 (150 mg/kg) and QC01A (10 mg/kg) with a RPD of 175 mg/kg;
- Nickel in soil sample BH05/3.5-4.0 (16 mg/kg) and QC01A (<1 mg/kg) with a RPD of 176 mg/kg;
- Zinc in soil sample BH05/3.5-4.0 (220 mg/kg) and QC01A (<1 mg/kg) with a RPD of 198 mg/kg;
- Arsenic in soil sample BH07/3.0-4.0 (3.6 mg/kg) and QC02A (101 mg/kg) with a RPD of 101 mg/kg;
- Chromium in soil sample BH07/3.0-4.0 (13 mg/kg) and QC02A (5 mg/kg) with a RPD of 89 mg/kg;
- Copper in soil sample BH07/3.0-4.0 (7.7 mg/kg) and QC02A (3 mg/kg) with a RPD of 88 mg/kg;
- Benzo(a)pyrene TEQ in soil sample BH05/3.5-4.0 (1.2 mg/kg) and QC01A (<0.5 mg/kg) with a RPD of 198 mg/kg;
- Benzo(a)pyrene TEQ in soil sample BH07/3.0-4.0 (1.2 mg/kg) and QC02A (<0.5mg/kg) with a RPD of 175 mg/kg; and
- Benzo(a)pyrene TEQ in soil sample BH12/36.5-7(1.2 mg/kg) and QC03A (<0.5 mg/kg) with a RPD of 175 mg/kg.

Similar to the blind duplicates, high RPDs can be expected in heterogeneous materials, soils containing slag or when analyte concentrations are close to the LOR. As such, the elevated RPDs are considered not to affect the overall reliability or precision of the data set.

The results of analysis with RPDs outside the DQIs have been evaluated with respect to the assessment criteria presented in JBS&G (2016a) and where necessary the contaminant concentration in the duplicate samples have been taken into consideration with respect to assessment.

Laboratory Duplicates

Laboratory duplicates RPDs were all within the JBS&G acceptable limit (0-50%). A total of 27 laboratory duplicate samples were conducted which met the DQIs for soil sampling (1 in 20).

5.2.2 Accuracy

Laboratory Control Samples

All laboratory control samples were reported as having recoveries within the JBS&G acceptable range of 70-130%. A total of 20 laboratory control samples were conducted which met the DQIs for soil sampling (1 in 20).

Surrogate Spikes

All surrogate spikes reported recoveries within the JBS&G acceptable range of 70-130%. Surrogate spikes were conducted for all organic samples.

Matrix Spikes

All matrix spikes reported recoveries within the JBS&G acceptable range of 70-130%. A total of 20 matrix spikes were conducted which met the DQIs for soil sampling (1 in 20).

5.2.3 Representativeness

Sampling appropriate for media and analytes

All soil sampling works completed during the investigation were conducted in accordance with JBS&G standard operating procedures. Soil bore (push tubes) holes were advanced for the purposes of visual inspection of fill conditions and the collection of soil samples and considered appropriate for potential contaminants of concern identified in JBS&G (2015a).

All samples were collected wearing a new pair of disposable nitrile gloves. Where possible, disturbance of the sample was minimised during placement within the laboratory supplied sample container and during shipment.

Holding Times

Copies of Sample Receipt Notes are included in **Attachment 5**. All soil analyses were undertaken within holding times.

Rinsate Blank

One rinsate blank was submitted with the soil samples collected during the assessment. There were no reported concentrations of contaminant compounds above the laboratory LOR.

Trip Spike

One trip spike was submitted with the soil samples collected during the assessment. Trip spike recoveries were within the JBS&G acceptable limit of 70-130%.

Storage Blank

One storage blank was submitted with the soil samples collected during the assessment. There were no reported concentrations of BTEX compounds above the laboratory LOR.

Decontamination Comparability

All reusable field equipment was decontaminated between sampling locations.

Experienced JBS&G personnel undertook all sampling in accordance with standard JBS&G sampling methods.

Field works and sampling were undertaken by the same JBS&G field scientists throughout the works.

The laboratory LORs are consistent and are considered appropriate.

5.2.4 Comparability

Eurofin, the primary laboratory, and Envirolab, the secondary laboratory were NATA accredited for all analytical methods used with the exception of the column leach methodology. It is noted however, the laboratory was NATA accredited for the analysis of obtain leach fluid samples.

The laboratories used similar analytical methods and the analytical data were comparable between laboratories as indicated by the results of duplicate analysis. Where different LORs were adopted by

the laboratories, the primary laboratory typically had a lower LOR than the secondary laboratory, and as such, consideration of the data set was not impacted.

Furthermore, the samples collected for assessment purposes are considered comparable as all samples were collected by experienced JBS&G personnel in accordance with standard JBS&G sampling methods.

5.2.5 Completeness

Documentation

All laboratory documentation is complete and correct. Chain of custody documentation is provided with laboratory reports in **Attachment 5**.

Frequency for QC Samples

The frequency of analysis of all QC samples was considered appropriate and valid.

5.2.6 QA/QC Assessment

The field sampling and handling procedures produced QA/QC results which indicate that the soil data are of an acceptable quality and suitable for use in the ERA.

The NATA certified laboratory results sheets indicate that the project laboratory was generally achieving levels of performance within its recommended control limits during the period when the samples from this program were analysed.

On the basis of the results of the field and laboratory QA/QC program, the soil data is of an acceptable quality upon which to draw conclusions.

6. Results

6.1 Field Parameters and Observations

Fill materials ranged in depth from 0.4 m bgs (BH14 on shale bedrock) to 4.3 m bgs (BH17 on silty clay soil), with fill conditions typically 3.0 m to 4.0 m bgs within the northern Lot 12 extent and 1.0 m to 2.0 m bgs within the southern Lot 12 extent. A number of sample locations terminated in fill (refusal on sub-surface structures, slabs) within the south eastern Lot 12 extent, where fill conditions have historically been reported to be skeletal (<1.0 m) in nature.

Lot 12 was largely sealed with asphaltic pavements, underlain by fill comprising gravelly (blue metal) grey/brown silt sands, and in turn, brown/black silty sands with trace level inclusions of slag, glass, concrete, tiles and other build materials. No staining, chemical odours, ACM or other potential indicators of contamination were observed. Detailed field logs are provided in **Attachment 3**.

Natural silty clay soils were typically encountered underlying fill materials. Shale bedrock was identified to underlie fill materials at sample location BH14 and silty clay/sandy clay soils at a number of sample locations.

Peat (organic rich silty clay) soils were reported at sample locations BH04 and BH07 underlying fill materials and overlying natural silty clay/sandy clay soils.

Natural soils did not contain physical properties consistent with PASS/ASS.

6.2 Soil Analytical Results

Soil and soil leachate analytical results are summarised **Attachment 6**. Detailed laboratory reports are provided in **Attachment 5**. Sampling locations are shown on **Figure 5** (**Attachment 2**).

7. Conclusion

The sampling procedures utilised for the investigation are considered appropriate for the chemical constituents analysed. The field and laboratory QA / QC program indicates that the data obtained from the sampling and analysis can be considered appropriately accurate for the objectives of the assessment – that is, the results of the investigation are considered reliable to assist in the preparation of an ERA for the site.

Natural soils within Lot 12 were not identified to contain ASS/PASS properties. As such, management of ASS/PASS is not required with respect to the proposed borrow pit/retention beneath the future Lot 12 building.

8. Recommendations

It is recommended that the data is included in the ERA assessment in accordance with the QA/QC discussion provided in this report.

Should you require clarification, please contact the undersigned on 02 8245 0300 or by email ncussen@jbsg.com.au.

Yours sincerely:



Nathan Cussen
Senior Consultant
JBS&G Australia Pty Ltd

Reviewed/Approved by:



Andrew Lau
Principal, Contaminated Land
JBS&G Australia Pty Ltd

Attachments:
1) Limitations
2) Figures
3) Field Logs
4) Tabulated QA/QC Data
5) Laboratory Certificates of Analysis

Attachment 1 – Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

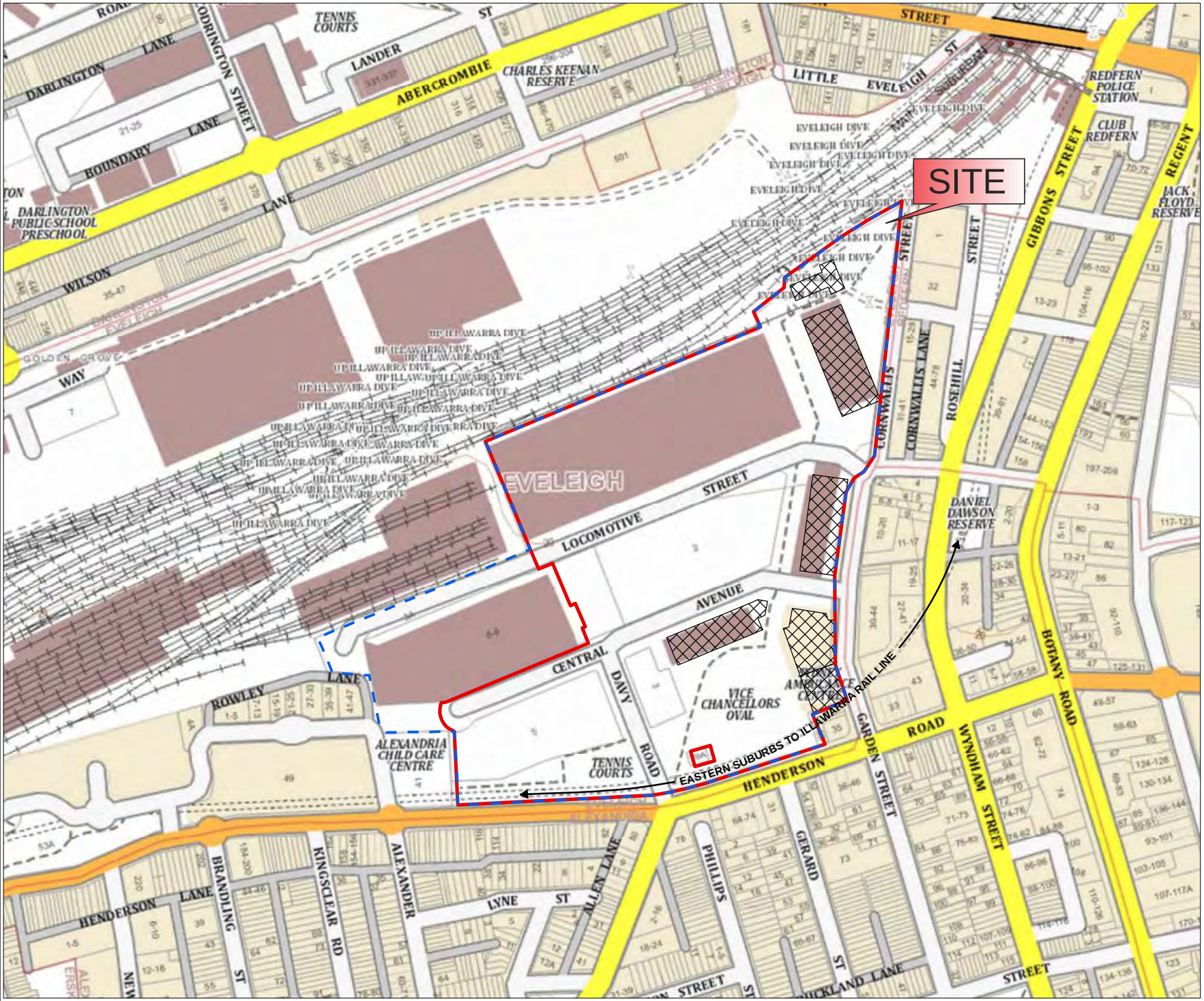
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Attachment 2 – Figures



Legend:

- Approximate Boundary - ATP Precinct
- Approximate Boundary - The Site
- Existing Building Footprint Excluded from "The Site"

JBS&G

Client: Mirvac

Version: R05 Rev B	Date: 27-May-2016
Drawn By: RF	Checked By: NC

Scale 1:4,500

0 50 100
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SITE LOCATION

FIGURE 1:

File Name: 51142_01
Reference: https://maps.six.nsw.gov.au/



Legend:

- Approximate Boundary - ATP Precinct
- Approximate Boundary - The Site
- Cadastral Boundaries
- Existing Building Footprint Excluded from "The Site"
- UST (Inferred Historical Location)

JBS&G

Client: Mirvac

Version: R05 Rev B	Date: 27-May-2016
Drawn By: RF	Checked By: NC

Scale 1:3,500

0 40 80
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SITE LAYOUT

FIGURE 2:

File Name: 51142_02
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

ID	Easting	Northing
1	333302.989	6248006.382
2	333293.067	6247933.754
3	333293.439	6247856.397
4	333303.771	6247825.047
5	333273.907	6247812.619
6	333284.633	6247786.774
7	332964.732	6247733.630
8	332961.638	6247797.811
9	332950.268	6247822.948
10	333078.318	6247874.821
11	333047.076	6247944.192
12	333035.035	6247939.195
13	332988.564	6248050.651
14	333228.276	6248150.135
15	333222.423	6248163.545
16	333249.014	6248184.579
17	333249.411	6248193.311
18	333351.804	6248259.986
19	333327.992	6248038.132
20	333318.864	6248024.242
21	333309.736	6248018.685
22	333303.771	6248006.382



Legend:

- Approximate Boundary - ATP
- Cadastral Boundaries
- Approximate Boundary - The Site
- Existing Building Footprint Excluded from "The Site"

Lot and DP Boundaries

- Lot 8 DP1136859
- Lot 9 DP1136859
- Lot 10 DP1136859
- Lot 12 DP1136859
- Lot 13 DP1136859
- Site Coordinate Location

JBS&G

Client: Mirvac

Version: R05 Rev A	Date: 27-May-2016
Drawn By: RF	Checked By: NC

Scale 1:2,500

0 40 80
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

CADASTRE - LOT AND DP LOCATION

FIGURE 3:

File Name: 51142_03
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



Legend:

Approximate Site Boundary

Borrow Pit Locations

BP1 - Excavation RL 10m AHD

BP2 - Excavation RL 9m AHD

BP3 - Excavation RL 11m AHD

JBS&G

Client: Mirvac

Version: R05 Rev B	Date: 27-May-2016
Drawn By: RF	Checked By: NC

Scale 1:1,000

0 10 20

metres

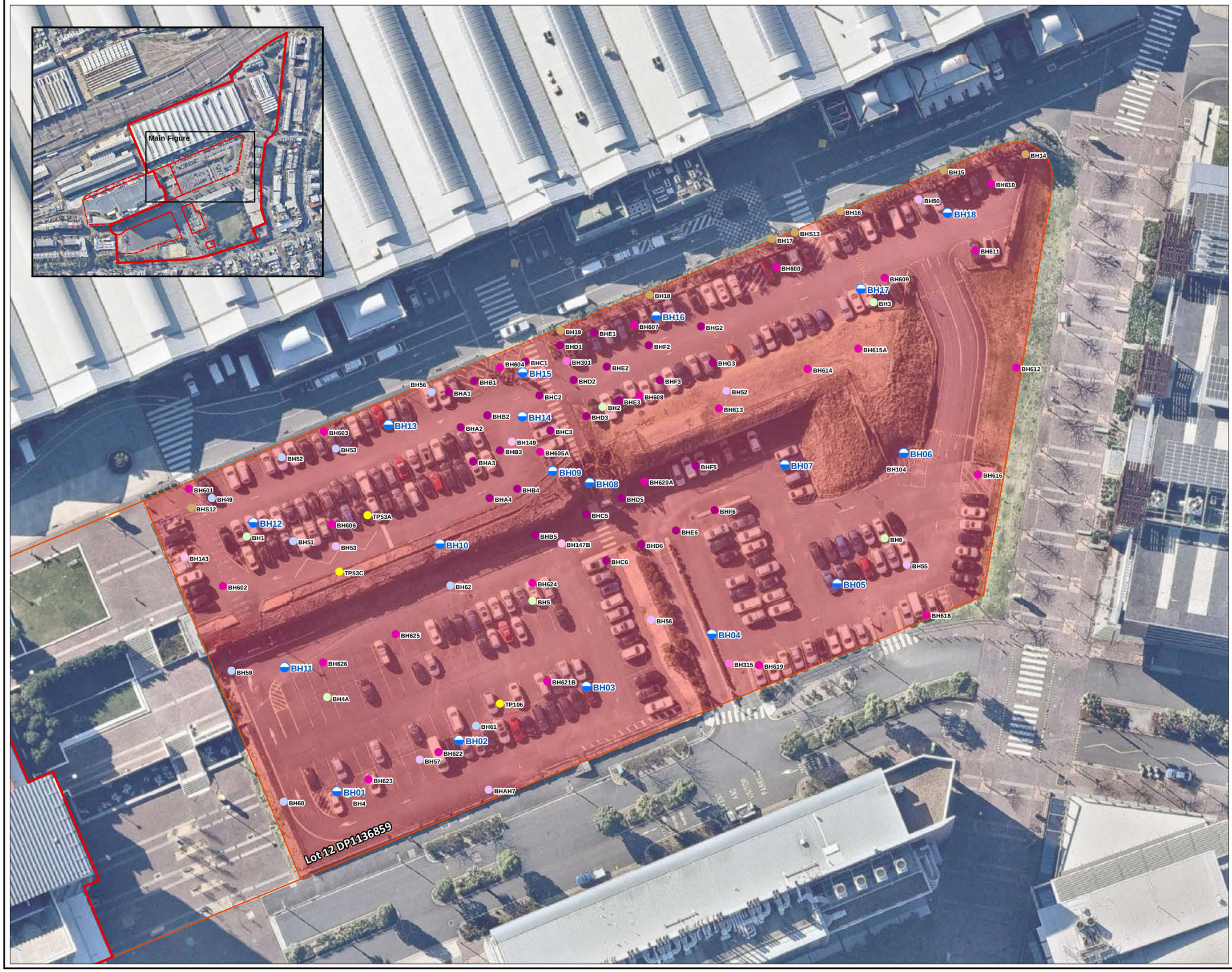
Coor. Sys. GDA 1994 MGA Zone 56

Lot 12 DP 1136859
Australia Technology Park
2 lines

LOT 12 EXCAVATION EXTENT / LAYOUT

FIGURE 4:

File Name: 51142_04
Reference: https://maps.six.nsw.gov.au/



Legend:

- Sample Locations JBS&G 2016

Historical Soil Sample Locations

- CMP&F 1993 (ES 2014e) - Lot 12
- CMPS&F 1994 (ES 2014c) - Lot 12
- DP 2003 (ES 2014c) - Lot 12
- DP 2005a - Lot 12
- DP 2008 (ES 2014c) - Lot 12
- DP 2009 (ES 2014c) - Lot 12
- ES 2014 (ES 2014c) - Lot 12
- GETEX 2013 (ES 2014c) - Lot 12
- HLA 2001 (ES 2014c) - Lot 12
- JET 1993 (ES 2014c) - Lot 12
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries

JBS&G

Job No: 51142	
Client: Mirvac	
Version: R05 Rev B	Date: 27-May-2016
Drawn By: RF	Checked By: NC

Scale 1:650

0 14
metres

Coord. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

HISTORIC AND CURRENT SOIL SAMPLE LOCATIONS LOT 12

FIGURE 5:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\R05 Rev B\51142_05.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

Attachment 3 – Field Logs

Borehole No: BH01

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 5/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 2.3

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
		Ground Surface				
0.0		**Asphalt Pavement**				No odours, staining or asbestos observed within the fill profile
		FILL Gravelly, silty sand / grey - brown / heterogeneous / dry / poorly graded / coarse grained / with inclusions of slag and igneous gravels	BH01 0-1.0	0	U	
1.0		**FILL** Silty sand / black / heterogeneous / dry / coarse grained / loose / inclusions of clay clasts, glass concrete, tiles and slag	BH01 1.0-2.0	0	U	
2.0		**End of Hole** Refusal at 2.3 mbgs - concrete slab				
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Rohan Hammond
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH02

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 5/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 1.0

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		Asphalt Pavement				No odours, staining or asbestos observed
		FILL Gravelly silty sand / grey - brown / heterogeneous / dry / coarse grained / loose / poorly sorted / no inclusions	BH02 0-1.0	0	U	
1.0		**FILL** Silty sand / black / heterogeneous / dry / loose / poorly sorted / coarse sand and silts / inclusions of igneous, roadbase gravels and slag				
		End of Hole Refusal at 1.0 mbgs - concrete slab				
2.0						
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Rohan Hammond
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH03

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 5/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 1.5

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		Asphalt Pavement				No odours, staining or asbestos observed within the fill profile
		FILL Sandy gravel / grey - brown / heterogeneous / dry / loose / coarse gravel / poorly sorted / no inclusions	BH03 0-1.0	0	U	
1.0		**FILL** Silty sand / black / heterogeneous / dry / loose / coarse sand and silts / inclusions of igneous and asphaltic gravels, concrete, wood and slag				
		FILL Clayey sand / orange and yellow / heterogeneous / dry / coarse sand / poorly sorted / inclusions of crushed bricks	BH03 1.0-1.5	0	U	
2.0		**End of Hole** Refusal at 1.5 mbgs - concrete slab				
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Rohan Hammond
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH04

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 5/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 6.5

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		Asphalt Pavement				
		FILL Sandy gravel / grey - brown / heterogeneous / dry / coarse grained / loose / poorly sorted / no inclusions	BH04 0-1.0	0.6	U	No odours, staining or asbestos observed within the fill profile
1.0		**FILL** Sand / yellow and brown / heterogeneous / dry / coarse grain / inclusions of igenous gravel and slag				
		Silty Clay Black / heterogeneous / damp / firm / moderate plasticity / inclusions of plant matter	BH04 1.0-2.0	6.7	U	Black silty clay material emitted organic odour
2.0		**Silty Clay** Clay / orange with grey mottles / heterogeneous / stiff / non plastic / damp / no inclusions				No odours, staining or asbestos observed within the remainder of the natural profile
3.0			BH04 2.0-4.0	1.0	U	
4.0			BH04 4.0-5.0	0	U	
5.0			BH04 5.0-5.5	0	U	
		Shale Shale bedrock / grey / hard	BH04 5.5-6.5	0	U	
6.0		**End of Hole** Refusal at 6.5 mbgs - program depth				
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Rohan Hammond
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH05

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 5/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 4.0

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		Asphalt Pavement				No odours, staining or asbestos observed within the fill profile
		FILL Gravelly, silty sand / grey - brown / heterogeneous / dry / loose / coarse grained / poorly sorted / no inclusions	BH05 0-1.0	0	U	
1.0		**FILL** Silty sand / black / heterogeneous / dry / coarse grain / loose / poorly graded / inclusions of igneous and asphaltic gravels, concrete, wood and slag				
		FILL Sand / black and grey / heterogeneous / dry / coarse grain / loose / poorly sorted / no inclusions	BH05 1.0-2.0	0	U	
2.0		**Clay** Clay / orange with grey mottling / low plasticity / stiff / no inclusions	BH05 2.0-3.0	0	U	
3.0						
			BH05 3.5-4.0	0	U	
4.0		**End of Hole** End of hole@ 4.0 - program depth				
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Rohan Hammond
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH06

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 5/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 0.5

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		Asphalt Pavement				
		FILL Gravelly, silty sand / grey - brown / heterogeneous / dry / coarse grain / loose / poorly sorted / coarse gravel / no inclusions	BH06 0-1.0	0	U	No odours, staining or asbestos observed within the fill profile
1.0		**FILL** Silty sand / black / heterogeneous / dry / coarse grain / loose / poorly sorted / inclusions of igneous gravels, concrete and slag				
		End of Hole End of hole@ 0.5 - encountered service				
2.0						
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Rohan Hammond
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH07

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 5/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 4.0

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		Asphalt Pavement				No odours, staining or asbestos observed within the fill profile
		FILL Gravelly, silty sand / grey - brown / heterogeneous / dry / loose / coarse grain / poorly sorted / no inclusions	BH07 0-1.0	0	U	
		FILL Sand / grey / heterogeneous / moist / coarse grain / loose / poor grade / inclusions of slag				
1.0		**Silty clay** Sandy, silty clay / black and orange / heterogeneous / damp / high plasticity / soft / no inclusions	BH07 1.0-1.5	0	U	
		Grades to black silty clay				
		Clay Clay / orange with white mottling				
2.0			BH07 2.0-3.0	0	U	
3.0			BH07 3.0-4.0	0	U	
4.0		**End of Hole** End of hole@ 4.0 - program				
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Rohan Hammond
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH08

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 6/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 3.0

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
		Ground Surface				
0.0		**FILL** Gravelly, silty sand / brown / heterogeneous / dry / with inclusions of sandstone, igneous gravel, rootlets, other organic matter and slag	BH08 0-1.0	0	U	No odours, staining or asbestos observed within the fill profile
1.0		**FILL** As above with fewer organic matter inclusions	BH08 1.0-2	0	U	
2.0						
		Clayey Sand Clayey sand / cream, red and grey / mottled / damp / homogeneous / highly plastic	BH08 2.5-3.0	0	U	
3.0		**End of Hole** End of hole@ 3.0 - program				
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Daniel Danero
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH09

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 6/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 8

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Gravelly silty sand / brown, black and red / heterogeneous / dry / with inclusions of high quantity of asphaltic gravels, some charcoal, slag and sandstone	BH09 0-1.0	0	U	No odours, staining or asbestos observed
1.0		**FILL** Silty sand / gold and brown / homogeneous / damp / no inclusions	BH09 1-2	0	U	
2.0			BH09 2-3	0	U	
3.0		**Clayey Sand** Clayey sand / brown / heterogeneous / damp / poor grade / coarse grai	BH09 3-4	0	U	
4.0						
5.0						
		Clay Clay / red with grey mottling / highly plastic / mottled				
6.0			BH09 6-6.5	0	U	
7.0						
		Shale Shale bedrock / hard / grey	BH09 8	0	U	
8.0		**End of Hole** End of hole @ 8.0 - program				

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Daniel Danero
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH10

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 6/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 1.3

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Gravelly silty sand / brown, black and red / heterogeneous / with inclusions of high quantity of asphaltic gravels, some charcoal, sandstone and slag	BH10 0-1.0	0	U	No odours, staining or asbestos observed within the fill profile
1.0		**End of Hole** End of hole@ 1.3 - refusal on concrete. - moved location 0.5 m west, same result, abandoned				
2.0						
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Daniel Danero
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH11

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 5/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Auger
Total Hole Depth (mbgs): 0.5

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		Asphalt Pavement				No odours, staining or asbestos observed within the fill profile
		FILL Concrete				
0.5		**End of Hole** End of hole@ 0.5 - Refusal				
1.0						
2.0						
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Rohan Hammond
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH12

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 5/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 7.0

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
		Ground Surface				
0.0		**Concrete** Concrete				No odours, staining or asbestos observed within the fill profile
		FILL Silty sand / black / heterogeneous / dry / coarse grained / poorly sorted / with inclusions of clay clasts, concrete fragments, igneous gravels and slag	BH12 0-1.0	0	U	
1.0		**FILL** Reworked clay and sand / yellow to orange / heterogeneous / damp / coarse grained / poorly sorted / with clay clasts (yellow and black) / no anthropogenic inclusions	BH12 1-2	0	U	
2.0			BH12 2-3	0	U	
3.0			BH12 3-4	0	U	
4.0			BH12 4-5	0	U	
5.0		**Clay** Clay / orange with grey mottling / moist / firm to stiff / plastic / no inclusions	BH12 5-6	0	U	
6.0						
			BH12 6.5-7	0	U	
7.0		**End of Hole** End of hole @ 7.0 - program				
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Rohan Hammond
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH13

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 6/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 3.5

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
			BH13 0-1.0	0	U	No odours, staining or asbestos observed
		FILL Gravelly silty sand / brown, black and red / heterogeneous / with inclusions of high quantity of asphaltic gravel, some charcoal, sandstone and slag				
1.0			BH13 1-2	0	U	
2.0						
3.0		**Clay** Silty clay / brown with grey mottling stiff / low plasticity / mottled	BH13 3-3.5	0	U	
		End of Hole End of hole @ 3.5 - program				
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Daniel Danero
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH14

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 6/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 1.0

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Gravelly silty sand / brown, black and / heterogeneous / with inclusions of asphaltic gravels, some charcoal, sandstone, igneous gravels and slag	BH14 0-1.0	0	U	No odours, staining or asbestos observed within the fill profile
1.0		**Shale** Shale bedrock / grey / hard				
		End of Hole End of hole @ 1.0 - program				
2.0						
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Daniel Danero
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH15

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 6/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 3.6

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
		Ground Surface				
0.0		**FILL** Gravelly silty sand / brown, black and red / heterogeneous / with inclusions of asphaltic gravels, some charcoal, sandstone, igneous gravels and slag	BH15 0-1.0	0	U	No odours, staining or asbestos observed within the fill profile
1.0			BH15 1-2	0	U	
2.0			BH15 2-3	0	U	
3.0		**Silty Clay** Silty clay / red and cream / some includions of sandy bands	BH15 3-3.6	0	U	
		End of Hole End of hole @ 3.6 - program				
4.0						
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Daniel Danero
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH16

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 6/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 4.5

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
		Ground Surface				
0.0		**FILL** Gravelly silty sand / brown, black and red / heterogeneous / with inclusions of asphaltic gravels, some charcoal, sandstone, igneous gravels and slag	BH16 0-1.0	0	U	No odours, staining or asbestos observed within the fill profile
1.0		**FILL** Clayey sand / light brown / inclusions of slag	BH16 1-2	0	U	
2.0			BH16 2-3	0	U	
3.0		**Silty Sand** Silty sand / brown and yellow / homogeneous / damp / no inclusions	BH16 3-4	0	U	
4.0		**Silty Clay** Silty clay / red, grey and cream / mottled	BH16 4-4.5	0	U	
		End of Hole End of hole @ 4.5 - program				
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Daniel Danero
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH17

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 6/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 8.0

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
		Ground Surface				
0.0		**FILL** Gravelly silty sand / brown, black and red / heterogeneous / with inclusions of asphaltic gravels, some charcoal, sandstone, igneous gravels and slag	BH17 0-1.0	0	U	No odours, staining or asbestos observed within the fill profile
1.0		**FILL** As above, increase in sand / gold / damp / heterogeneous	BH17 1-2	0	U	
2.0			BH17 2-3	0	U	
3.0		**FILL** Reworked Natural				
4.0		**Silty Clay** Silty clay / red, grey and cream / homogenous / highly plastic / no inclusions - some red (Fe rich) litho-clasts (handed)	BH17 4-5	0	U	
5.0						
6.0			BH17 6-7	0	U	
7.0						
8.0		**Shale** Shale bedrock / hard / grey				
		End of Hole End of hole @ 8.0 - program				

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Daniel Danero
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Borehole No: BH18

Project No: 51142
Client: Mirvac Projects Pty Ltd
Project Name: ATP Data Gap Investigation
Site Address: Lot 12 ATP

Date: 6/12/2015
Contractor: Matrix Drilling
Drill Rig: Geoprobe
Method: Pushtube
Total Hole Depth (mbgs): 4.0

Eastings (MGA): 0
Northings (MGA): 0
Reference Level: Ground Surface
Elevation - Surface (m): 0
Bore Diameter (mm): 100

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Gravelly silty sand / brown, black and red / heterogeneous / with inclusions of asphaltic gravels, some charcoal, sandstone, igneous gravels and slag	BH18 0-1.0	0	U	No odours, staining or asbestos observed within the fill profile
1.0			BH18 1-2	0	U	
		FILL Reworked natural - silty clay / red and grey / some charcoal inclusions				
2.0			BH18 2-3	0	U	
3.0		**Silty Clay** Silty clay / red with grey mottling	BH18 3-4	0	U	
4.0		**End of Hole** End of hole @ 4.0 - program				
5.0						
6.0						
7.0						
8.0						

Drilling Method Pushtube	*Sample Type* Undisturbed	*Reference Level*	*Log Details*
HA - Hand Auger	*U - Undisturbed tube sample*	*AHD - Australian Height Datum*	*Logged By:* Daniel Danero
SFA - Solid Flight Auger	*D - Disturbed sample*	*BGS - Below Ground Surface*	*Project Manager:* Nathan Cussen
HFA - Hollow Flight Auger	*CS - Core sample*		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

© JBS&G

Attachment 4 – Tabulated QA/QC Data

SOIL Field Duplicates (SOIL)
Filter: ALL

Filter	Chem_Gro	ChemNam	Units	EQL	SDG	482392	482392	RPD	482392	482392	RPD	482392	482392	RPD	482392	Interlab_D	RPD	482392	Interlab_D	RPD	482392	Interlab_D	RPD
					Field ID	BH05 3.5-4.0	QC01		BH07 3.0-4.0	QC02		BH12 6.5-7.0	QC03		BH05 3.5-4.0	QC01A		BH07 3.0-4.0	QC02A		BH12 6.5-7.0	QC03A	
					Sampled Date/Time	06-12-15	06-12-15		06-12-15	06-12-15		06-12-15	06-12-15		06-12-15	06-12-15		06-12-15	06-12-15		06-12-15	06-12-15	
Metals & M	Metals & M	Arsenic (To	mg/kg	2 (Primary): 4 (Interlab)		8.2	9.5	15	**3.6**	**54.0**	**175**	3.6	<2.0	57	8.2	4.0	69	**3.6**	**11.0**	**101**	**3.6**	**17.0**	**130**
Metals & M		Cadmium	mg/kg	0.4		<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0
Metals & M		Chromium	mg/kg	5 (Primary): 1 (Interlab)		**13.0**	**32.0**	**84**	13.0	19.0	38	6.0	<5.0	18	13.0	9.0	36	**13.0**	**5.0**	**89**	6.0	8.0	29
Metals & M		Copper	mg/kg	5 (Primary): 1 (Interlab)		**530.0**	**<5.0**	**196**	7.7	6.5	17	<5.0	<5.0	0	**530.0**	**2.0**	**198**	**7.7**	**3.0**	**88**	<5.0	3.0	0
Metals & M		Lead	mg/kg	5 (Primary): 1 (Interlab)		**150.0**	**6.6**	**183**	**20.0**	**<5.0**	**120**	<5.0	<5.0	0	**150.0**	**10.0**	**175**	20.0	9.0	76	<5.0	8.0	46
Metals & M		Mercury (In	mg/kg	0.05 (Primary): 0.1 (Inte		0.06	<0.05	18	<0.05	<0.05	0	<0.05	<0.05	0	0.06	<0.1	0	<0.05	<0.1	0	<0.05	<0.1	0
Metals & M		Nickel	mg/kg	5 (Primary): 1 (Interlab)		**16.0**	**<5.0**	**105**	<5.0	<5.0	0	<5.0	<5.0	0	**16.0**	**<1.0**	**176**	<5.0	<1.0	0	<5.0	<1.0	0
Metals & M		Zinc	mg/kg	5 (Primary): 1 (Interlab)		**220.0**	**<5.0**	**191**	<5.0	<5.0	0	<5.0	<5.0	0	**220.0**	**<1.0**	**198**	<5.0	<1.0	0	<5.0	<1.0	0
Metals & Metalloids																							
Chlorinated	Chlorinated	1,1,1,2-tetr	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,1,1-trichl	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,1,2-trichl	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,1,2,2-tetr	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,1-dichlor	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,2,3-trichl	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,2-dichlor	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,2-dichlor	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,3-dichlor	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Bromochlo	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Bromodich	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Carbon tet	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Chloroetha	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Chloroform	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Chlorometh	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		dibromochl	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Dichlorodif	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Dichlorome	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0				<0.5			<0.5					
Chlorinated		Trichlorofl	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated Alkanes																							
Chlorinated	Chlorinated	1,1,2,2-tetr	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,1-Dichlor	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		3-chloropro	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0				<0.05			<0.05					
Chlorinated		4-chlorotol	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		cis-1,2-dich	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		cis-1,3-dich	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		trans-1,2-d	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		trans-1,3-d	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Trichloroet	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Vinyl Chlor	mg/kg	0.5 (Primary): 1 (Interlab		<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated Alkenes																							
TPHs (NEP	TPHs (NEP	C6-C9 Fra	mg/kg	20 (Primary): 25 (Interla		<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<25.0	0	<20.0	<25.0	0
TPHs (NEP		C10-C14 F	mg/kg	20 (Primary): 50 (Interla		<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<50.0	0	<20.0	<50.0	0	<20.0	<50.0	0
TPHs (NEP		C15-C28 F	mg/kg	50 (Primary): 100 (Interl		<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<100.0	0	<50.0	<100.0	0	<50.0	<100.0	0
TPHs (NEP		C29-C36 F	mg/kg	50 (Primary): 100 (Interl		<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<100.0	0	<50.0	<100.0	0	<50.0	<100.0	0
TPHs (NEP		C10-C36 F	mg/kg	50		<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0			<50.0			<50.0		
TPHs (NEPC 1999)																							
TRHs (NEP	TRHs (NEP	>C10-C16	mg/kg	50		<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0
TRHs (NEP		C6-C10 Fra	mg/kg	20 (Primary): 25 (Interla		<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<25.0	0	<20.0	<25.0	0
TRHs (NEP		>C16-C34	mg/kg	100		<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0
TRHs (NEP		>C34-C40	mg/kg	100		<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0
TRHs (NEP		C6 - C10 le	mg/kg	20		<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<20.0	0	<20.0			<20.0			<20.0		
TRHs (NEPC 2013)																							
TRHs (NEP	TRHs (NEP	>C10 - C16	mg/kg	50		<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0			<50.0			<50.0		
TRHs (NEPC 2013) - Silica Gel																							
BTEX	BTEX	Benzene	mg/kg	0.1 (Primary): 0.2 (Interl		<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<0.2	0	<0.1	<0.2	0			
BTEX		Ethylbenze	mg/kg	0.1 (Primary): 1 (Interlab		<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<1.0	0	<0.1	<1.0	0			
BTEX		Toluene	mg/kg	0.1 (Primary): 0.5 (Interl		<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<0.5	0	<0.1	<0.5	0			
BTEX		Xylene (m	mg/kg	0.2 (Primary): 2 (Interlab		<0.2	<0.2	0	<0.2	<0.2	0				<0.2	<2.0	0	<0.2	<2.0	0			
BTEX		Xylene (o)	mg/kg	0.1 (Primary): 1 (Interlab		<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<1.0	0	<0.1	<1.0	0			
BTEX		Xylene (To	mg/kg	0.3		<0.3	<0.3	0	<0.3	<0.3	0				<0.3			<0.3					
BTEX																							
Polycyclic	Polycyclic	Acenaphth	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Acenaphth	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Anthracene	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Benz(a)ant	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Benzo(a)py	mg/kg	0.5 (Primary): 0.05 (Inte		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.05	0	<0.5	<0.05	0	<0.5	<0.05	0
Polycyclic		Benzo(a)py	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Polycyclic		Benzo(a)py	mg/kg	0.5		0.6	0.6	0	0.6	0.6	0	0.6	0.6	0	0.6	<0.5	18	0.6	<0.5	18	0.6	<0.5	18
Polycyclic		Benzo(a)py	mg/kg	0.5		1.2	1.2	0	1.2	1.2	0	1.2	1.2	0	**1.2**	**<0.5**	**82**	**1.2**	**<0.5**	**82**	**1.2**	**<0.5**	**82**
Polycyclic		Benzo(b,j)fl	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5			<0.5		
Polycyclic		Benzo(g,h,	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Benzo(k)flu	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5			<0.5		
Polycyclic		Chrysene	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Dibenz(a,h	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Fluoranthe	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Fluorene	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Indeno(1,2,	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Naphthaler	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Naphthaler	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Phenanthre	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0
Polycyclic		Pyrene	mg/kg	0.5 (Primary): 0.1 (Interl		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0	<0.5	<0.1	0

Filter: ALL

SOIL Field Duplicates (SOIL)
Filter: ALL

					SDG	482392	482392		482392	482392		482392	482392		482392	Interlab_D		482392	Interlab_D		482392	Interlab_D	
					Field ID	BH05 3.5-4.0	QC01	RPD	BH07 3.0-4.0	QC02	RPD	BH12 6.5-7.0	QC03	RPD	BH05 3.5-4.0	QC01A	RPD	BH07 3.0-4.0	QC02A	RPD	BH12 6.5-7.0	QC03A	RPD
					Sampled Date/Time	06-12-15	06-12-15		06-12-15	06-12-15		06-12-15	06-12-15		06-12-15	06-12-15		06-12-15	06-12-15		06-12-15	06-12-15	
Polycyclic		PAHs (Tota	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5			<0.5		
Polycyclic Aromatic Hydrocarbons																							
Monocyclic	Monocyclic	1,2,4-trime	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Monocyclic		1,3,5-trime	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Monocyclic		Bromoben	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Monocyclic		Isopropylbe	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Monocyclic		Styrene	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Monocyclic Aromatic Hydrocarbons																							
Miscellane	Miscellane	1,2-dibrom	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Miscellane		2-Butanone	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0				<0.5			<0.5					
Miscellane		4-Methyl-2	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0				<0.5			<0.5					
Miscellane		Bromoform	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Miscellane		Bromomet	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Miscellane		Dibromome	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Miscellane		Iodomethar	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0				<0.5			<0.5					
Miscellaneous Hydrocarbons																							
Chlorinated	Chlorinated	Chloroben	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,2-Dichlor	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,3-dichlor	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		1,4-dichlor	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<1.0	0	<0.5	<1.0	0			
Chlorinated		Hexachlor	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Chlorinated Benzenes																							
Polychlorin	Polychlorin	Aroclor 10	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<0.1	0	<0.5	<0.1	0			
Polychlorin		Aroclor 12	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<0.1	0	<0.5	<0.1	0			
Polychlorin		Aroclor 12	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<0.1	0	<0.5	<0.1	0			
Polychlorin		Aroclor 12	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<0.1	0	<0.5	<0.1	0			
Polychlorin		Aroclor 12	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<0.1	0	<0.5	<0.1	0			
Polychlorin		Aroclor 12	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.5	0	<0.5	<0.5	0				<0.5	<0.1	0	<0.5	<0.1	0			
Polychlorin		PCBs (Tota	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0				<0.5			<0.5					
Polychlorinated Biphenyls																							
Organic Su	Organic Su	Carbon dis	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0				<0.5			<0.5					
Organic Sulfur Compounds																							
Organochl	Organochl	Aldrin	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Dieldrin	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		DDD	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		4,4-DDE	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		DDT	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		alpha-BHC	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		beta-BHC	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		delta-BHC	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Chlordane	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0				<0.1			<0.1					
Organochl		Endosulfan	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Endosulfan	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Endosulfan	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Endrin	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Endrin alde	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Endrin ket	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0				<0.05			<0.05					
Organochl		Heptachlor	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Heptachlor	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Lindane	mg/kg	0.05 (Primary): 0.1 (Inte	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.1	0	<0.05	<0.1	0			
Organochl		Methoxych	mg/kg	0.2 (Primary): 0.1 (Interl	<0.2	<0.2	0	<0.2	<0.2	0				<0.2	<0.1	0	<0.2	<0.1	0			
Organochl		Toxaphene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0				<1.0			<1.0					
Organochlorine Pesticides																							
Asbestos	Asbestos	Approx. Sa	G		55.0	24.0	78	37.0	24.0	43				55.0			37.0					
Asbestos		Mass ACM	G		0.0	0.0	0	0.0	0.0	0				0.0			0.0					
Asbestos		Asbestos fi	%w/w		0.0	0.0	0	0.0	0.0	0				0.0			0.0					
Asbestos		Mass Asbe	G		0.0	0.0	0	0.0	0.0	0				0.0			0.0					
Asbestos		Mass FA	G		0.0	0.0	0	0.0	0.0	0				0.0			0.0					
Asbestos		Mass Asbe	G		0.0	0.0	0	0.0	0.0	0				0.0			0.0					
Asbestos		Mass AF	G		0.0	0.0	0	0.0	0.0	0				0.0			0.0					
Asbestos		Mass Asbe	G		0.0	0.0	0	0.0	0.0	0				0.0			0.0					
Asbestos		Asbestos fi	%w/w		0.0	0.0	0	0.0	0.0	0				0.0			0.0					
Asbestos		Mass Asbe	G		0.0	0.0	0	0.0	0.0	0				0.0			0.0					
Asbestos																							
Asbestos -	Asbestos -	ACM - Con	COMMENT		1.0	1.0	0	1.0	1.0	0				1.0			1.0					
Asbestos -		AF - Comn	COMMENT		1.0	1.0	0	1.0	1.0	0				1.0			1.0					
Asbestos -		FA - Comn	COMMENT		1.0	1.0	0	1.0	1.0	0				1.0			1.0					
Asbestos -		Organic Fil	COMMENT		1.0	1.0	0	1.0	1.0	0				1.0			1.0					
Asbestos -		Respirable	COMMENT		1.0	1.0	0	1.0	1.0	0				1.0			1.0					
Asbestos - Trace Analysis																							
Other	Other	% Moisture	%	0.1	18.0	14.0	25	14.0	12.0	15	14.0	14.0	0	18.0			14.0			14.0		
Other																							
Other	Other	2-Propanor	mg/kg	5	<5.0	<5.0	0	<5.0	<5.0	0				<5.0			<5.0					

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 80 (1-10 x EQL); 50 (10-30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

ESDAT QA Checker
Project:Burrow Pit ATP
Filter: ALL

Overview Summary
- Count of Samples
- Count of Results

Holding Times
- Holding Time Errors (0)

Blanks
- Field Blanks
- Detects in Lab Blanks (0)
- SDG's without Storage Blanks (0)
- SDG's without Method Blanks (0)

Duplicates
- Field and Interlab Duplicates
- Lab Duplicates with high RPDs (0)
- Duplicate Samples with incorrect or missing Parent Samples (0)
- Samples at the same Location/Depth/Time not specified as duplicates (0)

Surrogates
- Surrogate Variation > 30% or outside lab LCL or UCL (10)

Lab Control Samples
- SDG's without a Laboratory Control Sample (0)
- Laboratory Control Samples, Error > 30% (0)

Certified and Standard Reference Materials
- Certified Reference Materials - Error > 30% (0)

Matrix Spikes
- SDG's without a Matrix Spike (0)
- Trip Spikes with invalid Control Sample (0)
- Less than 1 matrix spike in 20 samples, or less than 1 matrix duplicate in 20 samples (2)
- Matrix Spike Recoveries less than 70% or greater than 130% or outside lab LCL or UCL (0)
- Trip Spike Recoveries (70% - 130% is acceptable) (6)

Contents

Surrogate Variation > 30% or outside lab LCL or UCL

SDG	Expr1001	Lab_Report_Number	Sample_Type	Matrix_Type	SampleCode	Field_ID	Depth	Sampled_Date-Time	Compound	Recovery %
482410	482410	482410	Normal	SOIL	S15-De06706	BH01 0.0-1.0	BH01	06-12-15	2-Fluorobiphenyl (surr.)	69
482410	482410	482410	Normal	SOIL	S15-De06709	BH03 0.0-1.0	BH03	06-12-15	p-Terphenyl-d14 (surr.)	134
482410	482410	482410	Normal	SOIL	S15-De06713	BH05 0.0-0.1	BH05	06-12-15	p-Terphenyl-d14 (surr.)	135
482410	482410	482410	Normal	SOIL	S15-De06718	BH08 1.0-2.0	BH08	06-12-15	p-Terphenyl-d14 (surr.)	132
482410	482410	482410	Normal	SOIL	S15-De06720	BH09 1.0-2.0	BH09	06-12-15	2-Fluorobiphenyl (surr.)	65
482410	482410	482410	Normal	SOIL	S15-De06738	BH17 2.0-3.0	BH17	06-12-15	2-Fluorobiphenyl (surr.)	69
482927	482927	482927	Normal	SOIL	S15-De10571	BULK 1_1.0-2.(	BULK 11 - 2	06-12-15	2-Fluorobiphenyl (surr.)	50
482927	482927	482927	Normal	SOIL	S15-De10571	BULK 1_1.0-2.(	BULK 11 - 2	06-12-15	p-Terphenyl-d14 (surr.)	56
482927	482927	482927	Normal	SOIL	S15-De10572	BULK 2_0-1.0	BULK 20 - 1	06-12-15	2-Fluorobiphenyl (surr.)	51
482927	482927	482927	Normal	SOIL	S15-De10572	BULK 2_0-1.0	BULK 20 - 1	06-12-15	p-Terphenyl-d14 (surr.)	58

Attachment 5 - Laboratory Certificates of Analysis

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																
BH01 0.0-1.0	Dec 06, 2015		Soil	S15-De06582	X				X			X						X		X
BH01 1.0-2.0	Dec 06, 2015		Soil	S15-De06583					X			X						X		X
BH02 0.0-1.0	Dec 06, 2015		Soil	S15-De06584	X			X	X	X		X		X	X			X		X
BH03 0.0-1.0	Dec 06, 2015		Soil	S15-De06585	X			X	X	X		X		X	X			X		X
BH03 1.0-2.0	Dec 06, 2015		Soil	S15-De06586					X			X						X		X
BH04 0.0-1.0	Dec 06, 2015		Soil	S15-De06587	X		X	X	X	X		X		X	X			X	X	X
BH04 1.0-2.0	Dec 06, 2015		Soil	S15-De06588					X			X			X			X		X
BH04 2.0-4.0	Dec 06, 2015		Soil	S15-De06589					X			X						X		X
BH04 5.0-5.5	Dec 06, 2015		Soil	S15-De06590					X	X		X		X	X			X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH04 5.5-6.0	Dec 06, 2015		Soil	S15-De06591					X			X				X		X		X
BH05 0.0-0.1	Dec 06, 2015		Soil	S15-De06592	X		X	X	X	X		X		X	X			X	X	X
BH05 1.0-2.1	Dec 06, 2015		Soil	S15-De06593					X			X						X		X
BH05 2.0-3.0	Dec 06, 2015		Soil	S15-De06594		X														
BH06 0.0-0.5	Dec 06, 2015		Soil	S15-De06595	X			X	X	X		X		X	X			X		X
BH07 0.0-1.0	Dec 06, 2015		Soil	S15-De06596	X		X	X	X	X		X		X	X			X	X	X
BH07 1.0-1.5	Dec 06, 2015		Soil	S15-De06597					X			X				X		X		X
BH07 2.0-3.0	Dec 06, 2015		Soil	S15-De06598												X	X			
BH08 0.0-1.0	Dec 06, 2015		Soil	S15-De06599	X			X	X	X		X		X	X			X		X
BH08 1.0-2.0	Dec 06, 2015		Soil	S15-De06600					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH08 2.5-3.0	Dec 06, 2015		Soil	S15-De06601		X														
BH09 0.0-1.0	Dec 06, 2015		Soil	S15-De06602	X		X	X	X	X		X		X	X			X	X	X
BH09 1.0-2.0	Dec 06, 2015		Soil	S15-De06603					X			X						X		X
BH09 2.0-3.0	Dec 06, 2015		Soil	S15-De06604					X			X						X		X
BH09 3.0-4.0	Dec 06, 2015		Soil	S15-De06605			X		X			X						X	X	X
BH09 6.0-6.5	Dec 06, 2015		Soil	S15-De06606					X			X			X			X		X
BH09 8.0	Dec 06, 2015		Soil	S15-De06607												X	X			
BH10 0.0-1.0	Dec 06, 2015		Soil	S15-De06608	X			X	X	X		X		X	X			X		X
BH12 0.0-1.0	Dec 06, 2015		Soil	S15-De06609	X		X	X	X	X		X		X	X			X	X	X
BH12 1.0-2.0	Dec 06, 2015		Soil	S15-De06610					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH12 2.0-3.0	Dec 06, 2015		Soil	S15-De06611					X			X						X		X
BH12 3.0-4.0	Dec 06, 2015		Soil	S15-De06612					X			X						X		X
BH12 4.0-5.0	Dec 06, 2015		Soil	S15-De06613			X		X			X						X	X	X
BH12 5.0-6.0	Dec 06, 2015		Soil	S15-De06614		X														
BH13 0.0-1.0	Dec 06, 2015		Soil	S15-De06615	X		X	X	X	X		X		X	X			X	X	X
BH13 1.0-2.0	Dec 06, 2015		Soil	S15-De06616	X				X			X						X		X
BH13 3.0-3.5	Dec 06, 2015		Soil	S15-De06617		X														
BH14 0.3-1.0	Dec 06, 2015		Soil	S15-De06618	X			X	X	X		X		X	X			X		X
BH15 0.0-1.0	Dec 06, 2015		Soil	S15-De06619					X	X		X		X				X		X
BH15 1.0-2.0	Dec 06, 2015		Soil	S15-De06620					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH15 2.0-3.0	Dec 06, 2015		Soil	S15-De06621					X			X						X		X
BH15 3.0-3.6	Dec 06, 2015		Soil	S15-De06622		X														
BH16 0.0-1.0	Dec 06, 2015		Soil	S15-De06623	X			X	X	X		X		X	X			X		X
BH16 1.0-2.0	Dec 06, 2015		Soil	S15-De06624					X			X						X		X
BH16 2.0-3.0	Dec 06, 2015		Soil	S15-De06625					X			X						X		X
BH16 4.0-4.5	Dec 06, 2015		Soil	S15-De06626			X											X	X	
BH17 0.0-1.0	Dec 06, 2015		Soil	S15-De06627	X		X	X	X	X		X		X	X			X	X	X
BH17 1.0-2.0	Dec 06, 2015		Soil	S15-De06628					X			X						X		X
BH17 2.0-3.0	Dec 06, 2015		Soil	S15-De06629					X			X						X		X
BH17 4.0	Dec 06, 2015		Soil	S15-De06630		X														

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH17 6.0	Dec 06, 2015		Soil	S15-De06631		X														
BH18 0.0-1.0	Dec 06, 2015		Soil	S15-De06632	X			X	X	X		X		X	X			X		X
BH18 1.0-2.0	Dec 06, 2015		Soil	S15-De06633					X			X						X		X
BH18 2.0-3.0	Dec 06, 2015		Soil	S15-De06634					X			X						X		X
BH18 3.0-4.0	Dec 06, 2015		Soil	S15-De06635		X														
BH18 6.0	Dec 06, 2015		Soil	S15-De06636		X														
BH05 3.5-4.0	Dec 06, 2015		Soil	S15-De06637	X			X	X	X		X		X	X			X		X
BH07 3.0-4.0	Dec 06, 2015		Soil	S15-De06638	X			X	X	X		X		X	X			X		X
BH12 6.5-7.0	Dec 06, 2015		Soil	S15-De06639					X			X						X		X
QC01	Dec 06, 2015		Soil	S15-De06640	X			X	X	X	X	X			X			X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
QC02	Dec 06, 2015		Soil	S15-De06641	X			X	X	X	X	X			X			X		X
QC03	Dec 06, 2015		Soil	S15-De06642					X			X						X		X
RINSATE	Dec 06, 2015		Water	S15-De06643					X	X		X		X	X					X
TS	Dec 06, 2015		Water	S15-De06644									X							
SB	Dec 06, 2015		Water	S15-De06645									X							

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G Australia (NSW & WA) P/L**
Contact name:	Nathan Cussen
Project name:	ATP
Project ID:	50720
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Dec 7, 2015 4:42 PM
Eurofins | mgt reference:	**482392**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 1.6 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Charl Du Preez on Phone : +61 (2) 9900 8400 or by e.mail: charldupreez@eurofins.com.au

Results will be delivered electronically via e.mail to Nathan Cussen - ncussen@jbsg.com.au.

09006

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: S0720
PROJECT NAME: AMP
DATE NEEDED BY: STD
LABORATORY BATCH NO.:
SAMPLERS: RH / BD
QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) [redacted]@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

482392

SAMPLE ID	MATRIX	DATE	~~TIME~~	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH	PAH	VOCs	Asbestos *	ecp/PCBs	TOC	pH	CEC	SPOCAS	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH01 0-1.0	Soil	6.12.15	F	Jar + Ice		x	x	x		x								* 40g presumptive
BH01 1.0-2.0			F			x	x	x										If no bag please
BH02 0-1.0			F			x	x	x	x	x	x	x						subsample from
BH03 0-1.0			F			x	x	x	x	x	x	x						the jar
BH03 1.0-2.0			F			x	x	x										
BH04 0-1.0			2			x	x	x	x	x	x	x	x	x				
BH04 1.0-2.0			F			x	x	x	x									
BH04 2.0-4.0			2			x	x	x										
BH04 5.0-5.5			2			x	x	x	x		x							
BH04 5.5-6.0			2			x	x	x							x			
BH05 0-0.1			F			x	x	x	x	x	x	x	x	x				
BH05 1.0-2.0			F			x	x	x										
BH05 2.0-3.0			2															
BH06 0-0.5			F			x	x	x	x	x	x	x						
BH07 0-1.0			F			x	x	x	x	x	x	x	x	x				
BH07 1.0-1.5			2	Jar + Ice		x	x	x							x			
BH07 2.0-3.0			2	Jar + Bag + Ice											x			
BH08 0-1.0			F			x	x	x	x	x	x	x						
BH08 1.0-2.0			F			x	x	x										

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Nathan DATE: 7.12.15	CONSIGNMENT NOTE NO.	NAME: Samelle DATE: 07/12/15 11:41	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: EFM	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

09007

CHAIN OF CUSTODY

Page 2/044

JBS&G

PROJECT NO.: 50720 | LABORATORY BATCH NO.:

PROJECT NAME: AMP | SAMPLERS: RH / DO

DATE NEEDED BY: STD | QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	9 Metals	TPH	PAH	VOCs	Asbestos*	OCP/PCB	TOC	pH	CEC	SPOCAS	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH08 2.5-3.0	Soil	6.12.15	N	Bag + Jar														* 40g presented/dry
BH09 0-1.0			P			x	x	x	x	x	x	x	x	x				If no bag please
BH09 1.0-2.0			P			x	x	x										subsample from
BH09 2.0-3.0			P	Bag + Jar		x	x	x										the jar
BH09 3.0-4.0			N	Bag + Jar		x	x	x					x	x				
BH09 6.0-6.5			N	Bag + Jar		x	x	x	x									
BH09 8.0			N	Bag + Jar											x			
BH10 0-1.0			P	Jar		x	x	x	x	x	x	x						
BH12 0-1.0			P	Jar		x	x	x	x	x	x	x	x	x				
BH12 1.0-2.0			P	Jar + Bag		x	x	x										
BH12 2.0-3.0			P			x	x	x										
BH12 3.0-4.0			P			x	x	x										
BH12 4.0-5.0			P			x	x	x					x	x				
BH12 5.0-6.0			N															
BH13 0-1.0			P	Jar		x	x	x	x	x	x	x	x	x				
BH13 1.0-2.0			P	Jar		x	x	x		x								
BH13 3.0-3.5			N	Jar + Bag														
BH14 0.3-1.0			N	Jar		x	x	x	x	x	x	x						
BH15 0-1.0			P	Jar		x	x	x			x							

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Nathan DATE: 14.12.15	CONSIGNMENT NOTE NO.	NAME: SS	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE:	
		OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

09008

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50720
PROJECT NAME: APP
DATE NEEDED BY: STD

LABORATORY BATCH NO.:
SAMPLERS: RH / BO
QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) ncussen@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	8 Metals	TEH	PAH	VOCs	Asbestos *	OCP/PCBs	TOC	PH	CEC	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH15 1.0 - 2.0	Soil	6.12.15	P	Jar		x	x	x									x 40g present.
BH15 2.0 - 3.0			P	Jar + Bag		x	x	x									If no bag please
BH15 3.0 - 3.6			N	Jar + Bag													sub sample from
BH16 0 - 1.0			P	Jar		x	x	x	x	x	x	x					the jar
BH16 1.0 - 2.0			P	Jar		x	x	x									
BH16 2.0 - 3.0			P	Jar		x	x	x									
BH16 4.0 - 4.5			N	Jar + Bag									x	x			
BH17 0 - 1.0			P	Jar		x	x	x	x	x	x	x	x	x			
BH17 1.0 - 2.0			P	Jar		x	x	x									
BH12 2.0 - 3.0			P	Jar		x	x	x									
BH17 4.0			N	Jar + Bag													
BH17 6.0			N	Jar + Bag													
BH19 0 - 1.0			P	Jar		x	x	x	x	x	x	x					
BH19 1.0 - 2.0			P	Jar + Bag		x	x	x									
BH18 2.0 - 3.0			P	Jar + Bag		x	x	x									
BH18 3.0 - 4.0			N	Jar + Bag													
BH18 6.0			N	Jar + Bag													
BH05 3.5 - 4.0			N	Jar		x	x	x	x	x	x	x					
BH07 3.0 - 4.0			N	Jar		x	x	x	x	x	x	x					

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NCussen DATE: 7.12.15 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: SS DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

09009

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 80720
PROJECT NAME: ATP
DATE NEEDED BY: STD TAT
LABORATORY BATCH NO.: [illegible]
SAMPLERS: RH & DO
QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) nwasson@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	8 Metals	TRH	PAH	VOCs	Asbestos *	OCP/PCBs	TOC	PH	CEC	BTEX	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH12 6.5-7.0	Soil	6.12.15		Jar		X	X	X										* 40g preserved/asbestos. If no bag please subsample from the jar
QC01						X	X	X	X	X	X	X						
QC02						X	X	X	X	X	X	X						
QC03						X	X	X										
Rinsate	Water			Bottles/Vials		X	X	X	X		X							
TS				Vial											X			
SB				Vial											X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NWasson DATE: 7.12.15 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: ES DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nathan Cussen**

Report **482392-W**
Project name ATP
Project ID 50720
Received Date Dec 07, 2015

Client Sample ID			**RINSATE**	**TS**	**SB**
Sample Matrix			**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**S15-De06643**	**S15-De06644**	**S15-De06645**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	0.02	mg/L	< 0.02	-	-
TRH C10-C14	0.05	mg/L	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	-	-
TRH C10-36 (Total)	0.1	mg/L	< 0.1	-	-
BTEX					
Benzene	0.001	mg/L	-	98%	< 0.001
Toluene	0.001	mg/L	-	96%	< 0.001
Ethylbenzene	0.001	mg/L	-	92%	< 0.001
m&p-Xylenes	0.002	mg/L	-	92%	< 0.002
o-Xylene	0.001	mg/L	-	94%	< 0.001
Xylenes - Total	0.003	mg/L	-	93%	< 0.003
4-Bromofluorobenzene (surr.)	1	%	-	99	82
Volatile Organics					
1.1-Dichloroethane	0.001	mg/L	< 0.001	-	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	-	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	-	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	-	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	-	-
1.1.2.2-Tetrachloroethane	0.005	mg/L	< 0.005	-	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	-	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	-	-
1.2-Dichloroethane	0.001	mg/L	< 0.001	-	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	-	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	-	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	-	-
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	-	-
1.3-Dichloropropane	0.001	mg/L	< 0.001	-	-
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	-	-
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	-	-
2-Butanone (MEK)	0.001	mg/L	< 0.001	-	-
2-Propanone (Acetone)	0.001	mg/L	< 0.001	-	-
4-Chlorotoluene	0.001	mg/L	< 0.001	-	-
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001	-	-
Allyl chloride	0.001	mg/L	< 0.001	-	-

Client Sample ID			RINSATE	TS	SB
Sample Matrix			**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**S15-De06643**	**S15-De06644**	**S15-De06645**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit			
Volatile Organics					
Benzene	0.001	mg/L	< 0.001	-	-
Bromobenzene	0.001	mg/L	< 0.001	-	-
Bromochloromethane	0.001	mg/L	< 0.001	-	-
Bromodichloromethane	0.001	mg/L	< 0.001	-	-
Bromoform	0.001	mg/L	< 0.001	-	-
Bromomethane	0.001	mg/L	< 0.001	-	-
Carbon disulfide	0.001	mg/L	< 0.001	-	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	-	-
Chlorobenzene	0.001	mg/L	< 0.001	-	-
Chloroethane	0.001	mg/L	< 0.001	-	-
Chloroform	0.005	mg/L	< 0.005	-	-
Chloromethane	0.001	mg/L	< 0.001	-	-
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-
Dibromochloromethane	0.001	mg/L	< 0.001	-	-
Dibromomethane	0.005	mg/L	< 0.005	-	-
Dichlorodifluoromethane	0.001	mg/L	< 0.001	-	-
Ethylbenzene	0.001	mg/L	< 0.001	-	-
Iodomethane	0.001	mg/L	< 0.001	-	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	-	-
m&p-Xylenes	0.002	mg/L	< 0.002	-	-
Methylene Chloride	0.001	mg/L	< 0.001	-	-
o-Xylene	0.001	mg/L	< 0.001	-	-
Styrene	0.001	mg/L	< 0.001	-	-
Tetrachloroethene	0.001	mg/L	< 0.001	-	-
Toluene	0.001	mg/L	< 0.001	-	-
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-
Trichloroethene	0.001	mg/L	< 0.001	-	-
Trichlorofluoromethane	0.001	mg/L	< 0.001	-	-
Vinyl chloride	0.001	mg/L	< 0.001	-	-
Xylenes - Total	0.003	mg/L	< 0.003	-	-
Fluorobenzene (surr.)	1	%	96	-	-
4-Bromofluorobenzene (surr.)	1	%	89	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.01	mg/L	< 0.01	-	-
TRH C6-C10	0.02	mg/L	< 0.02	-	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	-	-
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.001	mg/L	< 0.001	-	-
Acenaphthylene	0.001	mg/L	< 0.001	-	-
Anthracene	0.001	mg/L	< 0.001	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	-	-
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	-	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	-	-
Chrysene	0.001	mg/L	< 0.001	-	-

Client Sample ID			RINSATE	TS	SB
Sample Matrix			Water	Water	Water
Eurofins | mgt Sample No.			S15-De06643	S15-De06644	S15-De06645
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	-	-
Fluoranthene	0.001	mg/L	< 0.001	-	-
Fluorene	0.001	mg/L	< 0.001	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-	-
Naphthalene	0.001	mg/L	< 0.001	-	-
Phenanthrene	0.001	mg/L	< 0.001	-	-
Pyrene	0.001	mg/L	< 0.001	-	-
Total PAH*	0.001	mg/L	< 0.001	-	-
2-Fluorobiphenyl (surr.)	1	%	84	-	-
p-Terphenyl-d14 (surr.)	1	%	124	-	-
Organochlorine Pesticides					
Chlordanes - Total	0.001	mg/L	< 0.001	-	-
4.4'-DDD	0.0001	mg/L	< 0.0001	-	-
4.4'-DDE	0.0001	mg/L	< 0.0001	-	-
4.4'-DDT	0.0001	mg/L	< 0.0001	-	-
a-BHC	0.0001	mg/L	< 0.0001	-	-
Aldrin	0.0001	mg/L	< 0.0001	-	-
b-BHC	0.0001	mg/L	< 0.0001	-	-
d-BHC	0.0001	mg/L	< 0.0001	-	-
Dieldrin	0.0001	mg/L	< 0.0001	-	-
Endosulfan I	0.0001	mg/L	< 0.0001	-	-
Endosulfan II	0.0001	mg/L	< 0.0001	-	-
Endosulfan sulphate	0.0001	mg/L	< 0.0001	-	-
Endrin	0.0001	mg/L	< 0.0001	-	-
Endrin aldehyde	0.0001	mg/L	< 0.0001	-	-
Endrin ketone	0.0001	mg/L	< 0.0001	-	-
g-BHC (Lindane)	0.0001	mg/L	< 0.0001	-	-
Heptachlor	0.0001	mg/L	< 0.0001	-	-
Heptachlor epoxide	0.0001	mg/L	< 0.0001	-	-
Hexachlorobenzene	0.0001	mg/L	< 0.0001	-	-
Methoxychlor	0.0001	mg/L	< 0.0001	-	-
Toxaphene	0.01	mg/L	< 0.01	-	-
Dibutylchlorendate (surr.)	1	%	89	-	-
Polychlorinated Biphenyls (PCB)					
Aroclor-1016	0.005	mg/L	< 0.005	-	-
Aroclor-1232	0.005	mg/L	< 0.005	-	-
Aroclor-1242	0.005	mg/L	< 0.005	-	-
Aroclor-1248	0.005	mg/L	< 0.005	-	-
Aroclor-1254	0.005	mg/L	< 0.005	-	-
Aroclor-1260	0.005	mg/L	< 0.005	-	-
Total PCB*	0.001	mg/L	< 0.005	-	-
Dibutylchlorendate (surr.)	1	%	89	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
TRH >C10-C16	0.05	mg/L	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	-

Client Sample ID			RINSATE	TS	SB
Sample Matrix			**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**S15-De06643**	**S15-De06644**	**S15-De06645**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit			
Heavy Metals					
Arsenic	0.005	mg/L	< 0.005	-	-
Cadmium	0.0005	mg/L	< 0.0005	-	-
Chromium	0.005	mg/L	< 0.005	-	-
Copper	0.005	mg/L	< 0.005	-	-
Lead	0.005	mg/L	< 0.005	-	-
Mercury	0.0001	mg/L	< 0.0001	-	-
Nickel	0.005	mg/L	< 0.005	-	-
Zinc	0.005	mg/L	< 0.005	-	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 07, 2015	7 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 07, 2015	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 07, 2015	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
BTEX	Sydney	Dec 07, 2015	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Volatile Organics	Sydney	Dec 07, 2015	7 Day
- Method: E016 Volatile Organic Compounds (VOC)			
Polycyclic Aromatic Hydrocarbons	Sydney	Dec 07, 2015	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Dec 07, 2015	7 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls (PCB)	Sydney	Dec 07, 2015	7 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
Metals M8	Sydney	Dec 07, 2015	28 Day
- Method: LTM-MET-3040 Metals in Waters by ICP-MS			

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																
BH01 0.0-1.0	Dec 06, 2015		Soil	S15-De06582	X				X			X						X		X
BH01 1.0-2.0	Dec 06, 2015		Soil	S15-De06583					X			X						X		X
BH02 0.0-1.0	Dec 06, 2015		Soil	S15-De06584	X			X	X	X		X		X	X			X		X
BH03 0.0-1.0	Dec 06, 2015		Soil	S15-De06585	X			X	X	X		X		X	X			X		X
BH03 1.0-2.0	Dec 06, 2015		Soil	S15-De06586					X			X						X		X
BH04 0.0-1.0	Dec 06, 2015		Soil	S15-De06587	X		X	X	X	X		X		X	X			X	X	X
BH04 1.0-2.0	Dec 06, 2015		Soil	S15-De06588					X			X			X			X		X
BH04 2.0-4.0	Dec 06, 2015		Soil	S15-De06589					X			X						X		X
BH04 5.0-5.5	Dec 06, 2015		Soil	S15-De06590					X	X		X		X	X			X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH04 5.5-6.0	Dec 06, 2015		Soil	S15-De06591					X			X				X		X		X
BH05 0.0-0.1	Dec 06, 2015		Soil	S15-De06592	X		X	X	X	X		X		X	X			X	X	X
BH05 1.0-2.1	Dec 06, 2015		Soil	S15-De06593					X			X						X		X
BH05 2.0-3.0	Dec 06, 2015		Soil	S15-De06594		X														
BH06 0.0-0.5	Dec 06, 2015		Soil	S15-De06595	X			X	X	X		X		X	X			X		X
BH07 0.0-1.0	Dec 06, 2015		Soil	S15-De06596	X		X	X	X	X		X		X	X			X	X	X
BH07 1.0-1.5	Dec 06, 2015		Soil	S15-De06597					X			X				X		X		X
BH07 2.0-3.0	Dec 06, 2015		Soil	S15-De06598												X	X			
BH08 0.0-1.0	Dec 06, 2015		Soil	S15-De06599	X			X	X	X		X		X	X			X		X
BH08 1.0-2.0	Dec 06, 2015		Soil	S15-De06600					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH08 2.5-3.0	Dec 06, 2015		Soil	S15-De06601		X														
BH09 0.0-1.0	Dec 06, 2015		Soil	S15-De06602	X		X	X	X	X		X		X	X			X	X	X
BH09 1.0-2.0	Dec 06, 2015		Soil	S15-De06603					X			X						X		X
BH09 2.0-3.0	Dec 06, 2015		Soil	S15-De06604					X			X						X		X
BH09 3.0-4.0	Dec 06, 2015		Soil	S15-De06605			X		X			X						X	X	X
BH09 6.0-6.5	Dec 06, 2015		Soil	S15-De06606					X			X			X			X		X
BH09 8.0	Dec 06, 2015		Soil	S15-De06607												X	X			
BH10 0.0-1.0	Dec 06, 2015		Soil	S15-De06608	X			X	X	X		X		X	X			X		X
BH12 0.0-1.0	Dec 06, 2015		Soil	S15-De06609	X		X	X	X	X		X		X	X			X	X	X
BH12 1.0-2.0	Dec 06, 2015		Soil	S15-De06610					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH12 2.0-3.0	Dec 06, 2015		Soil	S15-De06611					X			X						X		X
BH12 3.0-4.0	Dec 06, 2015		Soil	S15-De06612					X			X						X		X
BH12 4.0-5.0	Dec 06, 2015		Soil	S15-De06613			X		X			X						X	X	X
BH12 5.0-6.0	Dec 06, 2015		Soil	S15-De06614		X														
BH13 0.0-1.0	Dec 06, 2015		Soil	S15-De06615	X		X	X	X	X		X		X	X			X	X	X
BH13 1.0-2.0	Dec 06, 2015		Soil	S15-De06616	X				X			X						X		X
BH13 3.0-3.5	Dec 06, 2015		Soil	S15-De06617		X														
BH14 0.3-1.0	Dec 06, 2015		Soil	S15-De06618	X			X	X	X		X		X	X			X		X
BH15 0.0-1.0	Dec 06, 2015		Soil	S15-De06619					X	X		X		X				X		X
BH15 1.0-2.0	Dec 06, 2015		Soil	S15-De06620					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH15 2.0-3.0	Dec 06, 2015		Soil	S15-De06621					X			X						X		X
BH15 3.0-3.6	Dec 06, 2015		Soil	S15-De06622		X														
BH16 0.0-1.0	Dec 06, 2015		Soil	S15-De06623	X			X	X	X		X		X	X			X		X
BH16 1.0-2.0	Dec 06, 2015		Soil	S15-De06624					X			X						X		X
BH16 2.0-3.0	Dec 06, 2015		Soil	S15-De06625					X			X						X		X
BH16 4.0-4.5	Dec 06, 2015		Soil	S15-De06626			X											X	X	
BH17 0.0-1.0	Dec 06, 2015		Soil	S15-De06627	X		X	X	X	X		X		X	X			X	X	X
BH17 1.0-2.0	Dec 06, 2015		Soil	S15-De06628					X			X						X		X
BH17 2.0-3.0	Dec 06, 2015		Soil	S15-De06629					X			X						X		X
BH17 4.0	Dec 06, 2015		Soil	S15-De06630		X														

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH17 6.0	Dec 06, 2015		Soil	S15-De06631		X														
BH18 0.0-1.0	Dec 06, 2015		Soil	S15-De06632	X			X	X	X		X		X	X			X		X
BH18 1.0-2.0	Dec 06, 2015		Soil	S15-De06633					X			X						X		X
BH18 2.0-3.0	Dec 06, 2015		Soil	S15-De06634					X			X						X		X
BH18 3.0-4.0	Dec 06, 2015		Soil	S15-De06635		X														
BH18 6.0	Dec 06, 2015		Soil	S15-De06636		X														
BH05 3.5-4.0	Dec 06, 2015		Soil	S15-De06637	X			X	X	X		X		X	X			X		X
BH07 3.0-4.0	Dec 06, 2015		Soil	S15-De06638	X			X	X	X		X		X	X			X		X
BH12 6.5-7.0	Dec 06, 2015		Soil	S15-De06639					X			X						X		X
QC01	Dec 06, 2015		Soil	S15-De06640	X			X	X	X	X	X			X			X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
QC02	Dec 06, 2015		Soil	S15-De06641	X			X	X	X	X	X			X			X		X
QC03	Dec 06, 2015		Soil	S15-De06642					X			X						X		X
RINSATE	Dec 06, 2015		Water	S15-De06643					X	X		X		X	X					X
TS	Dec 06, 2015		Water	S15-De06644									X							
SB	Dec 06, 2015		Water	S15-De06645									X							

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.005			0.005	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.001			0.001	Pass	
2-Propanone (Acetone)	mg/L	< 0.001			0.001	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.001			0.001	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.001			0.001	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.001			0.001	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	
Chloromethane	mg/L	< 0.001			0.001	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.005			0.005	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dichlorodifluoromethane	mg/L	< 0.001			0.001	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
Methylene Chloride	mg/L	< 0.001			0.001	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	
Trichlorofluoromethane	mg/L	< 0.001			0.001	Pass	
Vinyl chloride	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.001			0.001	Pass	
4.4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Toxaphene	mg/L	< 0.01			0.01	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/L	< 0.005			0.005	Pass	
Aroclor-1232	mg/L	< 0.005			0.005	Pass	
Aroclor-1242	mg/L	< 0.005			0.005	Pass	
Aroclor-1248	mg/L	< 0.005			0.005	Pass	
Aroclor-1254	mg/L	< 0.005			0.005	Pass	
Aroclor-1260	mg/L	< 0.005			0.005	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.005			0.005	Pass	
Cadmium	mg/L	< 0.0005			0.0005	Pass	
Chromium	mg/L	< 0.005			0.005	Pass	
Copper	mg/L	< 0.005			0.005	Pass	
Lead	mg/L	< 0.005			0.005	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.005			0.005	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	94			70-130	Pass	
TRH C10-C14	%	77			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	100			70-130	Pass	
Toluene	%	99			70-130	Pass	
Ethylbenzene	%	97			70-130	Pass	
m&p-Xylenes	%	96			70-130	Pass	
o-Xylene	%	99			70-130	Pass	
Xylenes - Total	%	98			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethane	%	79			70-130	Pass	
1.1-Dichloroethene	%	99			70-130	Pass	
1.1.1-Trichloroethane	%	100			70-130	Pass	
1.1.1.2-Tetrachloroethane	%	99			70-130	Pass	
1.1.2-Trichloroethane	%	102			70-130	Pass	
1.1.2.2-Tetrachloroethane	%	101			70-130	Pass	
1.2-Dibromoethane	%	100			70-130	Pass	
1.2-Dichlorobenzene	%	104			70-130	Pass	
1.2-Dichloroethane	%	101			70-130	Pass	
1.2-Dichloropropane	%	100			70-130	Pass	
1.2.3-Trichloropropane	%	104			70-130	Pass	
1.2.4-Trimethylbenzene	%	100			70-130	Pass	
1.3-Dichlorobenzene	%	103			70-130	Pass	
1.3-Dichloropropane	%	101			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.3.5-Trimethylbenzene	%	99			70-130	Pass	
1.4-Dichlorobenzene	%	102			70-130	Pass	
2-Butanone (MEK)	%	100			70-130	Pass	
2-Propanone (Acetone)	%	107			70-130	Pass	
4-Chlorotoluene	%	102			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	%	100			70-130	Pass	
Allyl chloride	%	101			75-125	Pass	
Bromobenzene	%	100			70-130	Pass	
Bromochloromethane	%	103			70-130	Pass	
Bromodichloromethane	%	101			70-130	Pass	
Bromoform	%	99			70-130	Pass	
Bromomethane	%	119			70-130	Pass	
Carbon disulfide	%	99			70-130	Pass	
Carbon Tetrachloride	%	99			70-130	Pass	
Chlorobenzene	%	99			70-130	Pass	
Chloroethane	%	85			70-130	Pass	
Chloroform	%	99			70-130	Pass	
Chloromethane	%	93			70-130	Pass	
cis-1.2-Dichloroethene	%	100			70-130	Pass	
cis-1.3-Dichloropropene	%	96			70-130	Pass	
Dibromochloromethane	%	100			70-130	Pass	
Dibromomethane	%	101			70-130	Pass	
Dichlorodifluoromethane	%	86			70-130	Pass	
Iodomethane	%	126			70-130	Pass	
Isopropyl benzene (Cumene)	%	97			70-130	Pass	
Methylene Chloride	%	105			70-130	Pass	
Styrene	%	95			70-130	Pass	
Tetrachloroethene	%	99			70-130	Pass	
trans-1.2-Dichloroethene	%	101			70-130	Pass	
trans-1.3-Dichloropropene	%	96			70-130	Pass	
Trichloroethene	%	99			70-130	Pass	
Trichlorofluoromethane	%	100			70-130	Pass	
Vinyl chloride	%	99			70-130	Pass	
Xylenes - Total	%	98			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	117			70-130	Pass	
TRH C6-C10	%	103			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	92			70-130	Pass	
Acenaphthylene	%	100			70-130	Pass	
Anthracene	%	98			70-130	Pass	
Benz(a)anthracene	%	113			70-130	Pass	
Benzo(a)pyrene	%	103			70-130	Pass	
Benzo(b&j)fluoranthene	%	117			70-130	Pass	
Benzo(g.h.i)perylene	%	99			70-130	Pass	
Benzo(k)fluoranthene	%	103			70-130	Pass	
Chrysene	%	95			70-130	Pass	
Dibenz(a.h)anthracene	%	106			70-130	Pass	
Fluoranthene	%	103			70-130	Pass	
Fluorene	%	95			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	107			70-130	Pass	
Naphthalene	%	96			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Phenanthrene	%	100			70-130	Pass	
Pyrene	%	100			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	94			70-130	Pass	
4.4'-DDE	%	102			70-130	Pass	
4.4'-DDT	%	91			70-130	Pass	
a-BHC	%	79			70-130	Pass	
Aldrin	%	83			70-130	Pass	
b-BHC	%	92			70-130	Pass	
Dieldrin	%	108			70-130	Pass	
Endosulfan I	%	103			70-130	Pass	
Endosulfan II	%	112			70-130	Pass	
Endosulfan sulphate	%	80			70-130	Pass	
Endrin	%	103			70-130	Pass	
Endrin aldehyde	%	108			70-130	Pass	
Endrin ketone	%	103			70-130	Pass	
g-BHC (Lindane)	%	81			70-130	Pass	
Heptachlor	%	85			70-130	Pass	
Heptachlor epoxide	%	99			70-130	Pass	
Methoxychlor	%	83			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	76			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	86			70-130	Pass	
Cadmium	%	93			70-130	Pass	
Chromium	%	93			70-130	Pass	
Copper	%	88			70-130	Pass	
Lead	%	98			70-130	Pass	
Mercury	%	84			70-130	Pass	
Nickel	%	91			70-130	Pass	
Zinc	%	86			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S15-De03119	NCP	%	89			70-130	Pass	
Cadmium	S15-De03119	NCP	%	93			70-130	Pass	
Chromium	S15-De03119	NCP	%	98			70-130	Pass	
Copper	S15-De03119	NCP	%	93			70-130	Pass	
Lead	S15-De03119	NCP	%	100			70-130	Pass	
Mercury	S15-De03119	NCP	%	92			70-130	Pass	
Nickel	S15-De03119	NCP	%	96			70-130	Pass	
Zinc	S15-De03119	NCP	%	89			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De03118	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Cadmium	S15-De03118	NCP	mg/L	< 0.0005	< 0.0005	<1	30%	Pass	
Chromium	S15-De03118	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Copper	S15-De03118	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Lead	S15-De03118	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Mercury	S15-De03118	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S15-De03118	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Zinc	S15-De03118	NCP	mg/L	0.007	0.007	4.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Charl Du Preez	Analytical Services Manager
Ivan Taylor	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)



Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nathan Cussen**

Report **482392-S**
Project name ATP
Project ID 50720
Received Date Dec 07, 2015

Client Sample ID			**BH01 0.0-1.0**	**BH01 1.0-2.0**	**BH02 0.0-1.0**	**BH03 0.0-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06582**	**S15-De06583**	**S15-De06584**	**S15-De06585**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	51	450	110	250
TRH C29-C36	50	mg/kg	< 50	300	300	410
TRH C10-36 (Total)	50	mg/kg	51	750	410	660
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	-	-	< 0.5	< 0.5
2-Propanone (Acetone)	5	mg/kg	-	-	< 5	< 5
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	< 0.5	< 0.5
Allyl chloride	0.05	mg/kg	-	-	< 0.05	< 0.05
Benzene	0.1	mg/kg	-	-	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromoform	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH01 0.0-1.0 Soil S15-De06582 Dec 06, 2015	BH01 1.0-2.0 Soil S15-De06583 Dec 06, 2015	BH02 0.0-1.0 Soil S15-De06584 Dec 06, 2015	BH03 0.0-1.0 Soil S15-De06585 Dec 06, 2015
Volatile Organics						
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Chloroform	0.5	mg/kg	-	-	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	-	-	< 0.1	< 0.1
Styrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
Toluene	0.1	mg/kg	-	-	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	< 0.5
Xylenes - Total	0.3	mg/kg	-	-	< 0.3	< 0.3
Fluorobenzene (surr.)	1	%	-	-	98	97
4-Bromofluorobenzene (surr.)	1	%	-	-	73	85
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	1.6	5.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	1.8	5.7	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	2.1	6.0	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Anthracene	0.5	mg/kg	0.6	2.2	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	1.6	5.7	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	1.2	4.0	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	0.9	4.2	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	1.2	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	1.0	3.4	< 0.5	< 0.5
Chrysene	0.5	mg/kg	1.1	4.3	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	2.9	8.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	1.1	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH01 0.0-1.0 Soil S15-De06582 Dec 06, 2015	BH01 1.0-2.0 Soil S15-De06583 Dec 06, 2015	BH02 0.0-1.0 Soil S15-De06584 Dec 06, 2015	BH03 0.0-1.0 Soil S15-De06585 Dec 06, 2015
Polycyclic Aromatic Hydrocarbons						
Phenanthrene	0.5	mg/kg	1.9	6.7	< 0.5	< 0.5
Pyrene	0.5	mg/kg	2.7	8.1	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	14	50	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	100	95	98	97
p-Terphenyl-d14 (surr.)	1	%	99	93	96	97
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	< 0.05	< 0.05
a-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	-	< 0.05	< 0.05
b-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
d-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	-	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	-	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	-	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	-	< 1	< 1
Dibutylchlorendate (surr.)	1	%	-	-	88	101
Tetrachloro-m-xylene (surr.)	1	%	-	-	86	86
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	-	-	88	101
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	660	370	540
TRH >C34-C40	100	mg/kg	< 100	180	< 100	160
Total Organic Carbon[M10]	0.1	%	-	-	2.3	2.2
% Moisture	0.1	%	12	13	7.3	12

Client Sample ID			BH01 0.0-1.0	BH01 1.0-2.0	BH02 0.0-1.0	BH03 0.0-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06582	S15-De06583	S15-De06584	S15-De06585
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	11	13	2.6	12
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	5.6	7.6	12	13
Copper	5	mg/kg	590	490	61	17
Lead	5	mg/kg	240	270	52	14
Mercury	0.05	mg/kg	0.24	0.36	< 0.05	< 0.05
Nickel	5	mg/kg	12	12	8.2	< 5
Zinc	5	mg/kg	210	220	100	26

Client Sample ID			BH03 1.0-2.0	BH04 0.0-1.0	BH04 1.0-2.0	BH04 2.0-4.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06586	S15-De06587	S15-De06588	S15-De06589
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	61	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	2400	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	1900	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	4400	< 50	< 50	< 50
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	< 0.5	-
2-Propanone (Acetone)	5	mg/kg	-	< 5	< 5	-
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	< 0.5	-
Allyl chloride	0.05	mg/kg	-	< 0.05	< 0.05	-
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Bromobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromoform	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromomethane	0.5	mg/kg	-	< 0.5	< 0.5	-

Client Sample ID			BH03 1.0-2.0	BH04 0.0-1.0	BH04 1.0-2.0	BH04 2.0-4.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06586**	**S15-De06587**	**S15-De06588**	**S15-De06589**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Volatile Organics						
Carbon disulfide	0.5	mg/kg	-	< 0.5	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloroform	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibromomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Iodomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	< 0.5	< 0.5	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Styrene	0.5	mg/kg	-	< 0.5	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	-
Trichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	-
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	-
Fluorobenzene (surr.)	1	%	-	102	99	-
4-Bromofluorobenzene (surr.)	1	%	-	79	81	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	370	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	1.4	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.7	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	2.0	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	1.2	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	1.1	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	0.8	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	1.0	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	1.1	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	1.9	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH03 1.0-2.0	BH04 0.0-1.0	BH04 1.0-2.0	BH04 2.0-4.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06586	S15-De06587	S15-De06588	S15-De06589
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	1.1	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	1.8	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	10	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	94	97	76	81
p-Terphenyl-d14 (surr.)	1	%	102	94	84	90
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-BHC	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-BHC	0.05	mg/kg	-	< 0.05	-	-
d-BHC	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.2	mg/kg	-	< 0.2	-	-
Toxaphene	1	mg/kg	-	< 1	-	-
Dibutylchlorendate (surr.)	1	%	-	101	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	84	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1232	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	-
Total PCB*	0.5	mg/kg	-	< 0.5	-	-
Dibutylchlorendate (surr.)	1	%	-	101	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	370	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	3600	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	520	< 100	< 100	< 100
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	86	-	-
pH (1:5 Aqueous extract)	0.1	pH Units	-	8.1	-	-
Total Organic Carbon[M10]	0.1	%	-	5.4	-	-
% Moisture	0.1	%	7.2	21	25	18

Client Sample ID			BH03 1.0-2.0	BH04 0.0-1.0	BH04 1.0-2.0	BH04 2.0-4.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06586**	**S15-De06587**	**S15-De06588**	**S15-De06589**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	-	13	-	-
Heavy Metals						
Arsenic	2	mg/kg	< 2	3.6	8.1	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	5.4	18	< 5
Copper	5	mg/kg	< 5	58	6.5	< 5
Lead	5	mg/kg	< 5	15000	20	6.0
Mercury	0.05	mg/kg	< 0.05	0.23	0.54	< 0.05
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	5.1	200	15	< 5

Client Sample ID			BH04 5.0-5.5	BH04 5.5-6.0	BH05 0.0-0.1	BH05 1.0-2.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06590**	**S15-De06591**	**S15-De06592**	**S15-De06593**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	89	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	76	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	170	< 50
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Propanone (Acetone)	5	mg/kg	< 5	-	< 5	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	< 0.5	-
Allyl chloride	0.05	mg/kg	< 0.05	-	< 0.05	-
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Bromobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-

Client Sample ID			BH04 5.0-5.5	BH04 5.5-6.0	BH05 0.0-0.1	BH05 1.0-2.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06590	S15-De06591	S15-De06592	S15-De06593
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Volatile Organics						
Bromoform	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloroform	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibromomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Iodomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	< 0.5	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Styrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	< 0.3	-
Fluorobenzene (surr.)	1	%	105	-	105	-
4-Bromofluorobenzene (surr.)	1	%	95	-	97	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	2.4	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	2.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	2.9	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	1.7	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	1.8	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	1.4	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	0.9	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	1.7	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	1.6	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH04 5.0-5.5 Soil S15-De06590 Dec 06, 2015	BH04 5.5-6.0 Soil S15-De06591 Dec 06, 2015	BH05 0.0-0.1 Soil S15-De06592 Dec 06, 2015	BH05 1.0-2.1 Soil S15-De06593 Dec 06, 2015
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	3.4	0.8
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	0.7	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	2.1	0.8
Pyrene	0.5	mg/kg	< 0.5	< 0.5	3.2	0.8
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	19	2.4
2-Fluorobiphenyl (surr.)	1	%	74	76	76	79
p-Terphenyl-d14 (surr.)	1	%	82	85	88	89
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.2	mg/kg	< 0.2	-	< 0.2	-
Toxaphene	1	mg/kg	< 1	-	< 1	-
Dibutylchlorendate (surr.)	1	%	98	-	104	-
Tetrachloro-m-xylene (surr.)	1	%	104	-	78	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PCB*	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibutylchlorendate (surr.)	1	%	98	-	104	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	150	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100

Client Sample ID			BH04 5.0-5.5	BH04 5.5-6.0	BH05 0.0-0.1	BH05 1.0-2.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06590**	**S15-De06591**	**S15-De06592**	**S15-De06593**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	-	140	-
pH (1:5 Aqueous extract)	0.1	pH Units	-	-	8.8	-
Total Organic Carbon[M10]	0.1	%	-	-	2.3	-
% Moisture	0.1	%	7.7	10	9.3	12
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	-	-	37	-
Heavy Metals						
Arsenic	2	mg/kg	14	5.5	2.4	4.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	7.1	6.4	9.7	32
Copper	5	mg/kg	20	25	55	29
Lead	5	mg/kg	< 5	7.3	110	68
Mercury	0.05	mg/kg	< 0.05	0.05	0.09	0.07
Nickel	5	mg/kg	< 5	16	< 5	9.9
Zinc	5	mg/kg	< 5	59	69	90
SPOCAS Suite						
pH-KCL	0.1	pH Units	-	4.6	-	-
pH-OX	0.1	pH Units	-	5.1	-	-
Acid trail - Titratable Actual Acidity	2	mol H+/t	-	29	-	-
Acid trail - Titratable Peroxide Acidity	2	mol H+/t	-	60	-	-
Acid trail - Titratable Sulfidic Acidity	2	mol H+/t	-	31	-	-
sulfidic - TAA equiv. S% pyrite	0.02	% pyrite S	-	0.05	-	-
sulfidic - TPA equiv. S% pyrite	0.02	% pyrite S	-	0.10	-	-
sulfidic - TSA equiv. S% pyrite	0.02	% pyrite S	-	0.05	-	-
Sulfur - KCl Extractable	0.02	% S	-	< 0.02	-	-
Sulfur - Peroxide	0.02	% S	-	< 0.02	-	-
Sulfur - Peroxide Oxidisable Sulfur	0.02	% S	-	< 0.02	-	-
acidity - Peroxide Oxidisable Sulfur	10	mol H+/t	-	< 10	-	-
HCl Extractable Sulfur	0.02	% S	-	n/a	-	-
Net Acid soluble sulfur	0.02	% S	-	n/a	-	-
Net Acid soluble sulfur - acidity units	10	mol H+/t	-	n/a	-	-
Net Acid soluble sulfur - equivalent S% pyrite[S02]	0.02	% S	-	n/a	-	-
Calcium - KCl Extractable	0.02	% Ca	-	< 0.02	-	-
Calcium - Peroxide	0.02	% Ca	-	< 0.02	-	-
Acid Reacted Calcium	0.02	% Ca	-	< 0.02	-	-
acidity - Acid Reacted Calcium	10	mol H+/t	-	< 10	-	-
sulfidic - Acid Reacted Ca equiv. S% pyrite	0.02	% S	-	< 0.02	-	-
Magnesium - KCl Extractable	0.02	% Mg	-	0.04	-	-
Magnesium - Peroxide	0.02	% Mg	-	0.04	-	-
Acid Reacted Magnesium	0.02	% Mg	-	< 0.02	-	-
acidity - Acid Reacted Magnesium	10	mol H+/t	-	< 10	-	-
sulfidic - Acid Reacted Mg equiv. S% pyrite	0.02	% S	-	< 0.02	-	-
Acid Neutralising Capacity	0.02	%CaCO3	-	n/a	-	-
Acid Neutralising Capacity - Acidity units	10	mol H+/t	-	n/a	-	-
Acid Neutralising Capacity equivalent S% pyrite	0.02	% S	-	n/a	-	-
ANC Fineness Factor		factor	-	1.5	-	-
Net Acidity (sulfur units) - SPOCAS	0.02	% S	-	0.05	-	-
Net Acidity (acidity units) - SPOCAS	10	mol H+/t	-	29	-	-
Liming rate - SPOCAS	1	kg CaCO3/t	-	2.0	-	-

Client Sample ID			BH04 5.0-5.5	BH04 5.5-6.0	BH05 0.0-0.1	BH05 1.0-2.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06590**	**S15-De06591**	**S15-De06592**	**S15-De06593**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Extraneous Material						
<2mm Fraction	0.005	g	-	n/a	-	-
>2mm Fraction	0.005	g	-	n/a	-	-
Analysed Material	0.1	%	-	100	-	-
Extraneous Material	0.1	%	-	< 0.1	-	-

Client Sample ID			BH06 0.0-0.5	BH07 0.0-1.0	BH07 1.0-1.5	BH07 2.0-3.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06595**	**S15-De06596**	**S15-De06597**	**S15-De06598**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	-
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	-
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Propanone (Acetone)	5	mg/kg	< 5	< 5	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	-	-
Allyl chloride	0.05	mg/kg	< 0.05	< 0.05	-	-
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromoform	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-

Client Sample ID			BH06 0.0-0.5	BH07 0.0-1.0	BH07 1.0-1.5	BH07 2.0-3.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06595	S15-De06596	S15-De06597	S15-De06598
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Volatile Organics						
Chloroform	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Styrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	-
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	-
Fluorobenzene (surr.)	1	%	103	103	-	-
4-Bromofluorobenzene (surr.)	1	%	84	90	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	0.6	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.0	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.3	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	0.6	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	0.9	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	0.9	< 0.5	-

Client Sample ID			BH06 0.0-0.5	BH07 0.0-1.0	BH07 1.0-1.5	BH07 2.0-3.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06595	S15-De06596	S15-De06597	S15-De06598
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Total PAH*	0.5	mg/kg	< 0.5	2.4	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	74	76	78	-
p-Terphenyl-d14 (surr.)	1	%	82	85	85	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	-
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	-
Toxaphene	1	mg/kg	< 1	< 1	-	-
Dibutylchlorendate (surr.)	1	%	86	105	-	-
Tetrachloro-m-xylene (surr.)	1	%	74	87	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibutylchlorendate (surr.)	1	%	86	105	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	120	-	-
pH (1:5 Aqueous extract)	0.1	pH Units	-	9.9	-	-
Total Organic Carbon[M10]	0.1	%	5.9	0.7	-	-
% Moisture	0.1	%	7.6	9.1	15	17
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	-	41	-	-

Client Sample ID			BH06 0.0-0.5	BH07 0.0-1.0	BH07 1.0-1.5	BH07 2.0-3.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06595	S15-De06596	S15-De06597	S15-De06598
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	25	4.0	9.0	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	30	12	11	-
Copper	5	mg/kg	2100	490	1100	-
Lead	5	mg/kg	250	140	380	-
Mercury	0.05	mg/kg	0.13	0.09	< 0.05	-
Nickel	5	mg/kg	21	17	< 5	-
Zinc	5	mg/kg	230	180	260	-
SPOCAS Suite						
pH-KCL	0.1	pH Units	-	-	5.2	4.4
pH-OX	0.1	pH Units	-	-	5.9	5.0
Acid trail - Titratable Actual Acidity	2	mol H+/t	-	-	17	52
Acid trail - Titratable Peroxide Acidity	2	mol H+/t	-	-	14	75
Acid trail - Titratable Sulfidic Acidity	2	mol H+/t	-	-	< 2	23
sulfidic - TAA equiv. S% pyrite	0.02	% pyrite S	-	-	0.03	0.08
sulfidic - TPA equiv. S% pyrite	0.02	% pyrite S	-	-	0.02	0.12
sulfidic - TSA equiv. S% pyrite	0.02	% pyrite S	-	-	< 0.02	0.04
Sulfur - KCl Extractable	0.02	% S	-	-	< 0.02	< 0.02
Sulfur - Peroxide	0.02	% S	-	-	0.02	< 0.02
Sulfur - Peroxide Oxidisable Sulfur	0.02	% S	-	-	0.02	< 0.02
acidity - Peroxide Oxidisable Sulfur	10	mol H+/t	-	-	13	< 10
HCl Extractable Sulfur	0.02	% S	-	-	n/a	< 0.02
Net Acid soluble sulfur	0.02	% S	-	-	n/a	< 0.02
Net Acid soluble sulfur - acidity units	10	mol H+/t	-	-	n/a	< 10
Net Acid soluble sulfur - equivalent S% pyrite[S02]	0.02	% S	-	-	n/a	< 0.02
Calcium - KCl Extractable	0.02	% Ca	-	-	0.15	< 0.02
Calcium - Peroxide	0.02	% Ca	-	-	0.16	< 0.02
Acid Reacted Calcium	0.02	% Ca	-	-	< 0.02	< 0.02
acidity - Acid Reacted Calcium	10	mol H+/t	-	-	< 10	< 10
sulfidic - Acid Reacted Ca equiv. S% pyrite	0.02	% S	-	-	< 0.02	< 0.02
Magnesium - KCl Extractable	0.02	% Mg	-	-	0.02	0.03
Magnesium - Peroxide	0.02	% Mg	-	-	0.03	0.03
Acid Reacted Magnesium	0.02	% Mg	-	-	< 0.02	< 0.02
acidity - Acid Reacted Magnesium	10	mol H+/t	-	-	< 10	< 10
sulfidic - Acid Reacted Mg equiv. S% pyrite	0.02	% S	-	-	< 0.02	< 0.02
Acid Neutralising Capacity	0.02	%CaCO3	-	-	n/a	n/a
Acid Neutralising Capacity - Acidity units	10	mol H+/t	-	-	n/a	n/a
Acid Neutralising Capacity equivalent S% pyrite	0.02	% S	-	-	n/a	n/a
ANC Fineness Factor		factor	-	-	1.5	1.5
Net Acidity (sulfur units) - SPOCAS	0.02	% S	-	-	0.05	0.08
Net Acidity (acidity units) - SPOCAS	10	mol H+/t	-	-	31	52
Liming rate - SPOCAS	1	kg CaCO3/t	-	-	2.0	4.0
Extraneous Material						
<2mm Fraction	0.005	g	-	-	n/a	n/a
>2mm Fraction	0.005	g	-	-	n/a	n/a
Analysed Material	0.1	%	-	-	100	100
Extraneous Material	0.1	%	-	-	< 0.1	< 0.1

Client Sample ID			BH08 0.0-1.0	BH08 1.0-2.0	BH09 0.0-1.0	BH09 1.0-2.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06599	S15-De06600	S15-De06602	S15-De06603
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	180	< 50	250	350
TRH C29-C36	50	mg/kg	140	< 50	790	320
TRH C10-36 (Total)	50	mg/kg	320	< 50	1000	670
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Propanone (Acetone)	5	mg/kg	< 5	-	< 5	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	< 0.5	-
Allyl chloride	0.05	mg/kg	< 0.05	-	< 0.05	-
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Bromobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromoform	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloroform	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibromomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Iodomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	< 0.5	-

Client Sample ID			BH08 0.0-1.0	BH08 1.0-2.0	BH09 0.0-1.0	BH09 1.0-2.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06599	S15-De06600	S15-De06602	S15-De06603
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Volatile Organics						
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Styrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	< 0.3	-
Fluorobenzene (surr.)	1	%	100	-	106	-
4-Bromofluorobenzene (surr.)	1	%	103	-	90	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	1.8	1.1	1.3	2.6
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	2.1	1.4	1.6	2.9
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	2.3	1.7	1.8	3.1
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	0.5	< 0.5	< 0.5	1.3
Benz(a)anthracene	0.5	mg/kg	1.9	1.0	1.1	3.1
Benzo(a)pyrene	0.5	mg/kg	1.2	0.9	1.0	1.8
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	1.7	0.7	0.8	1.9
Benzo(g.h.i)perylene	0.5	mg/kg	0.9	< 0.5	0.7	1.4
Benzo(k)fluoranthene	0.5	mg/kg	1.6	0.6	0.8	2.1
Chrysene	0.5	mg/kg	1.5	0.8	0.9	2.4
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	4.5	1.9	2.1	6.2
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	0.6	< 0.5	< 0.5	1.0
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	3.1	1.2	1.0	3.5
Pyrene	0.5	mg/kg	3.9	1.9	2.3	6.6
Total PAH*	0.5	mg/kg	21	9.0	11	31
2-Fluorobiphenyl (surr.)	1	%	78	82	74	79
p-Terphenyl-d14 (surr.)	1	%	90	92	88	92
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH08 0.0-1.0 Soil S15-De06599 Dec 06, 2015	BH08 1.0-2.0 Soil S15-De06600 Dec 06, 2015	BH09 0.0-1.0 Soil S15-De06602 Dec 06, 2015	BH09 1.0-2.0 Soil S15-De06603 Dec 06, 2015
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.2	mg/kg	< 0.2	-	< 0.2	-
Toxaphene	1	mg/kg	< 1	-	< 1	-
Dibutylchlorendate (surr.)	1	%	105	-	108	-
Tetrachloro-m-xylene (surr.)	1	%	78	-	109	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PCB*	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibutylchlorendate (surr.)	1	%	105	-	108	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	310	< 100	790	610
TRH >C34-C40	100	mg/kg	< 100	< 100	570	160
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	-	150	-
pH (1:5 Aqueous extract)	0.1	pH Units	-	-	8.2	-
Total Organic Carbon[M10]	0.1	%	2.9	-	11	-
% Moisture	0.1	%	12	10	8.9	13
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	-	-	33	-
Heavy Metals						
Arsenic	2	mg/kg	13	4.2	12	21
Cadmium	0.4	mg/kg	0.6	< 0.4	< 0.4	0.5
Chromium	5	mg/kg	6.3	< 5	12	12
Copper	5	mg/kg	3000	100	1200	2100
Lead	5	mg/kg	1200	51	1700	4300
Mercury	0.05	mg/kg	0.27	0.09	17	2.7
Nickel	5	mg/kg	7.5	< 5	16	22
Zinc	5	mg/kg	1100	57	440	590

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH09 2.0-3.0 Soil S15-De06604 Dec 06, 2015	BH09 3.0-4.0 Soil S15-De06605 Dec 06, 2015	BH09 6.0-6.5 Soil S15-De06606 Dec 06, 2015	BH09 8.0 Soil S15-De06607 Dec 06, 2015
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	-
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	-
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	-	< 0.5	-
2-Propanone (Acetone)	5	mg/kg	-	-	< 5	-
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	< 0.5	-
Allyl chloride	0.05	mg/kg	-	-	< 0.05	-
Benzene	0.1	mg/kg	-	-	< 0.1	-
Bromobenzene	0.5	mg/kg	-	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromoform	0.5	mg/kg	-	-	< 0.5	-
Bromomethane	0.5	mg/kg	-	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Chloroethane	0.5	mg/kg	-	-	< 0.5	-
Chloroform	0.5	mg/kg	-	-	< 0.5	-
Chloromethane	0.5	mg/kg	-	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Dibromomethane	0.5	mg/kg	-	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	-
Iodomethane	0.5	mg/kg	-	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			BH09 2.0-3.0	BH09 3.0-4.0	BH09 6.0-6.5	BH09 8.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06604	S15-De06605	S15-De06606	S15-De06607
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Volatile Organics						
o-Xylene	0.1	mg/kg	-	-	< 0.1	-
Styrene	0.5	mg/kg	-	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.1	mg/kg	-	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Trichloroethene	0.5	mg/kg	-	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	-
Xylenes - Total	0.3	mg/kg	-	-	< 0.3	-
Fluorobenzene (surr.)	1	%	-	-	103	-
4-Bromofluorobenzene (surr.)	1	%	-	-	100	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	76	77	94	-
p-Terphenyl-d14 (surr.)	1	%	87	85	103	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	120	-	-
pH (1:5 Aqueous extract)	0.1	pH Units	-	6.2	-	-
% Moisture	0.1	%	11	13	14	13
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	-	4.5	-	-

Client Sample ID			BH09 2.0-3.0	BH09 3.0-4.0	BH09 6.0-6.5	BH09 8.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06604	S15-De06605	S15-De06606	S15-De06607
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	6.1	2.8	5.0	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	6.9	10	8.2	-
Copper	5	mg/kg	86	6.9	50	-
Lead	5	mg/kg	110	15	150	-
Mercury	0.05	mg/kg	0.13	< 0.05	0.10	-
Nickel	5	mg/kg	< 5	< 5	< 5	-
Zinc	5	mg/kg	24	< 5	17	-
SPOCAS Suite						
pH-KCL	0.1	pH Units	-	-	-	4.5
pH-OX	0.1	pH Units	-	-	-	5.0
Acid trail - Titratable Actual Acidity	2	mol H+/t	-	-	-	49
Acid trail - Titratable Peroxide Acidity	2	mol H+/t	-	-	-	66
Acid trail - Titratable Sulfidic Acidity	2	mol H+/t	-	-	-	16
sulfidic - TAA equiv. S% pyrite	0.02	% pyrite S	-	-	-	0.08
sulfidic - TPA equiv. S% pyrite	0.02	% pyrite S	-	-	-	0.11
sulfidic - TSA equiv. S% pyrite	0.02	% pyrite S	-	-	-	0.03
Sulfur - KCl Extractable	0.02	% S	-	-	-	< 0.02
Sulfur - Peroxide	0.02	% S	-	-	-	< 0.02
Sulfur - Peroxide Oxidisable Sulfur	0.02	% S	-	-	-	< 0.02
acidity - Peroxide Oxidisable Sulfur	10	mol H+/t	-	-	-	< 10
HCl Extractable Sulfur	0.02	% S	-	-	-	n/a
Net Acid soluble sulfur	0.02	% S	-	-	-	n/a
Net Acid soluble sulfur - acidity units	10	mol H+/t	-	-	-	n/a
Net Acid soluble sulfur - equivalent S% pyrite[S02]	0.02	% S	-	-	-	n/a
Calcium - KCl Extractable	0.02	% Ca	-	-	-	< 0.02
Calcium - Peroxide	0.02	% Ca	-	-	-	< 0.02
Acid Reacted Calcium	0.02	% Ca	-	-	-	< 0.02
acidity - Acid Reacted Calcium	10	mol H+/t	-	-	-	< 10
sulfidic - Acid Reacted Ca equiv. S% pyrite	0.02	% S	-	-	-	< 0.02
Magnesium - KCl Extractable	0.02	% Mg	-	-	-	< 0.02
Magnesium - Peroxide	0.02	% Mg	-	-	-	< 0.02
Acid Reacted Magnesium	0.02	% Mg	-	-	-	< 0.02
acidity - Acid Reacted Magnesium	10	mol H+/t	-	-	-	< 10
sulfidic - Acid Reacted Mg equiv. S% pyrite	0.02	% S	-	-	-	< 0.02
Acid Neutralising Capacity	0.02	%CaCO3	-	-	-	n/a
Acid Neutralising Capacity - Acidity units	10	mol H+/t	-	-	-	n/a
Acid Neutralising Capacity equivalent S% pyrite	0.02	% S	-	-	-	n/a
ANC Fineness Factor		factor	-	-	-	1.5
Net Acidity (sulfur units) - SPOCAS	0.02	% S	-	-	-	0.08
Net Acidity (acidity units) - SPOCAS	10	mol H+/t	-	-	-	49
Liming rate - SPOCAS	1	kg CaCO3/t	-	-	-	4.0
Extraneous Material						
<2mm Fraction	0.005	g	-	-	-	n/a
>2mm Fraction	0.005	g	-	-	-	n/a
Analysed Material	0.1	%	-	-	-	100
Extraneous Material	0.1	%	-	-	-	< 0.1

Client Sample ID			BH10 0.0-1.0	BH12 0.0-1.0	BH12 1.0-2.0	BH12 2.0-3.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06608**	**S15-De06609**	**S15-De06610**	**S15-De06611**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	79	270	< 50	< 50
TRH C29-C36	50	mg/kg	500	140	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	580	410	< 50	< 50
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Propanone (Acetone)	5	mg/kg	< 5	< 5	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	-	-
Allyl chloride	0.05	mg/kg	< 0.05	< 0.05	-	-
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromoform	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloroform	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	-	-

Client Sample ID			BH10 0.0-1.0	BH12 0.0-1.0	BH12 1.0-2.0	BH12 2.0-3.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06608	S15-De06609	S15-De06610	S15-De06611
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Volatile Organics						
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Styrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	-
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	-
Fluorobenzene (surr.)	1	%	104	107	-	-
4-Bromofluorobenzene (surr.)	1	%	94	104	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	2.1	0.9	1.4
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	2.8	< 0.5	1.3
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	3.1	0.6	1.5
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	3.3	1.2	1.8
Acenaphthene	0.5	mg/kg	< 0.5	1.4	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	2.9	< 0.5	0.7
Benz(a)anthracene	0.5	mg/kg	< 0.5	2.7	< 0.5	1.0
Benzo(a)pyrene	0.5	mg/kg	< 0.5	2.2	< 0.5	1.0
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	1.3	< 0.5	0.9
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	0.9	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	1.5	< 0.5	0.7
Chrysene	0.5	mg/kg	< 0.5	2.0	< 0.5	0.8
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	5.6	< 0.5	2.2
Fluorene	0.5	mg/kg	< 0.5	2.1	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	3.2	< 0.5	0.6
Phenanthrene	0.5	mg/kg	< 0.5	8.9	< 0.5	2.5
Pyrene	0.5	mg/kg	< 0.5	5.4	< 0.5	2.1
Total PAH*	0.5	mg/kg	< 0.5	41	< 0.5	13
2-Fluorobiphenyl (surr.)	1	%	73	76	79	76
p-Terphenyl-d14 (surr.)	1	%	84	89	86	83
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH10 0.0-1.0 Soil S15-De06608 Dec 06, 2015	BH12 0.0-1.0 Soil S15-De06609 Dec 06, 2015	BH12 1.0-2.0 Soil S15-De06610 Dec 06, 2015	BH12 2.0-3.0 Soil S15-De06611 Dec 06, 2015
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	-
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	-
Toxaphene	1	mg/kg	< 1	< 1	-	-
Dibutylchlorendate (surr.)	1	%	126	103	-	-
Tetrachloro-m-xylene (surr.)	1	%	75	72	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibutylchlorendate (surr.)	1	%	126	103	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	180	370	< 100	< 100
TRH >C34-C40	100	mg/kg	500	< 100	< 100	< 100
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	140	-	-
pH (1:5 Aqueous extract)	0.1	pH Units	-	8.1	-	-
Total Organic Carbon[M10]	0.1	%	1.0	9.5	-	-
% Moisture	0.1	%	5.7	14	14	15
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	-	14	-	-
Heavy Metals						
Arsenic	2	mg/kg	4.0	25	6.1	6.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	14	8.7	< 5	8.8
Copper	5	mg/kg	130	1400	150	320
Lead	5	mg/kg	160	1200	100	270
Mercury	0.05	mg/kg	0.21	0.23	0.05	0.12
Nickel	5	mg/kg	13	12	< 5	< 5
Zinc	5	mg/kg	84	160	20	39

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH12 3.0-4.0 Soil S15-De06612 Dec 06, 2015	BH12 4.0-5.0 Soil S15-De06613 Dec 06, 2015	BH13 0.0-1.0 Soil S15-De06615 Dec 06, 2015	BH13 1.0-2.0 Soil S15-De06616 Dec 06, 2015
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	120	< 50	240	110
TRH C29-C36	50	mg/kg	< 50	< 50	140	120
TRH C10-36 (Total)	50	mg/kg	120	< 50	380	230
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	-	< 0.5	-
2-Propanone (Acetone)	5	mg/kg	-	-	< 5	-
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	< 0.5	-
Allyl chloride	0.05	mg/kg	-	-	< 0.05	-
Benzene	0.1	mg/kg	-	-	< 0.1	-
Bromobenzene	0.5	mg/kg	-	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromoform	0.5	mg/kg	-	-	< 0.5	-
Bromomethane	0.5	mg/kg	-	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Chloroethane	0.5	mg/kg	-	-	< 0.5	-
Chloroform	0.5	mg/kg	-	-	< 0.5	-
Chloromethane	0.5	mg/kg	-	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Dibromomethane	0.5	mg/kg	-	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	-
Iodomethane	0.5	mg/kg	-	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			BH12 3.0-4.0	BH12 4.0-5.0	BH13 0.0-1.0	BH13 1.0-2.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06612	S15-De06613	S15-De06615	S15-De06616
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Volatile Organics						
o-Xylene	0.1	mg/kg	-	-	< 0.1	-
Styrene	0.5	mg/kg	-	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.1	mg/kg	-	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Trichloroethene	0.5	mg/kg	-	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	-
Xylenes - Total	0.3	mg/kg	-	-	< 0.3	-
Fluorobenzene (surr.)	1	%	-	-	104	-
4-Bromofluorobenzene (surr.)	1	%	-	-	98	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	0.7	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	0.8	< 0.5	1.3	1.0
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	1.1	0.6	1.5	1.2
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.5	1.2	1.8	1.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	0.9	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	0.9	< 0.5	1.5	1.0
Benzo(a)pyrene	0.5	mg/kg	0.7	< 0.5	0.9	0.7
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	0.9	0.6
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	1.1	0.8
Chrysene	0.5	mg/kg	0.7	< 0.5	1.1	0.9
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	1.9	< 0.5	2.9	1.8
Fluorene	0.5	mg/kg	0.6	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	0.7	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	3.0	< 0.5	1.7	1.1
Pyrene	0.5	mg/kg	1.8	< 0.5	2.6	1.9
Total PAH*	0.5	mg/kg	11	< 0.5	13	8.8
2-Fluorobiphenyl (surr.)	1	%	81	79	72	75
p-Terphenyl-d14 (surr.)	1	%	92	84	71	86
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	-	< 0.05	-
a-BHC	0.05	mg/kg	-	-	< 0.05	-
Aldrin	0.05	mg/kg	-	-	< 0.05	-
b-BHC	0.05	mg/kg	-	-	< 0.05	-
d-BHC	0.05	mg/kg	-	-	< 0.05	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH12 3.0-4.0 Soil S15-De06612 Dec 06, 2015	BH12 4.0-5.0 Soil S15-De06613 Dec 06, 2015	BH13 0.0-1.0 Soil S15-De06615 Dec 06, 2015	BH13 1.0-2.0 Soil S15-De06616 Dec 06, 2015
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	-	-	< 0.05	-
Endosulfan I	0.05	mg/kg	-	-	< 0.05	-
Endosulfan II	0.05	mg/kg	-	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	-
Endrin	0.05	mg/kg	-	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	-
Endrin ketone	0.05	mg/kg	-	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Methoxychlor	0.2	mg/kg	-	-	< 0.2	-
Toxaphene	1	mg/kg	-	-	< 1	-
Dibutylchlorendate (surr.)	1	%	-	-	102	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	73	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1232	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	-	-	< 0.5	-
Total PCB*	0.5	mg/kg	-	-	< 0.5	-
Dibutylchlorendate (surr.)	1	%	-	-	102	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	150	< 100	360	170
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	23	50	-
pH (1:5 Aqueous extract)	0.1	pH Units	-	6.5	7.1	-
Total Organic Carbon[M10]	0.1	%	-	-	1.8	-
% Moisture	0.1	%	7.4	17	11	12
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	-	6.8	12	-
Heavy Metals						
Arsenic	2	mg/kg	3.7	4.0	21	14
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.7	< 0.4
Chromium	5	mg/kg	< 5	6.6	< 5	8.8
Copper	5	mg/kg	110	33	6700	550
Lead	5	mg/kg	280	26	1100	190
Mercury	0.05	mg/kg	0.05	< 0.05	0.20	0.22
Nickel	5	mg/kg	< 5	< 5	11	11
Zinc	5	mg/kg	18	15	1000	190

Client Sample ID			BH14 0.3-1.0	BH15 0.0-1.0	BH15 1.0-2.0	BH15 2.0-3.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06618**	**S15-De06619**	**S15-De06620**	**S15-De06621**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	-
2-Propanone (Acetone)	5	mg/kg	< 5	-	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	-
Allyl chloride	0.05	mg/kg	< 0.05	-	-	-
Benzene	0.1	mg/kg	< 0.1	-	-	-
Bromobenzene	0.5	mg/kg	< 0.5	-	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromoform	0.5	mg/kg	< 0.5	-	-	-
Bromomethane	0.5	mg/kg	< 0.5	-	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Chloroethane	0.5	mg/kg	< 0.5	-	-	-
Chloroform	0.5	mg/kg	< 0.5	-	-	-
Chloromethane	0.5	mg/kg	< 0.5	-	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Dibromomethane	0.5	mg/kg	< 0.5	-	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
Iodomethane	0.5	mg/kg	< 0.5	-	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			BH14 0.3-1.0	BH15 0.0-1.0	BH15 1.0-2.0	BH15 2.0-3.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06618**	**S15-De06619**	**S15-De06620**	**S15-De06621**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Volatile Organics						
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Styrene	0.5	mg/kg	< 0.5	-	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Trichloroethene	0.5	mg/kg	< 0.5	-	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	-	-
Fluorobenzene (surr.)	1	%	105	-	-	-
4-Bromofluorobenzene (surr.)	1	%	117	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	1.1	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	1.3	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.6	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	1.0	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	0.8	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	0.7	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	0.8	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	0.9	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	0.9	2.2	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	1.7	< 0.5
Pyrene	0.5	mg/kg	< 0.5	1.0	2.1	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	1.9	11	< 0.5
2-Fluorobiphenyl (surr.)	1	%	80	77	77	77
p-Terphenyl-d14 (surr.)	1	%	86	99	98	93
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-

Client Sample ID			BH14 0.3-1.0	BH15 0.0-1.0	BH15 1.0-2.0	BH15 2.0-3.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06618**	**S15-De06619**	**S15-De06620**	**S15-De06621**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	-
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	-
Toxaphene	1	mg/kg	< 1	< 1	-	-
Dibutylchlorendate (surr.)	1	%	120	95	-	-
Tetrachloro-m-xylene (surr.)	1	%	106	113	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibutylchlorendate (surr.)	1	%	120	95	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Total Organic Carbon[M10]	0.1	%	1.3	-	-	-
% Moisture	0.1	%	4.8	6.9	7.9	7.0
Heavy Metals						
Arsenic	2	mg/kg	2.3	14	3.6	5.1
Cadmium	0.4	mg/kg	< 0.4	0.5	< 0.4	< 0.4
Chromium	5	mg/kg	14	13	5.7	9.1
Copper	5	mg/kg	150	810	240	13
Lead	5	mg/kg	88	380	140	11
Mercury	0.05	mg/kg	< 0.05	0.20	0.06	< 0.05
Nickel	5	mg/kg	7.8	14	< 5	< 5
Zinc	5	mg/kg	100	440	110	< 5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH16 0.0-1.0 Soil S15-De06623 Dec 06, 2015	BH16 1.0-2.0 Soil S15-De06624 Dec 06, 2015	BH16 2.0-3.0 Soil S15-De06625 Dec 06, 2015	BH16 4.0-4.5 Soil S15-De06626 Dec 06, 2015
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	-
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	-
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	-
2-Propanone (Acetone)	5	mg/kg	< 5	-	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	-
Allyl chloride	0.05	mg/kg	< 0.05	-	-	-
Benzene	0.1	mg/kg	< 0.1	-	-	-
Bromobenzene	0.5	mg/kg	< 0.5	-	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromoform	0.5	mg/kg	< 0.5	-	-	-
Bromomethane	0.5	mg/kg	< 0.5	-	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Chloroethane	0.5	mg/kg	< 0.5	-	-	-
Chloroform	0.5	mg/kg	< 0.5	-	-	-
Chloromethane	0.5	mg/kg	< 0.5	-	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Dibromomethane	0.5	mg/kg	< 0.5	-	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
Iodomethane	0.5	mg/kg	< 0.5	-	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH16 0.0-1.0 Soil S15-De06623 Dec 06, 2015	BH16 1.0-2.0 Soil S15-De06624 Dec 06, 2015	BH16 2.0-3.0 Soil S15-De06625 Dec 06, 2015	BH16 4.0-4.5 Soil S15-De06626 Dec 06, 2015
Volatile Organics						
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Styrene	0.5	mg/kg	< 0.5	-	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Trichloroethene	0.5	mg/kg	< 0.5	-	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	-	-
Fluorobenzene (surr.)	1	%	103	-	-	-
4-Bromofluorobenzene (surr.)	1	%	97	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	0.8	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	1.1	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.4	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	0.7	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	0.6	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	0.7	< 0.5	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	0.6	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	0.6	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	1.6	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	1.0	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	1.4	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	7.2	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	84	76	78	-
p-Terphenyl-d14 (surr.)	1	%	104	94	97	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH16 0.0-1.0 Soil S15-De06623 Dec 06, 2015	BH16 1.0-2.0 Soil S15-De06624 Dec 06, 2015	BH16 2.0-3.0 Soil S15-De06625 Dec 06, 2015	BH16 4.0-4.5 Soil S15-De06626 Dec 06, 2015
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Dibutylchlorendate (surr.)	1	%	97	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	76	-	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	-
Total PCB*	0.5	mg/kg	< 0.5	-	-	-
Dibutylchlorendate (surr.)	1	%	97	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	-	-	33
pH (1:5 Aqueous extract)	0.1	pH Units	-	-	-	5.0
Total Organic Carbon[M10]	0.1	%	1.6	-	-	-
% Moisture	0.1	%	11	16	15	21
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	-	-	-	6.2
Heavy Metals						
Arsenic	2	mg/kg	2.7	4.1	2.9	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	13	12	5.5	-
Copper	5	mg/kg	58	7.0	9.0	-
Lead	5	mg/kg	47	10	9.5	-
Mercury	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Nickel	5	mg/kg	< 5	< 5	< 5	-
Zinc	5	mg/kg	57	5.3	9.0	-

Client Sample ID			BH17 0.0-1.0	BH17 1.0-2.0	BH17 2.0-3.0	BH18 0.0-1.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06627**	**S15-De06628**	**S15-De06629**	**S15-De06632**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	450
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	310
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	760
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	< 0.5
2-Propanone (Acetone)	5	mg/kg	< 5	-	-	< 5
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	< 0.5
Allyl chloride	0.05	mg/kg	< 0.05	-	-	< 0.05
Benzene	0.1	mg/kg	< 0.1	-	-	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromoform	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Chloroform	0.5	mg/kg	< 0.5	-	-	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	< 0.5

Client Sample ID			BH17 0.0-1.0	BH17 1.0-2.0	BH17 2.0-3.0	BH18 0.0-1.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De06627**	**S15-De06628**	**S15-De06629**	**S15-De06632**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Volatile Organics						
o-Xylene	0.1	mg/kg	< 0.1	-	-	< 0.1
Styrene	0.5	mg/kg	< 0.5	-	-	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
Toluene	0.1	mg/kg	< 0.1	-	-	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	< 0.5
Xylenes - Total	0.3	mg/kg	< 0.3	-	-	< 0.3
Fluorobenzene (surr.)	1	%	104	-	-	102
4-Bromofluorobenzene (surr.)	1	%	77	-	-	106
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	4.3
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	4.5
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	4.8
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.6
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	3.7
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	3.2
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	3.0
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	3.1
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	6.0
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.3
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	4.9
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	6.1
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	37
2-Fluorobiphenyl (surr.)	1	%	71	75	75	76
p-Terphenyl-d14 (surr.)	1	%	89	93	92	100
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	< 0.05
a-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH17 0.0-1.0 Soil S15-De06627 Dec 06, 2015	BH17 1.0-2.0 Soil S15-De06628 Dec 06, 2015	BH17 2.0-3.0 Soil S15-De06629 Dec 06, 2015	BH18 0.0-1.0 Soil S15-De06632 Dec 06, 2015
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	-	-	< 0.2
Toxaphene	1	mg/kg	< 1	-	-	< 1
Dibutylchlorendate (surr.)	1	%	78	-	-	116
Tetrachloro-m-xylene (surr.)	1	%	116	-	-	102
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibutylchlorendate (surr.)	1	%	78	-	-	116
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	710
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	160
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	93	-	-	-
pH (1:5 Aqueous extract)	0.1	pH Units	7.8	-	-	-
Total Organic Carbon[M10]	0.1	%	2.6	-	-	3.6
% Moisture	0.1	%	16	16	14	9.6
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	11	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	4.2	4.9	2.6	4.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	14	10	8.3
Copper	5	mg/kg	87	36	< 5	140
Lead	5	mg/kg	51	27	9.3	88
Mercury	0.05	mg/kg	0.08	< 0.05	< 0.05	0.08
Nickel	5	mg/kg	< 5	< 5	< 5	8.2
Zinc	5	mg/kg	180	28	6.3	130

Client Sample ID			BH18 1.0-2.0	BH18 2.0-3.0	BH05 3.5-4.0	BH07 3.0-4.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06633	S15-De06634	S15-De06637	S15-De06638
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	-	-	< 0.5	< 0.5
2-Propanone (Acetone)	5	mg/kg	-	-	< 5	< 5
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	< 0.5	< 0.5
Allyl chloride	0.05	mg/kg	-	-	< 0.05	< 0.05
Benzene	0.1	mg/kg	-	-	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromoform	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Chloroform	0.5	mg/kg	-	-	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH18 1.0-2.0 Soil S15-De06633 Dec 06, 2015	BH18 2.0-3.0 Soil S15-De06634 Dec 06, 2015	BH05 3.5-4.0 Soil S15-De06637 Dec 06, 2015	BH07 3.0-4.0 Soil S15-De06638 Dec 06, 2015
Volatile Organics						
o-Xylene	0.1	mg/kg	-	-	< 0.1	< 0.1
Styrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
Toluene	0.1	mg/kg	-	-	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	< 0.5
Xylenes - Total	0.3	mg/kg	-	-	< 0.3	< 0.3
Fluorobenzene (surr.)	1	%	-	-	103	102
4-Bromofluorobenzene (surr.)	1	%	-	-	105	105
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	77	79	78	78
p-Terphenyl-d14 (surr.)	1	%	94	96	97	98
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	< 0.05	< 0.05
a-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	-	< 0.05	< 0.05
b-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
d-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH18 1.0-2.0 Soil S15-De06633 Dec 06, 2015	BH18 2.0-3.0 Soil S15-De06634 Dec 06, 2015	BH05 3.5-4.0 Soil S15-De06637 Dec 06, 2015	BH07 3.0-4.0 Soil S15-De06638 Dec 06, 2015
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	-	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	-	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	-	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	-	< 1	< 1
Dibutylchlorendate (surr.)	1	%	-	-	85	93
Tetrachloro-m-xylene (surr.)	1	%	-	-	100	98
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	-	-	85	93
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Total Organic Carbon[M10]	0.1	%	-	-	4.7	0.5
% Moisture	0.1	%	19	16	18	14
Heavy Metals						
Arsenic	2	mg/kg	3.6	3.2	8.2	3.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	6.5	6.7	13	13
Copper	5	mg/kg	8.1	9.2	530	7.7
Lead	5	mg/kg	9.8	12	150	20
Mercury	0.05	mg/kg	< 0.05	< 0.05	0.06	< 0.05
Nickel	5	mg/kg	< 5	< 5	16	< 5
Zinc	5	mg/kg	< 5	< 5	220	< 5

Client Sample ID			BH12 6.5-7.0	QC01	QC02	QC03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06639	S15-De06640	S15-De06641	S15-De06642
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	< 0.5	-
2-Propanone (Acetone)	5	mg/kg	-	< 5	< 5	-
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	< 0.5	-
Allyl chloride	0.05	mg/kg	-	< 0.05	< 0.05	-
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Bromobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromoform	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	< 0.5	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloroform	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibromomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Iodomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	< 0.5	< 0.5	-

Client Sample ID			BH12 6.5-7.0	QC01	QC02	QC03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06639	S15-De06640	S15-De06641	S15-De06642
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Volatile Organics						
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Styrene	0.5	mg/kg	-	< 0.5	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	-
Trichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	-
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	-
Fluorobenzene (surr.)	1	%	-	102	104	-
4-Bromofluorobenzene (surr.)	1	%	-	105	105	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	74	77	85	95
p-Terphenyl-d14 (surr.)	1	%	95	95	111	119
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	-
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
d-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-

Client Sample ID			BH12 6.5-7.0	QC01	QC02	QC03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S15-De06639	S15-De06640	S15-De06641	S15-De06642
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	-
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2	-
Toxaphene	1	mg/kg	-	< 1	< 1	-
Dibutylchlorendate (surr.)	1	%	-	92	107	-
Tetrachloro-m-xylene (surr.)	1	%	-	104	112	-
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1232	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1242	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1248	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1254	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	< 0.5	-
Total PCB*	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibutylchlorendate (surr.)	1	%	-	92	107	-
Tetrachloro-m-xylene (surr.)	1	%	-	104	112	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Total Organic Carbon[M10]	0.1	%	-	0.3	0.3	-
% Moisture	0.1	%	14	14	12	14
Heavy Metals						
Arsenic	2	mg/kg	3.6	9.5	54	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	6.0	32	19	< 5
Copper	5	mg/kg	< 5	< 5	6.5	< 5
Lead	5	mg/kg	< 5	6.6	< 5	< 5
Mercury	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	< 5	< 5	< 5	< 5

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 09, 2015	14 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 09, 2015	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 09, 2015	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Volatile Organics	Sydney	Dec 09, 2015	7 Day
- Method: E016 Volatile Organic Compounds (VOC)			
Polycyclic Aromatic Hydrocarbons	Sydney	Dec 09, 2015	14 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Dec 09, 2015	14 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls	Sydney	Dec 09, 2015	28 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
Polychlorinated Biphenyls (PCB)	Sydney	Dec 09, 2015	28 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
pH (1:5 Aqueous extract)	Sydney	Dec 10, 2015	7 Day
- Method: LTM-GEN-7090 pH in soil by ISE			
Total Organic Carbon	Melbourne	Dec 14, 2015	28 Day
- Method: APHA 5310B Total Organic Carbon			
Metals M8	Sydney	Dec 09, 2015	28 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			
Conductivity (1:5 aqueous extract at 25°C)	Melbourne	Dec 10, 2015	7 Day
- Method: LTM-INO-4030			
Ion Exchange Properties	Melbourne	Dec 10, 2015	
% Moisture	Sydney	Dec 07, 2015	14 Day
- Method: LTM-GEN-7080 Moisture			
SPOCAS Suite			
SPOCAS Suite	Brisbane	Dec 10, 2015	6 Week
- Method: LTM-GEN-7050			
Extraneous Material	Brisbane	Dec 10, 2015	6 Week
- Method: LTM-GEN-7050/7070			

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																
BH01 0.0-1.0	Dec 06, 2015		Soil	S15-De06582	X				X			X						X		X
BH01 1.0-2.0	Dec 06, 2015		Soil	S15-De06583					X			X						X		X
BH02 0.0-1.0	Dec 06, 2015		Soil	S15-De06584	X			X	X	X		X		X	X			X		X
BH03 0.0-1.0	Dec 06, 2015		Soil	S15-De06585	X			X	X	X		X		X	X			X		X
BH03 1.0-2.0	Dec 06, 2015		Soil	S15-De06586					X			X						X		X
BH04 0.0-1.0	Dec 06, 2015		Soil	S15-De06587	X		X	X	X	X		X		X	X			X	X	X
BH04 1.0-2.0	Dec 06, 2015		Soil	S15-De06588					X			X			X			X		X
BH04 2.0-4.0	Dec 06, 2015		Soil	S15-De06589					X			X						X		X
BH04 5.0-5.5	Dec 06, 2015		Soil	S15-De06590					X	X		X		X	X			X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH04 5.5-6.0	Dec 06, 2015		Soil	S15-De06591					X			X				X		X		X
BH05 0.0-0.1	Dec 06, 2015		Soil	S15-De06592	X		X	X	X	X		X		X	X			X	X	X
BH05 1.0-2.1	Dec 06, 2015		Soil	S15-De06593					X			X						X		X
BH05 2.0-3.0	Dec 06, 2015		Soil	S15-De06594		X														
BH06 0.0-0.5	Dec 06, 2015		Soil	S15-De06595	X			X	X	X		X		X	X			X		X
BH07 0.0-1.0	Dec 06, 2015		Soil	S15-De06596	X		X	X	X	X		X		X	X			X	X	X
BH07 1.0-1.5	Dec 06, 2015		Soil	S15-De06597					X			X				X		X		X
BH07 2.0-3.0	Dec 06, 2015		Soil	S15-De06598												X	X			
BH08 0.0-1.0	Dec 06, 2015		Soil	S15-De06599	X			X	X	X		X		X	X			X		X
BH08 1.0-2.0	Dec 06, 2015		Soil	S15-De06600					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH08 2.5-3.0	Dec 06, 2015		Soil	S15-De06601		X														
BH09 0.0-1.0	Dec 06, 2015		Soil	S15-De06602	X		X	X	X	X		X		X	X			X	X	X
BH09 1.0-2.0	Dec 06, 2015		Soil	S15-De06603					X			X						X		X
BH09 2.0-3.0	Dec 06, 2015		Soil	S15-De06604					X			X						X		X
BH09 3.0-4.0	Dec 06, 2015		Soil	S15-De06605			X		X			X						X	X	X
BH09 6.0-6.5	Dec 06, 2015		Soil	S15-De06606					X			X			X			X		X
BH09 8.0	Dec 06, 2015		Soil	S15-De06607												X	X			
BH10 0.0-1.0	Dec 06, 2015		Soil	S15-De06608	X			X	X	X		X		X	X			X		X
BH12 0.0-1.0	Dec 06, 2015		Soil	S15-De06609	X		X	X	X	X		X		X	X			X	X	X
BH12 1.0-2.0	Dec 06, 2015		Soil	S15-De06610					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH12 2.0-3.0	Dec 06, 2015		Soil	S15-De06611					X			X						X		X
BH12 3.0-4.0	Dec 06, 2015		Soil	S15-De06612					X			X						X		X
BH12 4.0-5.0	Dec 06, 2015		Soil	S15-De06613			X		X			X						X	X	X
BH12 5.0-6.0	Dec 06, 2015		Soil	S15-De06614		X														
BH13 0.0-1.0	Dec 06, 2015		Soil	S15-De06615	X		X	X	X	X		X		X	X			X	X	X
BH13 1.0-2.0	Dec 06, 2015		Soil	S15-De06616	X				X			X						X		X
BH13 3.0-3.5	Dec 06, 2015		Soil	S15-De06617		X														
BH14 0.3-1.0	Dec 06, 2015		Soil	S15-De06618	X			X	X	X		X		X	X			X		X
BH15 0.0-1.0	Dec 06, 2015		Soil	S15-De06619					X	X		X		X				X		X
BH15 1.0-2.0	Dec 06, 2015		Soil	S15-De06620					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH15 2.0-3.0	Dec 06, 2015		Soil	S15-De06621					X			X						X		X
BH15 3.0-3.6	Dec 06, 2015		Soil	S15-De06622		X														
BH16 0.0-1.0	Dec 06, 2015		Soil	S15-De06623	X			X	X	X		X		X	X			X		X
BH16 1.0-2.0	Dec 06, 2015		Soil	S15-De06624					X			X						X		X
BH16 2.0-3.0	Dec 06, 2015		Soil	S15-De06625					X			X						X		X
BH16 4.0-4.5	Dec 06, 2015		Soil	S15-De06626			X											X	X	
BH17 0.0-1.0	Dec 06, 2015		Soil	S15-De06627	X		X	X	X	X		X		X	X			X	X	X
BH17 1.0-2.0	Dec 06, 2015		Soil	S15-De06628					X			X						X		X
BH17 2.0-3.0	Dec 06, 2015		Soil	S15-De06629					X			X						X		X
BH17 4.0	Dec 06, 2015		Soil	S15-De06630		X														

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH17 6.0	Dec 06, 2015		Soil	S15-De06631		X														
BH18 0.0-1.0	Dec 06, 2015		Soil	S15-De06632	X			X	X	X		X		X	X			X		X
BH18 1.0-2.0	Dec 06, 2015		Soil	S15-De06633					X			X						X		X
BH18 2.0-3.0	Dec 06, 2015		Soil	S15-De06634					X			X						X		X
BH18 3.0-4.0	Dec 06, 2015		Soil	S15-De06635		X														
BH18 6.0	Dec 06, 2015		Soil	S15-De06636		X														
BH05 3.5-4.0	Dec 06, 2015		Soil	S15-De06637	X			X	X	X		X		X	X			X		X
BH07 3.0-4.0	Dec 06, 2015		Soil	S15-De06638	X			X	X	X		X		X	X			X		X
BH12 6.5-7.0	Dec 06, 2015		Soil	S15-De06639					X			X						X		X
QC01	Dec 06, 2015		Soil	S15-De06640	X			X	X	X	X	X			X			X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
QC02	Dec 06, 2015		Soil	S15-De06641	X			X	X	X	X	X			X			X		X
QC03	Dec 06, 2015		Soil	S15-De06642					X			X						X		X
RINSATE	Dec 06, 2015		Water	S15-De06643					X	X		X		X	X					X
TS	Dec 06, 2015		Water	S15-De06644									X							
SB	Dec 06, 2015		Water	S15-De06645									X							

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 5			5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.05			0.05	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Conductivity (1:5 aqueous extract at 25°C)	uS/cm	< 10			10	Pass	
Total Organic Carbon	%	< 0.1			0.1	Pass	
Method Blank							
Ion Exchange Properties							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	95			70-130	Pass	
TRH C10-C14	%	81			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethane	%	77			70-130	Pass	
1.1-Dichloroethene	%	103			70-130	Pass	
1.1.1-Trichloroethane	%	99			70-130	Pass	
1.1.1.2-Tetrachloroethane	%	99			70-130	Pass	
1.1.2-Trichloroethane	%	100			70-130	Pass	
1.1.2.2-Tetrachloroethane	%	103			70-130	Pass	
1.2-Dibromoethane	%	99			70-130	Pass	
1.2-Dichlorobenzene	%	97			70-130	Pass	
1.2-Dichloroethane	%	98			70-130	Pass	
1.2-Dichloropropane	%	97			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.2.3-Trichloropropane	%	104			70-130	Pass	
1.2.4-Trimethylbenzene	%	93			70-130	Pass	
1.3-Dichlorobenzene	%	95			70-130	Pass	
1.3-Dichloropropane	%	99			70-130	Pass	
1.3.5-Trimethylbenzene	%	93			70-130	Pass	
1.4-Dichlorobenzene	%	95			70-130	Pass	
2-Butanone (MEK)	%	103			70-130	Pass	
2-Propanone (Acetone)	%	115			70-130	Pass	
4-Chlorotoluene	%	93			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	%	101			70-130	Pass	
Allyl chloride	%	97			75-125	Pass	
Benzene	%	98			70-130	Pass	
Bromobenzene	%	95			70-130	Pass	
Bromochloromethane	%	98			70-130	Pass	
Bromodichloromethane	%	97			70-130	Pass	
Bromoform	%	102			70-130	Pass	
Bromomethane	%	81			70-130	Pass	
Carbon disulfide	%	104			70-130	Pass	
Carbon Tetrachloride	%	96			70-130	Pass	
Chlorobenzene	%	98			70-130	Pass	
Chloroform	%	97			70-130	Pass	
Chloromethane	%	118			70-130	Pass	
cis-1.2-Dichloroethene	%	99			70-130	Pass	
cis-1.3-Dichloropropene	%	93			70-130	Pass	
Dibromochloromethane	%	98			70-130	Pass	
Dibromomethane	%	99			70-130	Pass	
Dichlorodifluoromethane	%	119			70-130	Pass	
Ethylbenzene	%	96			70-130	Pass	
Iodomethane	%	112			70-130	Pass	
Isopropyl benzene (Cumene)	%	96			70-130	Pass	
m&p-Xylenes	%	96			70-130	Pass	
Methylene Chloride	%	119			70-130	Pass	
o-Xylene	%	99			70-130	Pass	
Styrene	%	96			70-130	Pass	
Tetrachloroethene	%	93			70-130	Pass	
Toluene	%	97			70-130	Pass	
trans-1.2-Dichloroethene	%	101			70-130	Pass	
trans-1.3-Dichloropropene	%	93			70-130	Pass	
Trichloroethene	%	95			70-130	Pass	
Trichlorofluoromethane	%	92			70-130	Pass	
Vinyl chloride	%	118			70-130	Pass	
Xylenes - Total	%	80			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	94			70-130	Pass	
TRH C6-C10	%	97			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	87			70-130	Pass	
Acenaphthylene	%	83			70-130	Pass	
Anthracene	%	104			70-130	Pass	
Benz(a)anthracene	%	87			70-130	Pass	
Benzo(a)pyrene	%	75			70-130	Pass	
Benzo(b&j)fluoranthene	%	73			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(g.h.i)perylene	%	88			70-130	Pass	
Benzo(k)fluoranthene	%	84			70-130	Pass	
Chrysene	%	86			70-130	Pass	
Dibenz(a.h)anthracene	%	74			70-130	Pass	
Fluoranthene	%	96			70-130	Pass	
Fluorene	%	80			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	73			70-130	Pass	
Naphthalene	%	97			70-130	Pass	
Phenanthrene	%	109			70-130	Pass	
Pyrene	%	96			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	89			70-130	Pass	
4.4'-DDD	%	90			70-130	Pass	
4.4'-DDE	%	89			70-130	Pass	
4.4'-DDT	%	82			70-130	Pass	
a-BHC	%	89			70-130	Pass	
Aldrin	%	92			70-130	Pass	
b-BHC	%	89			70-130	Pass	
d-BHC	%	95			70-130	Pass	
Dieldrin	%	90			70-130	Pass	
Endosulfan I	%	92			70-130	Pass	
Endosulfan II	%	92			70-130	Pass	
Endosulfan sulphate	%	97			70-130	Pass	
Endrin	%	89			70-130	Pass	
Endrin aldehyde	%	98			70-130	Pass	
Endrin ketone	%	96			70-130	Pass	
g-BHC (Lindane)	%	90			70-130	Pass	
Heptachlor	%	91			70-130	Pass	
Heptachlor epoxide	%	88			70-130	Pass	
Hexachlorobenzene	%	88			70-130	Pass	
Methoxychlor	%	95			70-130	Pass	
Toxaphene	%	95			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	100			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	100			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	80			70-130	Pass	
LCS - % Recovery							
Total Organic Carbon	%	94			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	104			70-130	Pass	
Cadmium	%	95			70-130	Pass	
Chromium	%	96			70-130	Pass	
Copper	%	98			70-130	Pass	
Lead	%	104			70-130	Pass	
Mercury	%	101			70-130	Pass	
Nickel	%	96			70-130	Pass	
Zinc	%	105			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S15-De06583	CP	%	122			70-130	Pass	
Cadmium	S15-De06583	CP	%	106			70-130	Pass	
Chromium	S15-De06583	CP	%	101			70-130	Pass	
Copper	S15-De06583	CP	%	85			70-130	Pass	
Mercury	S15-De06583	CP	%	71			70-130	Pass	
Nickel	S15-De06583	CP	%	117			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S15-De06888	NCP	%	82			70-130	Pass	
4.4'-DDD	S15-De06888	NCP	%	100			70-130	Pass	
4.4'-DDE	S15-De06888	NCP	%	86			70-130	Pass	
4.4'-DDT	S15-De06888	NCP	%	71			70-130	Pass	
a-BHC	S15-De06888	NCP	%	81			70-130	Pass	
Aldrin	S15-De06888	NCP	%	73			70-130	Pass	
b-BHC	S15-De06888	NCP	%	80			70-130	Pass	
d-BHC	S15-De06888	NCP	%	83			70-130	Pass	
Dieldrin	S15-De06888	NCP	%	86			70-130	Pass	
Endosulfan I	S15-De06888	NCP	%	85			70-130	Pass	
Endosulfan II	S15-De06888	NCP	%	86			70-130	Pass	
Endosulfan sulphate	S15-De06888	NCP	%	90			70-130	Pass	
Endrin	S15-De06888	NCP	%	87			70-130	Pass	
Endrin aldehyde	S15-De06888	NCP	%	96			70-130	Pass	
Endrin ketone	S15-De06888	NCP	%	93			70-130	Pass	
g-BHC (Lindane)	S15-De06888	NCP	%	80			70-130	Pass	
Heptachlor	S15-De06888	NCP	%	91			70-130	Pass	
Heptachlor epoxide	S15-De06888	NCP	%	76			70-130	Pass	
Hexachlorobenzene	S15-De06888	NCP	%	80			70-130	Pass	
Methoxychlor	S15-De06888	NCP	%	94			70-130	Pass	
Toxaphene	S15-De06888	NCP	%	94			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S15-De06888	NCP	%	77			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S15-De06888	NCP	%	77			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S15-De06589	CP	%	71			70-130	Pass	
TRH C10-C14	S15-De06589	CP	%	100			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
Benzene	S15-De06589	CP	%	80			70-130	Pass	
Ethylbenzene	S15-De06589	CP	%	77			70-130	Pass	
m&p-Xylenes	S15-De06589	CP	%	80			70-130	Pass	
o-Xylene	S15-De06589	CP	%	80			70-130	Pass	
Toluene	S15-De06589	CP	%	78			70-130	Pass	
Xylenes - Total	S15-De06589	CP	%	80			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S15-De06589	CP	%	84			70-130	Pass	
TRH C6-C10	S15-De06589	CP	%	72			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S15-De06589	CP	%	99			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S15-De06593	CP	%	74			70-130	Pass	
Acenaphthylene	S15-De06593	CP	%	75			70-130	Pass	
Anthracene	S15-De06593	CP	%	85			70-130	Pass	
Benz(a)anthracene	S15-De06593	CP	%	100			70-130	Pass	
Benzo(a)pyrene	S15-De06593	CP	%	91			70-130	Pass	
Benzo(b&j)fluoranthene	S15-De06593	CP	%	86			70-130	Pass	
Benzo(g.h.i)perylene	S15-De06593	CP	%	77			70-130	Pass	
Benzo(k)fluoranthene	S15-De06593	CP	%	82			70-130	Pass	
Chrysene	S15-De06593	CP	%	87			70-130	Pass	
Dibenz(a.h)anthracene	S15-De06593	CP	%	71			70-130	Pass	
Fluoranthene	S15-De06593	CP	%	77			70-130	Pass	
Fluorene	S15-De06593	CP	%	72			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S15-De06593	CP	%	73			70-130	Pass	
Naphthalene	S15-De06593	CP	%	83			70-130	Pass	
Phenanthrene	S15-De06593	CP	%	87			70-130	Pass	
Pyrene	S15-De06593	CP	%	79			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S15-De06593	CP	%	99			70-130	Pass	
Cadmium	S15-De06593	CP	%	104			70-130	Pass	
Mercury	S15-De06593	CP	%	93			70-130	Pass	
Nickel	S15-De06593	CP	%	77			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S15-De06606	CP	%	116			70-130	Pass	
Cadmium	S15-De06606	CP	%	108			70-130	Pass	
Chromium	S15-De06606	CP	%	98			70-130	Pass	
Copper	S15-De06606	CP	%	115			70-130	Pass	
Mercury	S15-De06606	CP	%	98			70-130	Pass	
Nickel	S15-De06606	CP	%	106			70-130	Pass	
Zinc	S15-De06606	CP	%	114			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S15-De06608	CP	%	86			70-130	Pass	
Cadmium	S15-De06608	CP	%	94			70-130	Pass	
Chromium	S15-De06608	CP	%	71			70-130	Pass	
Mercury	S15-De06608	CP	%	72			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S15-De06612	CP	%	95			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
Benzene	S15-De06612	CP	%	90			70-130	Pass	
Ethylbenzene	S15-De06612	CP	%	96			70-130	Pass	
m&p-Xylenes	S15-De06612	CP	%	100			70-130	Pass	
o-Xylene	S15-De06612	CP	%	101			70-130	Pass	
Toluene	S15-De06612	CP	%	95			70-130	Pass	
Xylenes - Total	S15-De06612	CP	%	100			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	S15-De06612	CP	%	126			70-130	Pass	
TRH C6-C10	S15-De06612	CP	%	96			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S15-De06613	CP	%	82			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S15-De06613	CP	%	82			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S15-De06618	CP	%	81			70-130	Pass	
Acenaphthylene	S15-De06618	CP	%	76			70-130	Pass	
Anthracene	S15-De06618	CP	%	80			70-130	Pass	
Benz(a)anthracene	S15-De06618	CP	%	76			70-130	Pass	
Benzo(a)pyrene	S15-De06618	CP	%	77			70-130	Pass	
Benzo(b&j)fluoranthene	S15-De06618	CP	%	72			70-130	Pass	
Benzo(g.h.i)perylene	S15-De06618	CP	%	81			70-130	Pass	
Benzo(k)fluoranthene	S15-De06618	CP	%	75			70-130	Pass	
Chrysene	S15-De06618	CP	%	72			70-130	Pass	
Dibenz(a.h)anthracene	S15-De06618	CP	%	79			70-130	Pass	
Fluoranthene	S15-De06618	CP	%	81			70-130	Pass	
Fluorene	S15-De06618	CP	%	74			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S15-De06618	CP	%	81			70-130	Pass	
Naphthalene	S15-De06618	CP	%	80			70-130	Pass	
Phenanthrene	S15-De06618	CP	%	91			70-130	Pass	
Pyrene	S15-De06618	CP	%	82			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S15-De06619	CP	%	105			70-130	Pass	
Cadmium	S15-De06619	CP	%	102			70-130	Pass	
Chromium	S15-De06619	CP	%	90			70-130	Pass	
Mercury	S15-De06619	CP	%	113			70-130	Pass	
Nickel	S15-De06619	CP	%	94			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S15-De06627	CP	%	77			70-130	Pass	
TRH C10-C14	S15-De06627	CP	%	98			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
Benzene	S15-De06627	CP	%	75			70-130	Pass	
Ethylbenzene	S15-De06627	CP	%	79			70-130	Pass	
m&p-Xylenes	S15-De06627	CP	%	82			70-130	Pass	
o-Xylene	S15-De06627	CP	%	85			70-130	Pass	
Toluene	S15-De06627	CP	%	78			70-130	Pass	
Xylenes - Total	S15-De06627	CP	%	83			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S15-De06627	CP	%	98			70-130	Pass	
TRH C6-C10	S15-De06627	CP	%	78			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S15-De06627	CP	%	102			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.1-Dichloroethane	S15-De06632	CP	%	86			70-130	Pass	
1.1-Dichloroethene	S15-De06632	CP	%	84			70-130	Pass	
1.1.1-Trichloroethane	S15-De06632	CP	%	91			70-130	Pass	
1.1.1.2-Tetrachloroethane	S15-De06632	CP	%	94			70-130	Pass	
1.1.2-Trichloroethane	S15-De06632	CP	%	88			70-130	Pass	
1.1.2.2-Tetrachloroethane	S15-De06632	CP	%	90			70-130	Pass	
1.2-Dibromoethane	S15-De06632	CP	%	85			70-130	Pass	
1.2-Dichlorobenzene	S15-De06632	CP	%	87			70-130	Pass	
1.2-Dichloroethane	S15-De06632	CP	%	89			70-130	Pass	
1.2-Dichloropropane	S15-De06632	CP	%	89			70-130	Pass	
1.2.3-Trichloropropane	S15-De06632	CP	%	89			70-130	Pass	
1.2.4-Trimethylbenzene	S15-De06632	CP	%	86			70-130	Pass	
1.3-Dichlorobenzene	S15-De06632	CP	%	86			70-130	Pass	
1.3-Dichloropropane	S15-De06632	CP	%	87			70-130	Pass	
1.3.5-Trimethylbenzene	S15-De06632	CP	%	86			70-130	Pass	
1.4-Dichlorobenzene	S15-De06632	CP	%	86			70-130	Pass	
2-Butanone (MEK)	S15-De06632	CP	%	98			70-130	Pass	
2-Propanone (Acetone)	S15-De06632	CP	%	87			70-130	Pass	
4-Chlorotoluene	S15-De06632	CP	%	86			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	S15-De06632	CP	%	87			70-130	Pass	
Allyl chloride	S15-De06632	CP	%	81			75-125	Pass	
Benzene	S15-De06632	CP	%	89			70-130	Pass	
Bromobenzene	S15-De06632	CP	%	86			70-130	Pass	
Bromochloromethane	S15-De06632	CP	%	90			70-130	Pass	
Bromodichloromethane	S15-De06632	CP	%	88			70-130	Pass	
Bromoform	S15-De06632	CP	%	89			70-130	Pass	
Bromomethane	S15-De06632	CP	%	90			70-130	Pass	
Carbon disulfide	S15-De06632	CP	%	82			70-130	Pass	
Carbon Tetrachloride	S15-De06632	CP	%	88			70-130	Pass	
Chlorobenzene	S15-De06632	CP	%	91			70-130	Pass	
Chloroform	S15-De06632	CP	%	89			70-130	Pass	
Chloromethane	S15-De06632	CP	%	96			70-130	Pass	
cis-1.2-Dichloroethene	S15-De06632	CP	%	91			70-130	Pass	
cis-1.3-Dichloropropene	S15-De06632	CP	%	82			70-130	Pass	
Dibromochloromethane	S15-De06632	CP	%	84			70-130	Pass	
Dibromomethane	S15-De06632	CP	%	86			70-130	Pass	
Dichlorodifluoromethane	S15-De06632	CP	%	111			70-130	Pass	
Ethylbenzene	S15-De06632	CP	%	90			70-130	Pass	
Iodomethane	S15-De06632	CP	%	92			70-130	Pass	
Isopropyl benzene (Cumene)	S15-De06632	CP	%	89			70-130	Pass	
m&p-Xylenes	S15-De06632	CP	%	89			70-130	Pass	
Methylene Chloride	S15-De06632	CP	%	95			70-130	Pass	
o-Xylene	S15-De06632	CP	%	90			70-130	Pass	
Styrene	S15-De06632	CP	%	86			70-130	Pass	
Tetrachloroethene	S15-De06632	CP	%	86			70-130	Pass	
Toluene	S15-De06632	CP	%	87			70-130	Pass	
trans-1.2-Dichloroethene	S15-De06632	CP	%	89			70-130	Pass	
trans-1.3-Dichloropropene	S15-De06632	CP	%	82			70-130	Pass	
Trichloroethene	S15-De06632	CP	%	87			70-130	Pass	
Vinyl chloride	S15-De06632	CP	%	99			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S15-De06632	CP	%	93			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heavy Metals				Result 1					
Arsenic	S15-De06633	CP	%	97			70-130	Pass	
Cadmium	S15-De06633	CP	%	106			70-130	Pass	
Chromium	S15-De06633	CP	%	100			70-130	Pass	
Copper	S15-De06633	CP	%	97			70-130	Pass	
Lead	S15-De06633	CP	%	84			70-130	Pass	
Mercury	S15-De06633	CP	%	97			70-130	Pass	
Nickel	S15-De06633	CP	%	102			70-130	Pass	
Zinc	S15-De06633	CP	%	112			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De06582	CP	mg/kg	11	13	13	30%	Pass	
Cadmium	S15-De06582	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S15-De06582	CP	mg/kg	5.6	6.5	14	30%	Pass	
Copper	S15-De06582	CP	mg/kg	590	510	14	30%	Pass	
Lead	S15-De06582	CP	mg/kg	240	200	20	30%	Pass	
Mercury	S15-De06582	CP	mg/kg	0.24	0.19	21	30%	Pass	
Nickel	S15-De06582	CP	mg/kg	12	11	9.0	30%	Pass	
Zinc	S15-De06582	CP	mg/kg	210	180	13	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C)	S15-De09294	NCP	uS/cm	52	50	4.0	30%	Pass	
pH (1:5 Aqueous extract)	S15-De06587	CP	pH Units	8.1	8.2	pass	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S15-De06588	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S15-De06588	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S15-De06588	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S15-De06588	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Benzene	S15-De06588	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S15-De06588	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S15-De06588	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S15-De06588	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S15-De06588	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S15-De06588	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S15-De06588	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S15-De06588	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S15-De06588	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S15-De06588	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S15-De06588	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S15-De06591	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
SPOCAS Suite				Result 1	Result 2	RPD			
pH-KCL	S15-De06591	CP	pH Units	4.6	4.6	<1	30%	Pass	
pH-OX	S15-De06591	CP	pH Units	5.1	5.1	1.0	30%	Pass	
Acid trail - Titratable Actual Acidity	S15-De06591	CP	mol H+/t	29	29	<1	30%	Pass	
Acid trail - Titratable Peroxide Acidity	S15-De06591	CP	mol H+/t	60	60	1.0	30%	Pass	
Acid trail - Titratable Sulfidic Acidity	S15-De06591	CP	mol H+/t	31	32	2.0	30%	Pass	
sulfidic - TAA equiv. S% pyrite	S15-De06591	CP	% pyrite S	0.05	0.05	<1	30%	Pass	
sulfidic - TPA equiv. S% pyrite	S15-De06591	CP	% pyrite S	0.10	0.10	1.0	30%	Pass	
sulfidic - TSA equiv. S% pyrite	S15-De06591	CP	% pyrite S	0.05	0.05	2.0	30%	Pass	
Sulfur - KCl Extractable	S15-De06591	CP	% S	< 0.02	< 0.02	<1	30%	Pass	
Sulfur - Peroxide	S15-De06591	CP	% S	< 0.02	< 0.02	<1	30%	Pass	
Sulfur - Peroxide Oxidisable Sulfur	S15-De06591	CP	% S	< 0.02	< 0.02	<1	30%	Pass	
acidity - Peroxide Oxidisable Sulfur	S15-De06591	CP	mol H+/t	< 10	< 10	<1	30%	Pass	
HCl Extractable Sulfur	S15-De06591	CP	% S	n/a	n/a	n/a	30%	Pass	
Net Acid soluble sulfur	S15-De06591	CP	% S	n/a	n/a	n/a	30%	Pass	
Net Acid soluble sulfur - acidity units	S15-De06591	CP	mol H+/t	n/a	n/a	n/a	30%	Pass	
Net Acid soluble sulfur - equivalent S% pyrite	S15-De06591	CP	% S	n/a	n/a	n/a	30%	Pass	
Calcium - KCl Extractable	S15-De06591	CP	% Ca	< 0.02	< 0.02	<1	30%	Pass	
Calcium - Peroxide	S15-De06591	CP	% Ca	< 0.02	< 0.02	<1	30%	Pass	
Acid Reacted Calcium	S15-De06591	CP	% Ca	< 0.02	< 0.02	<1	30%	Pass	
acidity - Acid Reacted Calcium	S15-De06591	CP	mol H+/t	< 10	< 10	<1	30%	Pass	
sulfidic - Acid Reacted Ca equiv. S% pyrite	S15-De06591	CP	% S	< 0.02	< 0.02	<1	30%	Pass	
Magnesium - KCl Extractable	S15-De06591	CP	% Mg	0.04	0.04	3.0	30%	Pass	
Magnesium - Peroxide	S15-De06591	CP	% Mg	0.04	0.04	1.0	30%	Pass	
Acid Reacted Magnesium	S15-De06591	CP	% Mg	< 0.02	< 0.02	<1	30%	Pass	
acidity - Acid Reacted Magnesium	S15-De06591	CP	mol H+/t	< 10	< 10	<1	30%	Pass	
sulfidic - Acid Reacted Mg equiv. S% pyrite	S15-De06591	CP	% S	< 0.02	< 0.02	<1	30%	Pass	
Acid Neutralising Capacity	S15-De06591	CP	%CaCO3	n/a	n/a	n/a	30%	Pass	
Acid Neutralising Capacity - Acidity units	S15-De06591	CP	mol H+/t	n/a	n/a	n/a	30%	Pass	
ANC Fineness Factor	S15-De06591	CP	factor	1.5	1.5	<1	30%	Pass	
Net Acidity (sulfur units) - SPOCAS	S15-De06591	CP	% S	0.05	0.05	<1	30%	Pass	
Net Acidity (acidity units) - SPOCAS	S15-De06591	CP	mol H+/t	29	29	<1	30%	Pass	
Liming rate - SPOCAS	S15-De06591	CP	kg CaCO3/t	2.0	2.0	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S15-De06592	CP	%	9.3	8.0	16	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De06592	CP	mg/kg	2.4	2.7	10	30%	Pass	
Cadmium	S15-De06592	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S15-De06592	CP	mg/kg	9.7	8.7	11	30%	Pass	
Copper	S15-De06592	CP	mg/kg	55	56	1.0	30%	Pass	
Lead	S15-De06592	CP	mg/kg	110	110	8.0	30%	Pass	
Mercury	S15-De06592	CP	mg/kg	0.09	0.09	11	30%	Pass	
Nickel	S15-De06592	CP	mg/kg	< 5	6.0	<1	30%	Pass	
Zinc	S15-De06592	CP	mg/kg	69	75	8.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S15-De06600	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S15-De06600	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S15-De06600	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S15-De06600	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Benzene	S15-De06600	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S15-De06600	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S15-De06600	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S15-De06600	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S15-De06600	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S15-De06600	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S15-De06600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S15-De06600	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S15-De06600	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S15-De06600	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S15-De06600	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S15-De06604	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S15-De06605	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S15-De06605	CP	%	13	14	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De06605	CP	mg/kg	2.8	2.9	5.0	30%	Pass	
Cadmium	S15-De06605	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S15-De06605	CP	mg/kg	10	11	3.0	30%	Pass	
Copper	S15-De06605	CP	mg/kg	6.9	5.9	16	30%	Pass	
Lead	S15-De06605	CP	mg/kg	15	13	13	30%	Pass	
Mercury	S15-De06605	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Nickel	S15-De06605	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S15-De06605	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S15-De06608	CP	mg/kg	< 5	< 5	<1	30%	Pass	
4-Chlorotoluene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S15-De06608	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromobenzene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Bromodichloromethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S15-De06608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S15-De06612	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Benzene	S15-De06612	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S15-De06612	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S15-De06612	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S15-De06612	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S15-De06612	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S15-De06612	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S15-De06612	CP	mg/kg	0.7	0.6	10	30%	Pass	
TRH C6-C10	S15-De06612	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De06618	CP	mg/kg	2.3	2.2	<1	30%	Pass	
Cadmium	S15-De06618	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S15-De06618	CP	mg/kg	14	15	2.0	30%	Pass	
Copper	S15-De06618	CP	mg/kg	150	150	5.0	30%	Pass	
Lead	S15-De06618	CP	mg/kg	88	88	<1	30%	Pass	
Mercury	S15-De06618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Nickel	S15-De06618	CP	mg/kg	7.8	8.0	2.0	30%	Pass	
Zinc	S15-De06618	CP	mg/kg	100	100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Organic Carbon	S15-De06623	CP	%	1.6	1.5	6.0	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S15-De06625	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S15-De06625	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S15-De06625	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S15-De06625	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S15-De06625	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S15-De06625	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S15-De06625	CP	%	15	14	5.0	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S15-De06627	CP	mg/kg	< 5	< 5	<1	30%	Pass	
4-Chlorotoluene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S15-De06627	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromobenzene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Tetrachloroethene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S15-De06627	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S15-De06629	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De06632	CP	mg/kg	4.8	5.5	13	30%	Pass	
Cadmium	S15-De06632	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S15-De06632	CP	mg/kg	8.3	9.3	11	30%	Pass	
Copper	S15-De06632	CP	mg/kg	140	170	19	30%	Pass	
Lead	S15-De06632	CP	mg/kg	88	99	12	30%	Pass	
Mercury	S15-De06632	CP	mg/kg	0.08	0.08	7.0	30%	Pass	
Nickel	S15-De06632	CP	mg/kg	8.2	9.2	11	30%	Pass	
Zinc	S15-De06632	CP	mg/kg	130	140	6.0	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S15-De06638	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Hexachlorobenzene	S15-De06638	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S15-De06638	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S15-De06638	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S15-De06638	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S15-De06638	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S15-De06638	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S15-De06638	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S15-De06638	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S15-De06638	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S15-De06638	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S15-De06639	CP	%	14	13	5.0	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1221	S15-De08184	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Organic Carbon	S15-De06640	CP	%	0.3	0.3	8.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
M10	NATA accreditation does not cover the performance of this service in soil matrices
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
S02	Retained Acidity is Reported when the pHKCl is less than pH 4.5

Authorised By

Charl Du Preez	Analytical Services Manager
Bob Symons	Senior Analyst-Inorganic (NSW)
Bryan Wilson	Senior Analyst-Metal (QLD)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Ivan Taylor	Senior Analyst-Metal (NSW)
Rhys Thomas	Senior Analyst-Asbestos (NSW)
Richard Corner	Senior Analyst-Inorganic (QLD)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)



Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Nathan Cussen
Report	482392-AID
Project Name	ATP
Project ID	50720
Received Date	Dec 07, 2015
Date Reported	Dec 14, 2015

Methodology:

Asbestos ID	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. Bulk samples include building materials, soils and ores.
Subsampling Soil Samples	The whole sample submitted is first dried and then sieved through a 10mm sieve followed by a 2mm sieve. All fibrous matter viz greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) Iron ores - Sampling and Sample preparation procedures is employed. Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis in accordance with AS 4964-2004.
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated and where required interfering organic fibres or matter may be removed by treating the sample for several hours at a temperature not exceeding 400 ± 30°C. The resultant material is then ground and examined in accordance with AS 4964-2004.
Limit of Reporting	The nominal detection limit of the AS4964 method is around 0.01%. The examination of large sample sizes (at least 500 ml is recommended) may improve the likelihood of identifying asbestos material in the greater than 2 mm fraction. The NEPM screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. NOTE: NATA News, September 2011 – page 34, states, “Weighing of fibres is problematic and can lead to loss of fibres and potential exposure for laboratory analysts. To request laboratories to report information which is outside the scope of AS 4964-2004 and the scope of their accreditation is misleading and is most unwise” therefore such values reported are outside the scope of Eurofins | mgt NATA accreditation as designated by an asterisk.

Project Name ATP
Project ID 50720
Date Sampled Dec 06, 2015
Report 482392-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
BH01 0.0-1.0	15-De06582	Dec 06, 2015	Approximate Sample 38g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH02 0.0-1.0	15-De06584	Dec 06, 2015	Approximate Sample 35g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH03 0.0-1.0	15-De06585	Dec 06, 2015	Approximate Sample 32g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH04 0.0-1.0	15-De06587	Dec 06, 2015	Approximate Sample 31g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH05 0.0-0.1	15-De06592	Dec 06, 2015	Approximate Sample 35g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH06 0.0-0.5	15-De06595	Dec 06, 2015	Approximate Sample 27g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH07 0.0-1.0	15-De06596	Dec 06, 2015	Approximate Sample 38g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH08 0.0-1.0	15-De06599	Dec 06, 2015	Approximate Sample 70g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH09 0.0-1.0	15-De06602	Dec 06, 2015	Approximate Sample 74g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH10 0.0-1.0	15-De06608	Dec 06, 2015	Approximate Sample 37g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected. Organic fibre detected. No respirable fibres detected.

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
BH12 0.0-1.0	15-De06609	Dec 06, 2015	Approximate Sample 32g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH13 0.0-1.0	15-De06615	Dec 06, 2015	Approximate Sample 36g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH13 1.0-2.0	15-De06616	Dec 06, 2015	Approximate Sample 47g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH14 0.3-1.0	15-De06618	Dec 06, 2015	Approximate Sample 78g Sample consisted of: Grey fine grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH16 0.0-1.0	15-De06623	Dec 06, 2015	Approximate Sample 38g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH17 0.0-1.0	15-De06627	Dec 06, 2015	Approximate Sample 45g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH18 0.0-1.0	15-De06632	Dec 06, 2015	Approximate Sample 47g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH05 3.5-4.0	15-De06637	Dec 06, 2015	Approximate Sample 55g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected. Organic fibre detected. No respirable fibres detected.
BH07 3.0-4.0	15-De06638	Dec 06, 2015	Approximate Sample 37g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
QC01	15-De06640	Dec 06, 2015	Approximate Sample 24g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.
QC02	15-De06641	Dec 06, 2015	Approximate Sample 24g Sample consisted of: Brown coarse grain soil	No asbestos detected. Organic fibre detected. No respirable fibres detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Dec 07, 2015	Indefinite

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																
BH01 0.0-1.0	Dec 06, 2015		Soil	S15-De06582	X				X			X						X		X
BH01 1.0-2.0	Dec 06, 2015		Soil	S15-De06583					X			X						X		X
BH02 0.0-1.0	Dec 06, 2015		Soil	S15-De06584	X			X	X	X		X		X	X			X		X
BH03 0.0-1.0	Dec 06, 2015		Soil	S15-De06585	X			X	X	X		X		X	X			X		X
BH03 1.0-2.0	Dec 06, 2015		Soil	S15-De06586					X			X						X		X
BH04 0.0-1.0	Dec 06, 2015		Soil	S15-De06587	X		X	X	X	X		X		X	X			X	X	X
BH04 1.0-2.0	Dec 06, 2015		Soil	S15-De06588					X			X			X			X		X
BH04 2.0-4.0	Dec 06, 2015		Soil	S15-De06589					X			X						X		X
BH04 5.0-5.5	Dec 06, 2015		Soil	S15-De06590					X	X		X		X	X			X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH04 5.5-6.0	Dec 06, 2015		Soil	S15-De06591					X			X				X		X		X
BH05 0.0-0.1	Dec 06, 2015		Soil	S15-De06592	X		X	X	X	X		X		X	X			X	X	X
BH05 1.0-2.1	Dec 06, 2015		Soil	S15-De06593					X			X						X		X
BH05 2.0-3.0	Dec 06, 2015		Soil	S15-De06594		X														
BH06 0.0-0.5	Dec 06, 2015		Soil	S15-De06595	X			X	X	X		X		X	X			X		X
BH07 0.0-1.0	Dec 06, 2015		Soil	S15-De06596	X		X	X	X	X		X		X	X			X	X	X
BH07 1.0-1.5	Dec 06, 2015		Soil	S15-De06597					X			X				X		X		X
BH07 2.0-3.0	Dec 06, 2015		Soil	S15-De06598												X	X			
BH08 0.0-1.0	Dec 06, 2015		Soil	S15-De06599	X			X	X	X		X		X	X			X		X
BH08 1.0-2.0	Dec 06, 2015		Soil	S15-De06600					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH08 2.5-3.0	Dec 06, 2015		Soil	S15-De06601		X														
BH09 0.0-1.0	Dec 06, 2015		Soil	S15-De06602	X		X	X	X	X		X		X	X			X	X	X
BH09 1.0-2.0	Dec 06, 2015		Soil	S15-De06603					X			X						X		X
BH09 2.0-3.0	Dec 06, 2015		Soil	S15-De06604					X			X						X		X
BH09 3.0-4.0	Dec 06, 2015		Soil	S15-De06605			X		X			X						X	X	X
BH09 6.0-6.5	Dec 06, 2015		Soil	S15-De06606					X			X			X			X		X
BH09 8.0	Dec 06, 2015		Soil	S15-De06607												X	X			
BH10 0.0-1.0	Dec 06, 2015		Soil	S15-De06608	X			X	X	X		X		X	X			X		X
BH12 0.0-1.0	Dec 06, 2015		Soil	S15-De06609	X		X	X	X	X		X		X	X			X	X	X
BH12 1.0-2.0	Dec 06, 2015		Soil	S15-De06610					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH12 2.0-3.0	Dec 06, 2015		Soil	S15-De06611					X			X						X		X
BH12 3.0-4.0	Dec 06, 2015		Soil	S15-De06612					X			X						X		X
BH12 4.0-5.0	Dec 06, 2015		Soil	S15-De06613			X		X			X						X	X	X
BH12 5.0-6.0	Dec 06, 2015		Soil	S15-De06614		X														
BH13 0.0-1.0	Dec 06, 2015		Soil	S15-De06615	X		X	X	X	X		X		X	X			X	X	X
BH13 1.0-2.0	Dec 06, 2015		Soil	S15-De06616	X				X			X						X		X
BH13 3.0-3.5	Dec 06, 2015		Soil	S15-De06617		X														
BH14 0.3-1.0	Dec 06, 2015		Soil	S15-De06618	X			X	X	X		X		X	X			X		X
BH15 0.0-1.0	Dec 06, 2015		Soil	S15-De06619					X	X		X		X				X		X
BH15 1.0-2.0	Dec 06, 2015		Soil	S15-De06620					X			X						X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH15 2.0-3.0	Dec 06, 2015		Soil	S15-De06621					X			X						X		X
BH15 3.0-3.6	Dec 06, 2015		Soil	S15-De06622		X														
BH16 0.0-1.0	Dec 06, 2015		Soil	S15-De06623	X			X	X	X		X		X	X			X		X
BH16 1.0-2.0	Dec 06, 2015		Soil	S15-De06624					X			X						X		X
BH16 2.0-3.0	Dec 06, 2015		Soil	S15-De06625					X			X						X		X
BH16 4.0-4.5	Dec 06, 2015		Soil	S15-De06626			X											X	X	
BH17 0.0-1.0	Dec 06, 2015		Soil	S15-De06627	X		X	X	X	X		X		X	X			X	X	X
BH17 1.0-2.0	Dec 06, 2015		Soil	S15-De06628					X			X						X		X
BH17 2.0-3.0	Dec 06, 2015		Soil	S15-De06629					X			X						X		X
BH17 4.0	Dec 06, 2015		Soil	S15-De06630		X														

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
BH17 6.0	Dec 06, 2015		Soil	S15-De06631		X														
BH18 0.0-1.0	Dec 06, 2015		Soil	S15-De06632	X			X	X	X		X		X	X			X		X
BH18 1.0-2.0	Dec 06, 2015		Soil	S15-De06633					X			X						X		X
BH18 2.0-3.0	Dec 06, 2015		Soil	S15-De06634					X			X						X		X
BH18 3.0-4.0	Dec 06, 2015		Soil	S15-De06635		X														
BH18 6.0	Dec 06, 2015		Soil	S15-De06636		X														
BH05 3.5-4.0	Dec 06, 2015		Soil	S15-De06637	X			X	X	X		X		X	X			X		X
BH07 3.0-4.0	Dec 06, 2015		Soil	S15-De06638	X			X	X	X		X		X	X			X		X
BH12 6.5-7.0	Dec 06, 2015		Soil	S15-De06639					X			X						X		X
QC01	Dec 06, 2015		Soil	S15-De06640	X			X	X	X	X	X			X			X		X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482392
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																				
Melbourne Laboratory - NATA Site # 1254 & 14271								X											X	
Sydney Laboratory - NATA Site # 18217					X	X	X		X	X	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																X	X	X	X	
External Laboratory																				
QC02	Dec 06, 2015		Soil	S15-De06641	X			X	X	X	X	X			X			X		X
QC03	Dec 06, 2015		Soil	S15-De06642					X			X						X		X
RINSATE	Dec 06, 2015		Water	S15-De06643					X	X		X		X	X					X
TS	Dec 06, 2015		Water	S15-De06644									X							
SB	Dec 06, 2015		Water	S15-De06645									X							

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Stardards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substatntial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

The samples received were not collected in approved asbestos bags and were therefore sub-sampled from the 250mL glass jars. Valid sub-sampling procedures were applied so as to ensure that the sub-samples to be analysed accurately represented the samples received.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Rhys Thomas Senior Analyst-Asbestos (NSW)



Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

12 Ashley Street, Chatswood, NSW 2067
tel: +61 2 9910 6200

email: sydney@envirolab.com.au
envirolab.com.au

Envirolab Services Pty Ltd - Sydney | ABN 37 112 535 645

TAX INVOICE

INVOICE NO: SY 146953
INVOICING DATE: 15/12/15
ENVIROLAB REPORT NO: 138764
PAYMENT DUE DATE: 14/01/2016

To: JBS & G Australia Pty Ltd
Level 1, 50 Margaret St
Sydney NSW 2000

Attention: Grace Ng

PROJECT NO and DESCRIPTION: 507020, ATP

PURCHASE ORDER NUMBER:

Tests Performed / Description of Service	Unit Cost	Qty	Total Cost
VOC's in soil	$75.00	2	$150.00
TRH in Soil (C6-C9) NEPM	$29.00	3	$87.00
TRH Soil C10-C40 NEPM draft	$29.00	3	$87.00
PAHs in Soil	$42.00	3	$126.00
OC/PCB Pesticides in soil	$48.00	2	$96.00
8 metals in soil	$28.00	2	$56.00
TOC in soil by titration	$29.00	2	$58.00
Moisture	$0.00	3	$0.00
Asbestos ID in soil	$34.00	2	$68.00
Admin Fee	$25.00	1	$25.00
Invoice and GST Summary Details	**Total Amount:**		$753.00
	GST (10%):		$75.30
	Total Invoice Amount:		$828.30

INVOICE PAYMENT OPTIONS

Please make all cheques payable to : **Envirolab Services Pty Ltd**

Please EFT to: **Account Name: Envirolab Services Pty Ltd**
NAB SWIFT Code - NATAAU3303M
Bank: National Australia Bank Branch: Marrickville NSW
BSB: 082 356 Account No: 57981 3018

Remittance advices should be faxed/emailed Fax No: 02 9910 6299 e-mail: accounts@envirolabservices.com.au

Visa and Mastercard payments are accepted.

PLEASE NOTE: OUR PAYMENT TERMS ARE STRICTLY 30 DAYS FROM DATE OF INVOICE

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

SAMPLE RECEIPT ADVICE

Client Details	
Client	JBS & G (NSW & WA) Pty Ltd
Attention	N Cusson

Sample Login Details	
Your Reference	507020, ATP
Envirolab Reference	**138764**
Date Sample Received	08/12/2015
Date Instructions Received	08/12/2015
Date Results Expected to be Reported	**15/12/2015**

Sample Condition	
Samples received in appropriate condition for analysis	YES
No. of Samples Provided	3 soils
Turnaround Time Requested	Standard
Temperature on receipt (°C)	1.2
Cooling Method	Ice
Sampling Date Provided	YES

Comments
Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	Phone: 02 9910 6200
Fax: 02 9910 6201	Fax: 02 9910 6201
Email: ahie@envirolabservices.com.au	Email: jhurst@envirolabservices.com.au

Sample and Testing Details on following page

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

Sample Id	*VOCs in soil*	*TRH in Soil (C6-C9) NEPM*	*svTRH (C10-C40) in Soil*	*PAHs in Soil*	*Organochlorine Pesticides in soil*	*PCBs in Soil*	*Acid Extractable metals in soil*	*Total Organic Carbon (Walkley Black)*	*Asbestos ID - soils*
QC01A	✓	✓	✓	✓	✓	✓	✓	✓	✓
QC02A	✓	✓	✓	✓	✓	✓	✓	✓	✓
QC03A		✓	✓	✓					

12 Ashley Street, Chatswood, NSW 2067
tel: +61 2 9910 6200

email: sydney@envirolab.com.au
envirolab.com.au

Envirolab Services Pty Ltd - Sydney | ABN 37 112 535 645

CERTIFICATE OF ANALYSIS 138764

Client:

JBS & G (NSW & WA) Pty Ltd
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: N Cusson

Sample log in details:

Your Reference:	**50720, ATP**		
No. of samples:	3 soils		
Date samples received / completed instructions received	08/12/15	/	08/12/15

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:	15/12/15	/	15/12/15
Date of Preliminary Report:	Not Issued		

NATA accreditation number 2901. This document shall not be reproduced except in full.
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:

Jacinta Hurst
Laboratory Manager

ACCREDITED FOR TECHNICAL COMPETENCE

VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	138764-1 QC01A 06/12/2015 Soil	138764-2 QC02A 06/12/2015 Soil
Date extracted	-	10/12/2015	10/12/2015
Date analysed	-	14/12/2015	14/12/2015
Dichlorodifluoromethane	mg/kg	<1	<1
Chloromethane	mg/kg	<1	<1
Vinyl Chloride	mg/kg	<1	<1
Bromomethane	mg/kg	<1	<1
Chloroethane	mg/kg	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1
1,1-dichloroethane	mg/kg	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1
bromochloromethane	mg/kg	<1	<1
chloroform	mg/kg	<1	<1
2,2-dichloropropane	mg/kg	<1	<1
1,2-dichloroethane	mg/kg	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1
1,1-dichloropropene	mg/kg	<1	<1
Cyclohexane	mg/kg	<1	<1
carbon tetrachloride	mg/kg	<1	<1
Benzene	mg/kg	<0.2	<0.2
dibromomethane	mg/kg	<1	<1
1,2-dichloropropane	mg/kg	<1	<1
trichloroethene	mg/kg	<1	<1
bromodichloromethane	mg/kg	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1
Toluene	mg/kg	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1
dibromochloromethane	mg/kg	<1	<1
1,2-dibromoethane	mg/kg	<1	<1
tetrachloroethene	mg/kg	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1
chlorobenzene	mg/kg	<1	<1
Ethylbenzene	mg/kg	<1	<1
bromoform	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
styrene	mg/kg	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1
o-Xylene	mg/kg	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1

VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ---------- 	138764-1 QC01A 06/12/2015 Soil	138764-2 QC02A 06/12/2015 Soil
isopropylbenzene	mg/kg	<1	<1
bromobenzene	mg/kg	<1	<1
n-propyl benzene	mg/kg	<1	<1
2-chlorotoluene	mg/kg	<1	<1
4-chlorotoluene	mg/kg	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1
tert-butyl benzene	mg/kg	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1
sec-butyl benzene	mg/kg	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1
4-isopropyl toluene	mg/kg	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1
n-butyl benzene	mg/kg	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1
hexachlorobutadiene	mg/kg	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1
Surrogate Dibromofluorometha	%	93	93
Surrogate aaa-Trifluorotoluene	%	94	90
Surrogate Toluene-d_8	%	99	99
Surrogate 4-Bromofluorobenzene	%	101	98

TRH in Soil (C6-C9) NEPM				
Our Reference:	UNITS	138764-1	138764-2	138764-3
Your Reference	----------	QC01A	QC02A	QC03A
Date Sampled	----------	06/12/2015	06/12/2015	06/12/2015
Type of sample		Soil	Soil	Soil
Date extracted	-	10/12/2015	10/12/2015	10/12/2015
Date analysed	-	14/12/2015	14/12/2015	10/12/2015
$TRHC_6 - C_9$	mg/kg	<25	<25	<25
$TRHC_6 - C_{10}$	mg/kg	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	94	90	126

svTRH (C10-C40) in Soil				
Our Reference:	UNITS	138764-1	138764-2	138764-3
Your Reference	----------	QC01A	QC02A	QC03A
Date Sampled	----------	06/12/2015	06/12/2015	06/12/2015
Type of sample		Soil	Soil	Soil
Date extracted	-	10/12/2015	10/12/2015	10/12/2015
Date analysed	-	11/12/2015	11/12/2015	11/12/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100
Surrogate o-Terphenyl	%	83	86	85

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	138764-1 QC01A 06/12/2015 Soil	138764-2 QC02A 06/12/2015 Soil	138764-3 QC03A 06/12/2015 Soil
Date extracted	-	10/12/2015	10/12/2015	10/12/2015
Date analysed	-	10/12/2015	10/12/2015	10/12/2015
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Total Positive PAHs	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	89	130	90

Organochlorine Pesticides in soil			
Our Reference:	UNITS	138764-1	138764-2
Your Reference	----------	QC01A	QC02A
Date Sampled	----------	06/12/2015	06/12/2015
Type of sample		Soil	Soil
Date extracted	-	10/12/2015	10/12/2015
Date analysed	-	10/12/2015	10/12/2015
HCB	mg/kg	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Surrogate TCMX	%	93	92

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	138764-1 QC01A 06/12/2015 Soil	138764-2 QC02A 06/12/2015 Soil
Date extracted	-	10/12/2015	10/12/2015
Date analysed	-	10/12/2015	10/12/2015
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	93	92

Acid Extractable metals in soil				
Our Reference:	UNITS	138764-1	138764-2	138764-3
Your Reference	----------	QC01A	QC02A	QC03A
Date Sampled	----------	06/12/2015	06/12/2015	06/12/2015
Type of sample		Soil	Soil	Soil
Date prepared	-	10/12/2015	10/12/2015	10/12/2015
Date analysed	-	10/12/2015	10/12/2015	10/12/2015
Arsenic	mg/kg	4	11	17
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	9	5	8
Copper	mg/kg	2	3	3
Lead	mg/kg	10	9	8
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	<1	<1
Zinc	mg/kg	<1	<1	<1

Misc Inorg - Soil			
Our Reference:	UNITS	138764-1	138764-2
Your Reference	----------	QC01A	QC02A
Date Sampled	----------	06/12/2015	06/12/2015
Type of sample		Soil	Soil
Date prepared	-	10/12/2015	10/12/2015
Date analysed	-	10/12/2015	10/12/2015
Total Organic Carbon (Walkley Black)	mg/kg	<1,000	1,400

Moisture Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	138764-1 QC01A 06/12/2015 Soil	138764-2 QC02A 06/12/2015 Soil	138764-3 QC03A 06/12/2015 Soil
Date prepared	-	10/12/2015	10/12/2015	10/12/2015
Date analysed	-	11/12/2015	11/12/2015	11/12/2015
Moisture	%	15	13	12

Asbestos ID - soils			
Our Reference:	UNITS	138764-1	138764-2
Your Reference	----------	QC01A	QC02A
Date Sampled	----------	06/12/2015	06/12/2015
Type of sample		Soil	Soil
Date analysed	-	15/12/2015	15/12/2015
Sample mass tested	g	Approx. 35g	Approx. 35g
Sample Description	-	Grey clay soil	Grey clay soil
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
Trace Analysis	-	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
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-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	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-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-036	Total Organic Carbon - A titrimetric method that measures the oxidisable organic content of soils. Based upon Walkley/Black and 'Rayment and Lyons 2011'.
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.

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			10/12/2015	[NT]	[NT]	LCS-2	10/12/2015
Date analysed	-			14/12/2015	[NT]	[NT]	LCS-2	14/12/2015
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	86%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	83%
2,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	96%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	80%
1,1-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	0.2	Org-014	<0.2	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	79%
bromodichloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	77%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	79%
1,2-dibromoethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	89%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
isopropylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	92	[NT]	[NT]	LCS-2	89%
Surrogate aaa-Trifluorotoluene	%		Org-014	91	[NT]	[NT]	LCS-2	89%
Surrogate Toluene-d_8	%		Org-014	99	[NT]	[NT]	LCS-2	98%
Surrogate 4-Bromofluorobenzene	%		Org-014	100	[NT]	[NT]	LCS-2	101%

QUALITY CONTROL TRH in Soil (C6-C9) NEPM	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			10/12/2015	[NT]	[NT]	LCS-2	10/12/2015
Date analysed	-			14/12/2015	[NT]	[NT]	LCS-2	14/12/2015
$TRHC_{6}$ - C_{9}	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-2	85%
$TRHC_{6}$ - C_{10}	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-2	85%
Surrogate aaa-Trifluorotoluene	%		Org-016	91	[NT]	[NT]	LCS-2	89%
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	-			10/12/2015	[NT]	[NT]	LCS-2	10/12/2015
Date analysed	-			11/12/2015	[NT]	[NT]	LCS-2	11/12/2015
$TRHC_{10}$ - C_{14}	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-2	116%
$TRHC_{15}$ - C_{28}	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-2	95%
$TRHC_{29}$ - C_{36}	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-2	83%
$TRH>C_{10}$-C_{16}	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-2	116%
$TRH>C_{16}$-C_{34}	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-2	95%
$TRH>C_{34}$-C_{40}	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-2	83%
Surrogate o-Terphenyl	%		Org-003	87	[NT]	[NT]	LCS-2	120%
QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			10/12/2015	[NT]	[NT]	LCS-2	10/12/2015
Date analysed	-			10/12/2015	[NT]	[NT]	LCS-2	10/12/2015
Naphthalene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-2	112%
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-2	127%
Phenanthrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-2	99%
Anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-2	101%
Pyrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-2	107%
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-2	114%
Benzo(b,j+k) fluoranthene	mg/kg	0.2	Org-012	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	[NT]	[NT]	LCS-2	113%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012	96	[NT]	[NT]	LCS-2	106%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			10/12/2015	[NT]	[NT]	LCS-2	10/12/2015
Date analysed	-			10/12/2015	[NT]	[NT]	LCS-2	10/12/2015
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	96%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	86%
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	85%
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	101%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	99%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	96%
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	98%
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	102%
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	94%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-2	96%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%		Org-005	107	[NT]	[NT]	LCS-2	108%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			10/12/2015	[NT]	[NT]	LCS-2	10/12/2015
Date analysed	-			10/12/2015	[NT]	[NT]	LCS-2	10/12/2015
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	LCS-2	102%
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		Org-006	107	[NT]	[NT]	LCS-2	108%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			10/12/2015	[NT]	[NT]	LCS-4	10/12/2015
Date analysed	-			10/12/2015	[NT]	[NT]	LCS-4	10/12/2015
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	LCS-4	108%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	LCS-4	104%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-4	103%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-4	102%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-4	99%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	LCS-4	91%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-4	99%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-4	103%

Client Reference: 50720, ATP

QUALITY CONTROL Misc Inorg - Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			10/12/2015	[NT]	[NT]	LCS-1	10/12/2015
Date analysed	-			10/12/2015	[NT]	[NT]	LCS-1	10/12/2015
Total Organic Carbon (Walkley Black)	mg/kg	1000	Inorg-036	<1000	[NT]	[NT]	LCS-1	98%

Report Comments:

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 138764-1,2 were sub-sampled from jars provided by the client.

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

INS: Insufficient sample for this test
NR: 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.

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

09012

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50720
PROJECT NAME: ATP
DATE NEEDED BY: STD TAT
LABORATORY BATCH NO.:
SAMPLERS: RH | DS
QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....@jbsg.com.au; (3) .....@jbsg.com.au
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	9 Metals	TRH	BTEX	VOCs	Asbestos *	OCP/PCB	TOC	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
1	QC01A	soil	6.12.15		Scr + Ice Bricks		x	x	x	x	x	x	x			* 40g presence/absence
2	QC02A	↓	↓		↓		x	x	x	x	x	x	x			please sub sample
3	QC03A						x	x	x							

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 138764
Date Received: 8/12/15
Time Received: 17:00
Received by:
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DS DATE: 7.12.15 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: 8/12/15 OF: ENS	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nathan Cussen**

Report **482410-L-V2**
Project name ATP
Project ID 50720
Received Date Dec 07, 2015

Client Sample ID			**BH01 0.0-1.0**	**BH01 1.0-2.0**	**BH02 0.0-1.0**	**BH03 0.0-1.0**
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S15-De06706**	**S15-De06707**	**S15-De06708**	**S15-De06709**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	0.001	< 0.001	0.002	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	0.001	0.001	0.002	< 0.001
2-Fluorobiphenyl (surr.)	1	%	69	83	84	83
p-Terphenyl-d14 (surr.)	1	%	112	118	120	134
Heavy Metals						
Arsenic	0.001	mg/L	0.003	0.006	0.002	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001	0.001	0.002
Copper	0.001	mg/L	0.004	0.004	0.005	0.002
Lead	0.001	mg/L	0.002	0.001	< 0.001	0.002
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	0.0001	0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	0.002	< 0.001	< 0.001	0.003
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	7.7	8.2	8.2	9.1
pH (off)	0.1	pH Units	7.9	8.9	10	8.0

Client Sample ID			BH03 1.0-2.0	BH04 0.0-1.0	BH04 1.0-2.0	BH05 0.0-0.1
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06710	S15-De06711	S15-De06712	S15-De06713
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	< 0.001	< 0.001	0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	74	80	80	84
p-Terphenyl-d14 (surr.)	1	%	109	116	109	135
Heavy Metals						
Arsenic	0.001	mg/L	0.004	0.002	0.004	0.003
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001	0.008	< 0.001
Copper	0.001	mg/L	0.005	0.002	0.002	0.004
Lead	0.001	mg/L	< 0.001	0.029	0.006	0.002
Mercury	0.0001	mg/L	0.0001	< 0.0001	0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	0.001	< 0.001
Zinc	0.001	mg/L	0.002	0.002	0.004	< 0.001
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	9.8	9.4	8.4	9.7
pH (off)	0.1	pH Units	9.7	9.5	6.7	9.5

Client Sample ID			BH05 1.0-2.0	BH06 0.0-0.5	BH07 0.0-1.0	BH08 0.0-1.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06714	S15-De06715	S15-De06716	S15-De06717
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			BH05 1.0-2.0	BH06 0.0-0.5	BH07 0.0-1.0	BH08 0.0-1.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06714	S15-De06715	S15-De06716	S15-De06717
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	80	76	82	75
p-Terphenyl-d14 (surr.)	1	%	112	107	123	125
Heavy Metals						
Arsenic	0.001	mg/L	0.002	0.098	0.002	0.006
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001	0.001	< 0.001
Copper	0.001	mg/L	0.003	0.005	0.005	0.038
Lead	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.025
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.016
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	8.5	10	10	9.5
pH (off)	0.1	pH Units	9.3	11	11	9.2

Client Sample ID			BH08 1.0-2.0	BH09 0.0-1.0	BH09 1.0-2.0	BH09 2.0-3.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06718	S15-De06719	S15-De06720	S15-De06721
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			BH08 1.0-2.0	BH09 0.0-1.0	BH09 1.0-2.0	BH09 2.0-3.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06718	S15-De06719	S15-De06720	S15-De06721
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Phenanthrene	0.001	mg/L	0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	0.002	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	81	81	65	98
p-Terphenyl-d14 (surr.)	1	%	132	121	102	100
Heavy Metals						
Arsenic	0.001	mg/L	0.004	0.002	0.002	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.024	0.008	0.008	0.005
Lead	0.001	mg/L	0.013	0.012	0.024	0.011
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	0.006	< 0.001	0.001	0.003
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	8.8	9.7	8.6	8.3
pH (off)	0.1	pH Units	9.6	8.9	9.0	7.2

Client Sample ID			BH10 0.0-1.0	BH12 0.0-1.0	BH12 1.0-2.0	BH12 2.0-3.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06722	S15-De06723	S15-De06724	S15-De06725
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	0.001	< 0.001	0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	0.002	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	0.002	< 0.001	0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	0.007	< 0.001	0.006
Phenanthrene	0.001	mg/L	< 0.001	0.004	< 0.001	0.003
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	< 0.001	0.016	< 0.001	0.011
2-Fluorobiphenyl (surr.)	1	%	82	83	82	87
p-Terphenyl-d14 (surr.)	1	%	130	117	126	124

Client Sample ID			BH10 0.0-1.0	BH12 0.0-1.0	BH12 1.0-2.0	BH12 2.0-3.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06722	S15-De06723	S15-De06724	S15-De06725
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	0.001	mg/L	0.001	< 0.001	< 0.001	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.003	0.018	0.003	0.017
Lead	0.001	mg/L	0.002	0.017	0.004	0.008
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	< 0.001	0.002	0.001	0.025
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	9.1	8.7	8.2	7.7
pH (off)	0.1	pH Units	9.2	7.6	5.6	6.4

Client Sample ID			BH12 3.0-4.0	BH12 4.0-5.0	BH13 0.0-1.0	BH13 1.0-2.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06726	S15-De06727	S15-De06728	S15-De06729
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	0.003	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	0.003	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	0.007	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	74	83	89	91
p-Terphenyl-d14 (surr.)	1	%	109	125	106	95
Heavy Metals						
Arsenic	0.001	mg/L	< 0.001	0.001	0.005	0.013
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	0.006	< 0.001	< 0.001
Copper	0.001	mg/L	0.015	0.005	0.059	0.007
Lead	0.001	mg/L	0.006	0.010	0.050	0.003
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	0.012	0.003	0.018	0.002

Client Sample ID			BH12 3.0-4.0	BH12 4.0-5.0	BH13 0.0-1.0	BH13 1.0-2.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06726	S15-De06727	S15-De06728	S15-De06729
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	7.6	7.7	7.2	7.8
pH (off)	0.1	pH Units	6.1	6.6	8.5	8.9

Client Sample ID			BH15 0.0-1.0	BH15 1.0-2.0	BH15 2.0-3.0	BH16 0.0-1.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06730	S15-De06731	S15-De06732	S15-De06733
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	108	90	75	75
p-Terphenyl-d14 (surr.)	1	%	118	103	100	97
Heavy Metals						
Arsenic	0.001	mg/L	0.002	0.002	< 0.001	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	0.002	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.009	0.012	< 0.001	< 0.001
Lead	0.001	mg/L	0.006	0.003	< 0.001	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	0.003	< 0.001	< 0.001	< 0.001
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	8.2	8.2	7.3	7.1
pH (off)	0.1	pH Units	9.2	9.3	5.9	8.9

Client Sample ID			BH16 1.0-2.0	BH16 2.0-3.0	BH17 0.0-1.0	BH17 1.0-2.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06734	S15-De06735	S15-De06736	S15-De06737
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	79	104	74	83
p-Terphenyl-d14 (surr.)	1	%	91	126	87	100
Heavy Metals						
Arsenic	0.001	mg/L	< 0.001	< 0.001	0.005	0.002
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	0.002	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	< 0.001	< 0.001	0.005	0.001
Lead	0.001	mg/L	0.005	< 0.001	< 0.001	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	< 0.001	0.002	< 0.001	< 0.001
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	6.7	6.7	6.5	6.4
pH (off)	0.1	pH Units	8.5	6.2	8.8	8.6

Client Sample ID			BH17 2.0-3.0	BH18 0.0-1.0	BH18 1.0-2.0	BH18 2.0-3.0
Sample Matrix			ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water	ASLP - Reagent Water
Eurofins | mgt Sample No.			S15-De06738	S15-De06739	S15-De06740	S15-De06741
Date Sampled			Dec 06, 2015	Dec 06, 2015	Dec 06, 2015	Dec 06, 2015
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.004
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.004
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH17 2.0-3.0 ASLP - Reagent Water S15-De06738 Dec 06, 2015	BH18 0.0-1.0 ASLP - Reagent Water S15-De06739 Dec 06, 2015	BH18 1.0-2.0 ASLP - Reagent Water S15-De06740 Dec 06, 2015	BH18 2.0-3.0 ASLP - Reagent Water S15-De06741 Dec 06, 2015
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.003
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	0.002	0.005	0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.004
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	0.002	0.005	0.001	0.015
2-Fluorobiphenyl (surr.)	1	%	69	80	73	73
p-Terphenyl-d14 (surr.)	1	%	105	130	118	118
Heavy Metals						
Arsenic	0.001	mg/L	0.002	< 0.001	< 0.001	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.005	< 0.001	< 0.001	< 0.001
Lead	0.001	mg/L	0.006	< 0.001	0.002	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	0.003	< 0.001	0.002	< 0.001
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	8.1	7.3	5.8	6.1
pH (off)	0.1	pH Units	9.1	7.2	5.0	5.3

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Sydney	Dec 14, 2015	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Metals M8	Sydney	Dec 11, 2015	28 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			
AUS Leaching Procedure	Sydney	Dec 11, 2015	7 Day
- Method: LTM-GEN-7010			

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
BH01 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06706	X	X	X
BH01 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06707	X	X	X
BH02 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06708	X	X	X
BH03 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06709	X	X	X
BH03 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06710	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH04 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06711	X	X	X
BH04 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06712	X	X	X
BH05 0.0-0.1	Dec 06, 2015		ASLP - Reagent Water	S15-De06713	X	X	X
BH05 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06714	X	X	X
BH06 0.0-0.5	Dec 06, 2015		ASLP - Reagent Water	S15-De06715	X	X	X
BH07 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06716	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH08 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06717	X	X	X
BH08 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06718	X	X	X
BH09 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06719	X	X	X
BH09 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06720	X	X	X
BH09 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06721	X	X	X
BH10 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06722	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH12 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06723	X	X	X
BH12 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06724	X	X	X
BH12 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06725	X	X	X
BH12 3.0-4.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06726	X	X	X
BH12 4.0-5.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06727	X	X	X
BH13 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06728	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH13 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06729	X	X	X
BH15 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06730	X	X	X
BH15 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06731	X	X	X
BH15 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06732	X	X	X
BH16 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06733	X	X	X
BH16 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06734	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH16 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06735	X	X	X
BH17 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06736	X	X	X
BH17 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06737	X	X	X
BH17 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06738	X	X	X
BH18 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06739	X	X	X
BH18 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06740	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	Dec 7, 2015 4:42 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	482410	**Due:**	Dec 14, 2015
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	-ALL INVOICES
Project Name:	ATP				
Project ID:	50720				

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH18 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06741	X	X	X

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.001			0.001	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S15-De06707	CP	%	103			70-130	Pass	
Cadmium	S15-De06707	CP	%	103			70-130	Pass	
Chromium	S15-De06707	CP	%	88			70-130	Pass	
Copper	S15-De06707	CP	%	86			70-130	Pass	
Lead	S15-De06707	CP	%	97			70-130	Pass	
Mercury	S15-De06707	CP	%	89			70-130	Pass	
Nickel	S15-De06707	CP	%	93			70-130	Pass	
Zinc	S15-De06707	CP	%	101			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S15-De06711	CP	%	75			70-130	Pass	
Acenaphthylene	S15-De06711	CP	%	76			70-130	Pass	
Anthracene	S15-De06711	CP	%	97			70-130	Pass	
Benz(a)anthracene	S15-De06711	CP	%	104			70-130	Pass	
Benzo(a)pyrene	S15-De06711	CP	%	111			70-130	Pass	
Benzo(b&j)fluoranthene	S15-De06711	CP	%	110			70-130	Pass	
Benzo(g.h.i)perylene	S15-De06711	CP	%	87			70-130	Pass	
Benzo(k)fluoranthene	S15-De06711	CP	%	109			70-130	Pass	
Chrysene	S15-De06711	CP	%	96			70-130	Pass	
Dibenz(a.h)anthracene	S15-De06711	CP	%	85			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Fluoranthene	S15-De06711	CP	%	98			70-130	Pass	
Fluorene	S15-De06711	CP	%	82			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S15-De06711	CP	%	89			70-130	Pass	
Naphthalene	S15-De06711	CP	%	75			70-130	Pass	
Phenanthrene	S15-De06711	CP	%	96			70-130	Pass	
Pyrene	S15-De06711	CP	%	99			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S15-De06717	CP	%	100			70-130	Pass	
Cadmium	S15-De06717	CP	%	101			70-130	Pass	
Chromium	S15-De06717	CP	%	85			70-130	Pass	
Copper	S15-De06717	CP	%	83			70-130	Pass	
Lead	S15-De06717	CP	%	88			70-130	Pass	
Mercury	S15-De06717	CP	%	89			70-130	Pass	
Nickel	S15-De06717	CP	%	93			70-130	Pass	
Zinc	S15-De06717	CP	%	96			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S15-De06725	CP	%	96			70-130	Pass	
Cadmium	S15-De06725	CP	%	96			70-130	Pass	
Chromium	S15-De06725	CP	%	92			70-130	Pass	
Copper	S15-De06725	CP	%	98			70-130	Pass	
Lead	S15-De06725	CP	%	99			70-130	Pass	
Mercury	S15-De06725	CP	%	86			70-130	Pass	
Nickel	S15-De06725	CP	%	95			70-130	Pass	
Zinc	S15-De06725	CP	%	102			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Cadmium	S15-De06736	CP	%	98			70-130	Pass	
Chromium	S15-De06736	CP	%	93			70-130	Pass	
Copper	S15-De06736	CP	%	98			70-130	Pass	
Lead	S15-De06736	CP	%	97			70-130	Pass	
Mercury	S15-De06736	CP	%	86			70-130	Pass	
Nickel	S15-De06736	CP	%	97			70-130	Pass	
Zinc	S15-De06736	CP	%	104			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De06706	CP	mg/L	0.003	0.003	5.0	30%	Pass	
Cadmium	S15-De06706	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S15-De06706	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S15-De06706	CP	mg/L	0.004	0.004	15	30%	Pass	
Lead	S15-De06706	CP	mg/L	0.002	0.002	<1	30%	Pass	
Mercury	S15-De06706	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S15-De06706	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S15-De06706	CP	mg/L	0.002	0.002	10	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(g.h.i)perylene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S15-De06710	CP	mg/L	< 0.001	0.001	10	30%	Pass	
Pyrene	S15-De06710	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De06716	CP	mg/L	0.002	0.002	11	30%	Pass	
Cadmium	S15-De06716	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S15-De06716	CP	mg/L	0.001	0.001	3.0	30%	Pass	
Copper	S15-De06716	CP	mg/L	0.005	0.005	<1	30%	Pass	
Lead	S15-De06716	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	S15-De06716	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S15-De06716	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S15-De06716	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De06724	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S15-De06724	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S15-De06724	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S15-De06724	CP	mg/L	0.003	0.002	13	30%	Pass	
Lead	S15-De06724	CP	mg/L	0.004	0.003	22	30%	Pass	
Mercury	S15-De06724	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S15-De06724	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S15-De06724	CP	mg/L	0.001	< 0.001	19	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S15-De06733	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S15-De06733	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S15-De06733	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S15-De06733	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	S15-De06733	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	S15-De06733	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S15-De06733	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S15-De06733	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Comments

Report revised to reflect amendment to LORs reported.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Charl Du Preez	Analytical Services Manager
Ivan Taylor	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)



Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
BH01 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06706	X	X	X
BH01 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06707	X	X	X
BH02 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06708	X	X	X
BH03 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06709	X	X	X
BH03 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06710	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH04 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06711	X	X	X
BH04 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06712	X	X	X
BH05 0.0-0.1	Dec 06, 2015		ASLP - Reagent Water	S15-De06713	X	X	X
BH05 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06714	X	X	X
BH06 0.0-0.5	Dec 06, 2015		ASLP - Reagent Water	S15-De06715	X	X	X
BH07 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06716	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH08 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06717	X	X	X
BH08 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06718	X	X	X
BH09 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06719	X	X	X
BH09 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06720	X	X	X
BH09 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06721	X	X	X
BH10 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06722	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH12 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06723	X	X	X
BH12 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06724	X	X	X
BH12 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06725	X	X	X
BH12 3.0-4.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06726	X	X	X
BH12 4.0-5.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06727	X	X	X
BH13 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06728	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH13 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06729	X	X	X
BH15 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06730	X	X	X
BH15 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06731	X	X	X
BH15 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06732	X	X	X
BH16 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06733	X	X	X
BH16 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06734	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482410
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 4:42 PM
Due: Dec 14, 2015
Priority: 5 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH16 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06735	X	X	X
BH17 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06736	X	X	X
BH17 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06737	X	X	X
BH17 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06738	X	X	X
BH18 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06739	X	X	X
BH18 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06740	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	Dec 7, 2015 4:42 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	482410	**Due:**	Dec 14, 2015
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	-ALL INVOICES
Project Name:	ATP				
Project ID:	50720				

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
BH18 2.0-3.0	Dec 06, 2015		ASLP - Reagent Water	S15-De06741	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G Australia (NSW & WA) P/L**
Contact name:	Nathan Cussen
Project name:	ATP
Project ID:	50720
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Dec 7, 2015 4:42 PM
Eurofins | mgt reference:	**482410**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 1.6 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Charl Du Preez on Phone : +61 (2) 9900 8400 or by e.mail: charldupreez@eurofins.com.au

Results will be delivered electronically via e.mail to Nathan Cussen - ncussen@jbsg.com.au.

09006

Page 1 of 4

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50720	LABORATORY BATCH NO.:
PROJECT NAME: AMP	SAMPLERS: RH / CD
DATE NEEDED BY: STD	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) [redacted]@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	~~TIME~~	TYPE & PRESERVATIVE	pH	Asbestos Metals	HSP PAH	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH01 0-1.0	Soil	6.12.15	P	Jar + Ice		X	X			
BH01 1.0-2.0			P			X	X			
BH02 0-1.0			P			X	X			
BH03 0-1.0			P			X	X			
BH03 1.0-2.0			P			X	X			
BH04 0-1.0			P			X	X			
BH04 1.0-2.0			P			X	X			
BH04 2.0-4.0			Z							
BH04 5.0-5.5			Z							
BH04 5.5-6.0			Z							
BH05 0-0.1			P			X	X			
BH05 1.0-2.0			P			X	X			
BH05 2.0-3.0			Z							
BH06 0-0.5			P			X	X			
BH07 0-1.0			P			X	X			
BH07 1.0-1.5			Z	Jar + Ice						
BH07 2.0-3.0			Z	Jar + Bag + Ice						
BH08 0-1.0			P			X	X			
BH08 1.0-2.0			P			X	X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: [redacted] DATE: 7.12.15	CONSIGNMENT NOTE NO.	NAME: Sigmak DATE: 07/12/15 16:42	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: FEDEX	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

09007

Page 2 of 4

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50720	LABORATORY BATCH NO.:
PROJECT NAME: MP	SAMPLERS: RM / DO
DATE NEEDED BY: STD	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Asb & Metals	Asb ID/NA	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH08 2.5-3.0	Soil	6.12.15	N	Bag + Jar						
BH09 0-1.0			F			Y	Y			
BH09 1.0-2.0			P			Y	Y			
BH09 2.0-3.0			P	Bag + Jar		Y	Y			
BH09 3.0-4.0			N	Bag + Jar						
BH09 6.0-6.5			N	Bag + Jar						
BH09 8.0			N	Bag + Jar						
BH10 0-1.0			F	Jar		X	Y			
BH12 0-1.0			F	Jar		Y	Y			
BH12 1.0-2.0			P	Jar + Bag		Y	Y			
BH12 2.0-3.0			F			Y	Y			
BH12 3.0-4.0			F			Y	Y			
BH12 4.0-5.0			F			Y	X			
BH12 5.0-6.0			N							
BH13 0-1.0			F	Jar		X	Y			
BH13 1.0-2.0			F	Jar		Y	Y			
BH13 3.0-3.5			N	Jar + Bag						
BH14 0.3-1.0			N	Jar						
BH15 0-1.0			F	Jar		Y	Y			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY
NAME: Nathan DATE: 7.12.15	CONSIGNMENT NOTE NO.	NAME: SS DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

09008

Page 3 of 4

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50720	LABORATORY BATCH NO.:
PROJECT NAME: Anp	SAMPLERS: RH / OO
DATE NEEDED BY: STD	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) NCussen@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	~~TIME~~	TYPE & PRESERVATIVE	pH	Asbestos & Metals	TRH/BTEX	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH15 1.0 - 2.0			C	Jar		x	x			
BH15 2.0 - 3.0			C	Jar + Bag		x	x			
BH15 3.0 - 3.6			N	Jar + Bag						
BH16 0 - 1.0			C	Jar		x	x			
BH16 1.0 - 2.0			C	Jar		x	x			
BH16 2.0 - 3.0			C	Jar		x	x			
BH16 4.0 - 4.5			N	Jar + Bag						
BH17 0 - 1.0			C	Jar		x	x			
BH17 1.0 - 2.0			C	Jar		x	x			
BH12 2.0 - 3.0			C	Jar		x	x			
BH17 4.0			N	Jar + Bag						
BH17 6.0			N	Jar + Bag						
BH18 0 - 1.0			C	Jar		x	x			
BH19 1.0 - 2.0			C	Jar + Bag		x	x			
BH18 2.0 - 3.0			C	Jar + Bag		x	x			
BH18 3.0 - 4.0			N	Jar + Bag						
BH19 6.0			N	Jar + Bag						
BH05 3.5 - 4.0			N	Jar						
BH07 3.0 - 4.0			N	Jar						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NCussen DATE: 7.12.15 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: SS 9E OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

09009

CHAIN OF CUSTODY

page 1 of 1

JBS&G

PROJECT NO.: 50720	LABORATORY BATCH NO.:
PROJECT NAME: ATP	SAMPLERS: RM & DO
DATE NEEDED BY: STD TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) Nwatson@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	ASLP 3 Metals	ASLP PAH	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH12 6.5-7.0										
QC01										
QC02										
QC03										
Rinsate										
TS										
SB										

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NWatson DATE: 7.12.15 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: SS DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nathan Cussen**

Report **483477-S**
Project name ADDITIONAL: ATP
Project ID 50720
Received Date Dec 15, 2015

Client Sample ID			**BH01 1.0-2.0**	**BH03 1.0-2.0**	**BH09 0.0-1.0**	**BH10 0.0-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S15-De15624**	**S15-De15625**	**S15-De15626**	**S15-De15627**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	50	mg/kg	< 50	450	< 50	< 50
TRH >C16-C34 (after silica gel clean-up)	100	mg/kg	< 100	2900	< 100	< 100
TRH >C34-C40 (after silica gel clean-up)	100	mg/kg	< 100	160	110	< 100
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	100	mg/kg	< 100	3500	< 100	< 100
TRH C10-C14 (after silica gel clean-up)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28 (after silica gel clean-up)	100	mg/kg	< 100	2600	< 100	< 100
TRH C29-C36 (after silica gel clean-up)	100	mg/kg	< 100	900	< 100	< 100
% Moisture	0.1	%	13	5.4	8.2	5.5

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
TRH - 2013 NEPM Fractions (after silica gel clean-up)	Sydney	Dec 17, 2015	14 Day
- Method: LM-LTM-ORG2010			
TRH - 1999 NEPM Fractions (after silica gel clean-up)	Sydney	Dec 17, 2015	14 Day
- Method: LM-LTM-ORG2010			
% Moisture	Sydney	Dec 15, 2015	14 Day
- Method: LTM-GEN-7080 Moisture			

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 483477
Phone: 02 8245 0300
Fax:

Received: Dec 15, 2015 2:34 PM
Due: Dec 22, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Total Recoverable Hydrocarbons - 1999 NEPM Fractions	AUS Leaching Procedure	Total Recoverable Hydrocarbons - 2013 NEPM Fractions	TRH (after Silica Gel cleanup)	Moisture Set
Laboratory where analysis is conducted									
Melbourne Laboratory - NATA Site # 1254 & 14271									
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794									
External Laboratory									
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
BH01 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15620	X	X	X		
BH03 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15621	X	X	X		
BH09 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15622	X	X	X		
BH10 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15623	X	X	X		
BH01 1.0-2.0	Dec 06, 2015		Soil	S15-De15624				X	X
BH03 1.0-2.0	Dec 06, 2015		Soil	S15-De15625				X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 483477
Phone: 02 8245 0300
Fax:

Received: Dec 15, 2015 2:34 PM
Due: Dec 22, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Total Recoverable Hydrocarbons - 1999 NEPM Fractions	AUS Leaching Procedure	Total Recoverable Hydrocarbons - 2013 NEPM Fractions	TRH (after Silica Gel cleanup)	Moisture Set
Laboratory where analysis is conducted									
Melbourne Laboratory - NATA Site # 1254 & 14271									
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794									
External Laboratory									
BH09 0.0-1.0	Dec 06, 2015		Soil	S15-De15626				X	X
BH10 0.0-1.0	Dec 06, 2015		Soil	S15-De15627				X	X

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	mg/kg	< 50			50	Pass	
TRH >C16-C34 (after silica gel clean-up)	mg/kg	< 100			100	Pass	
TRH >C34-C40 (after silica gel clean-up)	mg/kg	< 100			100	Pass	
Method Blank							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C36 (Total) (after silica gel clean-up)	mg/kg	< 100			100	Pass	
TRH C10-C14 (after silica gel clean-up)	mg/kg	< 50			50	Pass	
TRH C15-C28 (after silica gel clean-up)	mg/kg	< 100			100	Pass	
TRH C29-C36 (after silica gel clean-up)	mg/kg	< 100			100	Pass	
LCS - % Recovery							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	%	84			70-130	Pass	
LCS - % Recovery							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C14 (after silica gel clean-up)	%	82			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S15-De08064	NCP	%	7.0	6.2	12	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised By

Charl Du Preez	Analytical Services Manager
Bob Symons	Senior Analyst-Inorganic (NSW)
Ivan Taylor	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)



Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nathan Cussen**

Report **483477-L**
Project name ADDITIONAL: ATP
Project ID 50720
Received Date Dec 15, 2015

Client Sample ID			**BH01 1.0-2.0**	**BH03 1.0-2.0**	**BH09 0.0-1.0**	**BH10 0.0-1.0**
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S15-De15620**	**S15-De15621**	**S15-De15622**	**S15-De15623**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	0.9	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1	0.90	< 0.1	< 0.1
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	0.9	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	7.0	9.5	9.4	9.3
pH (off)	0.1	pH Units	7.5	9.2	9.1	9.3

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 18, 2015	7 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 18, 2015	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
AUS Leaching Procedure	Sydney	Dec 17, 2015	7 Day
- Method: LTM-GEN-7010			

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 483477
Phone: 02 8245 0300
Fax:

Received: Dec 15, 2015 2:34 PM
Due: Dec 22, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Total Recoverable Hydrocarbons - 1999 NEPM Fractions	AUS Leaching Procedure	Total Recoverable Hydrocarbons - 2013 NEPM Fractions	TRH (after Silica Gel cleanup)	Moisture Set
Laboratory where analysis is conducted									
Melbourne Laboratory - NATA Site # 1254 & 14271									
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794									
External Laboratory									
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
BH01 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15620	X	X	X		
BH03 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15621	X	X	X		
BH09 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15622	X	X	X		
BH10 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15623	X	X	X		
BH01 1.0-2.0	Dec 06, 2015		Soil	S15-De15624				X	X
BH03 1.0-2.0	Dec 06, 2015		Soil	S15-De15625				X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 483477
Phone: 02 8245 0300
Fax:

Received: Dec 15, 2015 2:34 PM
Due: Dec 22, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Total Recoverable Hydrocarbons - 1999 NEPM Fractions	AUS Leaching Procedure	Total Recoverable Hydrocarbons - 2013 NEPM Fractions	TRH (after Silica Gel cleanup)	Moisture Set
Laboratory where analysis is conducted									
Melbourne Laboratory - NATA Site # 1254 & 14271									
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794									
External Laboratory									
BH09 0.0-1.0	Dec 06, 2015		Soil	S15-De15626				X	X
BH10 0.0-1.0	Dec 06, 2015		Soil	S15-De15627				X	X

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised By

Charl Du Preez	Analytical Services Manager
Ryan Hamilton	Senior Analyst-Organic (NSW)



Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 483477
Phone: 02 8245 0300
Fax:

Received: Dec 15, 2015 2:34 PM
Due: Dec 22, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Total Recoverable Hydrocarbons - 1999 NEPM Fractions	AUS Leaching Procedure	Total Recoverable Hydrocarbons - 2013 NEPM Fractions	TRH (after Silica Gel cleanup)	Moisture Set
Laboratory where analysis is conducted									
Melbourne Laboratory - NATA Site # 1254 & 14271									
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794									
External Laboratory									
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
BH01 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15620	X	X	X		
BH03 1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15621	X	X	X		
BH09 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15622	X	X	X		
BH10 0.0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De15623	X	X	X		
BH01 1.0-2.0	Dec 06, 2015		Soil	S15-De15624				X	X
BH03 1.0-2.0	Dec 06, 2015		Soil	S15-De15625				X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 483477
Phone: 02 8245 0300
Fax:

Received: Dec 15, 2015 2:34 PM
Due: Dec 22, 2015
Priority: 5 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Total Recoverable Hydrocarbons - 1999 NEPM Fractions	AUS Leaching Procedure	Total Recoverable Hydrocarbons - 2013 NEPM Fractions	TRH (after Silica Gel cleanup)	Moisture Set
Laboratory where analysis is conducted									
Melbourne Laboratory - NATA Site # 1254 & 14271									
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794									
External Laboratory									
BH09 0.0-1.0	Dec 06, 2015		Soil	S15-De15626				X	X
BH10 0.0-1.0	Dec 06, 2015		Soil	S15-De15627				X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G Australia (NSW & WA) P/L**
Contact name:	Nathan Cussen
Project name:	ADDITIONAL: ATP
Project ID:	50720
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Dec 15, 2015 2:34 PM
Eurofins | mgt reference:	**483477**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 1.6 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Additional from 482392| Very limited sample

Contact notes

If you have any questions with respect to these samples please contact:

Charl Du Preez on Phone : +61 (2) 9900 8400 or by e.mail: charldupreez@eurofins.com.au

Results will be delivered electronically via e.mail to Nathan Cussen - ncussen@jbsg.com.au.

482477 Sea 15/12 2:34

Sample Receipt 1 Syd

From: Nibha Vaidya
Sent: Tuesday, 15 December 2015 2:34 PM
To: EnviroSampleNSW
Subject: FW: Lab Batch 482392

Follow Up Flag: Follow up
Flag Status: Flagged

Additional please

Nibha Vaidya
Phone : +61 2 9900 8415
Email : NibhaVaidya@eurofins.com.au

From: Nathan Cussen [mailto:NCussen@jbsg.com.au]
Sent: Tuesday, 15 December 2015 2:33 PM
To: Nibha Vaidya
Subject: Lab Batch 482392

Hi Nibha,

Can I please schedule TRH ASLP and silca gel clean up analysis for the samples below from lab batch 482392 on a STD TAT.

- BH01 1.0-2.0;
- BH03 1.0-2.0;
- BH09 0.0-1.0; and
- BH10 0.0-1.0.

Cheers,
Nathan

Nathan Cussen | Senior Environmental Consultant | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0431 401 022 | www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Auditing and Compliance | Assessments and Approvals | Occupational Hygiene and Monitoring

The JBS&G Sydney office will be closed for the Christmas break from 25th December until 4th January, inclusive.
Thank you for all your support during 2015 and we look forward to working with you in 2016
Merry Christmas and Happy New Year
*****

This email message is intended only for the addressee(s) and contains information that may be confidential and/or copyright. If you are not the intended recipient please delete this email immediately. Use, disclosure or reproduction of this email by anyone other than the intended recipient(s) is strictly prohibited. No representation is made that this email or any attachments are free of viruses and the recipient is responsible for undertaking appropriate virus scanning. Any advice provided in or attached to this email is subject to limitations.

Sample Receipt 1 Syd

Subject: FW: 483477

From: Nibha Vaidya
Sent: Thursday, 17 December 2015 6:07 PM
To: Sample Receipt 1 Syd
Subject: RE: 483477

Thanks Ellen,

Please go ahead with TRH after silica gel clean up and semi-vol TRH ASLP.

Nibha Vaidya
Phone : +61 2 9900 8415
Email : NibhaVaidya@eurofins.com.au

For the Christmas and New Year period, please click here to view laboratory shutdown dates

Eurofins | mgt add Illicit Drug analysis to our Brisbane Laboratory to assist the clean-up of clandestine drug labs in Australia & New Zealand.
Additionally PFBA added to PFASs analysis - for more information click here

483477

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nathan Cussen**

Report **482927-L**
Project name ATP
Project ID 50720
Received Date Dec 07, 2015

Client Sample ID			M11 **BULK 1_0-1.0**	M11 **BULK 1_1.0-2.0**	M11 **BULK 2_0-1.0**	M11 **BULK 2_1.0-2.0**
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S15-De10570**	**S15-De10571**	**S15-De10572**	**S15-De10573**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.002	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	86	50	51	73
p-Terphenyl-d14 (surr.)	1	%	125	56	58	108
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Conductivity (at 25°C)	1	uS/cm	520	540	810	180
pH	0.1	pH Units	8.0	6.9	9.1	6.9
Total Dissolved Solids	5	mg/L	450	360	600	140

Client Sample ID			M11BULK 1_0-1.0	M11BULK 1_1.0-2.0	M11BULK 2_0-1.0	M11BULK 2_1.0-2.0
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S15-De10570**	**S15-De10571**	**S15-De10572**	**S15-De10573**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.002	0.001	0.003	0.003
Cadmium (filtered)	0.0001	mg/L	0.0002	< 0.0001	< 0.0001	< 0.0001
Chromium (filtered)	0.001	mg/L	0.002	< 0.001	0.002	< 0.001
Copper (filtered)	0.001	mg/L	0.007	0.012	0.013	0.010
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.002
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	0.0001
Nickel (filtered)	0.001	mg/L	0.002	0.001	< 0.001	0.001
Zinc (filtered)	0.005	mg/L	0.093	0.006	< 0.005	0.011

Client Sample ID			M11BULK 3_0-1.0	M11BULK 3_1.0-2.0
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S15-De10574**	**S15-De10575**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	0.2	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1
TRH C10-36 (Total)	0.1	mg/L	0.2	< 0.1
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.001	mg/L	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001
Total PAH*	0.002	mg/L	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	78	74
p-Terphenyl-d14 (surr.)	1	%	121	112
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	0.2	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1

Client Sample ID			M11BULK 3_0-1.0	M11BULK 3_1.0-2.0
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S15-De10574**	**S15-De10575**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit		
Conductivity (at 25°C)	1	uS/cm	270	364
pH	0.1	pH Units	9.7	7.6
Total Dissolved Solids	5	mg/L	380	495
Heavy Metals				
Arsenic (filtered)	0.001	mg/L	0.005	< 0.001
Cadmium (filtered)	0.0001	mg/L	< 0.0001	< 0.0001
Chromium (filtered)	0.001	mg/L	0.002	< 0.001
Copper (filtered)	0.001	mg/L	0.012	0.006
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001
Mercury (filtered)	0.0001	mg/L	0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001	0.005
Zinc (filtered)	0.005	mg/L	< 0.005	0.022

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 14, 2015	7 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Dec 14, 2015	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 14, 2015	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Conductivity (at 25°C)	Sydney	Dec 14, 2015	28 Day
pH	Sydney	Dec 14, 2015	1 Day
- Method: LTM-GEN-7090 pH in water by ISE			
Total Dissolved Solids	Sydney	Dec 15, 2015	7 Day
- Method: 4110 Total Dissolved Solids dried at 180 ± 2°C			
Metals M8 filtered	Sydney	Dec 11, 2015	28 Day

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482927
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 2:50 PM
Due: Dec 21, 2015
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Conductivity (at 25°C)	pH	Total Dissolved Solids	Total Recoverable Hydrocarbons - NEPM Fractions 1999	Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8 filtered	Total Recoverable Hydrocarbons - NEPM Fractions 2013
Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory												
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**								
BULK 1_0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10570	X	X	X	X	X	X	X	X
BULK 1_1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10571	X	X	X	X	X	X	X	X
BULK 2_0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10572	X	X	X	X	X	X	X	X
BULK 2_1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10573	X	X	X	X	X	X	X	X
BULK 3_0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10574	X	X	X	X	X	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482927
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 2:50 PM
Due: Dec 21, 2015
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Conductivity (at 25°C)	pH	Total Dissolved Solids	Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8 filtered	Total Recoverable Hydrocarbons - 2013 NEPM Fractions
Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory												
BULK 3_1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10575	X	X	X	X	X	X	X	X

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0001			0.0001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S15-De10572	CP	%	96			70-130	Pass	
Cadmium (filtered)	S15-De10572	CP	%	96			70-130	Pass	
Chromium (filtered)	S15-De10572	CP	%	89			70-130	Pass	
Copper (filtered)	S15-De10572	CP	%	86			70-130	Pass	
Lead (filtered)	S15-De10572	CP	%	88			70-130	Pass	
Mercury (filtered)	S15-De10572	CP	%	80			70-130	Pass	
Nickel (filtered)	S15-De10572	CP	%	89			70-130	Pass	
Zinc (filtered)	S15-De10572	CP	%	95			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (at 25°C)	S15-De10570	CP	uS/cm	520	510	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (at 25°C)	S15-De10571	CP	uS/cm	540	550	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S15-De10571	CP	mg/L	0.001	0.001	4.0	30%	Pass	
Cadmium (filtered)	S15-De10571	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Chromium (filtered)	S15-De10571	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S15-De10571	CP	mg/L	0.012	0.012	2.0	30%	Pass	
Lead (filtered)	S15-De10571	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S15-De10571	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S15-De10571	CP	mg/L	0.001	0.001	5.0	30%	Pass	
Zinc (filtered)	S15-De10571	CP	mg/L	0.006	0.006	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S15-De10575	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S15-De10575	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Chromium (filtered)	S15-De10575	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S15-De10575	CP	mg/L	0.006	0.006	2.0	30%	Pass	
Lead (filtered)	S15-De10575	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S15-De10575	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S15-De10575	CP	mg/L	0.005	0.006	<1	30%	Pass	
Zinc (filtered)	S15-De10575	CP	mg/L	0.022	0.022	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
M11	NATA accreditation does not cover the performance of this service.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Charl Du Preez	Analytical Services Manager
Bob Symons	Senior Analyst-Inorganic (NSW)
Ivan Taylor	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)



Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482927
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 2:50 PM
Due: Dec 21, 2015
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Conductivity (at 25°C)	pH	Total Dissolved Solids	Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8 filtered	Total Recoverable Hydrocarbons - 2013 NEPM Fractions
Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory												
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**								
BULK 1_0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10570	X	X	X	X	X	X	X	X
BULK 1_1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10571	X	X	X	X	X	X	X	X
BULK 2_0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10572	X	X	X	X	X	X	X	X
BULK 2_1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10573	X	X	X	X	X	X	X	X
BULK 3_0-1.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10574	X	X	X	X	X	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 50720

Order No.:
Report #: 482927
Phone: 02 8245 0300
Fax:

Received: Dec 7, 2015 2:50 PM
Due: Dec 21, 2015
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Conductivity (at 25°C)	pH	Total Dissolved Solids	Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	Metals M8 filtered	Total Recoverable Hydrocarbons - 2013 NEPM Fractions
Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory												
BULK 3_1.0-2.0	Dec 06, 2015		ASLP - Reagent Water	S15-De10575	X	X	X	X	X	X	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name: **JBS & G Australia (NSW & WA) P/L**

Contact name: Nathan Cussen
Project name: ATP
Project ID: 50720
COC number: 09011
Turn around time: 7 Day
Date/Time received: Dec 7, 2015 2:50 PM
Eurofins | mgt reference: **482927**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 1.6 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Charl Du Preez on Phone : +61 (2) 9900 8400 or by e.mail: charldupreez@eurofins.com.au

Results will be delivered electronically via e.mail to Nathan Cussen - ncussen@jbsg.com.au.

ASTM - Column Leach Test

09011

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50720	LABORATORY BATCH NO.:
PROJECT NAME: AMP	SAMPLERS: RH & OO
DATE NEEDED BY: STD TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) Oscar.....@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL.

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Dissolved Metals	PAHs LL*	pH	EC	TOC	TRH	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
Bulk 1 0-1.0	soil	6.12.15		5kg Sample		x	x	x	x	x	x			* Please use lab Agent water
Bulk 1 1.0-2.0	↓	↓		↓		x	x	x	x	x	x			
Bulk 2 0-1.0						x	x	x	x	x	x			* Collect samples @ 1, 2, 4 & 8 pore volumes
Bulk 2 1.0-2.0						x	x	x	x	x	x			
Bulk 3 0-1.0						x	x	x	x	x	x			
Bulk 3 1.0-2.0						x	x	x	x	x	x			
														* please filter samples with 0.45 µm filters prior to preservation & analysis

This COC is for leaching soil material in a Column Apparatus

The above analysis is for water samples collected

* Low level PAHs

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Nathan DATE: 7.12.15	CONSIGNMENT NOTE NO.	NAME: Hannah. 14:0	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF: 071215	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO FormsO13 – Chain of Custody - Generic

482927

485259 Sean 1/1 11:28

From: Richard Corner [mailto:RichardCorner@eurofins.com]

Sent: Monday, 11 January 2016 11:29 AM

To: EnviroSampleNSW

Cc: Charl DuPreez

Subject: FWD: Lab Batch 482927 - Reanalysis request

Hi Shaun,

We've had a request from JBS to perform some additional leachate analysis on samples from report 482927.

A little bit different to usual as we need to split each sample into 4 separate parts for analysis.

Eg. BULK 1_0-1.0

Will get split into:

BULK 1_ 0-1.0 – VoidVol 1

BULK 1_0-1.0 – VoidVol 2

BULK 1_0-1.0 – VoidVol 4

BULK 1_0-1.0 – VoidVol 8

Do this for all 6 samples in the old report so we'll get 24 samples total in the new report.

Analysis for: M8 metals only

Thanks,

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nathan Cussen**

Report **485259-L-V2**
Project name ADDITIONAL: ATP
Project ID 50720
Received Date Jan 11, 2016

Client Sample ID			**BULK 1_0-1.0 VOIDVOL 1**	**BULK 1_0-1.0 VOIDVOL 2**	**BULK 1_0-1.0 VOIDVOL 4**	**BULK 1_0-1.0 VOIDVOL 8**
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S16-Ja03336**	**S16-Ja03337**	**S16-Ja03338**	**S16-Ja03339**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Heavy Metals						
Comments			M11	M11	M11	M11
Arsenic	0.001	mg/L	0.004	0.006	0.007	0.008
Cadmium	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium	0.001	mg/L	0.003	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.005	0.005	0.005	0.004
Lead	0.001	mg/L	< 0.001	0.005	0.006	0.005
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	0.002	0.002	0.002	0.002

Client Sample ID			**BULK 1_1.0-2.0 VOIDVOL 1**	**BULK 1_1.0-2.0 VOIDVOL 2**	**BULK 1_1.0-2.0 VOIDVOL 4**	**BULK 1_1.0-2.0 VOIDVOL 8**
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S16-Ja03340**	**S16-Ja03341**	**S16-Ja03342**	**S16-Ja03343**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Heavy Metals						
Comments			M11	M11	M11	M11
Arsenic	0.001	mg/L	< 0.001	< 0.001	0.001	0.001
Cadmium	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	0.0001
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.007	0.005	0.005	0.005
Lead	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.001
Zinc	0.001	mg/L	< 0.001	< 0.001	0.007	0.005

Client Sample ID			BULK 2_0-1.0 VOIDVOL 1	BULK 2_0-1.0 VOIDVOL 2	BULK 2_0-1.0 VOIDVOL 4	BULK 2_0-1.0 VOIDVOL 8
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S16-Ja03344**	**S16-Ja03345**	**S16-Ja03346**	**S16-Ja03347**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Heavy Metals						
Comments			M11	M11	M11	M11
Arsenic	0.001	mg/L	0.004	0.005	0.006	0.007
Cadmium	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium	0.001	mg/L	0.004	0.002	0.001	< 0.001
Copper	0.001	mg/L	0.020	0.016	0.015	0.015
Lead	0.001	mg/L	< 0.001	< 0.001	0.004	0.006
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	< 0.001	< 0.001	0.001	0.002

Client Sample ID			BULK 2_1.0-2.0 VOIDVOL 1	BULK 2_1.0-2.0 VOIDVOL 2	BULK 2_1.0-2.0 VOIDVOL 4	BULK 2_1.0-2.0 VOIDVOL 8
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S16-Ja03348**	**S16-Ja03349**	**S16-Ja03350**	**S16-Ja03351**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Heavy Metals						
Comments			M11	M11	M11	M11
Arsenic	0.001	mg/L	0.002	0.001	0.001	0.001
Cadmium	0.0001	mg/L	0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.016	0.015	0.012	0.011
Lead	0.001	mg/L	0.022	0.017	0.012	0.011
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	0.007	0.004	0.001	0.001

Client Sample ID			BULK 3_0-1.0 VOIDVOL 1	BULK 3_0-1.0 VOIDVOL 2	BULK 3_0-1.0 VOIDVOL 4	BULK 3_0-1.0 VOIDVOL 8
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S16-Ja03352**	**S16-Ja03353**	**S16-Ja03354**	**S16-Ja03355**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Heavy Metals						
Comments			M11	M11	M11	M11
Arsenic	0.001	mg/L	0.002	0.002	0.002	0.002
Cadmium	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.008	0.007	0.006	0.006
Lead	0.001	mg/L	< 0.001	< 0.001	0.002	0.004
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.003

Client Sample ID			BULK 3_1.0-2.0 VOIDVOL 1	BULK 3_1.0-2.0 VOIDVOL 2	BULK 3_1.0-2.0 VOIDVOL 4	BULK 3_1.0-2.0 VOIDVOL 8
Sample Matrix			**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**	**ASLP - Reagent Water**
Eurofins | mgt Sample No.			**S16-Ja03356**	**S16-Ja03357**	**S16-Ja03358**	**S16-Ja03359**
Date Sampled			**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**	**Dec 06, 2015**
Test/Reference	LOR	Unit				
Heavy Metals						
Comments			M11	M11	M11	M11
Arsenic	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium	0.0001	mg/L	0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium	0.001	mg/L	0.001	0.002	< 0.001	< 0.001
Copper	0.001	mg/L	0.004	0.004	0.003	0.003
Lead	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	0.003	0.001	< 0.001	< 0.001
Zinc	0.001	mg/L	0.020	0.008	0.003	0.001

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Metals M8	Sydney	Jan 15, 2016	28 Day

- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	Jan 11, 2016 11:28 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	485259	**Due:**	Jan 25, 2016
		Phone:	02 8245 0300	**Priority:**	10 Day
		Fax:		**Contact Name:**	Nathan Cussen
Project Name:	ADDITIONAL: ATP				
Project ID:	50720				

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
BULK 1_0-1.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03336	X
BULK 1_0-1.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03337	X
BULK 1_0-1.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03338	X
BULK 1_0-1.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03339	X
BULK 1_1.0-2.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03340	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 485259
Phone: 02 8245 0300
Fax:

Received: Jan 11, 2016 11:28 AM
Due: Jan 25, 2016
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
BULK 1_1.0-2.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03341	X
BULK 1_1.0-2.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03342	X
BULK 1_1.0-2.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03343	X
BULK 2_0-1.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03344	X
BULK 2_0-1.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03345	X
BULK 2_0-1.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03346	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 485259
Phone: 02 8245 0300
Fax:

Received: Jan 11, 2016 11:28 AM
Due: Jan 25, 2016
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
BULK 2_0-1.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03347	X
BULK 2_1.0-2.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03348	X
BULK 2_1.0-2.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03349	X
BULK 2_1.0-2.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03350	X
BULK 2_1.0-2.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03351	X
BULK 3_0-1.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03352	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 485259
Phone: 02 8245 0300
Fax:

Received: Jan 11, 2016 11:28 AM
Due: Jan 25, 2016
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
BULK 3_0-1.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03353	X
BULK 3_0-1.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03354	X
BULK 3_0-1.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03355	X
BULK 3_1.0-2.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03356	X
BULK 3_1.0-2.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03357	X
BULK 3_1.0-2.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03358	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	Jan 11, 2016 11:28 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	485259	**Due:**	Jan 25, 2016
		Phone:	02 8245 0300	**Priority:**	10 Day
		Fax:		**Contact Name:**	Nathan Cussen
Project Name:	ADDITIONAL: ATP				
Project ID:	50720				

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
BULK 3_1.0-2.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03359	X

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0001			0.0001	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.001			0.001	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S16-Ja03337	CP	%	100			70-130	Pass	
Cadmium	S16-Ja03337	CP	%	99			70-130	Pass	
Chromium	S16-Ja03337	CP	%	98			70-130	Pass	
Copper	S16-Ja03337	CP	%	98			70-130	Pass	
Lead	S16-Ja03337	CP	%	97			70-130	Pass	
Mercury	S16-Ja03337	CP	%	98			70-130	Pass	
Nickel	S16-Ja03337	CP	%	96			70-130	Pass	
Zinc	S16-Ja03337	CP	%	100			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S16-Ja03347	CP	%	104			70-130	Pass	
Cadmium	S16-Ja03347	CP	%	106			70-130	Pass	
Chromium	S16-Ja03347	CP	%	103			70-130	Pass	
Copper	S16-Ja03347	CP	%	104			70-130	Pass	
Lead	S16-Ja03347	CP	%	104			70-130	Pass	
Mercury	S16-Ja03347	CP	%	101			70-130	Pass	
Nickel	S16-Ja03347	CP	%	104			70-130	Pass	
Zinc	S16-Ja03347	CP	%	107			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S16-Ja03355	CP	%	95			70-130	Pass	
Cadmium	S16-Ja03355	CP	%	95			70-130	Pass	
Chromium	S16-Ja03355	CP	%	93			70-130	Pass	
Copper	S16-Ja03355	CP	%	94			70-130	Pass	
Lead	S16-Ja03355	CP	%	97			70-130	Pass	
Mercury	S16-Ja03355	CP	%	95			70-130	Pass	
Nickel	S16-Ja03355	CP	%	93			70-130	Pass	
Zinc	S16-Ja03355	CP	%	95			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S16-Ja03336	CP	mg/L	0.004	0.004	2.0	30%	Pass	
Cadmium	S16-Ja03336	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Chromium	S16-Ja03336	CP	mg/L	0.003	0.003	3.0	30%	Pass	
Copper	S16-Ja03336	CP	mg/L	0.005	0.005	2.0	30%	Pass	
Lead	S16-Ja03336	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	S16-Ja03336	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S16-Ja03336	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S16-Ja03336	CP	mg/L	0.002	0.002	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S16-Ja03346	CP	mg/L	0.006	0.006	2.0	30%	Pass	
Cadmium	S16-Ja03346	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Chromium	S16-Ja03346	CP	mg/L	0.001	0.001	4.0	30%	Pass	
Copper	S16-Ja03346	CP	mg/L	0.015	0.016	6.0	30%	Pass	
Lead	S16-Ja03346	CP	mg/L	0.004	0.005	24	30%	Pass	
Mercury	S16-Ja03346	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S16-Ja03346	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S16-Ja03346	CP	mg/L	0.001	0.001	13	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S16-Ja03354	CP	mg/L	0.002	0.002	5.0	30%	Pass	
Cadmium	S16-Ja03354	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Chromium	S16-Ja03354	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S16-Ja03354	CP	mg/L	0.006	0.006	3.0	30%	Pass	
Lead	S16-Ja03354	CP	mg/L	0.002	0.003	28	30%	Pass	
Mercury	S16-Ja03354	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S16-Ja03354	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S16-Ja03354	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Comments

Report revised to reflect lower LORs.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
M11	NATA accreditation does not cover the performance of this service.

Authorised By

Charl Du Preez	Analytical Services Manager
Ivan Taylor	Senior Analyst-Metal (NSW)

Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 485259
Phone: 02 8245 0300
Fax:

Received: Jan 11, 2016 11:28 AM
Due: Jan 25, 2016
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
BULK 1_0-1.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03336	X
BULK 1_0-1.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03337	X
BULK 1_0-1.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03338	X
BULK 1_0-1.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03339	X
BULK 1_1.0-2.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03340	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 485259
Phone: 02 8245 0300
Fax:

Received: Jan 11, 2016 11:28 AM
Due: Jan 25, 2016
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
BULK 1_1.0-2.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03341	X
BULK 1_1.0-2.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03342	X
BULK 1_1.0-2.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03343	X
BULK 2_0-1.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03344	X
BULK 2_0-1.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03345	X
BULK 2_0-1.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03346	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 485259
Phone: 02 8245 0300
Fax:

Received: Jan 11, 2016 11:28 AM
Due: Jan 25, 2016
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
BULK 2_0-1.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03347	X
BULK 2_1.0-2.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03348	X
BULK 2_1.0-2.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03349	X
BULK 2_1.0-2.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03350	X
BULK 2_1.0-2.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03351	X
BULK 3_0-1.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03352	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL: ATP
Project ID: 50720

Order No.:
Report #: 485259
Phone: 02 8245 0300
Fax:

Received: Jan 11, 2016 11:28 AM
Due: Jan 25, 2016
Priority: 10 Day
Contact Name: Nathan Cussen

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
BULK 3_0-1.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03353	X
BULK 3_0-1.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03354	X
BULK 3_0-1.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03355	X
BULK 3_1.0-2.0 VOIDVOL 1	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03356	X
BULK 3_1.0-2.0 VOIDVOL 2	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03357	X
BULK 3_1.0-2.0 VOIDVOL 4	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03358	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	Jan 11, 2016 11:28 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	485259	**Due:**	Jan 25, 2016
		Phone:	02 8245 0300	**Priority:**	10 Day
		Fax:		**Contact Name:**	Nathan Cussen
Project Name:	ADDITIONAL: ATP				
Project ID:	50720				

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Metals M8
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
BULK 3_1.0-2.0 VOIDVOL 8	Dec 06, 2015		ASLP - Reagent Water	S16-Ja03359	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G Australia (NSW & WA) P/L**
Contact name:	Nathan Cussen
Project name:	ADDITIONAL: ATP
Project ID:	50720
COC number:	Not provided
Turn around time:	10 Day
Date/Time received:	Jan 11, 2016 11:28 AM
Eurofins | mgt reference:	**485259**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 1.6 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Additional from 482927

Contact notes

If you have any questions with respect to these samples please contact:

Charl Du Preez on Phone : +61 (2) 9900 8400 or by e.mail: charldupreez@eurofins.com.au

Results will be delivered electronically via e.mail to Nathan Cussen - ncussen@jbsg.com.au.

Attachment 6 – Analytical Summary Tables

Table D: Soil Analytical Results
Project Number: 51142
Project Name: Fill Assessment - Lot 12

| | | | | Metals & Metalloids | | | | | | | | Chlorinated Alkanes | | | | | | | |

Table D: Soil Analytical Results
Project Number: 51142
Project Name: Fill Assessment - Lot 12

| | Metals & Metalloids | | | | | | | | Chlorinated Alkanes | | | | | | | |

Table D: Soil Analytical Results
Project Number: 51142
Project Name: Fill Assessment - Lot 12

				Polycyclic Aromatic Hydrocarbons																		Monocyclic Aromatic Hydrocarbons										Miscellaneous Hydrocarbons								Chlorinated Benzenes							Polychlorinated Biphenyls								Sulfur	Industrial
				Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Carcinogenic PAHs as B(a)P TEQ	Pyrene	PAHs (Total)	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Bromobenzene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	Chlorobenzene	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Carbon disulfide	Hexachlorobutadiene
				mg/kg	mg/kg	mg/kg

Table D: Soil Analytical Results
Project Number: 51142
Project Name: Fill Assessment - Lot 12

	Polycyclic Aromatic Hydrocarbons																				Monocyclic Aromatic Hydrocarbons										Miscellaneous Hydrocarbons								Chlorinated Benzenes							Polychlorinated Biphenyls								Sulfur	Industrial
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Carcinogenic PAHs as B(a)P TEQ	Pyrene	PAHs (Total)	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Bromobenzene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	Chlorobenzene	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Carbon disulfide	Hexachlorobutadiene
	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	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	0.10	0.10	0.10	0.10	0.05	0.50		0.10	0.50	0.10	0.10	0.10	0.10	0.10	0.10	0.10			0.10	0.50	0.50	0.50		0.50	0.50				0.50	0.50	0.50	0.50	0.50		0.50	0.50	0.50			0.50	0.50	0.50	0.05	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50	0.50	
NEPC 2013 EIL, EILs Aged Sediment															370																																						
NEPM 2013 ESL Commercial and Industrial, Coarse Soil					1.4[#4]																																															
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																																				
NEPM 2013 Soil HIL D																	40		4000[#13]																																	80							2[#11]		
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m															NL																																							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m															NL																																							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m															NL																																							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+															NL																																							

Field ID	Date	Matrix	Lab_Report_Number

#1 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5.
#3 No respirable fibres detected
#4 Organic fibres detected.
#5 ESDAT Combined.
#6 NIL (+)VE
#7 Nil

Table D: Soil Analytical Results
Project Number: 51142
Project Name: Fill Assessment - Lot 12

				Organochlorine Pesticides																								Ionic Balance		SPOCAS						Asbestos		
				Aldrin	Aldrin + Dieldrin (Sum of Total)	Dieldrin	DDD	4,4-DDE	DDT	alpha-BHC	DDT+DDE+DDD (Sum of Total)	beta-BHC	delta-BHC	alpha-Chlordane	Chlordane	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Toxaphene	Cation Exchange Capacity	pH 1:5 soil:water	pH-KCL	pH-OX	TSA	SPOCAS	Analysed Material	Extraneous Material	Approx. Sample Mass	Mass ACM	Total Organic Carbon
				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	meq/100g	ph Units	ph Units	ph Units	MOL H+/T	%S	%	%	g	g	mg/kg
EQL				0.05		0.05	0.05	0.05	0.05	0.05		0.05	0.05		0.10		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.10	1.00	0.05	0.10	0.10	0.10	2.00	0.02	0.10	0.10			
NEPC 2013 EIL, EILs Aged Sediment									640																														
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																																							
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																							
NEPM 2013 Soil HIL D					45						3600				530						100				50			2500	160										
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																																							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																																							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																																							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																																							
Field ID	**Date**	**Matrix**	**Lab_Report_Number**																																				
BH01 0.0-1.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	Nil	-
BH01 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01 1.0-2.0	06-Dec-15	Fill	483477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	35	Nil	-
BH03 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	32	Nil	-
BH03 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03 1.0-2.0	06-Dec-15	Fill	483477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	13	8.1	-	-	-	-	31	Nil	-
BH04 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04 2.0-4.0	06-Dec-15	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04 5.0-5.5	06-Dec-15	Natural	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-	-	-
BH04 5.5-6.0	06-Dec-15	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.6	5.6	31	0.05	100	<0.1	-	-	-
BH05 0.0-0.1	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	37	8.8	-	-	-	-	35	Nil	-
BH05 1.0-2.1	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 3.5-4.0	06-Dec-15	Natural	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	55	Nil	-
QC01	BH05 3.5-4.0	Natural	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	24	Nil	-
QC01A	BH05 3.5-4.0	Natural	138764	<0.1	<0.2[#5]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3[#1]	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	<1000
BH06 0.0-0.5	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	27	Nil	-
BH07 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	41	9.9	-	-	-	-	38	Nil	-
BH07 1.0-1.5	06-Dec-15	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.2	5.9	<2	0.02	100	<0.1	-	-	-
BH07 2.0-3.0	06-Dec-15	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4	5	23	<0.02	100	<0.1	-	-	-
BH07 3.0-4.0	06-Dec-15	Natural	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	37	Nil	-
QC02	BH07 3.0-4.0	Natural	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	24	Nil	-
QC02A	BH07 3.0-4.0	Natural	138764	<0.1	<0.2[#5]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3[#1]	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	1400
BH08 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	70	Nil	-
BH08 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	33	8.2	-	-	-	-	74	Nil	-
BH09 0.0-1.0	06-Dec-15	Fill	483477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 2.0-3.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 3.0-4.0	06-Dec-15	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 6.0-6.5	06-Dec-15	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 8.0	06-Dec-15	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	5	16	<0.02	100	<0.1	-	-	-
BH10 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	37	Nil	-
BH10 0.0-1.0	06-Dec-15	Fill	483477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	14	8.1	-	-	-	-	32	Nil	-
BH12 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 2.0-3.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 3.0-4.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 4.0-5.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.8	6.5	-	-	-	-	-	-	-	-
BH12 6.5-7.0	06-Dec-15	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03	BH12 6.5-7.0	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03A	BH12 6.5-7.0	Natural	138764	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	12	7.1	-	-	-	-	36	Nil	-
BH13 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	Nil	-
BH14 0.3-1.0	06-Dec-15	Natural	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	78	Nil	-
BH15 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-	-	-
BH15 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15 2.0-3.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	38	Nil	-
BH16 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16 2.0-3.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16 4.0-4.5	06-Dec-15	Natural	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	5	-	-	-	-	-	-	-	-
BH17 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	11	7.8	-	-	-	-	45	Nil	-
BH17 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH17 2.0-3.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18 0.0-1.0	06-Dec-15	Fill	482392	<0.05	<0.1[#5]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15[#1]	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	47	Nil	-
BH18 1.0-2.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18 2.0-3.0	06-Dec-15	Fill	482392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

#1:ESLs are of moderate reliability.
#2:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX from C6-C10.
#3:ESLs are of low reliability.
#4:Management limits of BTEX and naphthalene are not available, hence should not be subtracted from the relevant fi
#5:Limits applied after consideration of relevant ESLs and HSLs
#6:Key limitations of HSL should be referred to prior to application in Friebel and Nadebaum (2011b and 2011d).
#7:TV adopted from Chromium (VI)
#8:Assumptions of HSL are presented in Friebel and Nadebaum (2011a and 2011b).
#9:Refer to HSL and soil saturation concentration limit.
#10:TV maybe be multiplied by a factor to account for biodegradation of vapour
#11:HIL relates to non-dioxin-like PCBs only. If PCB source is suspected a site-specific assessment should be untertaker
#12:To obtain F1 subtract the sum of BTEX from C6-C10.
#13:To obtain F2 subtract naohthalene from >C10-C16.

Data Comments

Table D: Soil Analytical Results
Project Number: 51142
Project Name: Fill Assessment - Lot 12

	Organochlorine Pesticides																									Ionic Balance		SPOCAS						Asbestos		
	Aldrin	Aldrin + Dieldrin (Sum of Total)	Dieldrin	DDD	4,4-DDE	DDT	alpha-BHC	DDT+DDE+DDD (Sum of Total)	beta-BHC	delta-BHC	alpha-Chlordane	Chlordane	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Toxaphene	Cation Exchange Capacity	pH 1:5 soil:water	pH-KCL	pH-OX	TSA	SPOCAS	Analysed Material	Extraneous Material	Approx. Sample Mass	Mass ACM	Total Organic Carbon
	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	meq/100g	ph Units	ph Units	ph Units	MOL H+/T	%S	%	%	g	g	mg/kg
EQL	0.05		0.05	0.05	0.05	0.05	0.05		0.05	0.05		0.10		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.10	1.00	0.05	0.10	0.10	0.10	2.00	0.02	0.10	0.10			
NEPC 2013 EIL, EILs Aged Sediment						640																													
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																																			
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																			
NEPM 2013 Soil HIL D		45						3600				530					100			50			2500	160											
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																																			
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																																			
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																																			
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																																			

Field ID	Date	Matrix	Lab_Report_Number

#1 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5.
#3 No respirable fibres detected
#4 Organic fibres detected.
#5 ESDAT Combined.
#6 NIL (+)VE
#7 Nil

Table E: ASLP and Column Leach Analysis
Project Number: 51142
Project Name: Lot 12 Fill Assessment

				Metals & Metalloids								TPHs (NEPC 1999)				TRHs (NEPC 2013)			Polycyclic Aromatic Hydrocarbons																		Other
				Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Total Dissolved Solids
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL				0.0010	0.0001	0.0010	0.0010	0.0010	0.0001	0.0010	0.0010	0.05	0.10	0.10	0.10	0.05	0.10	0.10	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	5.00
Field_ID	Date	Depth	Accumalitive Pore Volumes																																	
ASLP																																				
BH01 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.003	<0.0001	<0.001	0.004	0.002	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.001	-
BH01 1.0-2.0	06-Dec-15	1.0-2.0	N/A	0.006	<0.0001	<0.001	0.004	0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	-
BH01 1.0-2.0	06-Dec-15	1.0-2.0	N/A	-	-	-	-	-	-	-	-	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.002	<0.0001	0.001	0.005	<0.001	0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.002	-
BH03 0.0-1.0	06-Dec-15	0.0-1.0	N/A	<0.001	<0.0001	0.002	0.002	0.002	0.0001	<0.001	0.003	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH03 1.0-2.0	06-Dec-15	1.0-2.0	N/A	0.004	<0.0001	<0.001	0.005	<0.001	0.0001	<0.001	0.002	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH03 1.0-2.0	06-Dec-15	1.0-2.0	N/A	-	-	-	-	-	-	-	-	<0.05	0.9	<0.1	0.9	<0.05	0.9	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.002	<0.0001	<0.001	0.002	0.029	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH04 1.0-2.0	06-Dec-15	1.0-2.0	N/A	0.004	<0.0001	0.008	0.002	0.006	0.0001	0.001	0.004	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.001	-
BH05 0.0-0.1	06-Dec-15	0.0-1.0	N/A	0.003	<0.0001	<0.001	0.004	0.002	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH05 1.0-2.0	06-Dec-15	1.0-2.0	N/A	0.002	<0.0001	<0.001	0.003	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH06 0.0-0.5	06-Dec-15	0.0-0.5	N/A	0.098	<0.0001	<0.001	0.005	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH07 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.002	<0.0001	0.001	0.005	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH08 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.006	<0.0001	<0.001	0.038	0.025	<0.0001	<0.001	0.016	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH08 1.0-2.0	06-Dec-15	1.0-2.0	N/A	0.004	<0.0001	<0.001	0.024	0.013	<0.0001	<0.001	0.006	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001	0.002	-
BH09 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.002	<0.0001	<0.001	0.008	0.012	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH09 0.0-1.0	06-Dec-15	0.0-1.0	N/A	-	-	-	-	-	-	-	-	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 1.0-2.0	06-Dec-15	1.0-2.0	N/A	0.002	<0.0001	<0.001	0.008	0.024	<0.0001	<0.001	0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH09 2.0-3.0	06-Dec-15	2.0-3.0	N/A	<0.001	<0.0001	<0.001	0.005	0.011	<0.0001	<0.001	0.003	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH10 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.001	<0.0001	<0.001	0.003	0.002	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH10 0.0-1.0	06-Dec-15	0.0-1.0	N/A	-	-	-	-	-	-	-	-	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 0.0-1.0	06-Dec-15	0.0-1.0	N/A	<0.001	<0.0001	<0.001	0.018	0.017	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.007	0.004	<0.001	0.016	-
BH12 1.0-2.0	06-Dec-15	1.0-2.0	N/A	<0.001	<0.0001	<0.001	0.003	0.004	<0.0001	<0.001	0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH12 2.0-3.0	06-Dec-15	2.0-3.0	N/A	<0.001	<0.0001	<0.001	0.017	0.008	<0.0001	<0.001	0.025	-	-	-	-	-	-	-	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.006	0.003	<0.001	0.011	-
BH12 3.0-4.0	06-Dec-15	3.0-4.0	N/A	<0.001	<0.0001	<0.001	0.015	0.006	<0.0001	<0.001	0.012	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.003	0.003	<0.001	0.007	-
BH12 4.0-5.0	06-Dec-15	4.0-5.0	N/A	0.001	<0.0001	0.006	0.005	0.01	<0.0001	0.001	0.003	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH13 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.005	<0.0001	<0.001	0.059	0.05	<0.0001	<0.001	0.018	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH13 1.0-2.0	06-Dec-15	1.0-2.0	N/A	0.013	<0.0001	<0.001	0.007	0.003	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH15 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.002	<0.0001	0.002	0.009	0.006	<0.0001	<0.001	0.003	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH15 1.0-2.0	06-Dec-15	1.0-2.0	N/A	0.002	<0.0001	<0.001	0.012	0.003	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH15 2.0-3.0	06-Dec-15	2.0-3.0	N/A	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH16 0.0-1.0	06-Dec-15	0.0-1.0	N/A	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH16 1.0-2.0	06-Dec-15	1.0-2.0	N/A	<0.001	<0.0001	0.002	<0.001	0.005	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH16 2.0-3.0	06-Dec-15	2.0-3.0	N/A	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH17 0.0-1.0	06-Dec-15	0.0-1.0	N/A	0.005	<0.0001	<0.001	0.005	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH17 1.0-2.0	06-Dec-15	1.0-2.0	N/A	0.002	<0.0001	<0.001	0.001	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
BH17 2.0-3.0	06-Dec-15	2.0-3.0	N/A	0.002	<0.0001	<0.001	0.005	0.006	<0.0001	<0.001	0.003	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.002	<0.001	0.002	<0.001	-
BH18 0.0-1.0	06-Dec-15	0.0-1.0	N/A	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	0.005	<0.001	0.005	<0.001	-
BH18 1.0-2.0	06-Dec-15	1.0-2.0	N/A	<0.001	<0.0001	<0.001	<0.001	0.002	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	-
BH18 2.0-3.0	06-Dec-15	2.0-3.0	N/A	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	0.004	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	0.004	<0.001	0.015	<0.001	-
Column Leach Test																																						
BULK 1_0-1.0	06-Dec-15		2.4	0.002	0.0002	0.002	0.007	<0.001	<0.0001	0.002	0.093	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	450
BULK 1_0-1.0 VOIDVOL 1	06-Dec-15		3.4	0.004	<0.0001	0.003	0.005	<0.001	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 1_0-1.0 VOIDVOL 2	06-Dec-15	0.0-1.0	4.4	0.006	<0.0001	<0.001	0.005	0.005	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 1_0-1.0 VOIDVOL 4	06-Dec-15		6.4	0.007	<0.0001	<0.001	0.005	0.006	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 1_0-1.0 VOIDVOL 8	06-Dec-15		10.4	0.008	<0.0001	<0.001	0.004	0.005	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 1_1.0-2.0	06-Dec-15		8.9	0.001	<0.0001	<0.001	0.012	<0.001	<0.0001	0.001	0.006	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	360
BULK 1_1.0-2.0 VOIDVOL 1	06-Dec-15		9.9	<0.001	<0.0001	<0.001	0.007	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 1_1.0-2.0 VOIDVOL 2	06-Dec-15	1.0-2.0	10.9	<0.001	<0.0001	<0.001	0.005	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 1_1.0-2.0 VOIDVOL 4	06-Dec-15		12.9	0.001	<0.0001	<0.001	0.005	<0.001	<0.0001	<0.001	0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 1_1.0-2.0 VOIDVOL 8	06-Dec-15		16.9	0.001	<0.0001	<0.001	0.005	<0.001	<0.0001	0.001	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 2_0-1.0	06-Dec-15		3.5	0.003	<0.0001	0.002	0.013	<0.001	<0.0001	<0.001	<0.005	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	600
BULK 2_0-1.0 VOIDVOL 1	06-Dec-15		4.5	0.004	<0.0001	0.004	0.02	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 2_0-1.0 VOIDVOL 2	06-Dec-15	0.0-1.0	5.5	0.005	<0.0001	0.002	0.016	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 2_0-1.0 VOIDVOL 4	06-Dec-15		7.5	0.006	<0.0001	0.001	0.015	0.004	<0.0001	<0.001	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 2_0-1.0 VOIDVOL 8	06-Dec-15		11.5	0.007	<0.0001	<0.001	0.015	0.006	<0.0001	<0.001	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 2_1.0-2.0	06-Dec-15		6.3	0.003	<0.0001	<0.001	0.01	0.002	0.0001	0.001	0.011	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	140
BULK 2_1.0-2.0 VOIDVOL 1	06-Dec-15		7.3	0.002	0.0001	<0.001	0.016	0.022	<0.0001	<0.001	0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 2_1.0-2.0 VOIDVOL 2	06-Dec-15	1.0-2.0	8.3	0.001	<0.0001	<0.001	0.015	0.017	<0.0001	<0.001	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 2_1.0-2.0 VOIDVOL 4	06-Dec-15		10.3	0.001	<0.0001	<0.001	0.012	0.012	<0.0001	<0.001	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 2_1.0-2.0 VOIDVOL 8	06-Dec-15		14.3	0.001	<0.0001	<0.001	0.011	0.011	<0.0001	<0.001	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 3_0-1.0	06-Dec-15		8.6	0.005	<0.0001	0.002	0.012	<0.001	0.0001	<0.001	<0.005	<0.05	0.2	<0.1	0.2	<0.05	0.2	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	380
BULK 3_0-1.0 VOIDVOL 1	06-Dec-15		9.6	0.002	<0.0001	<0.001	0.008	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 3_0-1.0 VOIDVOL 2	06-Dec-15	0.0-1.0	10.6	0.002	<0.0001	<0.001	0.007	<0.001	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 3_0-1.0 VOIDVOL 4	06-Dec-15		12.6	0.002	<0.0001	<0.001	0.006	0.002	<0.0001	<0.001	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 3_0-1.0 VOIDVOL 8	06-Dec-15		16.6	0.002	<0.0001	<0.001	0.006	0.004	<0.0001	<0.001	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 3_1.0-2.0	06-Dec-15		7.6	<0.001	<0.0001	<0.001	0.006	<0.001	<0.0001	0.005	0.022	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	495
BULK 3_1.0-2.0 VOIDVOL 1	06-Dec-15		8.6	<0.001	0.0001	0.001	0.004	<0.001	<0.0001	0.003	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 3_1.0-2.0 VOIDVOL 2	06-Dec-15	1.0-2.0	9.6	<0.001	<0.0001	0.002	0.004	<0.001	<0.0001	0.001	0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 3_1.0-2.0 VOIDVOL 4	06-Dec-15		11.6	<0.001	<0.0001	<0.001	0.003	<0.001	<0.0001	<0.001	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BULK 3_1.0-2.0 VOIDVOL 8	06-Dec-15		15.6	<0.001	<0.0001	<0.001	0.003	<0.001	<0.0001	<0.001	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix C JBS&G (2016d) Soil Vapour Factual Data Report

JBS&G 51142/104056
L006 (Locomotive Workshop Soil Vapour Assessment) Rev 0

27 May 2016

Barry Steedman
Mirvac Projects Pty Ltd
Via email: barry.steedman@mirvac.com

Locomotive Workshop Soil Vapour – Factual Data Report

Dear Barry,

1. Introduction and Background

JBS&G Australia Pty Ltd (JBS&G) has been engaged by Mirvac Projects Pty Ltd (Mirvac, the client) to provide environmental consultancy services associated with the remediation and redevelopment of a portion of the Australian Technology Park (ATP), herein referred to as the site (**Figures 1** and **2**, **Attachment 2**). The site is legally identified as Lots 8, 9, 12 in Deposited Plan (DP) 1136859, Part Lot 13 in DP 1136859 and Part Lot 10 in DP 1136859 (**Figure 3, Attachment 2**) and occupies an area of 11.6 ha. The site includes the Locomotive Workshop, public roads/domains (road reserves and pedestrian easements, recreational facilities and the eastern most extent of Lot 10 DP 1136859) and Developable Lots (Lots 8, 9 and 12). With the notable exception of the Locomotive Workshop, the footprints of existing ATP precinct structures (including the International Business Centre, National Innovation Centre, Traffic Management Centre (formally the RTA Building), Ambulance Service Building and Biomedical Building footprints) within Lot 13 in DP 113659 fall outside the site boundaries, as shown on **Figure 2** (**Attachment 2**).

It is understood that indoor air monitoring has been completed annually at the ATP since 2012. The monitoring has been undertaken as a precautionary measure in the absence of subsurface soil and groundwater characterisation below building footprints. As documented in JBS&G (2015a[1]), elevated sub-slab soil vapour trichloroethlene (TCE) concentrations have been reported underlying Bays 5 and 6 of the Locomotive Workshop at sample locations SVE and SVF (**Figure 4**, **Attachment 2**). However, ambient air quality results from within the building collected as part of ongoing environmental management plan (EMP, ES 2015a[2]) requirements were all below the adopted assessment criteria. As such, no current risk from sub-slab vapour conditions has been reported, however, additional assessment of sub-slab vapour conditions underlying the Locomotive Workshop has been requested by the Site Auditor to support ongoing management or change to the EMP (ES 2015a), if necessary.

It is understood the Locomotive Workshop is proposed for adaptive commercial land use (excluding a childcare centre or similar) which will largely involve interior remodelling while retaining the current slab and ventilation systems.

1 *Mirvac Projects Pty Ltd – Australian Technology Park Detailed Site Assessment. 2 Locomotive Street, Eveleigh NSW*. JBS&G Australia Pty Ltd dated 9 December 2015 (JBS&G 2015a)

2 *Environmental Management Plan, Australian Technology Park, Eveleigh NSW*. Environmental Strategies Pty Ltd dated August 2015 Revision 0 (ES 2015a)

As part of JBS&G's engagement, Mirvac has requested JBS&G undertake a sub-slab soil assessment within the Locomotive Workshop to address the Site Auditors comments. This letter report documents sub-slab soil vapour assessment activities within the Locomotive Workshop.

2. Scope and Objective

The objective of the investigation is to document the concentration of soil vapour contaminants underlying the Locomotive Workshop. The results of the investigation will be used to assist in the preparation of a subsequent human health risk assessment for proposed redevelopment of the site.

The scope of works completed for this assessment comprised:

- Installation of twenty seven systematic sub-slab soil vapour points on an approximately 30 m grid across the Locomotive Workshop, sample collection, and subsequent laboratory analysis at a National Association of Testing Authority (NATA) certified laboratory for volatile organic compounds (VOC);
- Subsequent to receipt of the certificates of analysis of the initial sampling event , installation of six targeted sub-slab soil vapour locations, sample collection and laboratory analysis at a NATA certified laboratory for VOCs to assist in plume delineation / source identification in areas of elevated VOC concentrations; and
- Preparation of a factual letter report summarising the results of the sampling and analysis.

3. Site History and Setting

A detailed review of the site setting and history is presented in JBS&G (2015a). Relevant information to this assessment is summarised herein.

3.1 Locomotive Workshop Location and Description

The Locomotive Workshop (the assessment area) is located within the northern site extent in Lot 13 DP 1136859 and occupies and area of approximately 2.4 hectares (ha).

The Locomotive Workshop is a large heritage listed masonry and steel former railway building, which has undergone adaptive reuse in recent years for commercial purposes. With the notable exception of Bays 1 and 2 (Blacksmith and heritage room) within the Locomotive Workshop, based on advanced sample locations (**Figure 5**, **Attachment 2**) the concrete slab floor varies in thickness ranging from 0.4 m to 0.7 m and was noted to be in good condition with no observed cracks or fissures.

Within Bays 1 and 2 (Blacksmith and heritage room) ground surface treatments comprised a combination of gravels / crushed concrete (approximately 0.5 m in thickness) and / or asphaltic hardstands.

4. Methodology

4.1 Soil Vapour Sampling Methodology

The following methodology was adopted for the installation of sub-slab vapour points:

- Core concrete slab (20 mm diameter); and
- Place 6 mm Teflon tubing fixed with a Teflon sample tip and steel wool filter into the core hole to below the base of the slab, then seal the core hole with air-drying clay and a cementitious grout. The sub-slab point was purged immediately following installation.

The following methodology was adopted for the sampling of sub-slab vapour points:

- Purge the sub-slab vapour point using a calibrated photo-ionisation detector (PID) (10.6 eV lamp) and multi-gas meter to measure and record oxygen, carbon dioxide and methane concentrations until the parameters stabilise;
- To assess for leaks, place a rag saturated with Isopropyl alcohol around the probe / tubing at the ground surface and continue purging with the PID. If PID readings increase significantly this indicates a potential leak and additional measures were taken to adequately seal the point;
- Removal of tips from a carbon sorbent tube and connection to vapour point tubing. The ddownstream end of carbon sorbent tube was connected to a closed three-way valve and syringe of known volume (150 mL);
- Collect an approximate 6 litre volume vapour sample using the syringe to drawi vapour through the carbon sorbent tube, using the three-way valve to prevent back-flow from the syringe through the tube;
- Use an isopropyl alcohol saturated rag around the sub-slab core hole throughout purging and sampling to assess for potential leaks;
- Disassemble syringe and tubing, remove carbon tube, replace tube caps and place in Zip-Lock bag; and
- Submit carbon tube for VOC analysis as per **Table A** (**Attachment 3**)**.**

Field notes documenting the sampling event are included in **Attachment 4**.

4.2 Laboratory Analysis

Eurofins / MGT (Eurofins) was the laboratory contracted for chemical analysis. Eurofins were NATA registered for the requested analysis at the time of analysis. Eurofins undertook internal Quality Assurance (QA) procedures in accordance with their NATA registration. In addition, the laboratories were required to meet JBS&G's internal Quality Assurance / Quality Control (QA/QC) requirements. Laboratory analytical reports are included in **Attachment 5**.

4.3 Quality Assurance / Quality Control

The pre-determined data quality indicators (DQIs) established for the project are discussed below in relation to precision, accuracy, representativeness, comparability, completeness and sensitivity (PARCCS parameters) (**Table 4.1**).

- Precision - measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples.
- Accuracy - measures the bias in a measurement system. The accuracy of the laboratory data that is generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- Representativeness –expresses the degree which sample data accurately and precisely represents a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.

- Comparability - expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- Completeness – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.
- Sensitivity – expresses the appropriateness of the chosen laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

Table 4.1: Summary of Quality Assurance / Quality Control Program (carbon tubes)

Data Quality Indicator	Frequency	DQI Target
Precision		
Blind duplicates (intra-laboratory)	1/20 samples	<50% RPD
Equipment blank	1/sampling event	<LOR
Accuracy		
Surrogate spikes	All organic samples	70-130% recovery
Laboratory control samples	1 per lab batch or 20 samples	70-130% recovery
Representativeness		
Sampling appropriate for media and analytes	All samples	-
Laboratory blanks	1 per lab batch	<LOR
Samples extracted and analysed within holding times	All samples	-
Comparability		
Standard operating procedures used for sample collection and handling	All samples	All samples
Standard analytical methods used for all analyses	All samples	All samples
Consistent field conditions, field staff and laboratories	All works	All works
Limits of reporting appropriate and consistent	All samples	All samples
Completeness		
Field forms description and COCs completed and appropriate	All samples	All samples
Appropriate documentation completed	All works	All works
Satisfactory frequency and result for QC samples	All samples	All samples
Data from critical samples is considered valid	-	Critical samples valid
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted Site assessment criteria	All Samples	LOR<= Site assessment criteria

1 Relative percent difference

If any of the DQIs are not met, further assessment will be necessary to determine whether the non-conformance will significantly affect the usefulness of the data. Corrective actions may include requesting further information from samplers and / or analytical laboratories, downgrading of the quality of the data or alternatively, re-collection of the data.

5. Summary of QA / QC Results

5.1 QA / QC Results

The QA / QC results are summarised in **Table 5.1**, presented in **Attachment 6** and discussed in **Section 5.2.** Laboratory certificates of analysis are provided in **Attachment 5**.

Table 5.1: Data Quality Indicators

Data Quality Indicator	Frequency	Results Reported	DQI Compliance
Precision			
Blind duplicates	3 / 33 samples analysed (9%)	0 %-135 %	Partial[1]
Equipment blank	1 / sampling event	<LOR	Yes
Accuracy			
Laboratory control samples	1 per lab batch or 20 samples	70% - 130 % recovery	Yes
Leak detection	All samples	<LOR	Yes
Representativeness			
Sampling appropriate for media and analytes	All samples	All sampling conducted in accordance with JBS&G procedures	Yes
Laboratory blanks	1 per lab batch	<LOR	Yes
Samples extracted and analysed within holding times	All samples	All samples extracted and analysed within holding times	Yes
Comparability			
Standard operating procedures used for sample collection and handling	All samples	Field staff used same standard operating procedures throughout works	Yes
Standard analytical methods used for all analyses	All samples	Standard analytical methods used as detailed in **Appendix M**	Yes
Consistent field conditions, field staff and laboratories	All works	Sampling was conducted by field staff members using standard operating procedures in the same conditions throughout the works. The laboratory remained consistent throughout the investigation.	Yes
Limits of reporting appropriate and consistent	All samples	Limits of reporting were consistent and appropriate.	Yes
Completeness			
Description and COCs completed and appropriate	All samples	All bore logs, field reporting forms and chain of custody were completed appropriately.	Yes
Appropriate documentation completed	All works	All appropriate field documentation is included in the Appendices.	Yes
Satisfactory frequency and result for QC samples	All samples	The QC results are considered adequate for the purposes of the investigation.	Yes
Data from critical samples is considered valid	-	Critical samples valid	Yes
Sensitivity			
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All works	Analytical methods and limits of recovery were considered appropriate for media and adopted site assessment criteria for all analytes.	Yes

5.2 QA / QC Discussion

5.2.1 Precision

Blind Duplicates (intra laboratory)

Soil vapour field blind (intra-laboratory) duplicates were collected at a rate of greater than 1 per 20 primary samples analysed, meeting the 1/20 DQI frequency (for blind duplicates). Blind (intra laboratory) duplicates for soil vapour RPDs were all within the acceptable JBS&G acceptable limit (0 % – 50 %), with the exception of samples:

- SV32_FRONT (0.4333 mg/m^3) and QC03-SV_FRONT (<0.0833 mg/m^3) with a Tetrachloroethene RPD of 135 %; and
- SV32_FRONT (0.2333 mg/m^3) and QC03-SV_FRONT (<0.0833 mg/m^3) with a trans-1,3-dichloropropene RPD of 95 %.

Elevated RPD calculations may be attributed to contaminant thresholds concentration being close to the LOR which results in disproportionally large RPDs. As a conservative measure, the higher reported concentration between the primary and duplicate sample will be considered.

Equipment Blank

An equipment blank was submitted with each laboratory batch. The results for all equipment blanks were less than the laboratory limit of reporting indicating the sampling methodology was not contributing the analytical results.

5.2.2 Accuracy

Surrogate Spikes

All laboratory control sample recoveries for vapour samples were compliant with DQIs and within the acceptable JBS&G acceptable limit (70 % – 130 %)

Leak Detection

Leak detection was conducted as per **Section 4.2**. No leaks were identified by the PID during sampling as further evidenced by the lowest possible detection limits being achieved, the absence of any analytes in laboratory results and the absence in the laboratory analysis results of any levels of Isopropyl alcohol.

5.2.3 Representativeness

Laboratory Blank

Results for all laboratory blanks for vapour samples were less than the limit of reporting indicating the analytical methods were not contributing to the analytical values reported.

Sampling Appropriate for Media and Analytes

Soil vapour sampling was undertaken appropriately. Soil vapour probes were correctly installed, sealed and leak detection was performed. The SKC Anasorb CSC tubes used were appropriate for the contaminant of concern (VOCs). Flow rate and total volume for each sample was recorded.

Holding Times

All analytes were undertaken within the holding times. Copies of laboratory sample receipts are included in **Attachment 5**.

5.2.4 Comparability

Samples were transported under full chain of custody documentation. The chain of custody documentation was completed correctly and the selected analyses were correctly conducted.

The frequency of analysis and result for all QC samples are appropriate.

5.2.5 Sensitivity

Laboratory analysis methods for all contaminants in soil vapour adopted during the investigation used limits of reporting less than the adopted assessment criteria.

5.2.6 Assessment of QA/QC

The results of the field and laboratory QA / QC program indicates the data obtained from the vapour sampling undertaken by JBS&G for this investigation are considered reliable and representative of the vapour conditions beneath the Locomotive Workshop during the time of sampling.

6. Results

6.1 Field Parameters and Observations

As discussed in **Section 2**, the assessment works comprised installation of twenty seven systematic sub-slab soil vapour points on an approximately 30 m grid across the Locomotive Workshop, sample collection, and subsequent laboratory analysis for VOC. Subsequent to receipt of the certificates of analysis of the initial sampling event , six targeted sub-slab soil vapour locations were installed, sampled, and submitted for VOC analysis.

During purging, oxygen levels were found to range from 5.8 % to 21.1 %, PID ranged from 0.0 to 2.1 ppm, CO^2 ranged from 0 % to 4.9 % and methane ranged from 0 to 2 % in all probes. Each probe was purged for a minimum of 30 seconds with an MX6. Field notes are present in **Attachment 4**.

The concrete slab of the Locomotive Workshop ranged in thickness from approximately 0.4 m to 0.7 m and was noted to be in good repair.

Within Bays 1 and 2 (Blacksmith and heritage room) ground surface treatments comprised a combination of gravels / crushed concrete (approximately 0.5 m in thickness) and / or asphaltic hardstands.

6.2 Soil Vapour Analytical Results

Soil vapour analytical results are summarised in **Table A** (**Attachment 6**). Detailed laboratory reports are provided in **Attachment 4**. Sampling locations are shown on **Figure 5** (**Attachment 2**).

7. Conclusion

The completed soil vapour monitoring comprised twenty seven systematic and six targeted sub-slab soil vapour sampling locations, sample collection and subsequent laboratory analysis for VOCs at a NATA accredited laboratory.

The sampling procedures utilised for the investigation are considered appropriate for the chemical constituents analysed. The field and laboratory QA / QC program indicates that the data obtained from the sampling and analysis can be considered appropriately accurate for the objectives of the assessment – that is, the results of the investigation are considered reliable to assist in the preparation of a human health risk assessment for the site, specifically soil vapour conditions beneath the Locomotive Workshop.

8. Recommendations

It is recommended that the data is included in the human health risk assessment in accordance with the QA/QC discussion provided in this report.

Should you require clarification, please contact the undersigned on 02 8245 0300 or by email ncussen@jbsg.com.au.

Yours sincerely:



Nathan Cussen
Senior Consultant
JBS&G Australia Pty Ltd

Reviewed/Approved by:



Andrew Lau
Principal, Contaminated Land
JBS&G Australia Pty Ltd

Attachments:
1) Limitations
2) Figures
3) Table A: Summary of Analytical Results
4) Field Data Sheets
5) Laboratory Certificates of Analysis
6) Tabulated QA/QC Data

Attachment 1 – Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

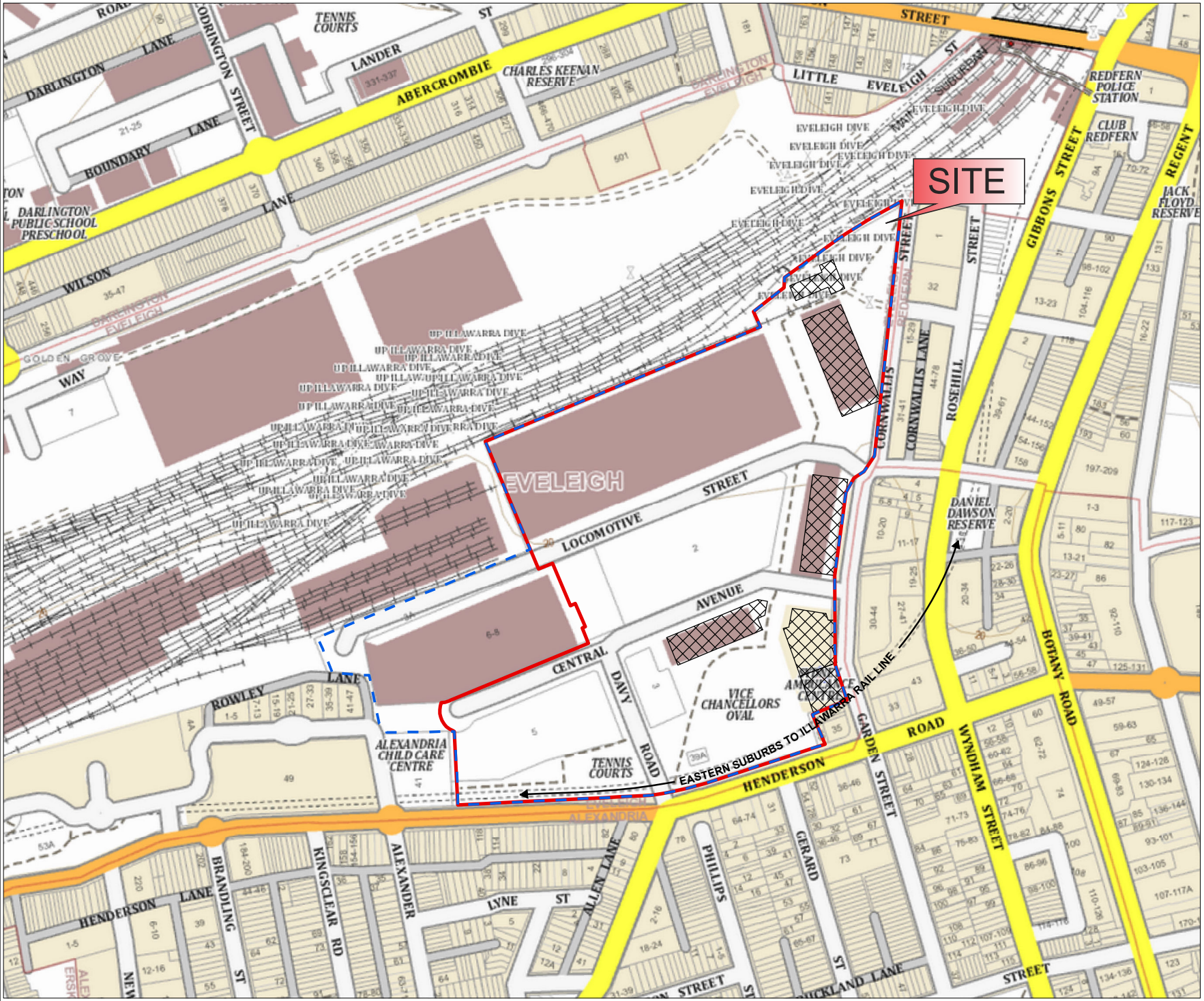
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Attachment 2 – Figures



Legend:

- Approximate Boundary - ATP Precinct
- Approximate Boundary - The Site
- Existing Building Footprint Excluded from "The Site"

JBS&G

Job No: 51142

Client: Mirvac

Version: L06 Rev 0	Date: 25-May-2016
Drawn By: SE	Checked By: NC

Scale 1:4,500

0 50 100
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SITE LOCATION

FIGURE 1:

File Name: 51142_01
Reference: https://maps.six.nsw.gov.au/



Legend:

- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Existing Building Footprint Excluded from "The Site"
- UST (Inferred Historical Location)

JBS&G

Job No: 51142

Client: Mirvac

Version: L06 Rev 0	Date: 25-May-2016
Drawn By: SE	Checked By: NC

Scale 1:3,500

0 40 80
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

SITE LAYOUT

FIGURE 2:

File Name: 51142_02
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

ID	Easting	Northing
1	333302.989	6248006.382
2	333293.067	6247933.754
3	333293.439	6247856.397
4	333303.771	6247825.047
5	333273.907	6247812.619
6	333284.633	6247786.774
7	333132.920	6247742.202
8	332964.732	6247733.630
9	332961.638	6247797.811
10	332950.268	6247822.948
11	333078.318	6247874.821
12	333047.076	6247944.192
13	333035.035	6247939.195
14	332988.564	6248050.651
15	333228.276	6248150.135
16	333222.423	6248163.545
17	333249.014	6248184.579
18	333249.411	6248193.311
19	333351.804	6248259.986
20	333327.992	6248038.132
21	333318.864	6248024.242
22	333309.736	6248018.685



Legend:

- Approximate Boundary - ATP Site
- Cadastral Boundaries
- Approximate Boundary - The Site
- Existing Building Footprint Excluded from "The Site"

Lot and DP Boundaries

- Lot 8 DP1136859
- Lot 9 DP1136859
- Lot 10 DP1136859
- Lot 12 DP1136859
- Lot 13 DP1136859
- Site Coordinate Location

JBS&G

Job No: 51142

Client: Mirvac

Version: L06 Rev 0	Date: 25-May-2016
Drawn By: RF	Checked By: NC

Scale 1:2,500

0 40 80
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park
Eveleigh, NSW

CADASTRE - LOT AND DP LOCATION

FIGURE 3:

File Name: 51142_03
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

SVE	Date	Concentration	Criteria
Analyte			
TCE	Dec-14	0.235 mg/m³	HIL D
TCE	Apr-15	0.117 mg/m³	HIL D

SVF	Date	Concentration	Criteria
Analyte			
TCE	Dec-14	0.307 mg/m³	HIL D

AREA 1
AREA 2
AREA 3
AREA 4
AREA 5
AREA 6
AREA 7

S1 S2 S3 S4 S5 S6 S7 S8 S9 S10
SVE SVF
LB Air 7 LB Air 8 LB Air 13 LB Air 14 LB Air 15

Legend:

Historical Ambient Air and Soil Vapour Locations

- Ambient Air DP 2010c
- Ambient Air ES 2015a
- Soil Vapour ES 2015a
- Approximate Boundary - ATP Site
- Approximate Boundary - The Site
- Cadastral Boundaries
- Existing Building Footprint Excluded from "The Site"

Development Area - Lot 13

- AREA 1
- AREA 2
- AREA 3
- AREA 4
- AREA 5
- AREA 6
- AREA 7

JBS&G

Job No: 51142

Client: Mirvac

Version: L06 Rev 0 | Date: 25-May-2016

Drawn By: SE | Checked By: NC

Scale 1:2,000

0 40
metres

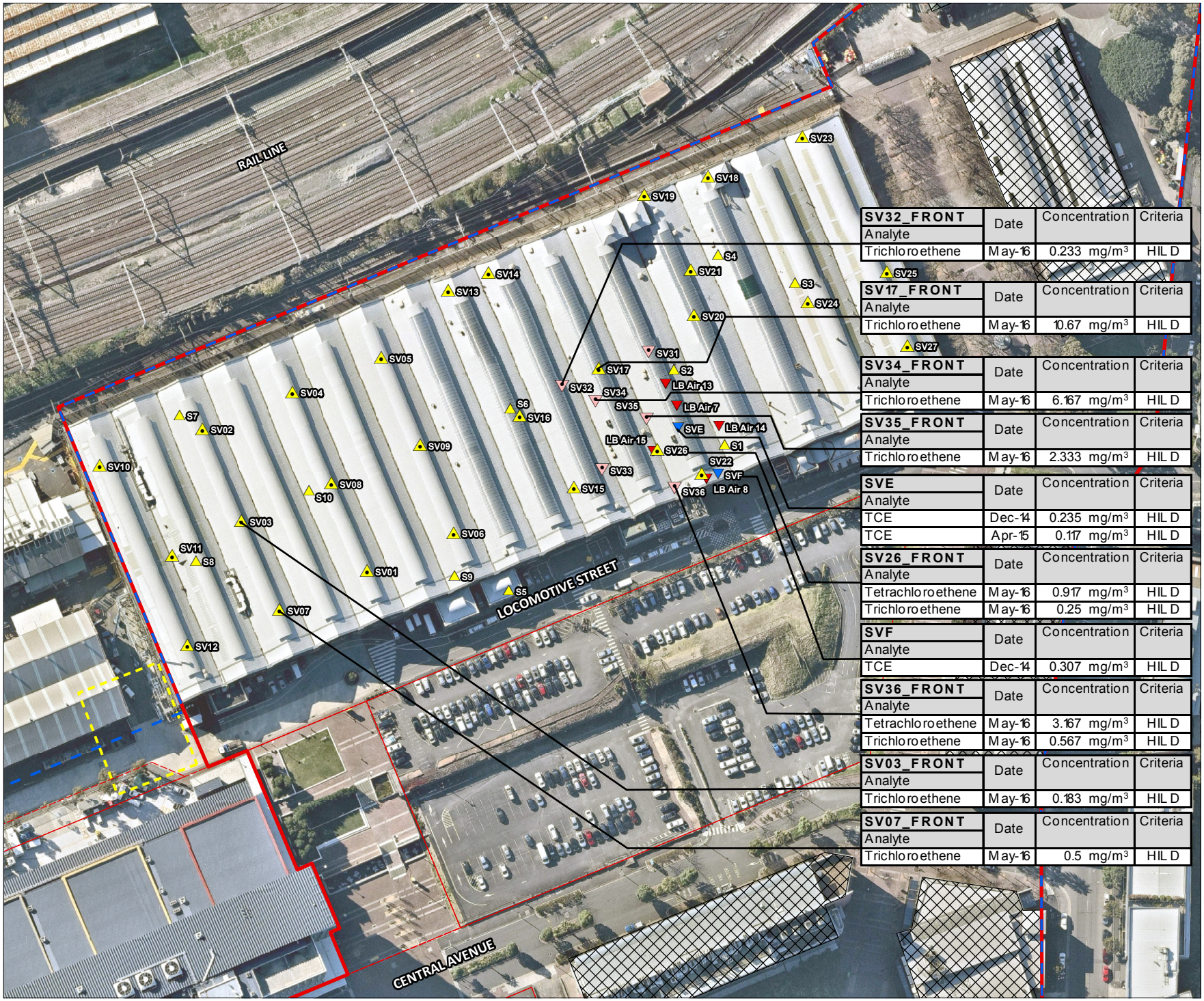
Coord. Sys. GDA 1994 MGA Zone 56

Australia Technology Park Eveleigh, NSW

HISTORIC SOIL VAPOUR SAMPLE LOCATIONS LOT 13

FIGURE 4:

Document Path: G:\JBS Environmental\Projects\Mirvac\51142 ATP Validation\GIS\Maps\L06 Rev 0\51142_04.mxd
Reference:



SV32_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	0.233 mg/m³	HIL D

SV17_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	10.67 mg/m³	HIL D

SV34_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	6.167 mg/m³	HIL D

SV35_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	2.333 mg/m³	HIL D

SVE	Date	Concentration	Criteria
Analyte			
TCE	Dec-14	0.235 mg/m³	HIL D
TCE	Apr-15	0.117 mg/m³	HIL D

SV26_FRONT	Date	Concentration	Criteria
Analyte			
Tetrachloroethene	May-16	0.917 mg/m³	HIL D
Trichloroethene	May-16	0.25 mg/m³	HIL D

SVF	Date	Concentration	Criteria
Analyte			
TCE	Dec-14	0.307 mg/m³	HIL D

SV36_FRONT	Date	Concentration	Criteria
Analyte			
Tetrachloroethene	May-16	3.167 mg/m³	HIL D
Trichloroethene	May-16	0.567 mg/m³	HIL D

SV03_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	0.183 mg/m³	HIL D

SV07_FRONT	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	0.5 mg/m³	HIL D

Legend:

- Approximate Boundary - ATP Precinct
- Approximate Boundary - The Site
- Cadastral Boundaries
- Existing Building Footprint Excluded from "The Site"
- UST (Inferred Historical Location)
- Soil Vapour Location - May 5-6 2016
- Soil Vapour Location - May 20 2016

Historical Ambient Air and Soil Vapour Locations

- Ambient Air DP 2010c
- Ambient Air ES 2015a
- Soil Vapour ES 2015a

JBS&G

Job No: 51142

Client: Mirvac

Version: L06 Rev 0	Date: 25-May-2016
Drawn By: SE	Checked By: NC

Scale 1:1,600

0 20 40
metres

Coor. Sys. GDA 1994 MGA Zone 56

Australia Technology Park Eveleigh, NSW

SOIL VAPOUR LOCATIONS AND EXCEEDANCES

FIGURE 5:

File Name: 51142_05
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

Attachment 3 – Table A: Summary of Analytical Results

Table A: Soil Vapour Analytical Results
Project Number: ATP Soil Vapour
Project Name: 51142

				Org. Alcohols	Chlorinated Alkanes																	Chlorinated Alkenes									
				Isopropyl alcohol	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2-trichloroethane	1,1,2,2-tetrachloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Carbon tetrachloride	Chloroform	dibromochloromethane	Trichlorofluoromethane	1,1-Dichloroethene	1,1-dichloropropene	2-chlorotoluene	Tetrachloroethene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride
				mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL				1.67	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
NEPM 2013 HIL Comm/Ind. D Indoor Air (Attenuation Factor 0.1)						23[#2]																			0.8[#2]		0.03[#2]			0.008[#2]	0.01[#2]
NEPM 2013 HIL Comm/Ind. D Soil Vapour						230																			8		0.3			0.08	0.1
NEPM 2013 Soil Vapour HSL D - Sand 0 to <1m																															
Field_ID	**Date**	**SampleCode**	**Lab #**																												
MAY 5-6, 2016																															
SV01_BACK	4-05-2016	S16-My06799	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV01_FRONT	4-05-2016	S16-My06798	499538	<1.667	<0.08334	0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV02_BACK	4-05-2016	S16-My06801	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV02_FRONT	4-05-2016	S16-My06800	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV03_BACK	4-05-2016	S16-My06803	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV03_FRONT	4-05-2016	S16-My06802	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	0.3333	<0.08334	<0.08334	<0.08334	<0.08334	0.1833	<0.08334
SV04_BACK	4-05-2016	S16-My06805	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV04_FRONT	4-05-2016	S16-My06804	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QCO1_BACK	4-05-2016	S16-My06853	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QCO1_FRONT	4-05-2016	S16-My06852	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV05_BACK	4-05-2016	S16-My06807	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV05_FRONT	4-05-2016	S16-My06806	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV06_BACK	4-05-2016	S16-My06809	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV06_FRONT	4-05-2016	S16-My06808	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV07_BACK	4-05-2016	S16-My06811	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV07_FRONT	4-05-2016	S16-My06810	499538	<1.667	<0.08334	1.1	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	0.7667	<0.08334	<0.08334	<0.08334	<0.08334	0.5	<0.08334
SV08_BACK	4-05-2016	S16-My06813	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV08_FRONT	4-05-2016	S16-My06812	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV09_BACK	4-05-2016	S16-My06815	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV09_FRONT	4-05-2016	S16-My06814	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV10_BACK	4-05-2016	S16-My06817	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV10_FRONT	4-05-2016	S16-My06816	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV11_BACK	4-05-2016	S16-My06819	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV11_FRONT	4-05-2016	S16-My06818	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV12_BACK	4-05-2016	S16-My06821	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV12_FRONT	4-05-2016	S16-My06820	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV13_BACK	4-05-2016	S16-My06823	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV13_FRONT	4-05-2016	S16-My06822	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV14_BACK	4-05-2016	S16-My06825	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV14_FRONT	4-05-2016	S16-My06824	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV15_BACK	4-05-2016	S16-My06827	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV15_FRONT	4-05-2016	S16-My06826	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV16_BACK	5-05-2016	S16-My06829	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV16_FRONT	5-05-2016	S16-My06828	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV17_BACK	5-05-2016	S16-My06831	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV17_FRONT	5-05-2016	S16-My06830	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	10.67	<0.08334
SV18_BACK	5-05-2016	S16-My06833	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV18_FRONT	5-05-2016	S16-My06832	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV19_BACK	5-05-2016	S16-My06835	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV19_FRONT	5-05-2016	S16-My06834	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV20_BACK	5-05-2016	S16-My06837	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV20_FRONT	5-05-2016	S16-My06836	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QCO2_BACK	5-05-2016	S16-My06855	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QCO2_FRONT	5-05-2016	S16-My06854	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV21_BACK	5-05-2016	S16-My06839	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV21_FRONT	5-05-2016	S16-My06838	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV22_BACK	5-05-2016	S16-My06841	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV22_FRONT	5-05-2016	S16-My06840	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	0.1667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV23_BACK	5-05-2016	S16-My06843	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV23_FRONT	5-05-2016	S16-My06842	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV24_BACK	5-05-2016	S16-My06845	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV24_FRONT	5-05-2016	S16-My06844	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV25_BACK	5-05-2016	S16-My06847	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV25_FRONT	5-05-2016	S16-My06846	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV26_BACK	5-05-2016	S16-My06849	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV26_FRONT	5-05-2016	S16-My06848	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	0.9167	<0.08334	<0.08334	<0.08334	<0.08334	0.25	<0.08334
SV27_BACK	5-05-2016	S16-My06851	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV27_FRONT	5-05-2016	S16-My06850	499538	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
MAY 20, 2016																															
SV31_BACK	20-05-2016	S16-My20993	501366	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV31_FRONT	20-05-2016	S16-My20992	501366	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV32_BACK	20-05-2016	S16-My20995	501366	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV32_FRONT	20-05-2016	S16-My20994	501366	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	0.4333	<0.08334	<0.08334	<0.08334	<0.08334	0.2333	<0.08334
QC03-SV_BACK	20-05-2016	S16-My21007	501366	<1.667	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0

Table A: Soil Vapour Analytical Results
Project Number: ATP Soil Vapour
Project Name: 51142

					BTEX				PAHs	Monocyclic Aromatic Hydrocarbons									Misc. Hydrocarbons			Chlorinated Benzenes						Misc. Ind. Chem.
					Benzene	Ethylbenzene	Toluene	Xylene (Total)	Naphthalene	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	Bromoform	Dibromomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	Chlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobutadiene
					mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL					0.08	0.08	0.08	0.25	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.83	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
NEPM 2013 HIL Comm/Ind. D Indoor Air (Attenuation Factor 0.1)																												
NEPM 2013 HIL Comm/Ind. D Soil Vapour																												
NEPM 2013 Soil Vapour HSL D - Sand 0 to <1m					4	1300	4800	840	3																			
Field_ID	**Date**	**SampleCode**	**Lab #**																									
MAY 5-6, 2016																												
SV01_BACK	4-05-2016	S16-My06799	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV01_FRONT	4-05-2016	S16-My06798	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV02_BACK	4-05-2016	S16-My06801	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV02_FRONT	4-05-2016	S16-My06800	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV03_BACK	4-05-2016	S16-My06803	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV03_FRONT	4-05-2016	S16-My06802	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV04_BACK	4-05-2016	S16-My06805	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV04_FRONT	4-05-2016	S16-My06804	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QC01_BACK	4-05-2016	S16-My06853	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QC01_FRONT	4-05-2016	S16-My06852	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV05_BACK	4-05-2016	S16-My06807	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV05_FRONT	4-05-2016	S16-My06806	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV06_BACK	4-05-2016	S16-My06809	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV06_FRONT	4-05-2016	S16-My06808	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV07_BACK	4-05-2016	S16-My06811	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV07_FRONT	4-05-2016	S16-My06810	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV08_BACK	4-05-2016	S16-My06813	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV08_FRONT	4-05-2016	S16-My06812	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV09_BACK	4-05-2016	S16-My06815	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV09_FRONT	4-05-2016	S16-My06814	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV10_BACK	4-05-2016	S16-My06817	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV10_FRONT	4-05-2016	S16-My06816	499538	<0.08334	0.8167	0.3667	5.667	<0.08334	4.5	2.667	0.4	0.4333	0.4	1.117	0.5167	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV11_BACK	4-05-2016	S16-My06819	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV11_FRONT	4-05-2016	S16-My06818	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	0.1167	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV12_BACK	4-05-2016	S16-My06821	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV12_FRONT	4-05-2016	S16-My06820	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV13_BACK	4-05-2016	S16-My06823	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV13_FRONT	4-05-2016	S16-My06822	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV14_BACK	4-05-2016	S16-My06825	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV14_FRONT	4-05-2016	S16-My06824	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV15_BACK	4-05-2016	S16-My06827	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV15_FRONT	4-05-2016	S16-My06826	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV16_BACK	5-05-2016	S16-My06829	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV16_FRONT	5-05-2016	S16-My06828	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV17_BACK	5-05-2016	S16-My06831	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV17_FRONT	5-05-2016	S16-My06830	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV18_BACK	5-05-2016	S16-My06833	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV18_FRONT	5-05-2016	S16-My06832	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV19_BACK	5-05-2016	S16-My06835	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV19_FRONT	5-05-2016	S16-My06834	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV20_BACK	5-05-2016	S16-My06837	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV20_FRONT	5-05-2016	S16-My06836	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QC02_BACK	5-05-2016	S16-My06855	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QC02_FRONT	5-05-2016	S16-My06854	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV21_BACK	5-05-2016	S16-My06839	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV21_FRONT	5-05-2016	S16-My06838	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV22_BACK	5-05-2016	S16-My06841	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV22_FRONT	5-05-2016	S16-My06840	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV23_BACK	5-05-2016	S16-My06843	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV23_FRONT	5-05-2016	S16-My06842	499538	<0.08334	<0.08334	0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV24_BACK	5-05-2016	S16-My06845	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV24_FRONT	5-05-2016	S16-My06844	499538	<0.08334	<0.08334	0.25	0.4333	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV25_BACK	5-05-2016	S16-My06847	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV25_FRONT	5-05-2016	S16-My06846	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV26_BACK	5-05-2016	S16-My06849	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV26_FRONT	5-05-2016	S16-My06848	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV27_BACK	5-05-2016	S16-My06851	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV27_FRONT	5-05-2016	S16-My06850	499538	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
MAY 20, 2016																												
SV31_BACK	20-05-2016	S16-My20993	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV31_FRONT	20-05-2016	S16-My20992	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV32_BACK	20-05-2016	S16-My20995	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV32_FRONT	20-05-2016	S16-My20994	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QC03-SV_BACK	20-05-2016	S16-My21007	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
QC03-SV_FRONT	20-05-2016	S16-My21006	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV33_BACK	20-05-2016	S16-My20997	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV33_FRONT	20-05-2016	S16-My20996	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV34_BACK	20-05-2016	S16-My20999	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV34_FRONT	20-05-2016	S16-My20998	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV35_BACK	20-05-2016	S16-My21001	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
SV35_FRONT	20-05-2016	S16-My21000	501366	<0.08334	<0.08334	<0.08334	<0.25	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.8334	<0.08334	<0.08334	<0.08334

Attachment 4 – Field Data Sheets

Gas Sampling Form

JBS&G

Project Number:	51142	**Date:**	May-16	**Sampler/s:**	RH / EH
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	Fine
Well ID/Grid Area:	SV01 + SV02	**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
8:58	SV01				0	0	17.9			0
8:59	↓				0	0	17.2			0
9:00					0	0	16.8			0
9:01					6	8.04	16.5			0
9:02					0	007	164			0
9:03					0	016	16.3			0
9:04					0	0.22	16.2			0
9:46	SV02				0	0	19.2			0
9:47	↓				0	0.04	18.9			0
9:48					0	0.09	18.9			0
9:49					0	0.10	18.9			0
9:50					0	0.13	18.8			0
9:51					0	0.16	18.8			0
9:52					0	0.16	18.8			0

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

Gas Sampling Form

JBS&G

Project Number:	51142	**Date:**	May-16	**Sampler/s:**	RH / EH
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	Fine
Well ID/Grid Area:	SV03+SV04+SV06	**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
10:42	SV03				0	0.50	19.1			0
10:43					0	0.56	19.0			0
10:44					0	0.59	18.9			0
10:45					0	0.62	18.8			0
10:46					0	0.65	18.8			0.1
10:47					0	0.68	18.7			0.1
11:01	SV04 = QC01				0	1.76	8.1			0
11:02					0	4.10	6.9			0
11:03					0	4.5	6.4			0
11:04					0	OR	8.2			0
11:05					0	OR	5.8			0
						0				
11:37	SV06				0	0.19	17.2			0
11:38					0	0.68	16.9			0
11:39					0	0.90	16.7			0
11:40					0	0.99	16.6			0
11:41					0	1.08	16.6			0

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

SV04 = QC01

Gas Sampling Form

JBS&G

Project Number:	51142	**Date:**	May-18	**Sampler/s:**	(RH) / EH
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	Fine
Well ID/Grid Area:	SV05	**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
11:15	SV05				0	0.00	20.8			0
11:16						1.05	18.30			0
11:17						1.78	16.31			0
11:18						3.91	11.01			0
11:19						OR	10.7			0
11:20						OR	10.4			0
12:15	SV09				0	0.00	20.3			0
12:16					0	0.00	16.1			0
12:17						0.00	15.5			0
12:18						0.00	14.9			0
12:19						0.00	14.7			0
12:20						0.00	14.5			0

SV09

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

No odours, wind or moisture

Gas Sampling Form

Project Number:	51142	**Date:**	May-18	**Sampler/s:**	RH / EH
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	
Well ID/Grid Area:	SV07	**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
11:56	SV07				0	0.07	17.7			0
11:57	↓				0	0.16	17.5			0.7
11:58					0	0.22	17.4			1.3
11:59					0	0.28	17.3			1.4
12:00					0	0.34	17.3			1.4
12:01					0	0.37	17.3			1.4
12:02	↓				0	0.40	17.2			1.4
12:13	SV08				0	~~0.77~~	16.4			0
12:14					0	0.90	16.3			0
12:15					0	1.05	16.2			0
12:16					0	1.14	16.2			0
12:17					0	1.17	16.1			0
12:18					0	1.30	16.1			0
1:58	SV10				0	0	16.6			0
1:59	↓				0	0	15.2			0.7
2:00					0	0	14.7			1.5
2:01					0	0	14.7			1.7
2:02					0	0	14.7			1.7
										1

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

Gas Sampling Form

JBS&G

Project Number:	51142	**Date:**	May-16	**Sampler/s:**	RH / EH
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	Fine.
Well ID/Grid Area:	SV11 + SV12 + SV13	**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
2:19	SV11				0	0	20.3			0
2:20	↓				0	0.1	20.2			0
2:21	↓				0	0.1	20.2			0
2:22	↓				0	0.13	20.2			0
2:23	↓				0	0.13	20.2			0
2:29	SV12				0	0	21.0			0
2:30	↓				0	0.07	20.0			0
2:31	↓				0	0.34	19.7			0
2:32	↓				0	0.50	19.6			0
2:33	↓				0	0.66	19.5			0
2:34	↓				0	0.71	19.5			0
—										
3:09	SV13				0	0	20.9			0
3:10	↓				0	0	20.9			0
3:11	↓				0	0	20.9			0
3:12	↓				0	0	20.9			0
3:13	↓				0	0	20.9			0

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

Gas Sampling Form

Project Number:	51142	**Date:**	May-16	**Sampler/s:**	RH / EH
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	
Well ID/Grid Area:	SV14	**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
3:25	SV14				0	0	20.7			0
3.26	↓				0	0	20.8			0
3:27					0	0.04	20.6			0
3:28					0	0.04	20.6			0
3:29					0	0.04	20.6			0
3:30	↓				0	0.04	20.6			0
3:51	SV15				0	0	18.7			0
3:52	↓				0	0	18.8			0
3:53					0	0	18.8			0
3:54	↓				0	0	18.8			0

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

Gas Sampling Form

JBS&G

Project Number:	51142	**Date:**	May-16	**Sampler/s:**	RH / EH
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	Fine
Well ID/Grid Area:	SV16, SV17, SV18	**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
7:45	SV16				0	2.19	10.2			0
7:45					0	4.77	8.2			0
7:47					0	OR	8.0			0
7:48					0	OR	7.7			0
7:49					0	OR	7.4			0
7:50					0	OR	7.3			0
8:30	SV17				0	0.8	18.9			0
8:31	↓				0	0.9	18.8			0.9
8:32					0	0.96	18.7			1.1
8:33					0	0.99	18.7			1.6
8:34	↓				0	1.02	18.6			1.6
8:46	SV18				0	0.07	20.5			0
	↑				0	0.07	20.1			0
					0	0.07	20.2			0
	↓				0	0.07	20.1			0

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

Gas Sampling Form

JBS&G

Project Number:	51142	**Date:**	May-16	**Sampler/s:**	RH / EH
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	
Well ID/Grid Area:	SV19, SV20, SV21	**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
8:53	SV19				0	2.1	14.3			0
8:54	↓				0	2.74	13.9			0
8:55	↓				0	3.42	13.6			0
8:56	↓				0	3.54	13.6			0
8:57	↓				0	3.67	13.5			0
8:58	↓				0	3.79	13.4			0
8:59	↓				0	3.91	13.4			0
9:40	SV20	= QCO2			0	4.96	14.8			0
9:41	↓				2	OR	14.6			0
9:42	↓				2	OR	14.4			0
9:43	↓				2	OR	14.2			0
9:44	↓				2	OR	14.2			0
9:45	↓				2	OR	14.2			0
10:20	SV21				2	4.76	11.2			0
10:21					2	OR	10.5			0
10:22					2	OR	10.3			0
10:23					2	OR	10.1			0
10:24					2	OR	10.0			0

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

SV20 = QCO2

Gas Sampling Form

JBS&G

Project Number:	51142	**Date:**	May-16	**Sampler/s:** RH / EH / LB	
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	Fine.
Well ID/Grid Area:		**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	LEL CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	LEL H_2S (ppm)	PID
10:45	SV22				0	0.40 ~~2.04~~	20.5		0	0
	↓				0	0.37	20.5		0	0
					0	0.37	20.5		0	0
					0	0.37	20.6		0	0
10:55	SV23				0	1.05	20.2			0
	↓				0	1.17	20.1			0.3
					0	1.17	20.1			0.6
					0	1.20	20.1			0.7
11:00	SV24				0	0.77 ~~1.55~~	18.8			0
	↓				0	0.80	18.7			0.4
					0	0.94	18.7			0.6
					0	0.89	18.7			0.8
12:01	SV25				0	0.96	17.9			0
	↓				0	1.79	17.5			0
					0	2.19	17.2			0
					0	2.37	17.0			0
					0	2.50	16.8			0
					0	2.68	16.7			0

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

Gas Sampling Form

JBS&G

Project Number:	51142	**Date:**	May-16	**Sampler/s:** ~~RH~~ EH/LB	
Site Address:	ATP	**Sample Method:**	Sub Slab	**Weather:**	Fine
Well ID/Grid Area:	SV26	**Wind Strength:**	N/A	**Wind Direction:**	N/A

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	
1:10	SV26				0	0.16	19.3			0
					0	0.22	19.2			0.4
					0	0.25	19.1			0.5
					0	0.28	19.1			0.7
					0	0.31	19.1			0.7
					0	0.34	19.1			0.8
					0	0.34	19.0			0.8
3:30	SV27				0	1.79	19.5			0
↓	↓				0	1.99	19.3			0
					0	1.94	19.3			0
					0	1.99	19.3			0

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

Gas Sampling Form

JBS&G

Project Number: 51142	**Date:**	**Sampler/s:** RH
Site Address: ATP	**Sample Method:** Syringe	**Weather:** Fine
Well ID/Grid Area:	**Wind Strength:**	**Wind Direction:**

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
656	SV31				0	0.01	21.1			0
657	↓				0	0.62	21.0			0.2
658					0	0.01	20.6			0.2
659					0	0.01	18.1			0.2
700					0	0.22	17.2			0.3
701					0	0.28	17.0			0.3
702					0	0.35	16.8			0.4
703	↓				0	0.35	16.8			0.4
720	SV32				0	0.00	21.0			0.1
721	↓				0	0.15	20.5			0.7
722					0	0.26	19.9			1.0
723					0	0.31	18.4			1.3
724					0	0.40	17.9			1.3
725					0	0.41	16.8			1.3
726					0	0.46	16.7			1.4
727	↓				0	0.51	16.9			1.4
802	SV33				0	0.00	21.0			0
803	↓				0	0.02	20.9			0.
804					0	0.02	20.7			0.1
Comments (Odour, Wind, Grass Moisture, Well Condition etc):										
805					0	0.15	20.3			0.1
806					0	0.33	19.9			0.1
802					0	0.43	19.6			0.2
808	↓				0	0.51	19.4			0.2

Gas Sampling Form

Project Number: 51142	**Date:**	**Sampler/s:** RH
Site Address: ATP	**Sample Method:** Syringe	**Weather:**
Well ID/Grid Area:	**Wind Strength:**	**Wind Direction:**

Field Measurements

Time	Location Code (well or grid point)	Flow Rate (L/hour)	Barometric Pressure (mb)	Relative Pressure (mb)	CH_4 (%)	CO_2 (%)	O_2 (%)	Balance (%)	H_2S (ppm)	PID
827	SV34				0	0.01	21.1			0
828	↓				0	0.12	20.5			0.9
829	↓				0	0.17	18.6			1.5
830	↓				0	0.29	17.7			1.8
831	↓				0	0.35	17.2			1.9
832	↓				0	0.43	17.0			2.1
845	SV35				0	0	21.0			0
846	↓				0	0.02	19.7			0.8
847	↓				0	0.04	18.4			1.3
848	↓				0	0.06	18.0			1.6
849	↓				0	0.07	17.8			1.7
850	↓				0	0.07	17.7			1.7
905	SV36				0	0.00	0.00			0
906	↓				0	0.07	0.07			0.8
907	↓				0	0.10	0.10			1.2
908	↓				0	0.12	0.12			1.7
909	↓				0	0.17	0.17			1.8
910	↓				0	0.20	0.20			1.9

Comments (Odour, Wind, Grass Moisture, Well Condition etc):

Gas Calibration Certificate

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Instrument MX6
Serial No. 150501Z-014
Sensors O2, LEL, CO2

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
			Low	**High**	**TWA**	**STEL**
Sensor	O2	✓	19.50%	23.50%	N/A	N/A
	LEL	✓	5.00%	10.00%	N/A	N/A
	CO2	✓	3.00%	3.00%	1.20%	3%
Alarms	Beeper	✓				
	Settings	✓				
Software	Version					
Datalogger	Operation					
Download	Operation					
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
O2		20.9% O2		Fresh Air	20.90%
LEL		50% LEL Methane	NIST	SY112	49% LEL
CO2		0.25% CO2	NATA	SY53	0.25% CO2

Calibrated by: SB. **Sophie Boler**

Calibration date: **3/05/2016**

Next calibration due: **30/10/2016**

Field Equipment Calibration and Decontamination

JBS&G

PROJECT NAME:	51142	**PROJECT NO:**	STP
FIELD DATES:	4-5/5/16	**FIELD STAFF:**	RH EH LB

CALIBRATION SUMMARY	
EQUIPMENT:	PID
CALIBRATION STANDARD:	Isobutylene 100

DATE	TIME	READING (ppm_v)	COMMENTS
4/5/16	6:56	100.0	Calibration OK
5/5/16	6:41	99.8	"

DECONTAMINATION SUMMARY

EQUIPMENT: NA

1. Was the equipment decontaminated appropriately prior to sampling at each location?	(Y)	N	NA
2. Was excess soil removed by scraping, brushing or wiping with disposable towels?	(Y)	N	NA
3. Was the equipment contaminated with grease, tar or similar material? If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y Y	N N	(NA)
4. Was phosphate-free detergent used to wash the equipment?	(Y)	N	NA
5. Was the equipment rinsed with clean water?	(Y)	N	NA
6. Was the equipment then rinsed with deionised water?	(Y)	N	NA
7. Were all sample containers cleaned and acid or solvent washed prior to sample collection?	(Y)	N	NA

WERE ANY ADDITIONAL DECONTAMINATION MEASURES REQUIRED? PROVIDE DETAILS.

Fresh pair of nitrile gloves used to handle sample containers

PID Calibration Certificate

Instrument PhoCheck Tiger
Serial No. T-105427

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6 ev			
Alarms	Beeper	✓	**Low**	**High**	**TWA**	**STEL**
	Settings	✓	50ppm	100ppm	N/A	N/A
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		100ppm Isobutylene	NIST	90098585		100.6ppm

Calibrated by: Joanna Wong

Calibration date: 18/05/2016

Next calibration due: 17/06/2016

Gas Calibration Certificate

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Instrument MX6
Serial No. 130315W-027
Sensors O2 , LEL, CO2

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
			Low	**High**	**TWA**	**STEL**
Sensor	O2	✓	19.5%	23.5%	N/A	N/A
	LEL	✓	5.0%	10.0%	N/A	N/A
	CO2	✓	0.5%	1.0%	0.5%	3.0%
Alarms	Beeper	✓				
	Settings	✓				
Software	Version					
Datalogger	Operation					
Download	Operation					
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
O2		20.9% O2		Fresh air	20.90%
LEL		50% LEL Methane	NIST	SY112	50% LEL Methane
CO2		0.25% CO2	NATA	SY53	0.25%

Calibrated by: SB **Sophie Boler**

Calibration date: **18/05/2016**

Next calibration due: **14/11/2016**

Attachment 5 - Laboratory Certificates of Analysis

07501

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 51142	LABORATORY BATCH NO.:
PROJECT NAME: ATP	SAMPLERS: EH, LB RH,
DATE NEEDED BY: Standard TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) NLewis@jbsg.com.au; (3) EHawley@jbsg.com.au RHammond

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION | NEPM/WA

499538

NOTES:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	VOCs	isopropanol
SV01 ✓	Air	4.5		Carbon tube		X	X
SV02 ✓	↓	↓		↓		X	X
SV03 ✓						X	X
SV04 ✓						X	X
SV05 ✓						X	X
SV06 ✓						X	X
SV07 ✓						X	X
SV08 ✓						X	X
SV09 ✓						X	X
SV10 ✓						X	X
SV11 ✓						X	X
SV12 ✓						X	X
SV13 ✓						X	X
SV14 ✓						X	X
SV15 ✓		↓				X	X
SV16 ✓		5.5				X	X
SV17 ✓		↓				X	X
SV18 ✓						X	X
SV19 ✓	↓			↓		X	X

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE: 6.5.16	CONSIGNMENT NOTE NO.	NAME: Sean DATE: 6/5 12:48	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: EE/MGT	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

07502

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 51142	LABORATORY BATCH NO.:
PROJECT NAME: ATP	SAMPLERS: EH, LB, RH
DATE NEEDED BY: standard TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) NCullen@jbsg.com.au; (3) KTowsley@jbsg.com.au RHammond@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	VOCs	Hydrocarbons	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
SV20 ✓	Air	5.5		Carbon Tube		X	X			
SV21 ✓						X	X			
SV22 ✓						X	X			
SV23 ✓						X	X			
SV24 ✓						X	X			
SV25 ✓						X	X			
SV26 ✓						X	X			
SV27 ✓						X	X			
QC01 ✓		4/5				X	X			
QC02 ✓		5.5				X	X			
Blank ✓		5/5				X	X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE: 6.5.16	CONSIGNMENT NOTE NO.	NAME: S.O DATE: 6/5	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle, O = Other

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G Australia (NSW & WA) P/L**
Contact name:	Nathan Cussen
Project name:	ATP
Project ID:	51142
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	May 6, 2016 12:48 PM
Eurofins | mgt reference:	**499538**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 24 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☒ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Nathan Cussen - ncussen@jbsg.com.au.

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

web : www.eurofins.com.au
e.mail : EnviroSales@eurofins.com
ABN : 50 005 085 521

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538
		Phone:	02 8245 0300
		Fax:	
Project Name:	ATP		
Project ID:	51142		

Received:	May 6, 2016 12:48 PM
Due:	May 13, 2016
Priority:	5 Day
Contact Name:	Nathan Cussen

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
	SV01_FRONT	May 04, 2016		Air	S16-My06798	X	X
	SV01_BACK	May 04, 2016		Air	S16-My06799	X	X
	SV02_FRONT	May 04, 2016		Air	S16-My06800	X	X
	SV02_BACK	May 04, 2016		Air	S16-My06801	X	X
	SV03_FRONT	May 04, 2016		Air	S16-My06802	X	X
	SV03_BACK	May 04, 2016		Air	S16-My06803	X	X
	SV04_FRONT	May 04, 2016		Air	S16-My06804	X	X
	SV04_BACK	May 04, 2016		Air	S16-My06805	X	X
	SV05_FRONT	May 04, 2016		Air	S16-My06806	X	X
	SV05_BACK	May 04, 2016		Air	S16-My06807	X	X

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

ABN 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538
		Phone:	02 8245 0300
		Fax:	
Project Name:	ATP		
Project ID:	51142		

Received:	May 6, 2016 12:48 PM
Due:	May 13, 2016
Priority:	5 Day
Contact Name:	Nathan Cussen

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	SV06_FRONT	May 04, 2016		Air	S16-My06808	X	X
	SV06_BACK	May 04, 2016		Air	S16-My06809	X	X
	SV07_FRONT	May 04, 2016		Air	S16-My06810	X	X
	SV07_BACK	May 04, 2016		Air	S16-My06811	X	X
	SV08_FRONT	May 04, 2016		Air	S16-My06812	X	X
	SV08_BACK	May 04, 2016		Air	S16-My06813	X	X
	SV09_FRONT	May 04, 2016		Air	S16-My06814	X	X
	SV09_BACK	May 04, 2016		Air	S16-My06815	X	X
	SV10_FRONT	May 04, 2016		Air	S16-My06816	X	X
	SV10_BACK	May 04, 2016		Air	S16-My06817	X	X
	SV11_FRONT	May 04, 2016		Air	S16-My06818	X	X

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

web : www.eurofins.com.au
e.mail : EnviroSales@eurofins.com
ABN : 50 005 085 521

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	May 6, 2016 12:48 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538	**Due:**	May 13, 2016
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Nathan Cussen
Project Name:	ATP				
Project ID:	51142				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	SV11_BACK	May 04, 2016		Air	S16-My06819	X	X
	SV12_FRONT	May 04, 2016		Air	S16-My06820	X	X
	SV12_BACK	May 04, 2016		Air	S16-My06821	X	X
	SV13_FRONT	May 04, 2016		Air	S16-My06822	X	X
	SV13_BACK	May 04, 2016		Air	S16-My06823	X	X
	SV14_FRONT	May 04, 2016		Air	S16-My06824	X	X
	SV14_BACK	May 04, 2016		Air	S16-My06825	X	X
	SV15_FRONT	May 04, 2016		Air	S16-My06826	X	X
	SV15_BACK	May 04, 2016		Air	S16-My06827	X	X
	SV16_FRONT	May 05, 2016		Air	S16-My06828	X	X
	SV16_BACK	May 05, 2016		Air	S16-My06829	X	X

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

ABN 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St	**Report #:**	499538
	Sydney	**Phone:**	02 8245 0300
	NSW 2000	**Fax:**	
Project Name:	ATP		
Project ID:	51142		

Received:	May 6, 2016 12:48 PM
Due:	May 13, 2016
Priority:	5 Day
Contact Name:	Nathan Cussen

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	SV17_FRONT	May 05, 2016		Air	S16-My06830	X	X
	SV17_BACK	May 05, 2016		Air	S16-My06831	X	X
	SV18_FRONT	May 05, 2016		Air	S16-My06832	X	X
	SV18_BACK	May 05, 2016		Air	S16-My06833	X	X
	SV19_FRONT	May 05, 2016		Air	S16-My06834	X	X
	SV19_BACK	May 05, 2016		Air	S16-My06835	X	X
	SV20_FRONT	May 05, 2016		Air	S16-My06836	X	X
	SV20_BACK	May 05, 2016		Air	S16-My06837	X	X
	SV21_FRONT	May 05, 2016		Air	S16-My06838	X	X
	SV21_BACK	May 05, 2016		Air	S16-My06839	X	X
	SV22_FRONT	May 05, 2016		Air	S16-My06840	X	X

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

web : www.eurofins.com.au
e.mail : EnviroSales@eurofins.com
ABN : 50 005 085 521

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	May 6, 2016 12:48 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538	**Due:**	May 13, 2016
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Nathan Cussen
Project Name:	ATP				
Project ID:	51142				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	SV22_BACK	May 05, 2016		Air	S16-My06841	X	X
	SV23_FRONT	May 05, 2016		Air	S16-My06842	X	X
	SV23_BACK	May 05, 2016		Air	S16-My06843	X	X
	SV24_FRONT	May 05, 2016		Air	S16-My06844	X	X
	SV24_BACK	May 05, 2016		Air	S16-My06845	X	X
	SV25_FRONT	May 05, 2016		Air	S16-My06846	X	X
	SV25_BACK	May 05, 2016		Air	S16-My06847	X	X
	SV26_FRONT	May 05, 2016		Air	S16-My06848	X	X
	SV26_BACK	May 05, 2016		Air	S16-My06849	X	X
	SV27_FRONT	May 05, 2016		Air	S16-My06850	X	X
	SV27_BACK	May 05, 2016		Air	S16-My06851	X	X

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

ABN 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538
		Phone:	02 8245 0300
		Fax:	
Project Name:	ATP		
Project ID:	51142		

Received:	May 6, 2016 12:48 PM
Due:	May 13, 2016
Priority:	5 Day
Contact Name:	Nathan Cussen

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	QCO1_FRON	May 04, 2016		Air	S16-My06852	X	X
	QCO1_BACK	May 04, 2016		Air	S16-My06853	X	X
	QCO2_FRON	May 05, 2016		Air	S16-My06854	X	X
	QCO2_BACK	May 05, 2016		Air	S16-My06855	X	X
	BLANK_FRON	May 05, 2016		Air	S16-My06856	X	X
	BLANK_BACK	May 05, 2016		Air	S16-My06857	X	X
Test Counts						60	60

eurofins | mgt

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nathan Cussen**

Report **499538-A**
Project name ATP
Project ID 51142
Received Date May 06, 2016

Client Sample ID			**SV01_FRONT**	**SV01_BACK**	**SV02_FRONT**	**SV02_BACK**
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S16-My06798**	**S16-My06799**	**S16-My06800**	**S16-My06801**
Date Sampled			**May 04, 2016**	**May 04, 2016**	**May 04, 2016**	**May 04, 2016**
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV01_FRONT	SV01_BACK	SV02_FRONT	SV02_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06798	S16-My06799	S16-My06800	S16-My06801
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV03_FRONT	SV03_BACK	SV04_FRONT	SV04_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06802	S16-My06803	S16-My06804	S16-My06805
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV03_FRONT	SV03_BACK	SV04_FRONT	SV04_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06802	S16-My06803	S16-My06804	S16-My06805
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	2.0	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	1.1	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV05_FRONT	SV05_BACK	SV06_FRONT	SV06_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06806	S16-My06807	S16-My06808	S16-My06809
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV05_FRONT	SV05_BACK	SV06_FRONT	SV06_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06806	S16-My06807	S16-My06808	S16-My06809
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV07_FRONT	SV07_BACK	SV08_FRONT	SV08_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06810	S16-My06811	S16-My06812	S16-My06813
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	6.6	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	4.6	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	3.0	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV07_FRONT	SV07_BACK	SV08_FRONT	SV08_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06810	S16-My06811	S16-My06812	S16-My06813
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV09_FRONT	SV09_BACK	SV10_FRONT	SV10_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06814	S16-My06815	S16-My06816	S16-My06817
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	27	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	16	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	4.9	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	2.6	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	2.4	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	6.7	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	2.4	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	3.1	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	SV09_FRONT Air S16-My06814 May 04, 2016	SV09_BACK Air S16-My06815 May 04, 2016	SV10_FRONT Air S16-My06816 May 04, 2016	SV10_BACK Air S16-My06817 May 04, 2016
VOC AIR-8260						
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	2.2	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	34	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	SV11_FRONT Air S16-My06818 May 04, 2016	SV11_BACK Air S16-My06819 May 04, 2016	SV12_FRONT Air S16-My06820 May 04, 2016	SV12_BACK Air S16-My06821 May 04, 2016
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	0.7	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV11_FRONT	SV11_BACK	SV12_FRONT	SV12_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06818	S16-My06819	S16-My06820	S16-My06821
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV13_FRONT	SV13_BACK	SV14_FRONT	SV14_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06822	S16-My06823	S16-My06824	S16-My06825
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV13_FRONT	SV13_BACK	SV14_FRONT	SV14_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06822	S16-My06823	S16-My06824	S16-My06825
Date Sampled			May 04, 2016	May 04, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV15_FRONT	SV15_BACK	SV16_FRONT	SV16_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06826	S16-My06827	S16-My06828	S16-My06829
Date Sampled			May 04, 2016	May 04, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV15_FRONT	SV15_BACK	SV16_FRONT	SV16_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06826	S16-My06827	S16-My06828	S16-My06829
Date Sampled			May 04, 2016	May 04, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV17_FRONT	SV17_BACK	SV18_FRONT	SV18_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06830	S16-My06831	S16-My06832	S16-My06833
Date Sampled			May 05, 2016	May 05, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV17_FRONT	SV17_BACK	SV18_FRONT	SV18_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06830	S16-My06831	S16-My06832	S16-My06833
Date Sampled			May 05, 2016	May 05, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	64	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV19_FRONT	SV19_BACK	SV20_FRONT	SV20_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06834	S16-My06835	S16-My06836	S16-My06837
Date Sampled			May 05, 2016	May 05, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV19_FRONT	SV19_BACK	SV20_FRONT	SV20_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06834	S16-My06835	S16-My06836	S16-My06837
Date Sampled			May 05, 2016	May 05, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV21_FRONT	SV21_BACK	SV22_FRONT	SV22_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06838	S16-My06839	S16-My06840	S16-My06841
Date Sampled			May 05, 2016	May 05, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV21_FRONT	SV21_BACK	SV22_FRONT	SV22_BACK
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S16-My06838**	**S16-My06839**	**S16-My06840**	**S16-My06841**
Date Sampled			**May 05, 2016**	**May 05, 2016**	**May 05, 2016**	**May 05, 2016**
Test/Reference	LOR	Unit				
VOC AIR-8260						
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	1.0	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	SV23_FRONT Air S16-My06842 May 05, 2016	SV23_BACK Air S16-My06843 May 05, 2016	SV24_FRONT Air S16-My06844 May 05, 2016	SV24_BACK Air S16-My06845 May 05, 2016
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	0.5	< 0.5	1.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	2.6	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV23_FRONT	SV23_BACK	SV24_FRONT	SV24_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06842	S16-My06843	S16-My06844	S16-My06845
Date Sampled			May 05, 2016	May 05, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV25_FRONT	SV25_BACK	SV26_FRONT	SV26_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06846	S16-My06847	S16-My06848	S16-My06849
Date Sampled			May 05, 2016	May 05, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	SV25_FRONT Air S16-My06846 May 05, 2016	SV25_BACK Air S16-My06847 May 05, 2016	SV26_FRONT Air S16-My06848 May 05, 2016	SV26_BACK Air S16-My06849 May 05, 2016
VOC AIR-8260						
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	5.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	1.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	SV27_FRONT Air S16-My06850 May 05, 2016	SV27_BACK Air S16-My06851 May 05, 2016	QCO1_FRONT Air S16-My06852 May 04, 2016	QCO1_BACK Air S16-My06853 May 04, 2016
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV27_FRONT	SV27_BACK	QCO1_FRONT	QCO1_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06850	S16-My06851	S16-My06852	S16-My06853
Date Sampled			May 05, 2016	May 05, 2016	May 04, 2016	May 04, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			QCO2_FRONT	QCO2_BACK	BLANK_FRONT	BLANK_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My06854	S16-My06855	S16-My06856	S16-My06857
Date Sampled			May 05, 2016	May 05, 2016	May 05, 2016	May 05, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			QCO2_FRONT	QCO2_BACK	BLANK_FRONT	BLANK_BACK
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S16-My06854**	**S16-My06855**	**S16-My06856**	**S16-My06857**
Date Sampled			**May 05, 2016**	**May 05, 2016**	**May 05, 2016**	**May 05, 2016**
Test/Reference	LOR	Unit				
VOC AIR-8260						
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Isopropanol*	Melbourne	May 06, 2016	14 Day
- Method: Isopropanol : NIOSH 1400			
VOC AIR-8260	Melbourne	May 06, 2016	14 Day
- Method: LTM-ORG-2030			

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

web : www.eurofins.com.au
e.mail : EnviroSales@eurofins.com
ABN : 50 005 085 521

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538
		Phone:	02 8245 0300
		Fax:	
Project Name:	ATP		
Project ID:	51142		

Received:	May 6, 2016 12:48 PM
Due:	May 13, 2016
Priority:	5 Day
Contact Name:	Nathan Cussen

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Eurofins | mgt Unit F3, Building F, 16 Mars Road, Lane Cove West, NSW, Australia, 2066
ABN : 50 005 085 521 Telephone: +61 2 9900 8400 Facsimile: +61 2 9420 2977

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
	SV01_FRONT	May 04, 2016		Air	S16-My06798	X	X
	SV01_BACK	May 04, 2016		Air	S16-My06799	X	X
	SV02_FRONT	May 04, 2016		Air	S16-My06800	X	X
	SV02_BACK	May 04, 2016		Air	S16-My06801	X	X
	SV03_FRONT	May 04, 2016		Air	S16-My06802	X	X
	SV03_BACK	May 04, 2016		Air	S16-My06803	X	X
	SV04_FRONT	May 04, 2016		Air	S16-My06804	X	X
	SV04_BACK	May 04, 2016		Air	S16-My06805	X	X
	SV05_FRONT	May 04, 2016		Air	S16-My06806	X	X
	SV05_BACK	May 04, 2016		Air	S16-My06807	X	X

Date Reported:May 16, 2016

eurofins | mgt

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

ABN 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538
		Phone:	02 8245 0300
		Fax:	
Project Name:	ATP		
Project ID:	51142		

Received:	May 6, 2016 12:48 PM
Due:	May 13, 2016
Priority:	5 Day
Contact Name:	Nathan Cussen

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	SV06_FRONT	May 04, 2016		Air	S16-My06808	X	X
	SV06_BACK	May 04, 2016		Air	S16-My06809	X	X
	SV07_FRONT	May 04, 2016		Air	S16-My06810	X	X
	SV07_BACK	May 04, 2016		Air	S16-My06811	X	X
	SV08_FRONT	May 04, 2016		Air	S16-My06812	X	X
	SV08_BACK	May 04, 2016		Air	S16-My06813	X	X
	SV09_FRONT	May 04, 2016		Air	S16-My06814	X	X
	SV09_BACK	May 04, 2016		Air	S16-My06815	X	X
	SV10_FRONT	May 04, 2016		Air	S16-My06816	X	X
	SV10_BACK	May 04, 2016		Air	S16-My06817	X	X
	SV11_FRONT	May 04, 2016		Air	S16-My06818	X	X

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

web : www.eurofins.com.au
e.mail : EnviroSales@eurofins.com
ABN : 50 005 085 521

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	May 6, 2016 12:48 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538	**Due:**	May 13, 2016
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Nathan Cussen
Project Name:	ATP				
Project ID:	51142				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	SV11_BACK	May 04, 2016		Air	S16-My06819	X	X
	SV12_FRONT	May 04, 2016		Air	S16-My06820	X	X
	SV12_BACK	May 04, 2016		Air	S16-My06821	X	X
	SV13_FRONT	May 04, 2016		Air	S16-My06822	X	X
	SV13_BACK	May 04, 2016		Air	S16-My06823	X	X
	SV14_FRONT	May 04, 2016		Air	S16-My06824	X	X
	SV14_BACK	May 04, 2016		Air	S16-My06825	X	X
	SV15_FRONT	May 04, 2016		Air	S16-My06826	X	X
	SV15_BACK	May 04, 2016		Air	S16-My06827	X	X
	SV16_FRONT	May 05, 2016		Air	S16-My06828	X	X
	SV16_BACK	May 05, 2016		Air	S16-My06829	X	X

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

ABN 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St	**Report #:**	499538
	Sydney	**Phone:**	02 8245 0300
	NSW 2000	**Fax:**	
Project Name:	ATP		
Project ID:	51142		

Received:	May 6, 2016 12:48 PM
Due:	May 13, 2016
Priority:	5 Day
Contact Name:	Nathan Cussen

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	SV17_FRONT	May 05, 2016		Air	S16-My06830	X	X
	SV17_BACK	May 05, 2016		Air	S16-My06831	X	X
	SV18_FRONT	May 05, 2016		Air	S16-My06832	X	X
	SV18_BACK	May 05, 2016		Air	S16-My06833	X	X
	SV19_FRONT	May 05, 2016		Air	S16-My06834	X	X
	SV19_BACK	May 05, 2016		Air	S16-My06835	X	X
	SV20_FRONT	May 05, 2016		Air	S16-My06836	X	X
	SV20_BACK	May 05, 2016		Air	S16-My06837	X	X
	SV21_FRONT	May 05, 2016		Air	S16-My06838	X	X
	SV21_BACK	May 05, 2016		Air	S16-My06839	X	X
	SV22_FRONT	May 05, 2016		Air	S16-My06840	X	X

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

web : www.eurofins.com.au
e.mail : EnviroSales@eurofins.com
ABN : 50 005 085 521

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	May 6, 2016 12:48 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538	**Due:**	May 13, 2016
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Nathan Cussen
Project Name:	ATP				
Project ID:	51142				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	SV22_BACK	May 05, 2016		Air	S16-My06841	X	X
	SV23_FRONT	May 05, 2016		Air	S16-My06842	X	X
	SV23_BACK	May 05, 2016		Air	S16-My06843	X	X
	SV24_FRONT	May 05, 2016		Air	S16-My06844	X	X
	SV24_BACK	May 05, 2016		Air	S16-My06845	X	X
	SV25_FRONT	May 05, 2016		Air	S16-My06846	X	X
	SV25_BACK	May 05, 2016		Air	S16-My06847	X	X
	SV26_FRONT	May 05, 2016		Air	S16-My06848	X	X
	SV26_BACK	May 05, 2016		Air	S16-My06849	X	X
	SV27_FRONT	May 05, 2016		Air	S16-My06850	X	X
	SV27_BACK	May 05, 2016		Air	S16-My06851	X	X

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

ABN 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	499538
		Phone:	02 8245 0300
		Fax:	
Project Name:	ATP		
Project ID:	51142		

Received:	May 6, 2016 12:48 PM
Due:	May 13, 2016
Priority:	5 Day
Contact Name:	Nathan Cussen

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
	QCO1_FRON	May 04, 2016		Air	S16-My06852	X	X
	QCO1_BACK	May 04, 2016		Air	S16-My06853	X	X
	QCO2_FRON	May 05, 2016		Air	S16-My06854	X	X
	QCO2_BACK	May 05, 2016		Air	S16-My06855	X	X
	BLANK_FRON	May 05, 2016		Air	S16-My06856	X	X
	BLANK_BACK	May 05, 2016		Air	S16-My06857	X	X
Test Counts						60	60

eurofins | mgt

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

MPN/100mL: Most Probable Number of organisms per 100 millilitres

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Nephelometric Turbidity Units

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Isopropanol*	Total ug	< 10			10	Pass	
Method Blank							
VOC AIR-8260							
1.1-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.1-Dichloroethene	Total ug	< 0.5			0.5	Pass	
1.1-Dichloropropene	Total ug	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromo-3-chloropropane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromoethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
1.3-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
2-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
2.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
4-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
Benzene	Total ug	< 0.5			0.5	Pass	
Bromochloromethane	Total ug	< 0.5			0.5	Pass	
Bromodichloromethane	Total ug	< 0.5			0.5	Pass	
Bromoform	Total ug	< 0.5			0.5	Pass	
Carbon Tetrachloride	Total ug	< 0.5			0.5	Pass	
Chlorobenzene	Total ug	< 0.5			0.5	Pass	
Chloroform	Total ug	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	Total ug	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Dibromochloromethane	Total ug	< 0.5			0.5	Pass	
Dibromomethane	Total ug	< 0.5			0.5	Pass	
Ethylbenzene	Total ug	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	Total ug	< 0.5			0.5	Pass	
n-Butylbenzene	Total ug	< 0.5			0.5	Pass	
n-Propylbenzene	Total ug	< 0.5			0.5	Pass	
p-Isopropyltoluene	Total ug	< 0.5			0.5	Pass	
sec-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Styrene	Total ug	< 5			5	Pass	
tert-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Tetrachloroethene	Total ug	< 0.5			0.5	Pass	
Toluene	Total ug	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Trichloroethene	Total ug	< 0.5			0.5	Pass	
Trichlorofluoromethane	Total ug	< 0.5			0.5	Pass	
Vinyl chloride	Total ug	< 0.5			0.5	Pass	
Xylenes - Total	Total ug	< 1.5			1.5	Pass	
Naphthalene	Total ug	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.3-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
Hexachlorobutadiene	Total ug	< 0.5			0.5	Pass	
LCS - % Recovery							
Isopropanol*	%	78			70-130	Pass	
LCS - % Recovery							
VOC AIR-8260							
1.1-Dichloroethene	%	89			70-130	Pass	
1.1-Dichloropropene	%	83			75-125	Pass	
1.1.1-Trichloroethane	%	87			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	93			75-125	Pass	
1.2-Dichloroethane	%	85			70-130	Pass	
Benzene	%	80			70-130	Pass	
Ethylbenzene	%	84			70-130	Pass	
Toluene	%	81			70-130	Pass	
Trichloroethene	%	83			70-130	Pass	
Xylenes - Total	%	80			70-130	Pass	
Naphthalene	%	77			70-130	Pass	
1.2-Dichlorobenzene	%	84			70-130	Pass	
1.2.3-Trichlorobenzene	%	82			70-130	Pass	
1.2.4-Trichlorobenzene	%	73			70-130	Pass	
1.4-Dichlorobenzene	%	85			70-130	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised By

Nibha Vaidya	Analytical Services Manager
Harry Bacalis	Senior Analyst-Volatile (VIC)
Mele Singh	Senior Analyst-Organic (VIC)



Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

06536

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 51142
PROJECT NAME: ATP [redacted]
DATE NEEDED BY: 24Hr

LABORATORY BATCH NO.:
SAMPLERS: RH
QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) RHammond@jbsg.com.au; (3) NCussen@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	VOCs	Isopropyl alcohol*	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
SV31	Carbon	20/5/16	-	Carbon tube	NA	X	X			* Isopropyl alcohol
32						X	X			
33						X	X			
34						X	X			
35						X	X			
36						X	X			
MB						X	X			
QC03-SV						X	X			

501366

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Rohan H DATE: 20/5/16	CONSIGNMENT NOTE NO.	NAME: Sean DATE: 20/5	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: EFMAT 10:19	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO FormsO13 ~ Chain of Custody - Generic

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G Australia (NSW & WA) P/L**
Contact name:	Rohan Hammond
Project name:	ATP
Project ID:	51142
COC number:	Not provided
Turn around time:	1 Day
Date/Time received:	May 20, 2016 10:19 AM
Eurofins | mgt reference:	**501366**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 24 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Rohan Hammond - rhammond@jbsg.com.au.

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 51142

Order No.:
Report #: 501366
Phone: 02 8245 0300
Fax:

Received: May 20, 2016 10:19 AM
Due: May 23, 2016
Priority: 1 Day
Contact Name: Rohan Hammond

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	SV31_FRONT	May 20, 2016		Air	S16-My20992	X	X
2	SV31_BACK	May 20, 2016		Air	S16-My20993	X	X
3	SV32_FRONT	May 20, 2016		Air	S16-My20994	X	X
4	SV32_BACK	May 20, 2016		Air	S16-My20995	X	X
5	SV33_FRONT	May 20, 2016		Air	S16-My20996	X	X
6	SV33_BACK	May 20, 2016		Air	S16-My20997	X	X
7	SV34_FRONT	May 20, 2016		Air	S16-My20998	X	X
8	SV34_BACK	May 20, 2016		Air	S16-My20999	X	X
9	SV35_FRONT	May 20, 2016		Air	S16-My21000	X	X
10	SV35_BACK	May 20, 2016		Air	S16-My21001	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 51142

Order No.:
Report #: 501366
Phone: 02 8245 0300
Fax:

Received: May 20, 2016 10:19 AM
Due: May 23, 2016
Priority: 1 Day
Contact Name: Rohan Hammond

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
11	SV36_FRONT	May 20, 2016		Air	S16-My21002	X	X
12	SV36_BACK	May 20, 2016		Air	S16-My21003	X	X
13	MB_FRONT	May 20, 2016		Air	S16-My21004	X	X
14	MB_BACK	May 20, 2016		Air	S16-My21005	X	X
15	QC03-SV_FRONT	May 20, 2016		Air	S16-My21006	X	X
16	QC03-SV_BACK	May 20, 2016		Air	S16-My21007	X	X
Test Counts						16	16

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Rohan Hammond**

Report **501366-A**
Project name ATP
Project ID 51142
Received Date May 20, 2016

Client Sample ID			**SV31_FRONT**	**SV31_BACK**	**SV32_FRONT**	**SV32_BACK**
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S16-My20992**	**S16-My20993**	**S16-My20994**	**S16-My20995**
Date Sampled			**May 20, 2016**	**May 20, 2016**	**May 20, 2016**	**May 20, 2016**
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV31_FRONT	SV31_BACK	SV32_FRONT	SV32_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My20992	S16-My20993	S16-My20994	S16-My20995
Date Sampled			May 20, 2016	May 20, 2016	May 20, 2016	May 20, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	2.6	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	1.4	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	92	109	106	101
4-Bromofluorobenzene (surr.)	1	%	91	110	104	93
Dibromofluoromethane (surr.)	1	%	93	107	107	99
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV33_FRONT	SV33_BACK	SV34_FRONT	SV34_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My20996	S16-My20997	S16-My20998	S16-My20999
Date Sampled			May 20, 2016	May 20, 2016	May 20, 2016	May 20, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV33_FRONT	SV33_BACK	SV34_FRONT	SV34_BACK
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S16-My20996**	**S16-My20997**	**S16-My20998**	**S16-My20999**
Date Sampled			**May 20, 2016**	**May 20, 2016**	**May 20, 2016**	**May 20, 2016**
Test/Reference	LOR	Unit				
VOC AIR-8260						
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	37	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	102	110	112	108
4-Bromofluorobenzene (surr.)	1	%	100	106	109	105
Dibromofluoromethane (surr.)	1	%	103	107	115	108
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV35_FRONT	SV35_BACK	SV36_FRONT	SV36_BACK
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S16-My21000**	**S16-My21001**	**S16-My21002**	**S16-My21003**
Date Sampled			**May 20, 2016**	**May 20, 2016**	**May 20, 2016**	**May 20, 2016**
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10

Client Sample ID			SV35_FRONT	SV35_BACK	SV36_FRONT	SV36_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My21000	S16-My21001	S16-My21002	S16-My21003
Date Sampled			May 20, 2016	May 20, 2016	May 20, 2016	May 20, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	19	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	14	< 0.5	3.4	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	103	107	99	113
4-Bromofluorobenzene (surr.)	1	%	99	102	96	116
Dibromofluoromethane (surr.)	1	%	104	107	102	113
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV35_FRONT	SV35_BACK	SV36_FRONT	SV36_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My21000	S16-My21001	S16-My21002	S16-My21003
Date Sampled			May 20, 2016	May 20, 2016	May 20, 2016	May 20, 2016
Test/Reference	LOR	Unit				
VOC AIR-8260						
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			MB_FRONT	MB_BACK	QC03-SV_FRONT	QC03-SV_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S16-My21004	S16-My21005	S16-My21006	S16-My21007
Date Sampled			May 20, 2016	May 20, 2016	May 20, 2016	May 20, 2016
Test/Reference	LOR	Unit				
Isopropanol*	10	Total ug	< 10	< 10	< 10	< 10
VOC AIR-8260						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			MB_FRONT	MB_BACK	QC03-SV_FRONT	QC03-SV_BACK
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S16-My21004**	**S16-My21005**	**S16-My21006**	**S16-My21007**
Date Sampled			**May 20, 2016**	**May 20, 2016**	**May 20, 2016**	**May 20, 2016**
Test/Reference	LOR	Unit				
VOC AIR-8260						
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	105	101	101	99
4-Bromofluorobenzene (surr.)	1	%	100	100	94	103
Dibromofluoromethane (surr.)	1	%	101	102	103	99
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Isopropanol*	Melbourne	May 20, 2016	14 Day
- Method: Isopropanol : NIOSH 1400			
VOC AIR-8260	Melbourne	May 20, 2016	14 Day
- Method: LTM-ORG-2030			

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	501366
		Phone:	02 8245 0300
		Fax:	
Project Name:	ATP		
Project ID:	51142		

Received:	May 20, 2016 10:19 AM	
Due:	May 23, 2016	
Priority:	1 Day	
Contact Name:	Rohan Hammond	

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	SV31_FRONT	May 20, 2016		Air	S16-My20992	X	X
2	SV31_BACK	May 20, 2016		Air	S16-My20993	X	X
3	SV32_FRONT	May 20, 2016		Air	S16-My20994	X	X
4	SV32_BACK	May 20, 2016		Air	S16-My20995	X	X
5	SV33_FRONT	May 20, 2016		Air	S16-My20996	X	X
6	SV33_BACK	May 20, 2016		Air	S16-My20997	X	X
7	SV34_FRONT	May 20, 2016		Air	S16-My20998	X	X
8	SV34_BACK	May 20, 2016		Air	S16-My20999	X	X
9	SV35_FRONT	May 20, 2016		Air	S16-My21000	X	X
10	SV35_BACK	May 20, 2016		Air	S16-My21001	X	X

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ATP
Project ID: 51142

Order No.:
Report #: 501366
Phone: 02 8245 0300
Fax:

Received: May 20, 2016 10:19 AM
Due: May 23, 2016
Priority: 1 Day
Contact Name: Rohan Hammond

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol*	VOC AIR-8260
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
11	SV36_FRONT	May 20, 2016		Air	S16-My21002	X	X
12	SV36_BACK	May 20, 2016		Air	S16-My21003	X	X
13	MB_FRONT	May 20, 2016		Air	S16-My21004	X	X
14	MB_BACK	May 20, 2016		Air	S16-My21005	X	X
15	QC03-SV_FRONT	May 20, 2016		Air	S16-My21006	X	X
16	QC03-SV_BACK	May 20, 2016		Air	S16-My21007	X	X
Test Counts						16	16

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

MPN/100mL: Most Probable Number of organisms per 100 millilitres

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Nephelometric Turbidity Units

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Isopropanol*	Total ug	< 10			10	Pass	
Method Blank							
VOC AIR-8260							
1.1-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.1-Dichloroethene	Total ug	< 0.5			0.5	Pass	
1.1-Dichloropropene	Total ug	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromo-3-chloropropane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromoethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
1.3-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
2-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
2.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
4-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
Benzene	Total ug	< 0.5			0.5	Pass	
Bromochloromethane	Total ug	< 0.5			0.5	Pass	
Bromodichloromethane	Total ug	< 0.5			0.5	Pass	
Bromoform	Total ug	< 0.5			0.5	Pass	
Carbon Tetrachloride	Total ug	< 0.5			0.5	Pass	
Chlorobenzene	Total ug	< 0.5			0.5	Pass	
Chloroform	Total ug	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	Total ug	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Dibromochloromethane	Total ug	< 0.5			0.5	Pass	
Dibromomethane	Total ug	< 0.5			0.5	Pass	
Ethylbenzene	Total ug	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	Total ug	< 0.5			0.5	Pass	
n-Butylbenzene	Total ug	< 0.5			0.5	Pass	
n-Propylbenzene	Total ug	< 0.5			0.5	Pass	
p-Isopropyltoluene	Total ug	< 0.5			0.5	Pass	
sec-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Styrene	Total ug	< 5			5	Pass	
tert-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Tetrachloroethene	Total ug	< 0.5			0.5	Pass	
Toluene	Total ug	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Trichloroethene	Total ug	< 0.5			0.5	Pass	
Trichlorofluoromethane	Total ug	< 0.5			0.5	Pass	
Vinyl chloride	Total ug	< 0.5			0.5	Pass	
Xylenes - Total	Total ug	< 1.5			1.5	Pass	
Naphthalene	Total ug	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.3-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
Hexachlorobutadiene	Total ug	< 0.5			0.5	Pass	
LCS - % Recovery							
VOC AIR-8260							
1.1-Dichloroethene	%	114			70-130	Pass	
1.1-Dichloropropene	%	100			75-125	Pass	
1.1.1-Trichloroethane	%	94			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	104			75-125	Pass	
1.2-Dichloroethane	%	99			70-130	Pass	
Benzene	%	103			70-130	Pass	
Ethylbenzene	%	88			70-130	Pass	
Toluene	%	86			70-130	Pass	
Trichloroethene	%	113			70-130	Pass	
Xylenes - Total	%	87			70-130	Pass	
1.2-Dichlorobenzene	%	91			70-130	Pass	
1.2.3-Trichlorobenzene	%	70			70-130	Pass	
1.2.4-Trichlorobenzene	%	73			70-130	Pass	
1.4-Dichlorobenzene	%	91			70-130	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised By

Nibha Vaidya	Analytical Services Manager
Harry Bacalis	Senior Analyst-Volatile (VIC)
Mele Singh	Senior Analyst-Organic (VIC)



Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Attachment 6 - Tabulated QA/QC Data

ESDAT QA Checker
Project:51142 SV
Filter: ALL

Overview Summary
- Count of Samples
- Summary By Compound
- Count of Results

Holding Times
- Holding Time Errors (0)

Blanks
- Field Blanks
- Detects in Lab Blanks (0)
- SDG's without Storage Blanks (0)
- SDG's without Method Blanks (0)

Duplicates
- Field and Interlab Duplicates
- Lab Duplicates with high RPDs (0)
- Duplicate Samples with incorrect or missing Parent Samples (0)
- Samples at the same Location/Depth/Time not specified as duplicates (33)

Surrogates
- Surrogate Variation > 30% or outside lab LCL or UCL (0)

Lab Control Samples
- SDG's without a Laboratory Control Sample (0)
- Laboratory Control Samples, Error > 30% (0)

Certified and Standard Reference Materials
- Certified Reference Materials - Error > 30% (0)

Matrix Spikes
- SDG's without a Matrix Spike (0)
- Trip Spikes with invalid Control Sample (0)
- Less than 1 matrix spike in 20 samples, or less than 1 matrix duplicate in 20 samples (1)
- Matrix Spike Recoveries less than 70% or greater than 130% or outside lab LCL or UCL (0)
- Trip Spike Recoveries (70% - 130% is acceptable) (0)

Inorganic
- Na + CL > TDS (0)
- BOD > COD (0)
- BOD > COD (0)

Other
- Unit Conversion Problems (0)
- OriginalChemNames Requiring Validation (0)
- Samples with no Results (0)
- Samples associated with Wells which are not specified in the Well Table (60)
- Aborted Analysis (0)

Contents

Count of Samples

Matrix Type	GAS
First Sample Date	4/05/2016
Last Sample Date	20/05/2016
Sampling Period (days)	17
Number of Samples Submitted	72
Number of Non QA Samples Submitted	66
Number of Field Blanks	0
Number of Trip Blanks	0
Number of Rinsates	0
Number of Field Duplicates	6
Number of Trip Spikes	0
Number of Lab Duplicates	0
Number of LCSs	4
Number of CRMs	0
Number of Method Blanks	3
Number of Storage Blanks	4
Number of Matrix Spikes	0
Number of Matrix Spike Dupes	0

			Num Results	Holding Times (days)				Lab Control Samples			Method and Storage Blanks			Laboratory Duplicates			Surrogates			Matrix,Trip and Compound Spikes			Field,Rinsate and Trip Blanks			Field Duplicates		
Chem_Group	ChemName	Range	Non QA (Normal + Composite)	Volatility Group	Sample to Extraction	Sample to Analysis	Acceptable	Recovery %	Num Reported	Acceptable	Range	Num Reported	Acceptable	Max RPD > EQL x 1	Num Reported	Acceptable	Recovery %	Num Reported	Acceptable	Recovery %	Num Reported	Acceptable	Range	Num Reported	Acceptable	Max RPD > EQL x 1	Num Reported	Acceptable
BTEX	Benzene		66	VOC	0 to 2	3 to 9	Y	80 to 103	2	Y					0	**N**		0			0						6	Y
	Ethylbenzene		66	VOC	0 to 2	3 to 9	Y	84 to 88	2	Y					0	**N**		0			0						6	Y
	Toluene		66	VOC	0 to 2	3 to 9	Y	81 to 86	2	Y					0	**N**		0			0						6	Y
	Xylene (Total)		66	VOC	0 to 2	3 to 9	Y	80 to 87	2	Y					0	**N**		0			0						6	Y
Chlorinated Alkanes	1,1,1,2-tetrachloroethane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	1,1,1-trichloroethane		66	VOC	0 to 2	3 to 9	Y	87 to 94	2	Y					0	**N**		0			0						6	Y
	1,1,2,2-tetrachloroethane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	1,1,2-trichloroethane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	1,1-dichloroethane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	1,2,3-trichloropropane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	1,2-dibromo-3-chloropropane		66	VOC	0 to 2	3 to 9	Y	93 to 104	2	Y					0	**N**		0			0						6	Y
	1,2-dichloroethane		66	VOC	0 to 2	3 to 9	Y	85 to 99	2	Y					0	**N**		0			0						6	Y
	1,2-dichloropropane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	1,3-dichloropropane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	2,2-dichloropropane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Bromochloromethane		66	Other	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Bromodichloromethane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Carbon tetrachloride		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Chloroform		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	dibromochloromethane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Trichlorofluoromethane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
Chlorinated Alkenes	1,1-Dichloroethene		66	VOC	0 to 2	3 to 9	Y	89 to 114	2	Y					0	**N**		0			0						6	Y
	1,1-dichloropropene		66	VOC	0 to 2	3 to 9	Y	83 to 100	2	Y					0	**N**		0			0						6	Y
	2-chlorotoluene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	4-chlorotoluene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	cis-1,2-dichloroethene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	cis-1,3-dichloropropene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Tetrachloroethene		66	SVOC	0 to 2	3 to 9	Y		0						0	**N**		0			0					135	6	**N**
	trans-1,3-dichloropropene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Trichloroethene		66	VOC	0 to 2	3 to 9	Y	83 to 113	2	Y					0	**N**		0			0					95	6	**N**
	Vinyl Chloride		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
Chlorinated Benzenes	1,2,3-trichlorobenzene		66	VOC	0 to 2	3 to 9	Y	70 to 82	2	**N**					0	**N**		0			0						6	Y
	1,2,4-trichlorobenzene		66	VOC	0 to 2	3 to 9	Y	73 to 73	2	Y					0	**N**		0			0						6	Y
	1,2-Dichlorobenzene		66	VOC	0 to 2	3 to 9	Y	84 to 91	2	Y					0	**N**		0			0						6	Y
	1,3-dichlorobenzene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	1,4-dichlorobenzene		66	VOC	0 to 2	3 to 9	Y	85 to 91	2	Y					0	**N**		0			0						6	Y
	Chlorobenzene		66	Other	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
Miscellaneous Hydrocarbons	1,2-dibromoethane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Bromoform		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Dibromomethane		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
Miscellaneous Industrial Chemicals	Hexachlorobutadiene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
Monocyclic Aromatic Hydrocarbons	1,2,4-trimethyl benzene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	1,3,5-trimethyl benzene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	4-isopropyl toluene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Isopropylbenzene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	n-butyl benzene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	n-propyl benzene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	sec-butyl benzene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Styrene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
	Tert-butyl benzene		66	VOC	0 to 2	3 to 9	Y		0						0	**N**		0			0						6	Y
Organic Alcohols	Isopropyl alcohol		66	VOC	0 to 2	3 to 9	Y	78 to 78	1	Y					0	**N**		0			0						6	Y
Polycyclic Aromatic Hydrocarbons	Naphthalene		66	VOC	0 to 2	3 to 9	Y	77 to 77	1	Y					0	**N**		0			0						6	Y
Surrogate	Fluorobenzene (surr.)		0	SVOC			Y		0						0	**N**	92 to 113	16	Y		0						0	**N**
	Surrogate 4-BFB		0	VOC			Y		0						0	**N**	91 to 116	16	Y		0						0	**N**
	Surrogate Dibromofluoromethane		0	VOC			Y		0						0	**N**	93 to 115	16	Y		0						0	**N**

Filter: ALL

Contents

Count of Results

Matrix_Type	Sample_Type	Reg	Leached	Spike_Compounds	Surrogate
GAS	Normal	3432	0	0	36
GAS	Field_D	312	0	0	6
GAS	SB	208	0	0	6
GAS	MB	104	0	0	0
GAS	LCS	30	0	0	0

GAS Field Duplicates (GAS)
Filter: ALL

			SDG	499538	499538		499538	499538		499538	499538		499538	499538		501366	501366		501366	501366	
			Field ID	SV04_FRONT	QCO1_FRONT	**RPD**	SV04_BACK	QCO1_BACK	**RPD**	SV20_FRONT	QCO2_FRONT	**RPD**	SV20_BACK	QCO2_BACK	**RPD**	SV32_FRONT	QC03-SV_FRONT	**RPD**	SV32_BACK	QC03-SV_BACK	**RPD**
			Sampled Date/Time	4/05/2016	4/05/2016		4/05/2016	4/05/2016		5/05/2016	5/05/2016		5/05/2016	5/05/2016		20/05/2016	20/05/2016		20/05/2016	20/05/2016	
Filter	**Chem_Grc**	**ChemNam**	**Units**	**EQL**																					
Organic Al	Organic Alc	Isopropyl a	mg/m3	1.6667	<1.6667	<1.6667	0	<1.6667	<1.6667	0	<1.6667	<1.6667	0	<1.6667	<1.6667	0	<1.6667	<1.6667	0	<1.6667	<1.6667	0
Organic Alcohols																									
Chlorinated	Chlorinated	1,1,1,2-tetr	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,1,1-trichl	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,1,2-trichl	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,1,2,2-tetr	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,1-dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,2,3-trichl	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,2-dibrom	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,2-dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,2-dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,3-dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		2,2-dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		Bromochlo	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		Bromodich	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		Carbon tetr	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		Chloroform	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		dibromochl	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		Trichlorofl	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated Alkanes																									
Chlorinated	Chlorinated	1,1-Dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,1-dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		2-chlorotol	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		Tetrachlorc	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	**0.4333**	**<0.0833**	**135**	<0.0833	<0.0833	0
Chlorinated		4-chlorotol	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		cis-1,2-dich	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		cis-1,3-dich	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		trans-1,3-d	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		Trichloroet	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	**0.2333**	**<0.0833**	**95**	<0.0833	<0.0833	0
Chlorinated		Vinyl Chlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated Alkenes																									
BTEX	BTEX	Benzene	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
BTEX		Ethylbenze	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
BTEX		Toluene	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
BTEX		Xylene (To	mg/m3	0.250005	<0.25	<0.25	0	<0.25	<0.25	0	<0.25	<0.25	0	<0.25	<0.25	0	<0.25	<0.25	0	<0.25	<0.25	0
BTEX																									
Polycyclic A	Polycyclic A	Naphthaler	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Polycyclic Aromatic Hydrocarbons																									
Monocyclic	Monocyclic	1,2,4-trime	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Monocyclic		1,3,5-trime	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Monocyclic		4-isopropyl	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Monocyclic		Isopropylbe	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Monocyclic		n-butyl ben	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Monocyclic		n-propyl be	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Monocyclic		sec-butyl b	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Monocyclic		Styrene	mg/m3	0.83335	<0.8334	<0.8334	0	<0.8334	<0.8334	0	<0.8334	<0.8334	0	<0.8334	<0.8334	0	<0.8334	<0.8334	0	<0.8334	<0.8334	0
Monocyclic		Tert-butyl b	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Monocyclic Aromatic Hydrocarbons																									
Miscellane	Miscellane	1,2-dibrom	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Miscellane		Bromoform	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Miscellane		Dibromome	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Miscellaneous Hydrocarbons																									
Chlorinated	Chlorinated	1,2,3-trichl	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,2,4-trichl	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,2-Dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		Chloroben	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,3-dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated		1,4-dichlor	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0
Chlorinated Benzenes																									
Miscellane	Miscellane	Hexachlorc	mg/m3	0.083335	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0	<0.0833	<0.0833	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (1-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Contents

Samples at the same Location/Depth/Time not specified as duplicates

LocCode	Sampled_Date-Time	WellCode	Sample_Depth_From	No_of_Samples
ATP	4/05/2016	SV01		2
ATP	4/05/2016	SV02		2
ATP	4/05/2016	SV03		2
ATP	4/05/2016	SV04		2
ATP	4/05/2016	SV05		2
ATP	4/05/2016	SV06		2
ATP	4/05/2016	SV07		2
ATP	4/05/2016	SV08		2
ATP	4/05/2016	SV09		2
ATP	4/05/2016	SV10		2
ATP	4/05/2016	SV11		2
ATP	4/05/2016	SV12		2
ATP	4/05/2016	SV13		2
ATP	4/05/2016	SV14		2
ATP	4/05/2016	SV15		2
ATP	5/05/2016	SV16		2
ATP	5/05/2016	SV17		2
ATP	5/05/2016	SV18		2
ATP	5/05/2016	SV19		2
ATP	5/05/2016	SV20		2
ATP	5/05/2016	SV21		2
ATP	5/05/2016	SV22		2
ATP	5/05/2016	SV23		2
ATP	5/05/2016	SV24		2
ATP	5/05/2016	SV25		2
ATP	5/05/2016	SV26		2
ATP	5/05/2016	SV27		2
SV31	20/05/2016			2
SV32	20/05/2016			2
SV33	20/05/2016			2
SV34	20/05/2016			2
SV35	20/05/2016			2
SV36	20/05/2016			2

Contents

Less than 1 matrix spike in 20 samples, or less than 1 matrix duplicate in 20 samples

Matrix_Type	Number_of_Samples	Number_of_Matrix_Spike_Samples	Number_of_Matrix_Spike_Dupe_Samples
GAS	83	0	0

Appendix D Analytical Summary Tables

Table A: Soil Analytical Results Lots 8 and 9
Project Number: 51142
Project Name: Australian Technology Park

| | | Metals & Metalloids | | | | | | | | Chlorinated Alkanes | | | | | | | |

Table A: Soil Analytical Results Lots 8 and 9
Project Number: 51142
Project Name: Australian Technology Park

		Metals & Metalloids								Chlorinated Alkanes																				Chlorinated Alkenes										TPHs (NEPC 1999)					TRHs (NEPC 2013)						BTEX					
	Asbestos ID in Soil	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	dibromochloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C10-C36 Fraction	C29-C36 Fraction	C6 -C10 Fraction	>C10- C16 Fraction	>C16- C34 Fraction	>C34 -C40 Fraction	C6 - C10 less BTEX (F1)	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)
	g/kg	mg/kg	mg/kg	mg

Table A: Soil Analytical Results Lots 8 and 9
Project Number: 51142
Project Name: Australian Technology Park

| | | Metals & Metalloids | | | | | | | | Chlorinated Alkanes | | | | | | | |

Table A: Soil Analytical Results Lots 8 and 9
Project Number: 51142
Project Name: Australian Technology Park

	Polycyclic Aromatic Hydrocarbons																				Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons						Chlorinated Benzenes				Polychlorinated Biphenyls								Phenols
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benz(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Total Positive PAHs	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	Isopropylbenzene	Styrene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Dibromomethane	Iodomethane	1,2,4,5-tetrachlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Phenols (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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 EIL - Urban Residential (generic and derived, aged)																170																												
NEPM 2013 ESL Urban Residential and Public Open Space, Coarse Soil					0.7[#6]																																							
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Coarse																																											
NEPM 2013 Soil HIL A															3[#15]				300[#16]																	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	300
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 0 to <1m																3																												
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 1 to <2m																NL																												
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																NL																												
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 4m+																NL																												

Field_ID	Depth	Date	Location	Matrix	Reference																																								
Lot 8 Analytical Data																																												
BH12/0.1-0.2	0.1-0.2	22-03-14	Lot 8	FILL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH12/1.0-1.1	1-1.1	22-03-14	Lot 8	FILL	ES 2014a	<0.1	<0.1	<0.1	0.1	0.12	0.2	0.2	0.1	-	0.1	<0.1	3	<0.1	0.1	0.192	<0.1	0.3	0.3	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH12/2.0-2.1	2-2.1	22-03-14	Lot 8	FILL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH12/3.0-3.1	3-3.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH12/4.0-4.1	4-4.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH12/5.0-5.1	5-5.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH12/6.0-6.1	6-6.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH12/7.0-7.1	7-7.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH12/8.0-8.1	8-8.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH12/9.0-9.1	9-9.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/0.2-0.3	0.2-0.3	22-03-14	Lot 8	FILL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/1.0-1.1	1-1.1	22-03-14	Lot 8	FILL	ES 2014a	<0.1	0.4	0.5	1.2	1.4	2.4	2.4	1	-	1.3	0.1	2.6	0.2	0.9	2	0.3	1.9	2.9	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/2.0-2.1	2-2.1	22-03-14	Lot 8	FILL	ES 2014a	<0.1	<0.1	<0.1	<0.1	0.07	<0.2	<0.2	<0.1	-	0.1	<0.1	0.2	<0.1	<0.1	0.1315	<0.1	0.2	0.2	0.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/3.0-3.1	3-3.1	22-03-14	Lot 8	FILL	ES 2014a	<0.1	<0.1	0.1	0.1	0.1	0.2	0.2	0.1	-	0.2	<0.1	0.4	<0.1	0.1	0.173	0.2	0.3	0.4	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/4.0-4.1	4-4.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	0.1	0.2	0.12	0.3	0.3	0.1	-	0.2	<0.1	0.5	<0.1	0.1	0.203	0.2	0.4	0.4	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/5.0-5.1	5-5.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	0.1	0.1	0.1	<0.2	<0.2	<0.1	-	0.1	<0.1	0.3	<0.1	<0.1	0.1665	<0.1	0.4	0.3	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/6.0-6.1	6-6.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	0.1	0.14	0.2	0.2	0.1	-	0.1	<0.1	0.2	<0.1	0.1	0.212	0.1	0.2	0.2	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/7.0-7.1	7-7.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/8.0-8.1	8-8.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH13/9.0-9.1	9-9.1	22-03-14	Lot 8	NATURAL	ES 2014a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BH18/0.0-0.1	0-0.1	19-04-93	Lot 8	FILL	Jet 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/0.5-1.0	0.5-1	19-04-93	Lot 8	FILL	Jet 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/1.0-1.5	1-1.5	19-04-93	Lot 8	FILL	Jet 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/1.5-2.0	1.5-2	19-04-93	Lot 8	FILL	Jet 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/4.5-5.0	4.5-5	19-04-93	Lot 8	NATURAL	Jet 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/6.9-7.35	6.9-7.35	19-04-93	Lot 8	NATURAL	Jet 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH324/1.0-1.1	1-1.1	01-06-05	Lot 8	FILL	DP 2005a	<0.1	0.2	0.4	1.1	0.7	1	1	0.5	-	0.6	<0.1	1.7	<0.1	0.6	1.081	<0.1	1.2	1.6	9.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH325/0.0-0.1	0-0.1	01-06-05	Lot 8	FILL	DP 2005a	<0.1	<0.1	<0.1	0.3	0.5	0.4	0.4	0.2	-	0.2	<0.1	0.4	<0.1	0.2	0.694	<0.1	0.2	0.4	-	2.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.5
BH325/3.5-4.0	3.5-4	01-06-05	Lot 8	NATURAL	DP 2005a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH326/0.2-0.3	0.2-0.3	01-06-05	Lot 8	FILL	DP 2005a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH326/1.3-1.5	1.3-1.5	01-06-05	Lot 8	NATURAL	DP 2005a	<0.1	<0.1	0.2	0.5	0.4	0.7	0.7	0.3	-	0.4	<0.1	1	<0.1	0.3	0.657	<0.1	0.6	1	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH327/0.8-1.0	0.8-1	01-06-05	Lot 8	FILL	DP 2005a	<0.1	0.2	0.3	1	1	1.6	1.6	0.6	-	1	<0.1	1.9	0.1	0.7	1.446	0.2	1.3	2.1	12	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.9	<0.5
BH327/1.8-2.0	1.8-2	01-06-05	Lot 8	NATURAL	DP 2005a	<0.1	<0.1	<0.1	<0.1	0.06	<0.2	<0.2	<0.1	-	<0.1	<0.1	0.1	<0.1	<0.1	0.66	<0.1	<0.1	0.1	0.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH328/0.0-0.1	0-0.1	01-06-05	Lot 8	FILL	DP 2005a	<0.1	<0.1	<0.1	<0.1	0.06	<0.2	<0.2	<0.1	-	<0.1	<0.1	0.1	<0.1	<0.1	0.66	<0.1	<0.1	0.1	0.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH401/0.3-0.5	0.3-0.5	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	0.1	0.1	0.2	0.2	<0.1	-	0.1	<0.1	0.3	<0.1	<0.1	0.431	<0.1	0.1	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH401/0.5-0.6	0.5-0.6	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	0.1	1	0.9	1.5	1.5	0.6	-	0.9	<0.1	1.6	<0.1	0.7	1.335	<0.1	0.8	1.7	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH401/0.6-0.9	0.6-0.9	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH401/2.3-2.5	2.3-2.5	23-11-07	Lot 8	NATURAL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH402/0.2-0.3	0.2-0.3	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	0.07	<0.2	<0.2	<0.1	-	0.1	<0.1	0.1	<0.1	<0.1	0.571	<0.1	<0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH402/0.5-0.6	0.5-0.6	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	0.1	0.08	0.2	0.2	<0.1	-	0.2	<0.1	0.2	<0.1	<0.1	0.412	<0.1	0.1	0.2	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH402/0.8-1.0	0.8-1	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH402/1.6-1.7	1.6-1.7	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH402/1.8-2.0	1.8-2	23-11-07	Lot 8	NATURAL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH403/0.1-0.3	0.1-0.3	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH403/0.3-0.5	0.3-0.5	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH403/1.8-2.0	1.8-2	23-11-07	Lot 8	NATURAL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH404/0.3-0.5	0.3-0.5	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH404/0.5-1.0	0.5-1	23-11-07	Lot 8	FILL	DP 2008a	<0.1	0.9	0.9	3.2	3.7	5.7	5.7	2.1	-	3.2	0.5	6.1	0.3	2.1	5.353	0.4	3.6	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH404/1.3-1.5	1.3-1.5	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH406/0.3-0.5	0.3-0.5	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH406/0.5-1.0	0.5-1	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	0.2	0.2	0.3	0.3	0.1	-	0.2	<0.1	0.3	<0.1	0.1	0.363	<0.1	0.1	0.3	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH406/1.0-1.1	1-1.1	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH406/2.3-2.5	2.3-2.5	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH65/0.0-0.2	0-0.2	03-01-01	Lot 8	FILL	HLA 2001*	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-		-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH65/1.0-1.5	1-1.5	03-01-01	Lot 8	NATURAL	HLA 2001*	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-		-	-	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH67/0.0-0.5	0-0.5	03-01-01	Lot 8	FILL	HLA 2001*	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-		-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH68/0.6-0.7	0.6-0.7	03-01-01	Lot 8	FILL	HLA 2001*	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-		-	-	-	7.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH93/0.0-0.5	0-0.5	03-01-01	Lot 8	FILL	HLA 2001*	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-		-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH93/1.0-1.4	1-1.4	03-01-01	Lot 8	NATURAL	HLA 2001*	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-		-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH97/0.0-0.2	0-0.2	03-01-01	Lot 8	FILL	HLA 2001*	-	-	-	-	18.8	-	-	-	-	-	-	-	-	-		-	-	-	221.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH405/0.3-0.5	0.3-0.5	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	0.1	<0.2	<0.2	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	0.601	<0.1	0.1	0.2	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH405/0.7-1.0	0.7-1	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	0.5	0.6	0.8	0.8	0.3	-	0.5	<0.1	0.9	<0.1	0.4	0.878	<0.1	0.3	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH405/1.3-1.5	1.3-1.5	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH405/1.8-2.0	1.8-2	23-11-07	Lot 8	FILL	DP 2008a	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
Lot 9 Analytical Data																																												
BH1/0.0-0.1	0-0.1	19-04-93	Lot 9	FILL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH1/0.5-1.0	0.5-1	19-04-93	Lot 9	FILL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A: Soil Analytical Results Lots 8 and 9
Project Number: 51142
Project Name: Australian Technology Park

	Polycyclic Aromatic Hydrocarbons																				Monocyclic Aromatic Hydrocarbons						Miscellaneous Hydrocarbons							Chlorinated Benzenes				Polychlorinated Biphenyls								Phenols
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benz(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Total Positive PAHs	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	Isopropylbenzene	Styrene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Dibromomethane	Iodomethane	1,2,4,5-tetrachlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Phenols (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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 EIL - Urban Residential (generic and derived, aged)																170																												
NEPM 2013 ESL Urban Residential and Public Open Space, Coarse Soil					0.7[#6]																																							
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Coarse																																											
NEPM 2013 Soil HIL A															3[#15]				300[#16]																		1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	300
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 0 to <1m																3																												
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 1 to <2m																NL																												
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																NL																												
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 4m+																NL																												

Field_ID	Depth	Date	Location	Matrix	Reference																																													
BH10/4.0-4.1	4-4.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH10/5.0-5.1	5-5.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	0.09	-	<0.2	<0.1	-	<0.1	<0.1	0.1	<0.1	<0.1	<0.5	<0.1	<0.1	0.2	0.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH10/6.0-6.1	6-6.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH10/7.0-7.1	7-7.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH10/7.5-7.6	7.5-7.6	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH10/8.0-8.1	8-8.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH11/1.0-1.1	1-1.1	22-03-01	Lot 9	FILL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH11/2.0-2.1	2-2.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH11/3.0-3.1	3-3.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	0.1	<0.1	0.09	-	<0.2	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	<0.5	<0.1	0.1	0.2	0.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH11/4.0-4.1	4-4.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH11/5.0-5.1	5-5.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH11/6.0-6.1	6-6.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH11/7.0-7.1	7-7.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH11/7.8-7.9	7.8-7.9	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	0.06	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH11/8.0-8.1	8-8.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH14/1.0-1.1	1-1.1	22-03-01	Lot 9	FILL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH14/1.5-1.6	1.5-1.6	22-03-01	Lot 9	FILL	ES 2014**	<0.1	0.2	0.3	1.5	1.2	-	2.2	0.7	-	<0.1	<0.1	2.5	<0.1	1	2	<0.1	1	3.1	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH14/2.5-2.6	2.5-2.6	22-03-01	Lot 9	FILL	ES 2014**	<0.1	0.6	0.7	2.4	2.2	-	3.7	1.3	-	<0.1	<0.1	4.8	0.2	1.8	3	0.1	2.7	5.2	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH14/3.0-3.1	3-3.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	0.1	0.06	-	<0.2	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	<0.5	<0.1	0.1	0.2	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH14/4.0-4.1	4-4.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	0.2	0.3	0.7	0.77	-	1.1	0.4	-	0.1	0.1	1.6	0.1	0.4	1	0.1	1.3	1.8	9.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH15/1.5-1.6	1.5-1.6	22-03-01	Lot 9	FILL	ES 2014**	0.1	<0.1	0.3	1.1	1	-	1.9	0.6	-	0.1	0.1	3.1	0.2	0.6	2	0.2	2.2	2.8	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH15/3.0-3.1	3-3.1	22-03-01	Lot 9	FILL	ES 2014**	<0.1	0.1	0.2	0.4	0.27	-	0.5	0.1	-	<0.1	<0.1	1	<0.1	0.2	<0.5	<0.1	0.8	1	4.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH15/4.5-4.6	4.5-4.6	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	0.1	<0.1	<0.1	<0.5	<0.1	0.1	0.1	0.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH16/1.0-1.1	1-1.1	22-03-01	Lot 9	FILL	ES 2014**	<0.1	<0.1	0.1	0.5	0.59	-	0.9	0.3	-	<0.1	<0.1	1	<0.1	0.3	1	<0.1	0.5	1.2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH16/2.0-2.1	2-2.1	22-03-01	Lot 9	FILL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH16/4.5-4.6	4.5-4.6	22-03-01	Lot 9	NATURAL	ES 2014b**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH23/0.0-0.1	0-0.1	19-04-93	Lot 9	FILL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23/0.5-1.0	0.5-1	19-04-93	Lot 9	FILL	Jet 1993**	-	0.3	0.5	1	1.1	1.4	0.6	0.6	-	0.8	0.3	1.6	0.1	0.8	1.848	0.1	1	-	11.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23/1.5-2.0	1.5-2	19-04-93	Lot 9	FILL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23/3.0-3.5	3-3.5	19-04-93	Lot 9	NATURAL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23/4.5-5.0	4.5-5	19-04-93	Lot 9	NATURAL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23/6.0-6.5	6-6.5	19-04-93	Lot 9	NATURAL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23/7.35-7.85	7.35-7.85	19-04-93	Lot 9	NATURAL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24/0.0-0.1	0-0.1	19-04-93	Lot 9	FILL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24/1.5-2.0	1.5-2	19-04-93	Lot 9	FILL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24A/1.8-1.9	1.8-1.9	12-08-94	Lot 9	NATURAL	CMPS&G 1994**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
BH24A/2.5-2.6	2.5-2.6	12-08-94	Lot 9	NATURAL	CMPS&G 1994**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH25/0.0-0.1	0-0.1	19-04-93	Lot 9	FILL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH26/0.0-0.1	0-0.1	19-04-93	Lot 9	FILL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH26/1.5-2.0	1.5-2	19-04-93	Lot 9	FILL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH26/3.0-3.5	3-3.5	19-04-93	Lot 9	NATURAL	Jet 1993**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH501/1.4-1.5	1.4-1.5	16-01-08	Lot 9	FILL	DP 2008**	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	0.201	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH501/1.9-2.0	1.9-2	16-01-08	Lot 9	FILL	DP 2008**	<0.1	<0.1	<0.1	0.3	0.2	0.3	<0.1	0.1	<0.1	0.3	<0.1	0.6	<0.1	0.1	0.383	<0.1	0.2	0.5	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH501/3.9-4.0	3.9-4	16-01-08	Lot 9	NATURAL	DP 2008**	<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	0.201	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH502/1.4-1.5	1.4-1.5	16-01-08	Lot 9	FILL	DP 2008**	0.4	2.1	3.3	7.8	6.9	10	<0.1	3.6	<0.1	6.8	0.8	17	1.5	3.9	10.3	0.7	13	17	94.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH502/1.9-2.0	1.9-2	16-01-08	Lot 9	FILL	DP 2008**	<0.1	0.2	0.3	1	1	1.8	<0.1	0.7	<0.1	1	0.1	1.8	0.1	0.7	1.53	0.2	1.1	1.8	11.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH503/0.9-1.0	0.9-1	16-01-08	Lot 9	FILL	DP 2008**	<0.1	0.1	0.1	0.5	0.6	0.8	<0.1	0.3	<0.1	0.5	<0.1	0.9	<0.1	0.3	0.895	<0.1	0.5	0.9	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH503/1.9-2.0	1.9-2	16-01-08	Lot 9	FILL	DP 2008**	<0.1	<0.1	0.1	0.2	0.3	0.4	<0.1	0.1	<0.1	0.2	<0.1	0.5	<0.1	0.1	0.482	<0.1	0.4	0.5	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH504/0.4-0.5	0.4-0.5	16-01-08	Lot 9	FILL	DP 2008**	<0.1	<0.1	<0.1	<0.1	0.08	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.231	<0.1	<0.1	0.1	1.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH504/1.4-1.5	1.4-1.5	16-01-08	Lot 9	FILL	DP 2008**	<0.1	<0.1	<0.1	<0.1	0.08	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	0.231	<0.1	0.1	0.2	1.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH505/0.5-0.6	0.5-0.6	16-01-08	Lot 9	FILL	DP 2008**	0.1	1.1	1.7	6	7.4	10	<0.1	5.5	<0.1	5.6	0.9	11	0.7	5.4	11.05	0.4	5.5	11	72.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH505/1.8-2.0	1.8-2	16-01-08	Lot 9	FILL	DP 2008**	<0.1	0.2	0.3	0.7	0.6	1	<0.1	0.3	<0.1	0.7	<0.1	1.8	<0.1	0.3	0.937	<0.1	1.4	1.7	9.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH505/3.9-4.0	3.9-4	16-01-08	Lot 9	NATURAL	DP 2008**	<0.1	<0.1	<0.1	0.1	0.1	0.2	<0.1	0.1	<0.1	0.1	<0.1	0.2	<0.1	0.1	0.251	<0.1	0.1	0.3	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH506/0.4-0.5	0.4-0.5	16-01-08	Lot 9	FILL	DP 2008**	<0.1	<0.1	<0.1	<0.1	0.06	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.211	<0.1	<0.1	0.1	1.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH506/1.9-2.0	1.9-2	16-01-08	Lot 9	FILL	DP 2008**	<0.1	0.2	0.3	1.8	1.9	3	<0.1	1.2	<0.1	1.6	0.2	3.3	<0.1	1.3	2.846	<0.1	1.2	3.4	19.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH507/0.9-1.0	0.9-1	16-01-08	Lot 9	FILL	DP 2008**	1.3	10	15	26	28	40	<0.1	15	<0.1	26	3.2	61	3.4	16	41.16	2.6	58	62	367.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	-	<5
BH507/1.8-2.0	1.8-2	16-01-08	Lot 9	FILL	DP 2008**	<0.1	1.4	2.3	4.4	4.3	6.1	<0.1	2.2	<0.1	4.3	0.5	11	0.9	2.4	6.353	0.3	10	11	61.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH508/0.4-0.5	0.4-0.5	16-01-08	Lot 9	FILL	DP 2008**	<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	0.201	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH508/1.4-1.5	1.4-1.5	16-01-08	Lot 9	FILL	DP 2008**	<0.1	0.5	0.8	1.8	2.3	3.3	<0.1	1.2	<0.1	1.9	0.3	4.1	0.4	1.3	3.379	<0.1	2.6	4	24.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH509/0.9-1.0	0.9-1	16-01-08	Lot 9	FILL	DP 2008**	<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	0.201	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH509/3.4-3.5	3.4-3.5	16-01-08	Lot 9	FILL	DP 2008**	<0.1	0.2	0.4	0.7	0.7	1	<0.1	0.4	<0.1	0.7	<0.1	1.6	<0.1	0.4	1.057	<0.1	1.5	1.6	9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH510/0.9-1.0	0.9-1	16-01-08	Lot 9	FILL	DP 2008**	1.8	11	12	16	17	6.8	<0.1	8.3	<0.1	18	2	39	6.8	9.4	23.23	12	49	40	249.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	-	<5
BH510/1.4-1.5	1.4-1.5	16-01-08	Lot 9	FILL	DP 2008**	<0.1	<0.1	0.1	0.2	0.2	0.3	<0.1	0.1	<0.1	0.2	<0.1	0.5	<0.1	0.1	0.372	<0.1	0.4	0.5	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH511/0.9-1.0	0.9-1	16-01-08	Lot 9	FILL	DP 2008**	<0.1	3.7	4.8	20	20	28	<0.1	9	<0.1	19	2.3	30	0.8	10	29.19	2.2	15	35	199.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	-	<5
BH511/1.4-1.5	1.4-1.5	16-01-08	Lot 9	FILL	DP 2008**	<0.1	<0.1	<0.1	0.2	0.2	0.3	<0.1	0.1	<0.1	0.2	<0.1	0.3	<0.1	0.1	0.372	<0.1	0.1	0.4	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<5
BH512/0.4-0.5	0.4-0.5	16-01-08	Lot 9	FILL	DP 2008**	<0.1	<0.1	<0.1	0.3	0

Table A: Soil Analytical Results Lots 8 and 9
Project Number: 51142
Project Name: Australian Technology Park

	Polycyclic Aromatic Hydrocarbons																				Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons							Chlorinated Benzenes				Polychlorinated Biphenyls								Phenols
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Total Positive PAHs	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	Isopropylbenzene	Styrene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Dibromomethane	Iodomethane	1,2,4,5-tetrachlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Phenols (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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 EIL - Urban Residential (generic and derived, aged)																170																												
NEPM 2013 ESL Urban Residential and Public Open Space, Coarse Soil					0.7[#6]																																							
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Coarse																																											
NEPM 2013 Soil HIL A															3[#15]				300[#16]																		1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	1[#17]	300
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 0 to <1m																3																												
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 1 to <2m																NL																												
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																NL																												
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 4m+																NL																												

Field_ID	Depth	Date	Location	Matrix	Reference																																								
BH7/2.0-2.1	2-2.1	22-03-01	Lot 9	FILL	ES 2014b**	0.4	2.6	5.7	7.9	7.7	-	11	4.9	-	0.7	0.7	22	2.7	4.7	11	0.6	26	21	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH7/3.0-3.1	3-3.1	22-03-01	Lot 9	NATURAL	ES 2014b**	<0.1	0.5	0.9	1.4	1.2	-	1.9	0.9	-	0.1	0.1	4	0.5	0.9	2	0.1	4.9	3.9	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH7/4.0-4.1	4-4.1	22-03-01	Lot 9	NATURAL	ES 2014b**	<0.1	<0.1	0.1	0.1	0.07	-	<0.2	<0.1	-	<0.1	<0.1	0.3	<0.1	<0.1	<0.5	<0.1	0.3	0.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH7/5.0-5.1	5-5.1	22-03-01	Lot 9	NATURAL	ES 2014b**	<0.1	<0.1	0.1	0.1	0.1	-	<0.2	0.1	-	<0.1	<0.1	0.4	<0.1	<0.1	<0.5	<0.1	0.5	0.4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH7/6.0-6.1	6-6.1	22-03-01	Lot 9	NATURAL	ES 2014b**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	0.1	<0.1	<0.1	<0.5	<0.1	0.2	0.1	0.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH7/6.5-6.6	6.5-6.6	22-03-01	Lot 9	NATURAL	ES 2014b**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH7/7.0-7.1	7-7.1	22-03-01	Lot 9	NATURAL	ES 2014b**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH7/8.0-8.1	8-8.1	22-03-01	Lot 9	NATURAL	ES 2014b**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH70/0.0-0.5	0-0.5	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	0.6	1.2	1.6	1.8	-	1	0.7	1.5	<0.5	2.3	<0.5	0.9	2.675	<0.5	1.3	2.8	18.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH70/2.2-2.45	2.2-2.45	03-01-01	Lot 9	NATURAL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	0.955	<0.5	<0.5	<0.5	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH71/0.8-1.0	0.8-1	03-01-01	Lot 9	NATURAL	HLA 2001**	<0.5	0.7	1	2	1.8	-	-	0.9	-	2	<0.5	4.6	<0.5	-	2.61	<0.5	3.6	4.2	22.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH73/0.0-0.5	0-0.5	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	0.955	<0.5	<0.5	<0.5	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH73/1.4-1.85	1.4-1.85	03-01-01	Lot 9	NATURAL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	0.955	<0.5	<0.5	<0.5	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH74/0.9-1.0	0.9-1	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	1	1.5	1.3	-	-	0.8	-	1.5	<0.5	3	<0.5	-	2.045	<0.5	2.7	2.8	17.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH76/0.0-0.5	0-0.5	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	0.955	<0.5	<0.5	<0.5	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH76/2.0-2.45	2-2.45	03-01-01	Lot 9	NATURAL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	0.955	<0.5	<0.5	<0.5	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH78/0.0-0.5	0-0.5	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.3	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	0.905	<0.5	<0.5	<0.5	6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH8/0.06-0.1	0.06-0.1	22-03-01	Lot 9	FILL	ES 2014**	2	7.3	14	26	27	-	37	12	-	1.8	1.8	45	4.4	17	37	2.2	44	47	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<1	<1	<1	<1	<1	<1	<0.7	-
BH8/1.0-1.1	1-1.1	22-03-01	Lot 9	FILL	ES 2014**	1.7	7.5	14	23	26	-	36	13	-	2.6	2.6	48	3.9	13	36	2.9	45	50	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<0.7	-
BH8/2.0-2.1	2-2.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	0.1	0.1	0.14	-	0.2	0.1	-	<0.1	<0.1	0.3	<0.1	<0.1	<0.5	<0.1	0.4	0.4	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH8/3.0-3.1	3-3.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	0.1	0.11	-	0.2	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	<0.5	<0.1	0.2	0.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH8/4.0-4.1	4-4.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH8/5.0-5.1	5-5.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH8/6.0-6.1	6-6.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH8/7.0-7.1	7-7.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	0.08	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH8/8.0-8.1	8-8.1	22-03-01	Lot 9	NATURAL	ES 2014**	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH80/2.0-2.45	2-2.45	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.205	<0.5	<0.5	<0.5	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH80/3.0-3.45	3-3.45	03-01-01	Lot 9	NATURAL	HLA 2001**	1.4	12.6	9.2	10.4	8.1	8.8	-	4	4.2	7.8	1.2	26.3	6	3.8	12.5	10.2	33.6	23.1	170.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH81/0.8-1.0	0.8-1	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	<0.5	1	1.1	1.4	-	0.8	0.6	1.2	0.5	2	<0.5	0.7	2.062	<0.5	1.2	2	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH81/3.0-3.45	3-3.45	03-01-01	Lot 9	NATURAL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	0.955	<0.5	<0.5	<0.5	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH87/0.8-1.0	0.8-1	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.3	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	0.955	<0.5	<0.5	<0.5	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH87/2.0-2.45	2-2.45	03-01-01	Lot 9	NATURAL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.205	<0.5	<0.5	<0.5	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH88/0.0-0.5	0-0.5	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.205	<0.5	<0.5	<0.5	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH89/1.8-2.0	1.8-2	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	0.8	0.7	2	2.4	-	-	1.3	0.9	2.1	-	4.4	-	1.1	2.951	-	2.1	4.9	23.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH9/0.5-0.6	0.5-0.6	22-03-01	Lot 9	FILL	ES 2014b**	<0.1	<0.1	<0.1	<0.1	0.09	-	<0.2	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	<0.5	<0.1	<0.1	0.2	0.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH9/1.0-1.1	1-1.1	22-03-01	Lot 9	FILL	ES 2014b**	<0.1	1.2	1.3	5.2	6	-	9.1	3.1	-	0.8	0.8	8.1	0.2	3.2	9	1.2	4.2	9.8	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-
BH90/1.8-2.0	1.8-2	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	1.1	1.8	1.7	-	<0.5	<0.5	0.9	1.7	<0.5	4.6	<0.5	0.9	2.677	<0.5	4	4.3	24.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH90/3.0-3.45	3-3.45	03-01-01	Lot 9	NATURAL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.205	<0.5	<0.5	<0.5	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH99/0.8-1.0	0.8-1	03-01-01	Lot 9	FILL	HLA 2001**	<0.5	<0.5	<0.5	0.7	0.7	<0.5	-	<0.5	<0.5	0.7	<0.5	1.8	<0.5	<0.5	1.477	<0.5	1.1	1.7	11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
BH99/2.0-2.45	2-2.45	03-01-01	Lot 9	NATURAL	HLA 2001**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

#5:ESLs are of moderate reliability.
#6:ESLs are of low reliability.
#7:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX from C6-C10.
#8:Management limits of BTEX and naphthalene are not available, hence should not be subtracted from the relevant fractions to obtz
#9:Limits applied after consideration of relevant ESLs and HSLs
#10:Key limitations of HSL should be referred to prior to application in Friebel and Nadebaum (2011b and 2011d).
#11:TV adopted from Chromium (VI)
#12:Assumptions of HSL are presented in Friebel and Nadebaum (2011a and 2011b).
#13:Refer to HSL and soil saturation concentration limit.
#14:Sensitive setting HSL A & HSL B Sand 0m to <1m criteria adopted. Exceedence quantifies further interpretation.
#15:Refer to Section 8.2 and Appendix J in Friebel and Nadebaum (2011a).
#16:TV maybe be multiplied by a factor to account for biodegradation of vapour
#17:HIL relates to non-dioxin-like PCBs only. If PCB source is suspected a site-specific assessment should be untertaken
#18:To obtain F2 subtract naphthalene from >C10-C16.
#19:To obtain F1 subtract the sum of BTEX from C6-C10.
Jet 1993* Report not reviewed, data presented in DP 2005a
HLA 2001* Report not reviewed, data presented in DP 2005a
Jet 1993** Report not reviewed, data presented in ES 2014b
HLA 2001** Report not reviewed, data presented in ES 2014b
DP 2008** Report not reviewed, data presented in ES 2014b
CMPS&G 1994** Report not reviewed, data presented in ES 2014b

Table A: Soil Analytical Results Lots 8 and 9
Project Number: 51142
Project Name: Australian Technology Park

| | Organochlorine Pesticides | | | | | | | | | | | | | | | | | | | | | | | | | Organophosphorus Pesticides | | | | | | | | | | | | | | | | | | |

Table A: Soil Analytical Results Lots 8 and 9
Project Number: 51142
Project Name: Australian Technology Park

	Organochlorine Pesticides																									Organophosphorus Pesticides																													
	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	alpha-Chlordane	Dieldrin	DDD	DDE	DDT	DDT+DDE+DDD (Sum of Total)	delta-BHC	Chlordane	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Pentachlorophenol	Toxaphene	Azinphos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethoprophos	Fenitrothion	Fensulfothion	Fenthion	Malathion	Mevinphos	Monocrotophos	Parathion	Parathion methyl	Phorate	Profenofos	Prothiofos	Ronnel	Stirophos	Trichloronate	Oxychlordane	HCB
	mg/kg	NEPM 2013 EIL - Urban Residential (generic and derived, aged)								180																																														
NEPM 2013 ESL Urban Residential and Public Open Space, Coarse Soil																																																						
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Coarse																																																					
NEPM 2013 Soil HIL A		6								240		50					10			6			300	100	20			160																											
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 0 to <1m																																																				
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 1 to <2m																																																				
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																																																			
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Sand 4m+																																																			

| Field_ID | Depth | Date | Location | Matrix | Reference | | | | | | | | | | | | | | | | | | |

Table A: Soil Analytical Results Lots 8 and 9
Project Number: 51142
Project Name: Australian Technology Park

| | Organochlorine Pesticides | | | | | | | | | | | | | | | | | | | | | | | | | Organophosphorus Pesticides | | | | | | | | | | | | | | | | | | |

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

		Metals & Metalloids							Chlorinated Alkanes																			Chlorinated Alkenes									TPHs (NEPC 1999)						TRHs (NEPC 2013)						BTEX						
	Asbestos ID in Soil	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	1,1,1,2-tetrachloroethane	1,1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C10-C36 Fraction	>C10-C16 Fraction	C29-C36 Fraction	C6-C10 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)
	g/kg	mg/kg	mg/kg	mg

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

		Metals & Metalloids								Chlorinated Alkanes																				Chlorinated Alkenes										TPHs (NEPC 1999)						TRHs (NEPC 2013)						BTEX						
	Asbestos ID in Soil	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	1,1,1,2-tetrachloroethane	1,1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C10-C36 Fraction	>C10-C16 Fraction	C29-C36 Fraction	C6-C10 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)
	g/kg	mg/kg	mg/kg	mg

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

		Metals & Metalloids								Chlorinated Alkanes																				Chlorinated Alkenes										TPHs (NEPC 1999)						TRHs (NEPC 2013)							BTEX						
	Asbestos ID in Soil	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	1,1,1,2-tetrachloroethane	1,1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C10-C36 Fraction	>C10-C16 Fraction	C29-C36 Fraction	C6-C10 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)
	g/kg	mg/kg	mg/kg	mg

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

		Metals & Metalloids							Chlorinated Alkanes																			Chlorinated Alkenes										TPHs (NEPC 1999)						TRHs (NEPC 2013)						BTEX					
	Asbestos ID in Soil	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	1,1,1,2-tetrachloroethane	1,1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	dibromochloromethane	DichlorodifluoroMethane	Dichloromethane	Trichlorofluoromethane	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C10-C36 Fraction	>C10-C16 Fraction	C29-C36 Fraction	C6-C10 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)
	g/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	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
NEPM 2013 EIL - Commercial Industrial (generic and site derived)		160		420	300	1800		460	920																																														
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																																								215	170	1700[85]		1700[85]		215[87]	170[85]	1700[88]	3300[89]	215[85]	170[85]	75[85]	165[86]	135[85]			180[86]
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																							700[90]	1000[88]	3500		3500		700[90]	1000[88]	3500	10000								
NEPM 2013 Soil HIL D	0.1	3000[410]	900	3600[411]	240000	1500[412]	730[413]	6000	400000																																														
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																																																260[414]	NL#17	3	NL	NL			230
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																																																370[414]	NL#17	3	NL	NL			NL
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																																																630[414]	NL#17	3	NL	NL			NL
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																																																NL#18	NL#17	3	NL	NL			NL

Field_ID	Depth	Date	Location	Matrix	Reference																																																			
BH82/0.6-1.0	0.6-1	22-01-09	Lot 12	FILL	DP 2009*	-	6	<0.5	11	57	140	<0.1	3	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH82/2.2-2.5	2.2-2.5	22-01-09	Lot 12	FILL	DP 2009*	-	5	<0.5	15	5	29	<0.1	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH82/3.5-4.0	3.5-4	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	<1	<1	<1	<0.1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH83/0.0-1.5	0-1.5	22-01-09	Lot 12	FILL	DP 2009*	-	26	<0.5	19	1000	910	0.2	34	850	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH84/0.0-0.2	0-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	12	0.7	13	1300	1000	4.6	17	4409	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH84/2.4-3.0	2.4-3	22-01-09	Lot 12	FILL	DP 2009*	-	9	<0.5	5	46	43	<0.1	<1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH85/0.0-0.1	0-0.1	22-01-09	Lot 12	FILL	DP 2009*	-	20	<0.5	13	1800	450	2.4	15	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC1/0.0-0.2	0-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	16	3.5	12	1200	1200	1.2	21	3300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC1/0.5-0.9	0.5-0.9	22-01-09	Lot 12	FILL	DP 2009*	-	7	1.5	8	590	560	0.2	11	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC2/0.6-1.0	0.6-1	22-01-09	Lot 12	FILL	DP 2009*	-	6	0.6	7	500	74	0.1	3	740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC3/0.1-1.0	0.1-1	22-01-09	Lot 12	FILL	DP 2009*	-	16	<0.5	7	1100	790	0.6	19	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC3/1.5-2.0	1.5-2	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	2	<1	2	<0.1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC5/1.1-1.5	1.1-1.5	22-01-09	Lot 12	FILL	DP 2009*	-	35	3	26	510	540	0.2	37	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC6/0.0-1.0	0-1	22-01-09	Lot 12	FILL	DP 2009*	-	5	<0.5	16	210	200	0.4	7	190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC6/1.4-1.5	1.4-1.5	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	7	75	77	0.1	3	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/0.1-0.2	0.1-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	12	<0.5	19	1900	350	0.7	21	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/0.5-1.0	0.5-1	22-01-09	Lot 12	FILL	DP 2009*	-	13	0.5	14	1500	430	3.4	19	610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/1.5-2.0	1.5-2	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	6	30	32	<0.1	1	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	8	43	25	<0.1	1	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/0.1-1.0	0.1-1	22-01-09	Lot 12	FILL	DP 2009*	-	7	<0.5	12	580	180	0.1	10	180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/1.8-2.0	1.8-2	22-01-09	Lot 12	FILL	DP 2009*	-	6	<0.5	32	16	37	<0.1	5	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/2.2-2.5	2.2-2.5	22-01-09	Lot 12	FILL	DP 2009*	-	5	<0.5	13	4	24	<0.1	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	6	<0.5	36	25	25	<0.1	12	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD3/0.1-1.0	0.1-1	22-01-09	Lot 12	FILL	DP 2009*	-	21	<0.5	19	990	500	0.4	31	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD3/1.2-1.8	1.2-1.8	22-01-09	Lot 12	FILL	DP 2009*	-	11	<0.5	16	1800	400	0.3	18	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD5/0.1-0.4	0.1-0.4	22-01-09	Lot 12	FILL	DP 2009*	-	22	1	16	7200	1300	0.2	23	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD5/0.5-1.1	0.5-1.1	22-01-09	Lot 12	FILL	DP 2009*	-	20	1.2	20	2900	1500	0.2	38	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD6/0.1-0.8	0.1-0.8	22-01-09	Lot 12	FILL	DP 2009*	-	8	<0.5	11	1200	540	0.7	7	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD6/1.0-1.6	1-1.6	22-01-09	Lot 12	FILL	DP 2009*	-	14	<0.5	15	660	260	0.2	4	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE1/0.0-0.2	0-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	7	<0.5	19	1100	190	0.2	13	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE1/1.5-2.0	1.5-2	22-01-09	Lot 12	FILL	DP 2009*	-	4	<0.5	18	58	49	<0.1	3	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE1/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	5	<0.5	19	21	22	<0.1	4	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE2/0.0-1.0	0-1	22-01-09	Lot 12	FILL	DP 2009*	-	7	<0.5	18	720	180	0.2	10	190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE2/1.8-2.0	1.8-2	22-01-09	Lot 12	FILL	DP 2009*	-	5	<0.5	73	240	160	<0.1	39	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE3/0.1-1.0	0.1-1.1	22-01-09	Lot 12	FILL	DP 2009*	-	6	<0.5	16	340	220	0.1	13	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE3/1.5-1.8	1.5-1.8	22-01-09	Lot 12	FILL	DP 2009*	-	8	<0.5	26	690	260	0.3	20	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE3/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	7	<0.5	30	13	25	<0.1	6	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE6/0.1-0.4	0.1-0.4	22-01-09	Lot 12	FILL	DP 2009*	-	15	<0.5	7	1806	718	0.5	6	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE6/0.5-1.0	0.5-1	22-01-09	Lot 12	FILL	DP 2009*	-	27	1.7	20	680	1300	0.3	21	2200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF2/0.05-0.2	0.05-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	5	<0.5	14	79	45	<0.1	3	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF2/0.2-1.8	0.2-1.8	22-01-09	Lot 12	FILL	DP 2009*	-	4	<0.5	10	43	33	<0.1	4	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF2/2.0-3.2	2-3.2	22-01-09	Lot 12	FILL	DP 2009*	-	6	<0.5	14	31	23	<0.1	5	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF3/0.6-1.1	0.6-1.1	22-01-09	Lot 12	FILL	DP 2009*	-	16	<0.5	10	4600	860	0.2	21	890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF3/1.1-1.6	1.1-1.6	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	5	17	9	<0.1	4	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF3/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	5	6	6	<0.1	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF5/0.1-0.4	0.1-0.4	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	17	58	10	<0.1	25	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF5/0.7-0.9	0.7-0.9	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	16	58	7	<0.1	27	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF6/0.1-0.4	0.1-0.4	22-01-09	Lot 12	FILL	DP 2009*	-	14	<0.5	7	1300	1900	0.2	12	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF6/0.5-0.7	0.5-0.7	22-01-09	Lot 12	FILL	DP 2009*	-	5	<0.5	9	110	64	0.2	3	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG2/0.0-1.8	0-1.8	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	10	65	35	<0.1	10	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG2/2.0-3.0	2-3	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	11	60	33	<0.1	14	78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG3/0.0-0.3	0-0.3	22-01-09	Lot 12	FILL	DP 2009*	-	7	<0.5	14	1100	160	0.2	15	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG3/0.5-1.0	0.5-1	22-01-09	Lot 12	FILL	DP 2009*	-	22	<0.5	16	390	76	<0.1	21	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG3/1.0-2.0	1-2	22-01-09	Lot 12	FILL	DP 2009*	-	<4	<0.5	5	16	52	<0.1	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHS12/0.5-0.6	0.5-0.6	09-04-13	Lot 12	FILL	GETEX 2013*	0	<4	<0.4	7	97	33	<0.1	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHS13/0.5-0.6	0.5-0.6	09-04-13	Lot 12	FILL	GETEX 2013*	-	65	0.5	21	13,000	3000	1.8	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH613/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	0	12	0.6	9	990	390	<0.1	12	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106/0.2-0.3	0.2-0.3	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	6	<0.5	4	68	39	-	-	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106/0.5-0.6	0.5-0.6	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	4	<0.5	8	26	21	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106/1.6-1.7	1.6-1.7	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	5.5	<0.5	2	24	76	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106/2.4-2.5	2.4-2.5	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	4	<0.5	7	-	2	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53A/0.5-0.6	0.5-0.6	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	8	<0.5	4	2750	410	-	-	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53A/1.6-1.7	1.6-1.7	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	8	<0.5	4	1850	970	-	-	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53A/2.0-2.1	2-2.1	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	5	<0.5	5.5	70	26	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53A/2.5-2.6	2.5-2.6	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	9	1	5	5200	1350	-	-	1160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53C/0.5-0.6	0.5-0.6	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	10	2	11	5100	1140	-	-	1230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53C/1.8-1.9	1.8-1.9	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	9	0.5	8	14.5	1830	-	-	930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53C/2.3-2.4	2.3-2.4	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	7.5	<0.5	3.5	750	55	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

| | | Metals & Metalloids | | | | | | | | Chlorinated Alkanes | | | | | | | |

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Polycyclic Aromatic Hydrocarbons																			Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons								Chlorinated Benzenes				Polychlorinated Biphenyls								Phenols										
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	Isopropylbenzene	Styrene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Dibromomethane	Iodomethane	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3- & 4-Methylphenol	4-Chloro-3-Methylphenol	Phenol	Phenols (Total)
	mg/kg	mg/kg	mg/kg

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Polycyclic Aromatic Hydrocarbons																		Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons							Chlorinated Benzenes				Polychlorinated Biphenyls								Phenols										
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as Bs)P TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	Isopropylbenzene	Styrene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Dibromomethane	Iodomethane	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3- & 4-Methylphenol	4-Chloro-3-Methylphenol	Phenol	Phenols (Total)
	mg/kg	mg/kg	mg/kg

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Polycyclic Aromatic Hydrocarbons																			Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons							Chlorinated Benzenes				Polychlorinated Biphenyls								Phenols									
	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b,j]fluoranthene	Benzo[b,k]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-c,d]pyrene	Carcinogenic PAHs as BaP TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	Isopropylbenzene	Styrene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Dibromomethane	Iodomethane	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3- & 4-Methylphenol	4-Chloro-3-Methylphenol	Phenol	Phenols (Total)
	mg/kg	mg/kg	mg/kg

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Polycyclic Aromatic Hydrocarbons																			Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons							Chlorinated Benzenes				Polychlorinated Biphenyls								Phenols									
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as Bb/P TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	Isopropylbenzene	Styrene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Dibromomethane	Iodomethane	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3- & 4-Methylphenol	4-Chloro-3-Methylphenol	Phenol	Phenols (Total)
	mg/kg	mg/kg	mg/kg

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Polycyclic Aromatic Hydrocarbons																		Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons						Chlorinated Benzenes				Polychlorinated Biphenyls								Phenols											
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as Bb)P TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	Isopropylbenzene	Styrene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Dibromomethane	Iodomethane	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3- & 4-Methylphenol	4-Chloro-3-Methylphenol	Phenol	Phenols (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	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
NEPM 2013 EIL - Commercial Industrial (generic and site derived)																370																																				
NEPM 2013 ESL Commercial and Industrial, Coarse Soil					1.4[#6]																																														
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																																			
NEPM 2013 Soil HIL D															40[#14]				4000[#15]															80	1	1	1	1	1	1	1	7[#15]										240000	
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																NL																																				
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																NL																																				
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																NL																																				
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																NL																																				

Field_ID	Depth	Date	Location	Matrix	Reference

#5:ESLs are of moderate reliability.
#6:ESLs are of low reliability.
#7:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX from C6-C10.
#8:Management limits of BTEX and naphthalene are not available, hence should not be subtracted from the relevant fractions to obt
#9:Limits applied after consideration of relevant ESLs and HSLs
#10:Key limitations of HSL should be referred to prior to application in Friebel and Nadebaum (2011b and 2011d).
#11:TV adopted from Chromium (VI)
#12:Assumptions of HSL are presented in Friebel and Nadebaum (2011a and 2011b).
#13:Refer to HSL and soil saturation concentration limit.
#14:Refer to Section 8.2 and Appendix J in Friebel and Nadebaum (2011a).
#15:TV maybe be multiplied by a factor to account for biodegradation of vapour
#16:HIL relates to non-dioxin-like PCBs only. If PCB source is suspected a site-specific assessment should be untertaken
#17:To obtain F2 subtract naohthalene from >C10-C16.
#18:To obtain F1 subtract the sum of BTEX from C6-C10.
ES 2014* Report not reviewed, data presented in ES 2014c
DP 2003* Report not reviewed, data presented in ES 2014c
HLA 2001* Report not reviewed, data presented in ES 2014c
Jet 1993* Report not reviewed, data presented in ES 2014c
DP 2008* Report not reviewed, data presented in ES 2014c
DP 2009* Report not reviewed, data presented in ES 2014c
CMPS&G 1994* Report not reviewed, data presented in ES 2014c
GETEX 2013* Report not reviewed, data presented in ES 2014c

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Organochlorine Pesticides																									Organophosphorus Pesticides																													
	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	alpha-Chlordane	Dieldrin	DDD	DDE	DDT	DDT+DDE+DDD (Sum of Total)	delta-BHC	Chlordane	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Pentachlorophenol	Toxaphene	Azinphos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethoprophos	Fenitrothion	Fensulfothion	Fenthion	Malathion	Mevinphos	Monocrotophos	Parathion	Parathion methyl	Phorate	Profenofos	Prothiofos	Ronnel	Stirophos	Trichloronate
	mg/kg	mg/kg	mg/kg

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Organochlorine Pesticides																									Organophosphorus Pesticides																													
	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	alpha-Chlordane	Dieldrin	DDD	DDE	DDT	DDT+DDE+DDD (Sum of Total)	delta-BHC	Chlordane	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Pentachlorophenol	Toxaphene	Azinphos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethoprophos	Fenitrothion	Fensulfothion	Fenthion	Malathion	Mevinphos	Monocrotophos	Parathion	Parathion methyl	Phorate	Profenofos	Prothiofos	Ronnel	Stirophos	Trichloronate
	mg/kg	NEPM 2013 EIL - Commercial Industrial (generic and site derived)								640																																													
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																																																					
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																																					
NEPM 2013 Soil HIL D		45								3600		530					100			50			2500	660	160			2000																										
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																																																				
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																																																				
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																																																				
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																																																				

| Field_ID | Depth | Date | Location | Matrix | Reference | | | | | | | | | | | | | | | | | | |

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Organochlorine Pesticides																									Organophosphorus Pesticides																										
	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	alpha-Chlordane	Dieldrin	DDD	DDE	DDT	DDT+DDE+DDD (Sum of Total)	delta-BHC	Chlordane	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Pentachlorophenol	Toxaphene	Azinphos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethoprophos	Fenitrothion	Fensulfothion	Fenthion	Malathion	Mevinphos	Monocrotophos	Parathion	Parathion methyl	Phorate	Profenofos	Prothiofos	Ronnel	Stirophos	Trichloronate
	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	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
NEPM 2013 EIL - Commercial Industrial (generic and site derived)									640																																										
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																																																		
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																																		
NEPM 2013 Soil HIL D		45								3600		530					100			50			2500	660	160			2000																									
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																																																		
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																																																		
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																																																		
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																																																		

Field_ID	Depth	Date	Location	Matrix	Reference																																																		
BH607/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH607/2.9-3.0	2.9-3	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH607/6.0-6.7	6-6.7	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH608/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH608/1.9-2.0	1.9-2	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH608/2.9-3.0	2.9-3	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH609/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH609/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH609/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH61/0.6-0.8	0.6-0.8	05-01-01	Lot 12	FILL	HLA 2001*	<0.05	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.2	<0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.2	<0.2	-	<0.05	<0.05	-	-	-
BH610/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH610/0.6-0.7	0.6-0.7	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH610/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH611/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH611/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH611/7.8-8.0	7.8-8	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH612/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH612/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH612/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH612/2.9-3.0	2.9-3	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH613/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH613/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH613/2.9-3.0	2.9-3	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH614/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH614/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH614/1.9-2.0	1.9-2	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH615A/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH615A/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH615A/1.9-2.0	1.9-2	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH615A/7.9-8.0	7.9-8	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH616/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH616/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH616/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH616/5.9-6.0	5.9-6	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH618/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH618/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH618/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH619/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH619/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH62/0.0-0.5	0-0.5	05-01-01	Lot 12	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH62/2.0-2.45	2-2.45	05-01-01	Lot 12	NATURAL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH620A/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH620A/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH620A/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH620A/1.9-2.0	1.9-2	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH621B/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH621B/1.9-2.0	1.9-2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH621B/2.9-3.0	2.9-3	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH621B/6.9-7.0	6.9-7	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH622/0.2-0.3	0.2-0.3	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH622/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH622/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH622/6.9-7.0	6.9-7	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH623/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH623/1.9-2.0	1.9-2	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH623/2.9-3.0	2.9-3	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH624/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH624/1.9-2.0	1.9-2	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH624/6.9-7.0	6.9-7	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH625/0.2-0.3	0.2-0.3	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH625/0.4-0.5	0.4-0.5	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH625/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH625/1.9-2.0	1.9-2	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH625/4.9-5.0	4.9-5	06-08-08	Lot 12	NATURAL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH626/0.2-0.3	0.2-0.3	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH626/0.9-1.0	0.9-1	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH626/1.9-2.0	1.9-2	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH626/2.9-3.0	2.9-3	06-08-08	Lot 12	FILL	DP 2008*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA1/0.0-0.6	0-0.6	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA1/0.6-3.0	0.6-3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA2/0.0-0.6	0-0.6	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA2/1.7-2.0	1.7-2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA3/0.0-1.5	0-1.5	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA4/0.0-0.7	0-0.7	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHAH7/0.0-0.1	0-0.1	11-05-93	Lot 12	FILL	Jet 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB1/0.0-0.3	0-0.3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB2/0.0-0.6	0-0.6	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Organochlorine Pesticides																									Organophosphorus Pesticides																								
	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	alpha-Chlordane	Dieldrin	DDD	DDE	DDT	DDT+DDE+DDD (Sum of Total)	delta-BHC	Chlordane	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Pentachlorophenol	Toxaphene	Azinphos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethoprophos	Fenitrothion	Fensulfothion	Fenthion	Malathion	Mevinphos	Monocrotophos	Parathion	Parathion methyl	Phorate	Profenofos	Prothiofos	Ronnel	Stirophos	Trichloronate
	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	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
NEPM 2013 EIL - Commercial Industrial (generic and site derived)									640																																									
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																																																	
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																																	
NEPM 2013 Soil HIL D		45								3600		530					100			50			2500	660	160			2000																							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																																																	
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																																																	
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																																																	
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																																																	

Field_ID	Depth	Date	Location	Matrix	Reference																																															
BH82/0.6-1.0	0.6-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH82/2.2-2.5	2.2-2.5	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH82/3.5-4.0	3.5-4	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH83/0.0-1.5	0-1.5	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH84/0.0-0.2	0-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH84/2.4-3.0	2.4-3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH85/0.0-0.1	0-0.1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC1/0.0-0.2	0-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC1/0.5-0.9	0.5-0.9	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC2/0.6-1.0	0.6-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC3/0.1-1.0	0.1-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC3/1.5-2.0	1.5-2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC5/1.1-1.5	1.1-1.5	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC6/0.0-1.0	0-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC6/1.4-1.5	1.4-1.5	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/0.1-0.2	0.1-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/0.5-1.0	0.5-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/1.5-2.0	1.5-2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/0.1-1.0	0.1-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/1.8-2.0	1.8-2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/2.2-2.5	2.2-2.5	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD3/0.1-1.0	0.1-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD3/1.2-1.8	1.2-1.8	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD5/0.1-0.4	0.1-0.4	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD5/0.5-1.1	0.5-1.1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD6/0.1-0.8	0.1-0.8	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD6/1.0-1.6	1-1.6	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE1/0.0-0.2	0-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE1/1.5-2.0	1.5-2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE1/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE2/0.0-1.0	0-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE2/1.8-2.0	1.8-2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE3/0.1-1.0	0.1-1.1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE3/1.5-1.8	1.5-1.8	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE3/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE6/0.1-0.4	0.1-0.4	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE6/0.5-1.0	0.5-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF2/0.05-0.2	0.05-0.2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF2/0.2-1.8	0.2-1.8	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF2/2.0-3.2	2-3.2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF3/0.6-1.1	0.6-1.1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF3/1.1-1.6	1.1-1.6	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF3/2.5-3.0	2.5-3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF5/0.1-0.4	0.1-0.4	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF5/0.7-0.9	0.7-0.9	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF6/0.1-0.4	0.1-0.4	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF6/0.5-0.7	0.5-0.7	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG2/0.0-1.8	0-1.8	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG2/2.0-3.0	2-3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG3/0.0-0.3	0-0.3	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG3/0.5-1.0	0.5-1	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG3/1.0-2.0	1-2	22-01-09	Lot 12	FILL	DP 2009*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHS12/0.5-0.6	0.5-0.6	09-04-13	Lot 12	FILL	GETEX 2013*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHS13/0.5-0.6	0.5-0.6	09-04-13	Lot 12	FILL	GETEX 2013*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH613/0.1-0.2	0.1-0.2	06-08-08	Lot 12	FILL	DP 2008*	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106/0.2-0.3	0.2-0.3	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106/0.5-0.6	0.5-0.6	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106/1.6-1.7	1.6-1.7	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106/2.4-2.5	2.4-2.5	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53A/0.5-0.6	0.5-0.6	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53A/1.6-1.7	1.6-1.7	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53A/2.0-2.1	2-2.1	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53A/2.5-2.6	2.5-2.6	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53C/0.5-0.6	0.5-0.6	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53C/1.8-1.9	1.8-1.9	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP53C/2.3-2.4	2.3-2.4	01-09-94	Lot 12	FILL	CMPS&G 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

Table B: Soil Analytical Results Lot 12
Project Number: 51142
Project Name: Australian Technology Park

	Organochlorine Pesticides																										Organophosphorus Pesticides																											
	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	alpha-Chlordane	Dieldrin	DDD	DDE	DDT	DDT+DDE+DDD (Sum of Total)	delta-BHC	Chlordane	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Pentachlorophenol	Toxaphene	Azinphos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton	Diazinon	DichlorvosDimethoate	Disulfoton	Ethion	Ethoprophos	Fenitrothion	Fensulfothion	Fenthion	Malathion	Mevinphos	Monocrotophos	Parathion	Parathion methyl	Phorate	Profenofos	Prothiofos	Ronnel	Stirophos	Trichloronate
	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	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
NEPM 2013 EIL - Commercial Industrial (generic and site derived)									640																																											
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																																																				
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																																				
NEPM 2013 Soil HIL D		45								3600		530					100			50			2500	660	160			2000																									
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																																																			
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																																																			
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																																																			
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																																																			

Field_ID	Depth	Date	Location	Matrix	Reference

#5:ESLs are of moderate reliability.
#6:ESLs are of low reliability.
#7:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX from C6-C10.
#8:Management limits of BTEX and naphthalene are not available, hence should not be subtracted from the relevant fractions to obt
#9:Limits applied after consideration of relevant ESLs and HSLs
#10:Key limitations of HSL should be referred to prior to application in Friebel and Nadebaum (2011b and 2011d).
#11:TV adopted from Chromium (VI)
#12:Assumptions of HSL are presented in Friebel and Nadebaum (2011a and 2011b).
#13:Refer to HSL and soil saturation concentration limit.
#14:Refer to Section 8.2 and Appendix J in Friebel and Nadebaum (2011a).
#15:TV maybe be multiplied by a factor to account for biodegradation of vapour
#16:HIL relates to non-dioxin-like PCBs only. If PCB source is suspected a site-specific assessment should be untertaken
#17:To obtain F2 subtract naohthalene from >C10-C16.
#18:To obtain F1 subtract the sum of BTEX from C6-C10.
ES 2014* Report not reviewed, data presented in ES 2014c
DP 2003* Report not reviewed, data presented in ES 2014c
HLA 2001* Report not reviewed, data presented in ES 2014c
Jet 1993* Report not reviewed, data presented in ES 2014c
DP 2008* Report not reviewed, data presented in ES 2014c
DP 2009* Report not reviewed, data presented in ES 2014c
CMPS&G 1994* Report not reviewed, data presented in ES 2014c
GETEX 2013* Report not reviewed, data presented in ES 2014c

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

| | | |

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

		Metals & Metalloids								Chlorinated Alkanes																														Chlorinated Alkenes														Anilines						TPHs						
	Asbestos ID in Soil	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	dibromochloromethane	Dichlorodifluoromethane	Dichloromethane	Hexachloroethane	Pentachloroethane	Trichlorofluoromethane	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	2-Nitroaniline	3-Nitroaniline	4-Chloroaniline	4-Nitroaniline	Aniline	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C6-C36 Fraction	C10-C36 Fraction	C15-C36 Fraction
	g/kg	mg/kg	mg/kg	mg

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

| | | |

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

| | | | | | | | TRHs (NEPC 2013) | | | | | | BTEX | | | | | | Polycyclic Aromatic Hydrocarbons | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Monocyclic Aromatic Hydrocarbons | | | | | | | | | | Miscellaneous Hydrocarbons | | | | Nitrobenzenes | | | Chlorinated Benzenes | | | | | | | |
|---|---|---

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

| | | |

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

							TRHs (NEPC 2013)				BTEX						Polycyclic Aromatic Hydrocarbons																													Monocyclic Aromatic Hydrocarbons										Miscellaneous Hydrocarbons				Nitrobenzenes			Chlorinated Benzenes								
							C6-C10 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	2-Methylnaphthalene	3-Methylcholanthrene	Chrysene	Dibenz(a,h)antracene	7,12-Dimethylbenz(a)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Bromobenzene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	Bromoform	Bromomethane	Dibromomethane	1,3-dinitrobenzene	Nitrobenzene	pentachloronitrobenzene	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Pentachlorobenzene
							mg/kg	mg/kg	mg/kg

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

| | | | | | | Polychlorinated Biphenyls | | | | | | | | Phenols | | | | | | | | | | | | Phthalates | | | | Industrial | | | Organochlorine Pesticides | | | | | | | | | | | |

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

| | | | | | | Polychlorinated Biphenyls | | | | | | | | Phenols | | | | | | | | | | | | Phthalates | | | | Industrial | | | Organochlorine Pesticides | | | | | | | | | | | |

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

| | Polychlorinated Biphenyls | | | | | | | | Phenols | | | | | | | | | | | | | Phthalates | | | | Industrial | | | Organochlorine Pesticides | | | | | | | | | | | | |

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

						Organophosphorus Pesticides									Other	
						Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dimethoate	Ethion	Ethylmethanesulfonate	Fenitrothion	Ronnel	Safrole	Dinitro-o-cresol	Dinoseb
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 EIL - Commercial Industrial (generic and site derived)																
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																
NEPM 2013 Soil HIL D						2000										
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																
Field_ID	Depth	Date	Location	Matrix	Reference											
BH48/0.0-0.1	0-0.1	7-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH48/0.5-1.0	0.5-1	7-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH48/1.5-2.0	1.5-2	7-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH48/4.5-5.0	4.5-5	7-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH48/6.0-6.5	6-6.5	7-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH48/7.5-8.0	7.5-8	7-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH49/0.5-1.0	0.5-1	11-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH60/0.0-0.1	0-0.1	17-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH60/3.0-3.5	3-3.5	17-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH60/4.0-4.5	4-4.5	17-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH60/6.0-6.5	6-6.5	17-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH60/9.0-9.5	9-9.5	17-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH61/0.0-0.1	0-0.1	18-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH61/0.5-1.0	0.5-1	18-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH61/1.5-2.0	1.5-2	18-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH61/3.0-3.5	3-3.5	18-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH61/4.5-5.0	4.5-5	18-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH61/6.0-6.5	6-6.5	18-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH61/7.5-8.0	7.5-8	18-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH62/0.0-0.1	0-0.1	17-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH63/0.0-0.1	0-0.1	18-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH63/0.5-1.0	0.5-1	18-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH64/0.0-0.1	0-0.1	18-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH64/0.5-1.0	0.5-1	18-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH64/1.5-2.0	1.5-2	18-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH64/3.0-3.5	3-3.5	18-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH65/0.5-1.0	0.5-1	18-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH65/1.5-2.0	1.5-2	18-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH65/3.0-3.5	3-3.5	18-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH65/4.5-5.0	4.5-5	18-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH65/6.0-6.5	6-6.5	18-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH69/0.5-1.0	0.5-1	20-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH69/1.5-2.0	1.5-2	20-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH69/3.0-3.5	3-3.5	20-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH71/0.0-0.1	0-0.1	20-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH71/0.5-1.0	0.5-1	20-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH71/1.5-2.0	1.5-2	20-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH73/3.0-3.5	3-3.5	21-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH74/6.0-6.5	6-6.5	21-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH77/3.0-3.5	3-3.5	21-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH77/4.5-5.0	4.5-5	21-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH77/6.0-6.5	6-6.5	21-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH77/7.5-8.0	7.5-8	21-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH77/9.0-9.5	9-9.5	21-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH1/0.0-0.1	0-0.1	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH1/0.5-0.6	0.5-0.6	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH1/0.7-0.8	0.7-0.8	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH10/0.0-0.1	0-0.1	23-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH10/0.3-0.5	0.3-0.5	23-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH11/0.0-0.1	0-0.1	27-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH11/0.3-0.5	0.3-0.5	27-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH11/0.8-1.0	0.8-1	27-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH12/0.0-0.1	0-0.1	23-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH12/0.3-0.5	0.3-0.5	23-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH12/0.8-1.0	0.8-1	23-07-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH2/0.0-0.1	0-0.1	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH2/0.5-0.6	0.5-0.6	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH2/0.9-1.0	0.9-1	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH3/0.0-0.1	0-0.1	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH3/0.5-0.6	0.5-0.6	27-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH4/0.0-0.1	0-0.1	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH4/0.5-0.6	0.5-0.6	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH5/0.0-0.1	0-0.1	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH5/0.5-0.6	0.5-0.6	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH5/0.9-1.0	0.9-1	27-05-1993	Area 1	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH6/0.0-0.1	0-0.1	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH6/0.5-0.6	0.5-0.6	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH6/0.9-1.0	0.9-1	27-05-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH8/0.0-0.1	0-0.1	23-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH8/0.2-0.3	0.2-0.3	23-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH8/0.3-0.5	0.3-0.5	23-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH8/0.8-1.0	0.8-1	23-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH9/0.0-0.1	0-0.1	23-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHAH9/0.3-0.5	0.3-0.5	23-07-1993	Area 1	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHLoc1/0.2-5.0	0.2-5	14-12-2011	Area 1	FILL	GETEX 2011	-	-	-	-	-	-	-	-	-	-	-
BHLoc2/0.2-5.0	0.2-5	14-12-2011	Area 1	FILL	GETEX 2011	-	-	-	-	-	-	-	-	-	-	-
BHLoc3/0.2-5.0	0.2-5	14-12-2011	Area 1	FILL	GETEX 2011	-	-	-	-	-	-	-	-	-	-	-

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

						Organophosphorus Pesticides									Other	
						Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dimethoate	Ethion	Ethylmethanesulfonate	Fenitrothion	Ronnel	Safrole	Dinitro-o-cresol	Dinoseb
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 EIL - Commercial Industrial (generic and site derived)																
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																
NEPM 2013 Soil HIL D						2000										
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																
Field_ID	Depth	Date	Location	Matrix	Reference											
BHLoc4/0.2-5.0	0.2-5	14-12-2011	Area 1	FILL	GETEX 2011	-	-	-	-	-	-	-	-	-	-	-
BHLoc5/0.2-5.0	0.2-5	14-12-2011	Area 1	FILL	GETEX 2011	-	-	-	-	-	-	-	-	-	-	-
BHN/0.1-0.2	0.1-0.2	9-08-2010	Area 1	FILL	ES 2010	-	-	-	-	-	-	-	-	-	-	-
BHN/0.6-0.7	0.6-0.7	9-08-2010	Area 1	FILL	ES 2010	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	-	-	-
BHN/0.8-0.9	0.8-0.9	9-08-2010	Area 1	FILL	ES 2010	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	-	-	-
BHN/3.4-3.5	3.4-3.5	9-08-2010	Area 1	NATURAL	ES 2010	-	-	-	-	-	-	-	-	-	-	-
BHS/0.1-0.2	0.1-0.2	9-08-2010	Area 1	FILL	ES 2010	-	-	-	-	-	-	-	-	-	-	-
BHS/0.4-0.5	0.4-0.5	9-08-2010	Area 1	FILL	ES 2010	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	-	-	-
BHS/1.3-1.4	1.3-1.4	9-08-2010	Area 1	FILL	ES 2010	-	-	-	-	-	-	-	-	-	-	-
BHS/3.3-3.4	3.3-3.4	9-08-2010	Area 1	NATURAL	ES 2010	-	-	-	-	-	-	-	-	-	-	-
BHGN/3.3-3.4	3.3-3.4	9-08-2010	Area 1	NATURAL	ES 2010	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	-	-	-
BHGS/3.3-3.4	3.3-3.4	9-08-2010	Area 1	NATURAL	ES 2010	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	-	-	-
TP64A/0.4-0.5	0.4-0.5	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP64A/1.0-1.1	1-1.1	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP64B/0.4-0.5	0.4-0.5	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP64B/1.0-1.1	1-1.1	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP64C/0.5-0.6	0.5-0.6	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP64C/0.6-0.7	0.6-0.7	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP64C/1.3-1.4	1.3-1.4	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP64D/0.6-0.7	0.6-0.7	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP64D/1.6-1.7	1.6-1.7	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP96/0.5-0.6	0.5-0.6	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP96/0.9-1.0	0.9-1	12-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP97/0.7-0.8	0.7-0.8	11-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP97/0.7-0.8(2)	0.7-0.8	11-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP97/1.3-1.4	1.3-1.4	11-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP97/1.7-1.8	1.7-1.8	11-08-1994	Area 1	NATURAL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP97/1.8-1.9	1.8-1.9	11-08-1994	Area 1	NATURAL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP98/0.8-0.9	0.8-0.9	11-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP98/0.8-0.9(2)	0.8-0.9	11-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP98/1.4-1.5	1.4-1.5	11-08-1994	Area 1	FILL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP98/1.4-1.5(2)	1.4-1.5	11-08-1994	Area 1	NATURAL	CMP&F 1994*	-	-	-	-	-	-	-	-	-	-	-
BH45/0.0-0.1	0-0.1	10-05-1993	Area 2	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH45/0.5-1.0	0.5-1	10-05-1993	Area 2	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH45/1.5-2.0	1.5-2	10-05-1993	Area 2	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH46/0.0-0.1	0-0.1	7-05-1993	Area 2	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH46/0.5-1.0	0.5-1	7-05-1993	Area 2	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH46/3.0-3.5	3-3.5	7-05-1993	Area 2	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH47/0.5-1.0	0.5-1	7-05-1993	Area 2	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH47/1.5-2.0	1.5-2	7-05-1993	Area 2	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BHS1/0.3-0.4	0.3-0.4	8-03-2013	Area 2	FILL	GTEX 2013	-	-	-	-	-	-	-	-	-	-	-
BHS2/0.2-0.3	0.2-0.3	8-03-2013	Area 2	FILL	GTEX 2013	-	-	-	-	-	-	-	-	-	-	-
BHS3/0.3-0.4	0.3-0.4	8-03-2013	Area 2	FILL	GTEX 2013	-	-	-	-	-	-	-	-	-	-	-
BHS4/0.1-0.2	0.1-0.2	8-03-2013	Area 2	FILL	GTEX 2013	-	-	-	-	-	-	-	-	-	-	-
BHS5/0.2-0.3	0.2-0.3	8-03-2013	Area 2	FILL	GTEX 2013	-	-	-	-	-	-	-	-	-	-	-
BHS6/0.2-0.3	0.2-0.3	8-03-2013	Area 2	FILL	GTEX 2013	-	-	-	-	-	-	-	-	-	-	-
BHS7/0.1-0.2	0.1-0.2	8-03-2013	Area 2	FILL	GTEX 2013	-	-	-	-	-	-	-	-	-	-	-
BHS8/0.25-0.35	0.25-0.35	8-03-2013	Area 2	FILL	GTEX 2013	-	-	-	-	-	-	-	-	-	-	-
TP99/0.2-0.3	0.2-0.3	12-08-1994	Area 2	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP99/1.6-1.7	1.6-1.7	12-08-1994	Area 2	NATURAL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP99/1.8-1.9	1.8-1.9	12-08-1994	Area 2	NATURAL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP99/2.0-2.1	2-2.1	12-08-1994	Area 2	NATURAL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
BH51/0.0-0.1	0-0.1	12-05-1993	Area 3	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH51/0.5-1.0	0.5-1	12-05-1993	Area 3	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH51/1.5-2.0	1.5-2	12-05-1993	Area 3	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
TP115/0.3-0.4	0.3-0.4	12-08-1994	Area 3	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP115/0.6-0.7	0.6-0.7	12-08-1994	Area 3	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP115/0.9-1.0	0.9-1	12-08-1994	Area 3	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
BH14/0.5-1.0	0.5-1	22-04-1993	Area 4	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH14/1.5-2.0	1.5-2	22-04-1993	Area 4	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH14/3.0-3.5	3-3.5	22-04-1993	Area 4	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH14/4.5-5.0	4.5-5	22-04-1993	Area 4	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH2/0.0-0.1	0-0.1	19-04-1993	Area 4	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH2/1.5-2.0	1.5-2	19-04-1993	Area 4	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH2/4.5-5.0	4.5-5	19-04-1993	Area 4	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH21/0.0-0.1	0-0.1	28-04-1993	Area 4	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH22/0.0-0.1	0-0.1	28-04-1993	Area 4	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH22/0.5-1.0	0.5-1	28-04-1993	Area 4	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH22/1.5-2.0	1.5-2	28-04-1993	Area 4	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH4/0.0-0.1	0-0.1	20-04-1993	Area 4	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH4/3.0-3.5	3-3.5	20-04-1993	Area 4	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-
BH607/0.0-0.5	0-0.5	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	<1	-	-	<1	<10	<1
BH607/0.5-1.0	0.5-1	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH607/1.0-1.5	1-1.5	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH607/3.0-3.5	3-3.5	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH608/0.0-0.5	0-0.5	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH608/0.5-1.0	0.5-1	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-

Table C: Soil Analytical Data Results Roadways and Pedestrian Easements (commerical/industrial)
Project Number: 51142
Project Name: Australian Technology Park

						Organophosphorus Pesticides									Other	
						Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dimethoate	Ethion	Ethylmethanesulfonate	Fenitrothion	Ronnel	Safrole	Dinitro-o-cresol	Dinoseb
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 EIL - Commercial Industrial (generic and site derived)																
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																
NEPM 2013 Soil HIL D						2000										
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 4m+																
Field_ID	**Depth**	**Date**	**Location**	**Matrix**	**Reference**											
BH608/1.0-1.5	1-1.5	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH608/1.5-2.0	1.5-2	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH608/2.0-2.3	2-2.3	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH608/2.4-2.9	2.4-2.9	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH609/0.1-0.5	0.1-0.5	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH610A/0.1-0.5	0.1-0.5	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH611/0.4-0.5	0.4-0.5	16-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH611/0.5-1.0	0.5-1	16-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH611/1.5-2.0	1.5-2	16-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	<1	-	-	<1	-	-
BH611/2.0-2.5	2-2.5	16-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH611/3.5-4.0	3.5-4	16-10-2007	Area 4	NATURAL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH612/0.0-0.5	0-0.5	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH612/0.5-1.0	0.5-1	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH612/1.0-1.5	1-1.5	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	<1	-	-	<1	<10	<1
BH612/2.5-3.0	2.5-3	10-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH613/0.4-0.5(2)	0.4-0.5	16-10-2007	Area 4	FILL	DP 2010*	-	-	-	-	-	-	-	-	-	-	-
BH93/0.5-0.6	0.5-0.6	9-01-2001	Area 4	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH93/1.0-1.4(2)	1-1.4	9-01-2001	Area 4	NATURAL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BHS10/0.3-0.4	0.3-0.3	8-03-2013	Area 4	FILL	GETEX 2013*	-	-	-	-	-	-	-	-	-	-	-
BHS11/0.3-0.4	0.3-0.3	8-03-2013	Area 4	FILL	GETEX 2013*	-	-	-	-	-	-	-	-	-	-	-
BHS9/0.3-0.4	0.3-0.3	8-03-2013	Area 4	FILL	GETEX 2013*	-	-	-	-	-	-	-	-	-	-	-
TP105/0.5-0.6	0.5-0.6	12-08-1994	Area 4	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP105/1.0-1.1	1-1.1	12-08-1994	Area 4	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
TP105/1.5-1.6	1.5-1.6	12-08-1994	Area 4	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-
BH19/0.0	0-0	27-04-1993	Area 6	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH19/0.5-1.0	0.5-1	27-04-1993	Area 6	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH20/0.0	0-0	27-04-1993	Area 6	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH20/0.5-1.0	0.5-1	27-04-1993	Area 6	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH20/1.5-2.0	1.5-2	27-04-1993	Area 6	NATURAL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH67/0.5	0.5-0.5	12-01-2001	Area 6	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH68/0.6-0.7(3)	0.6-0.7	12-01-2001	Area 6	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH70/0.5	0.5-0.5	8-01-2001	Area 6	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH70/2.0-2.45	2-2.45	8-01-2001	Area 6	NATURAL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH71/0.8-1.0	0.8-1	12-01-2001	Area 6	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH99/0.8-1.0	0.8-1	9-01-2001	Area 6	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-
BH99/2.0-2.45	2-2.45	9-01-2001	Area 6	NATURAL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

#5:ESLs are of moderate reliability.
#6:ESLs are of low reliability.
#7:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX from C6-C10.
#8:Management limits of BTEX and naphthalene are not available, hence should not be subtracted from the relevant fractions to obtz
#9:Limits applied after consideration of relevant ESLs and HSLs
#10:Key limitations of HSL should be referred to prior to application in Friebel and Nadebaum (2011b and 2011d).
#11:TV adopted from Chromium (VI)
#12:Assumptions of HSL are presented in Friebel and Nadebaum (2011a and 2011b).
#13:Refer to HSL and soil saturation concentration limit.
#14:Refer to Section 8.2 and Appendix J in Friebel and Nadebaum (2011a).
#15:TV maybe be multiplied by a factor to account for biodegradation of vapour
#16:HIL relates to non-dioxin-like PCBs only. If PCB source is suspected a site-specific assessment should be untertaken
#17:To obtain F2 subtract naohthalene from >C10-C16.
#18:To obtain F1 subtract the sum of BTEX from C6-C10.

JET 1993* Report not reviewed, data preented in ES 2014e

CMP&F 1994* Report not reviewed, data preented in ES 2014e

DP 2010* Report not reviewed, data preented in ES 2014e

HLA 2001* Report not reviewed, data preented in ES 2014e

Table D: Soil Analytical Results (recreational area)
Project Number: 51142
Project Name: Australian Technology Park

	Metals & Metalloids								TPHs							TRHs (NEPC 2013)	BTEX			Polycyclic Aromatic Hydrocarbons																		Phenols
	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C6-C36 Fraction	C10-C36 Fraction	C15-C36 Fraction	C29-C36 Fraction	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[b,k]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TPE	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Phenols (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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 EIL - Urban Residential (generic and site derived)	100		250	210	1100		270	590																												170				
NEPM 2013 ESL Urban Residential and Public Open Space, Coarse Soil									180	120	300	300			300	300	120[#5]	50[#6]	70[#6]	85[#6]					0.7[#6]														
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Coarse									700	1000	2500	2500				2500																							
NEPM 2013 Soil HIL C	300[#7]	90	300[#8]	17000	600[#9]	80[#10]	1200	30000																											3[#11]				300[#12]	

Field_ID	Depth	Date	Location	Matrix	Reference																																					
Area 5 Soil Analytical Results																																									
BH12/0.0-0.1	0-0.1	21-04-93	Area 5	FILL	JET 1993*	<5	<0.5	8	14	11	-	-	28	0	1	28.1	10.1	39.1	39.2	38.2	10.1	29.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12/0.5-1.0	0.5-1	21-04-93	Area 5	FILL	JET 1993*	14	2	12	189	500	-	-	739	0.1	6.9	536.1	190.7	733.8	733.7	726.8	190.7	542.6	-	-	-	-	0.8	3.2	4.8	4.1	5	-	2.4	1.9	4	1.1	4.1	0.9	4.1	6.844	0.4	7.2	-	62.2	-
BH12/1.5-2.0	1.5-2	21-04-93	Area 5	FILL	JET 1993*	<5	<0.5	10	34	68	-	-	35	0.2	3.6	70.2	8.2	82.3	82	78.4	8.2	73.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12/3.0-3.5	3-3.5	21-04-93	Area 5	NATURAL	JET 1993*	<5	<0.5	2	6	13	-	-	23	0.1	0.6	12.5	0	13.3	13.1	12.5	0	13.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12/4.5-5.0	4.5-5	21-04-93	Area 5	NATURAL	JET 1993*	<5	<0.5	3	14	6	-	-	14	0	0	20.6	0.9	21.6	21.5	21.5	0.9	20.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12/7.5-8.0	7.5-8	21-04-93	Area 5	NATURAL	JET 1993*	17	<0.5	18	8	20	-	-	4	0	1.3	0	0	0.1	1.3	0	0	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12A/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	5	<0.5	4.5	4	10	-	-	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12A/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	4.5	<0.5	3	91	66	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	0.12	0.15	0.29	0.2	0.22	-	0.1	0.14	0.31	<0.05	0.6	0.07	0.08	0.3271	<0.05	0.5	45.5	3.4	-
BH12A/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	5.5	<0.5	2	11	32	-	-	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12A/2.0	2-2	12-08-94	Area 5	NATURAL	CMPS&F 1994*	1	<0.5	2	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12C/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	4.5	<0.5	3.5	4	9	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12C/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	5.5	<0.5	5	45	120	-	-	190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12C/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	6	<0.5	2	6	32	-	-	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12C/2.0	2-2	12-08-94	Area 5	FILL	CMPS&F 1994*	6	<0.5	2	8	41	-	-	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12D/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	5	<0.5	2.5	5	7	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12D/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	7	<0.5	7.5	46	47	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12D/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	5	<0.5	1	10	19	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12D/2.0	2-2	12-08-94	Area 5	NATURAL	CMPS&F 1994*	6	<0.5	4	8	44	-	-	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/0.0-0.1	0-0.1	22-04-93	Area 5	FILL	JET 1993*	<5	<0.5	10	14	28	-	-	65	0	1.3	49	24	74.3	74.3	73	24	50.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/0.5-1.0	0.5-1	22-04-93	Area 5	FILL	JET 1993*	<5	<0.5	6	16	22	-	-	48	0	3.6	178.3	60.1	242	242	238.4	60.1	181.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/1.5-2.0	1.5-2	22-04-93	Area 5	FILL	JET 1993*	<5	<0.5	12	88	67	-	-	105	0	5.7	81.8	27.5	115	115	109.3	27.5	87.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/3.0-3.5	3-3.5	22-04-93	Area 5	FILL	JET 1993*	<5	<0.5	2	20	36	-	-	44	0	0	4.3	0.2	4.5	4.5	4.5	0.2	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/4.5-5.0	4.5-5	22-04-93	Area 5	NATURAL	JET 1993*	<5	<0.5	6	6	10	-	-	14	0	1.4	12.7	0.4	24.6	24.5	23.1	0.4	14.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/6.0-6.5	6-6.5	22-04-93	Area 5	NATURAL	JET 1993*	23	<0.5	22	24	31	-	-	10	0	0.8	3.4	0.3	4.4	4.5	3.7	0.3	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15/0.0-0.1	0-0.1	22-04-93	Area 5	FILL	JET 1993*	<5	<0.5	7	51	876	-	-	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15/0.5-1.0	0.5-1	23-04-93	Area 5	FILL	JET 1993*	<5	<0.5	8	12	24	-	-	63	0	2	106.9	99.3	208.2	208.2	206.2	99.3	108.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16/0.0-0.1	0-0.1	23-04-93	Area 5	FILL	JET 1993*	<5	<0.5	14	21	40	-	-	67	0	1.6	41.5	8.6	51.7	51.7	50.1	8.6	43.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16/0.5-1.0	0.5-1	23-04-93	Area 5	FILL	JET 1993*	<5	<0.5	2	11	26	-	-	34	0.9	0.6	8.7	7.4	17.6	16.7	16.1	7.4	9.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16/1.5-2.0	1.5-2	23-04-93	Area 5	NATURAL	JET 1993*	<5	<0.5	2	1	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/0.0-0.1	0-0.1	27-04-93	Area 5	FILL	JET 1993*	<5	<0.5	9	11	20	-	-	38	0	0.4	18.8	2.4	21.6	21.6	21.2	2.4	19.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/0.5-1.0	0.5-1	27-04-93	Area 5	FILL	JET 1993*	18	2	9	5210	2139	-	-	1353	0	1.1	19.1	0.9	21.1	21.1	20	0.9	20.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/1.5-2.0	1.5-2	27-04-93	Area 5	NATURAL	JET 1993*	<5	<0.5	7	280	138	-	-	124	0	0	1.1	0	1.2	1.1	1.1	0	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/4.5-5.0	4.5-5	27-04-93	Area 5	NATURAL	JET 1993*	<5	<0.5	2	4	-	-	-	7	0	3.3	4	0.9	8.2	8.2	4.9	0.9	7.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/6.85-7.35	6.85-7.35	27-04-93	Area 5	NATURAL	JET 1993*	<5	<0.5	25	6	41	-	-	19	0	1.8	7.4	1.9	11.1	11.1	9.3	1.9	9.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18A/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	5	<0.5	5	7	12	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18A/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	7	0.5	4.5	44	100	-	-	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18A/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	6	<0.5	6	35	44	-	-	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18A/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	4.5	<0.5	4	8	11	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18B/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	5	<0.5	7.5	6	13	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18B/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	1.5	<0.5	3	4	5	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18B/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	6	<0.5	3.5	210	66	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18B/2.0	2-2	12-08-94	Area 5	NATURAL	CMPS&F 1994*	8.5	2	5	4650	1240	-	-	1150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18C/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	6	<0.5	2.5	11	64	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18C/1.5	1.5-1.5	12-08-94	Area 5	NATURAL	CMPS&F 1994*	1.5	<0.5	<0.5	2	1	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18D/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	5	<0.5	6	20	35	-	-	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18D/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	3.5	<0.5	1	2	13	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18D/2.0	2-2	12-08-94	Area 5	NATURAL	CMPS&F 1994*	1	<0.5	<0.5	0.5	<0.5	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH97/0.2	0.2-0.2	04-01-01	Area 5	FILL	HLA 2001*	2	<1	5	50	27	<0.1	8	51	<2	-	<100	-	-	<100	100	-	-	<0.2	<0.2	<0.2	4.4	4.2	10.1	25.3	18.8	-	-	10	-	21.5	3	45.7	3.3	-	24.65	4	25.5	45.5	221.3	<0.2
Area 7 Soil Analytical Results																																									
BH24/1.5-2.0(2)	1.5-2	28-04-93	Area 7	FILL	JET 1993*	10	1.6	103	148	954	-	-	890	4.9	3.3	10.4	7.2	25.7	20.9	17.6	7.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24B/0.5	0.5-0.5	12-08-94	Area 7	FILL	CMPS&F 1994	5.5	<0.5	4	8.5	10	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24B/1.0	1-1	12-08-94	Area 7	FILL	CMPS&F 1994	7	<0.5	6	19	70	-	-	120	-	-	-	-	-	-	-	-	13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24B/1.5	1.5-1.5	12-08-94	Area 7	FILL	CMPS&F 1994	9	3	48	1450	5500	-	-	4200	-	-	-	-	-	-	-	-	20.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24C/0.8	0.8-0.8	12-08-94	Area 7	FILL	CMPS&F 1994	5.5	0.5	9	6.5	15	-	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24D/1.0	1-1	12-08-94	Area 7	FILL	CMPS&F 1994	5	<0.5	5	6	11	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH78/0.5	0.5-0.5	08-01-01	Area 7	FILL	HLA 2001*	<1	<1	3	3	7	<0.1	1	9	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.86	<0.5	<0.5	<0.5	<0.5	-
ERBH24/0.0	0-0	28-04-93	Area 7	FILL	JET 1993*	<5	<0.5	8	10	19	-	-	58	0	0.2	20	0.4	20.6	20.6	20.4	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

#5:ESLs are of moderate reliability.
#6:ESLs are of low reliability.
#7:Key limitations of HSL should be referred to prior to application in Friebel and Nadebaum (2011b and 2011d).
#8:TV adopted from Chromium (VI)
#9:Assumptions of HSL are presented in Friebel and Nadebaum (2011a and 2011b).
#10:Refer to HSL and soil saturation concentration limit.
#11:Refer to Section 8.2 and Appendix J in Friebel and Nadebaum (2011a).
#12:TV maybe be multiplied by a factor to account for biodegradation of vapour

JET 1993* Report not reviewed, data obtained from ES 2014e

CMPS&F 1994* Report not reviewed, data obtained from ES 2014e

HLA 2001* Report not reviewed, data obtained from ES 2014e

Table D: Soil Analytical Results (recreational area)
Project Number: 51142
Project Name: Australian Technology Park

							Organochlorine Pesticides																						
							Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	alpha-Chlordane	Dieldrin	DDD	DDE	DDT	DDT+DDE+DDD (Sum of Total)	delta-BHC	Chlordane	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Pentachlorophenol	Toxaphene
							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
NEPM 2013 EIL - Urban Residential (generic and site derived)															180															
NEPM 2013 ESL Urban Residential and Public Open Space, Coarse Soil																														
NEPM 2013 Mgmt Limits - Residential, Parkland and Public Open Space, Coarse																														
NEPM 2013 Soil HIL C								10								400		70					20			10			400	120	30
Field_ID	Depth	Date	Location	Matrix	Reference																										
Area 5 Soil Analytical Results																														
BH12/0.0-0.1	0-0.1	21-04-93	Area 5	FILL	JET 1993*	<0.0049	<0.098	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0147	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
BH12/0.5-1.0	0.5-1	21-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12/1.5-2.0	1.5-2	21-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12/3.0-3.5	3-3.5	21-04-93	Area 5	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12/4.5-5.0	4.5-5	21-04-93	Area 5	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12/7.5-8.0	7.5-8	21-04-93	Area 5	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12A/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12A/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12A/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12A/2.0	2-2	12-08-94	Area 5	NATURAL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12C/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12C/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12C/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12C/2.0	2-2	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12D/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12D/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12D/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12D/2.0	2-2	12-08-94	Area 5	NATURAL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/0.0-0.1	0-0.1	22-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/0.5-1.0	0.5-1	22-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/1.5-2.0	1.5-2	22-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/3.0-3.5	3-3.5	22-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/4.5-5.0	4.5-5	22-04-93	Area 5	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13/6.0-6.5	6-6.5	22-04-93	Area 5	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15/0.0-0.1	0-0.1	22-04-93	Area 5	FILL	JET 1993*	<0.0046	<0.0092	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0138	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046
BH15/0.5-1.0	0.5-1	23-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16/0.0-0.1	0-0.1	23-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16/0.5-1.0	0.5-1	23-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16/1.5-2.0	1.5-2	23-04-93	Area 5	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/0.0-0.1	0-0.1	27-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/0.5-1.0	0.5-1	27-04-93	Area 5	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/1.5-2.0	1.5-2	27-04-93	Area 5	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/4.5-5.0	4.5-5	27-04-93	Area 5	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/6.85-7.35	6.85-7.35	27-04-93	Area 5	NATURAL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18A/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18A/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18A/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18A/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18B/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18B/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18B/1.5	1.5-1.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18B/2.0	2-2	12-08-94	Area 5	NATURAL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18C/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18C/1.5	1.5-1.5	12-08-94	Area 5	NATURAL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18D/0.5	0.5-0.5	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18D/1.0	1-1	12-08-94	Area 5	FILL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18D/2.0	2-2	12-08-94	Area 5	NATURAL	CMPS&F 1994*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH97/0.2	0.2-0.2	04-01-01	Area 5	FILL	HLA 2001*	-	-	<0.05	<0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Area 7 Soil Analytical Results																														
BH24/1.5-2.0(2)	1.5-2	28-04-93	Area 7	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24B/0.5	0.5-0.5	12-08-94	Area 7	FILL	CMPS&F 1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24B/1.0	1-1	12-08-94	Area 7	FILL	CMPS&F 1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24B/1.5	1.5-1.5	12-08-94	Area 7	FILL	CMPS&F 1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24C/0.8	0.8-0.8	12-08-94	Area 7	FILL	CMPS&F 1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24D/1.0	1-1	12-08-94	Area 7	FILL	CMPS&F 1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH78/0.5	0.5-0.5	08-01-01	Area 7	FILL	HLA 2001*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ERBH24/0.0	0-0	28-04-93	Area 7	FILL	JET 1993*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

#5:ESLs are of moderate reliability.
#6:ESLs are of low reliability.
#7:Key limitations of HSL should be referred to prior to application in Friebel and Nadebaum (2011b and 2011d).
#8:TV adopted from Chromium (VI)
#9:Assumptions of HSL are presented in Friebel and Nadebaum (2011a and 2011b).
#10:Refer to HSL and soil saturation concentration limit.
#11:Refer to Section 8.2 and Appendix J in Friebel and Nadebaum (2011a).
#12:TV maybe be multiplied by a factor to account for biodegradation of vapour

JET 1993* Report not reviewed, data obtained from ES 2014e

CMPS&F 1994* Report not reviewed, data obtained from ES 2014e

HLA 2001* Report not reviewed, data obtained from ES 2014e

Table E: Groundwater Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	Metals & Metalloids								Chlorinated Alkanes																						Chlorinated Alkenes										TPHs (NEPC 1999)					TPHs (NEPC 1999) - Silica Gel			TRHs (NEPC 2013)				
	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	1,1,1,2-tetrachloroethane	1,1,1,1-trichloroethane	1,1,1-trichloroethane	1,1,2-trichloroethane	1,1,2,2-tetrachloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	dibromochloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	C10-C14 Fraction (SG)	C15-C28 Fraction (SG)	C29-C36 Fraction (SG)	>C10-C16 Fraction	>C16-C34 Fraction	C6-C10 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZECC & ARMCANZ 2000 MW 95% - Disturbed				1.3[#1]	4.4[#1]			15[#2]				1900																																							
NEPM 2013 GIL - Drinking Water	10	2[#8]	50	2000[#8]	10[#8]	1	20[#8]	3000									3					250[#9]	3		250[#9]		250[#9]		4		50	30								0.3												
NEPM 2013 GIL - Fresh Waters		0.2[#8]		1.4[#8]	3.4[#8]	0.06[#10]	11[#8]	8[#11]				6500																																							
NEPM 2013 GIL - Marine Waters		0.7[#12]		1.3[#8]	4.4[#8]	0.1[#13]	7[#8]	15[#14]				1900																																							
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																																									1000[#15]	1000[#17]									1000[#16]
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m																																									1000[#16]	1000[#17]									1000[#16]
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+																																									1000[#16]	1000[#17]									1000[#16]
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m																																									6000[#16]										6000[#16]
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m																																									6000[#16]										6000[#16]
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+																																									7000[#16]										7000[#16]
ANZECC & ARMCANZ 2000 Recreational	100	20	500	20000	100	10	200	30,000									30					2500	30		2500		2500		40		500	300								200[#7]	3											

Field_ID	Date	Location																																																		
MW101	02-05-03	Area 1	1	0.3	2	<1	1	<0.1	6	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	-	-	-	-	-	-	-	-	-
MW101	03-05-10	Area 1	<1	<0.1	<1	3	<1	<0.5	13	23	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-	-	-	-	-	-
MW101	20-12-10	Area 1	<1	0.2	<1	2	<1	<0.4	2	11	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW101	12-01-11	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW101	14-12-11	Area 1	<1	<0.1	<1	2	<1	<0.05	2	15	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW102	03-05-10	Area 1	<1	<0.1	<1	2	<1	<0.5	8	33	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-	-	-	-	-	-
MW102	20-12-10	Area 1	<1	<0.1	<1	4	<1	<0.4	5	19	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW102	12-01-11	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW102	14-12-11	Area 1	<1	<0.1	<1	2	<1	<0.05	2	11	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	15	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW103	19-03-10	Area 1	<1	<0.1	<1	<1	<1	<0.5	2	17	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-	-	-	-	-	-
MW103	20-12-10	Area 1	<1	<0.1	<1	<1	<1	<0.4	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW103	12-01-11	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW103	14-12-11	Area 1	<1	<0.1	<1	2	<1	<0.05	1	8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW103	02-08-12	Area 1	<1	<0.1	<1	<1	<1	<0.05	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW103	05-02-13	Area 1	<1	<0.1	<1	2	<1	<0.05	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW103	16-07-13	Area 1	<1	<0.1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW103	31-01-14	Area 1	<1	<0.1	<1	<1	<1	<0.05	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW103	25-03-15	Area 1	<1	<0.1	<1	1	<1	<0.05	<1	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW49	27-05-93	Area 1	<100	<10	<50	<10	<100	<200	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	21	5	26	-	-	-	-	-	-	-	-
MWAH1	03-08-12	Area 1	2	0.1	2	6	5	<0.05	11	78	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MWAH1	06-02-13	Area 1	5	0.8	<1	67	1	<0.05	80	440	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	-
MWAH1	16-07-13	Area 1	<10	0.6	<1	11	<1	<0.05	29	600	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MWAH1	31-01-14	Area 1	2	<0.1	<1	1	<1	<0.05	11	83	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MWAH1	24-03-15	Area 1	<1	1	<1	4	<1	<0.05	12	92	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MWAH1	30-03-15	Area 1	<1	1	<1	4	<1	<0.05	12	92	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	-
MW4	29-09-94	Area 2	<10	-	-	<10	10	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	9200	64,000	4600	79,000	-	-	-	-	-	-	-	-
MW5	29-09-94	Area 3	<10	-	-	<10	<100	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	<40	<200	<200	-	-	-	-	-	-	-	-	-
MW6	29-09-94	Area 3	<10	-	-	<10	<100	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	7100	55,000	3800	66,000	-	-	-	-	-	-	-	-
MW107	19-03-10	Area 4	<1	<0.1	<1	2	<1	<0.5	<1	8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-	-	-	-	-	-
MW107	20-12-10	Area 4	<1	<0.1	<1	<1	<1	<0.4	<1	9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	260	160	420	-	-	-	-	-	-	-	-
MW107	12-01-11	Area 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	160	<100	160	<50	150	<100	-	-	-	-	-
MW107	14-12-11	Area 4	<1	<0.1	<1	1	<1	<0.05	<1	14	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW107	02-08-12	Area 4	<1	<0.1	<1	<1	<1	<0.05	<1	11	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW107	05-02-13	Area 4	<1	<0.1	<1	3	<1	<0.05	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW107	16-07-13	Area 4	<1	<0.1	<1	2	<1	<0.05	<1	7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW107	30-01-14	Area 4	<1	<0.1	<1	<1	<1	<0.05	<1	9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW107	24-03-15	Area 4	<1	<0.1	<1	2	<1	<0.05	<1	9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW105	19-03-10	Area 5	<1	<0.1	1	<1	1	<0.5	2	19	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<100	<10	<100	<10	<10	-	<100	-	<10	-	<10	<10	<10	<10	<10	<10	<10	<100	<10	<50	<100	<100	0	-	-	-	-	-	-	-	-
MW106	19-03-10	Area 5	<1	<0.1	<1	2	1	<0.5	<1	31	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-	-	-	-	-	-
MW106	20-12-10	Area 5	<1	0.1	<1	<1	<1	<0.4	<1	130	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW106	12-01-11	Area 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW106	14-12-11	Area 5	<1	0.2	<1	2	<1	<0.05	<1	99	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW04	25-01-01	Area 6	<10	<1	2	3	3	<0.1	<1	456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	<50	<100	<50	-	-	-	-	-	-	-	-	-
MW20	27-05-93	Area 6	<100	<10	<50	<10	<100	<200	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	5	14	4	23	-	-	-	-	-	-	-	-
MW03	25-01-01	Lot 12	<10	<1	<1	3	1	<0.1	1	455	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	<50	280	128	408	-	-	-	-	-	-	-	-
MW1	04-04-14	Lot 12	<1	<0.1	<1	6	<1	<0.05	<1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW1	24-03-15	Lot 12	<1	<0.1	1	2	<1	<0.05	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW104	03-05-10	Lot 12	<1	0.2	<1	3	<1	<0.5	11	160	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<100	<10	<100	<10	<10	-	<100	-	<10	-	<10	<10	<10	<10	<10	<10	<10	<100	<100	60	410	<100	470	-	-	-	-	-	-	-	-
MW104	20-12-10	Lot 12	<1	0.2	<1	5	<1	<0.4	4	140	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW104	12-01-11	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW104	14-12-11	Lot 12	<1	0.2	<1	5	1	<0.05	2	120	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW104	02-08-12	Lot 12	<1	<0.1	<1	1	<1	<0.05	1	43	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW104	05-02-13	Lot 12	<1	<0.1	<1	10	<1	<0.05	1	60	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW104	16-07-13	Lot 12	<1	<0.1	<1	<1	<1	<0.05	1	53	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW104	31-01-14	Lot 12	<1	<0.1	<1	<1	<1	<0.05	<1	31	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW104	24-03-15	Lot 12	<1	<0.1	<1	<1	<1	<0.05	2	37	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW149	02-05-03	Lot 12	2	0.9	2	<1	<1	<0.1	<5	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1100	<100	<200	<200	<500	-	-	-	-	-	-	-	-
MW3	04-04-14	Lot 12	2	<0.1	<1	<1	<1	<0.05	<1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW3	24-03-15	Lot 12	<1	<0.1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW301	31-05-05	Lot 12	1	<0.2	<1	2	<1	<0.1	5	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	0	-	-	-	-	-	-	-	-
MW301	02-08-12	Lot 12	<1	<0.1	<1	5	<1	<0.05	<1	38	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW301	31-01-14	Lot 12	<1	0.1	<1	10	<1	<0.05	2	90	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<50
MW315	31-05-05	Lot 12	<1	<0.2	<1	1	<1	<0.1	10	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	100	<200	<200	100	-	-	-	-	-	-	-	-
MW50	27-05-93	Lot 12	<100	<10	<50	<10	<100	<200	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	220	<1	220	-	-	-	-	-	-	-	-
MW513	16-12-10	Lot 12	<1	<0.1	1	<1	<1	<0.4	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW513	12-01-11	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	100	<100	100	<50	<100	<100	-	-	-	-	-
MW513	14-12-11	Lot 12	<1	<0.1	2	1	<1	<0.05	<1	13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	160	<100	160	-	-	-	-	-	-	-	-
MW56	27-05-93	Lot 12	<100	<10	<50	<10	<100	<200	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	4	19	<1

Table E: Groundwater Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	Metals & Metalloids								Chlorinated Alkanes																				Chlorinated Alkenes										TPHs (NEPC 1999)					TPHs (NEPC 1999) - Silica Gel			TRHs (NEPC 2013)				
	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	1,1,1,2-tetrachloroethane	1,1,1,1-trichloroethane	1,1,2-trichloroethane	1,1,2,2-tetrachloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	dibromochloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	C10-C14 Fraction (SG)	C15-C28 Fraction (SG)	C29-C36 Fraction (SG)	>C10-C16 Fraction	>C16-C34 Fraction	>C16-C10 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZECC & ARMCANZ 2000 MW 95% - Disturbed				1.3[#1]	4.4[#1]			15[#2]			1900																																								
NEPM 2013 GIL - Drinking Water	10	2[#8]	50	2000[#8]	10[#8]	1	20[#8]	3000								3					250[#8]	3		250[#8]		250[#8]		4		50	30								0.3												
NEPM 2013 GIL - Fresh Waters		0.2[#8]		1.4[#8]	3.4[#8]	0.06[#10]	11[#8]	8[#11]			6500																																							
NEPM 2013 GIL - Marine Waters		0.7[#12]		1.3[#8]	4.4[#8]	0.1[#13]	7[#8]	15[#14]			1900																																							
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																																							1000[#15]	1000[#17]									1000[#16]
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m																																							1000[#15]	1000[#17]									1000[#16]
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+																																							1000[#15]	1000[#17]									1000[#16]
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m																																							6000[#15]										6000[#16]
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m																																							6000[#15]										6000[#16]
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+																																							7000[#15]										7000[#16]
ANZECC & ARMCANZ 2000 Recreational	100	20	500	20000	100	10	200	30,000								30					2500	30		2500		2500		40		500	300								200[#7]	3											

Field_ID	Date	Location																																																	
MW625	16-07-13	Lot 12	<1	<0.1	<1	8	<1	<0.05	1	64	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW625	31-01-14	Lot 12	<1	0.1	<1	10	<1	<0.05	2	90	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW625	24-03-15	Lot 12	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	150	<100	<100	<250	-	-	-	150	<100	<10	<100	<10
MW328	02-06-05	Lot 8	<1	0.1	<1	<1	10	<1	27	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	300	<200	300	-	-	-	-	-	-	-	-
MW328	12-08-05	Lot 8	2	<0.2	1	6	<1	<0.1	2	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	<500	-	-	-	-	-	-	-	-
MW328	20-09-05	Lot 8	1	<0.5	<1	<1	1	<0.1	<1	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	<500	-	-	-	-	-	-	-	-
MW328	02-08-12	Lot 8	3	<0.1	<1	2	<1	<0.05	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW328	17-07-13	Lot 8	2	<0.1	<1	2	<1	<0.05	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW328	30-01-14	Lot 8	3	<0.1	<1	<1	<1	<0.05	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW328	25-03-15	Lot 8	7	<0.1	<1	1	<1	<0.05	<1	1.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW402	12-12-07	Lot 8	1.6	0.1	<1	1.5	<1	<0.5	<1	180	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	-	<10	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<50	<250	-	-	-	-	-	-	-	-
MW402	02-08-12	Lot 8	<1	0.2	<1	6	<1	<0.05	1	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW402	05-02-13	Lot 8	2	0.2	1	3	<1	<0.05	<1	52	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW402	17-07-13	Lot 8	5	0.2	1	7	<1	<0.05	1	70	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW402	30-01-14	Lot 8	3	0.2	<1	2	<1	0.05	<1	47	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW402	25-03-15	Lot 8	4	0.2	<1	3	<1	0.05	<1	57	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW403	12-12-07	Lot 8	<1	<0.1	<1	<1	<1	<0.5	1.2	180	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	-	<10	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	380	<100	380	-	-	-	-	-	-	-	-
MW403	02-08-12	Lot 8	1	<0.1	<1	<1	<1	<0.05	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	-	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW403	05-02-13	Lot 8	<1	<0.1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW403	17-07-13	Lot 8	1	<0.1	<1	<1	<1	<0.05	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW403	30-01-14	Lot 8	<1	<0.1	<1	<1	<1	<0.05	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW403	30-03-15	Lot 8	1	<0.1	<1	<1	<1	<0.05	<1	55	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW405	12-12-07	Lot 8	2.2	<0.1	<1	<1	<1	<0.5	1.2	16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	-	<10	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW405	02-08-12	Lot 8	<1	<0.1	1	<1	<1	<0.05	<1	19	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW405	05-02-13	Lot 8	1	<0.1	<1	<1	<1	<0.05	<1	12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW405	17-07-13	Lot 8	1	<0.1	<1	3	<1	<0.05	<1	20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW405	30-01-14	Lot 8	2	<0.1	<1	1	<1	<0.05	<1	14	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW405	25-03-15	Lot 8	2	<0.1	<1	2	<1	<0.05	<1	8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW118	02-05-03	Lot 9	1	0.3	1	2	2	<0.1	7	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	<500	-	-	-	-	-	-	-	-
MW14	03-04-14	Lot 9	2	<0.1	<1	1	<1	<0.05	7	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW14	24-03-15	Lot 9	<1	<0.1	<1	1	<1	<0.05	2	4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW15	03-04-14	Lot 9	2	<0.1	<1	<1	<1	<0.05	1	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW15	03-04-14	Lot 9	<1	<0.1	1	<1	<1	<0.05	2	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW15	24-03-15	Lot 9	2	<0.1	<1	<1	<1	<0.05	3	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW16	27-05-93	Lot 9	<100	<10	<50	<10	<100	<200	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	4	29	4	36	-	-	-	-	-	-	-	-
MW16	24-03-15	Lot 9	<1	<0.1	1	<1	<1	<0.05	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW25	27-05-93	Lot 9	<100	<10	<50	<10	<100	<200	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	11	24	<1	35	-	-	-	-	-	-	-	-
MW315	03-08-12	Lot 9	3	<0.1	<1	1	<1	<0.05	3	27	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW318	12-08-05	Lot 9	<1	1	<1	6	<1	<0.1	5	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	200	600	<200	800	-	-	-	-	-	-	-	-
MW318	20-09-05	Lot 9	1	<0.5	<1	<1	<1	<0.1	<1	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	2400	2900	<200	5300	-	-	-	-	-	-	-	-
MW318	14-11-07	Lot 9	<1	0.15	<1	8.3	<1	<0.5	2.4	200	-	6.8	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW318D	02-07-07	Lot 9	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318S	02-07-07	Lot 9	<1	0.1	<1	5.6	<1	<0.5	52	179	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	200	960	<100	1160	-	-	-	-	-	-	-	-
MW322	31-05-05	Lot 9	4	<0.2	<1	<1	<1	<0.1	2	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	0	-	-	-	-	-	-	-	-
MW322	12-08-05	Lot 9	5	<0.5	1	<1	<1	<0.1	5	890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	<500	-	-	-	-	-	-	-	-
MW322	20-09-05	Lot 9	5	<0.5	<1	<1	1	<0.1	<1	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	<500	-	-	-	-	-	-	-	-
MW322	02-07-07	Lot 9	2	0.6	<1	7.4	19	<0.5	290	770	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW322	14-11-07	Lot 9	<1	0.15	<1	<1	<1	0.5	<1	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW503	07-02-08	Lot 9	1.2	0.1	1	4.3	4	<0.5	6.6	57	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW503	03-05-10	Lot 9	<1	<0.1	<1	2	<1	<0.5	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-	-	-	-	-	-
MW503	15-12-10	Lot 9	<1	<0.1	<1	<1	<1	<0.5	<1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW503	16-12-10	Lot 9	<1	<0.1	<1	<1	<1	<0.4	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW503	12-01-11	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	14-12-11	Lot 9	<1	<0.1	1	1	<1	<0.05	<1	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW503	02-08-12	Lot 9	7	<0.1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW503	30-01-14	Lot 9	1	<0.1	<1	<1	<1	0.05	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<50
MW504	07-02-08	Lot 9	1.3	<0.1	1.3	<1	<1	<0.5	27	16	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW504	02-08-12	Lot 9	<1	<0.1	<1	2	<1	<0.05	<1	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW504	03-08-12	Lot 9	<1	<0.1	<1	2	<1	<0.05	<1	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW504	05-02-13	Lot 9	<1	<0.1	<1	1	<1	<0.05	<1	9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW504	17-07-13	Lot 9	<1	<0.1	<1	3	2	<0.05	<1	21	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW504	30-01-14	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW504	24-03-15	Lot 9	4	<0.1	<1	<1	<1	<0.05	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW507	07-02-08	Lot 9	2.7	<0.1	<1	<1	<1	<0.5	27	32	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW507	05-02-13	Lot 9	<1	<0.1	<1	3	<1	<0.05	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW507	17-07-13	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	30	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW507	30-01-14	Lot 9	<1	<0.1	<1	1	1	<0.05	<1	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Table E: Groundwater Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	Metals & Metalloids								Chlorinated Alkanes																			Chlorinated Alkenes										TPHs (NEPC 1999)					TPHs (NEPC 1999) - Silica Gel			TRHs (NEPC 2013)				
	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	1,1,1,2-tetrachloroethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2-trichloroethane	1,1,2,2-tetrachloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	dibromochloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	C10-C14 Fraction (SG)	C15-C28 Fraction (SG)	C29-C36 Fraction (SG)	>C10-C16 Fraction	>C16-C34 Fraction	C6-C10 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZECC & ARMCANZ 2000 MW 95% - Disturbed				1.3[#5]	4.4[#3]			15[#2]				1900																																						
NEPM 2013 GIL - Drinking Water	10	2[#8]	50	2000[#8]	10[#8]	1	20[#8]	3000									3					250[#9]	3		250[#9]		250[#9]		4		50	30								0.3											
NEPM 2013 GIL - Fresh Waters		0.2[#8]		1.4[#8]	3.4[#8]	0.06[#10]	11[#8]	8[#11]				6500																																					
NEPM 2013 GIL - Marine Waters		0.7[#12]		1.3[#8]	4.4[#8]	0.1[#13]	7[#8]	15[#14]				1900																																					
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																																							1000[#16]	1000[#17]								1000[#16]
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m																																							1000[#16]	1000[#17]								1000[#16]
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+																																							1000[#16]	1000[#17]								1000[#16]
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m																																							6000[#16]									6000[#16]
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m																																							6000[#16]									6000[#16]
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+																																							7000[#16]									7000[#16]
ANZECC & ARMCANZ 2000 Recreational	100	20	500	20000	100	10	200	30,000									30					2500	30		2500		2500		40		500	300								200[#7]	3									

Field_ID	Date	Location																																																	
MW508	02-08-12	Lot 9	7	<0.1	<1	<1	<1	<0.05	2	890	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<50	<100	<100	<250	-	-	-	-	-	-	-
MW508	17-07-13	Lot 9	<1	0.3	<1	1	<1	<0.05	1	810	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW508	30-01-14	Lot 9	4	<0.1	<1	<1	<1	<0.05	3	690	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW508	24-03-15	Lot 9	20	<0.1	<1	<1	<1	<0.05	3	650	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW511	07-02-08	Lot 9	1.4	<0.1	1.6	<1	<1	<0.5	33	20	-	<1	-	-	<1	-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW511	02-08-12	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10	-	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW511	05-02-13	Lot 9	<1	<0.1	<1	3	<1	<0.5	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW511	17-07-13	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW511	30-01-14	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW511	24-03-15	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW513	07-02-08	Lot 9	<1	<0.1	1.1	3.8	1.7	<0.05	18	84	-	<1	-	-	<1	-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW513	24-03-15	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW01	25-01-01	Off-site	<10	<1	<1	3	<1	<0.1	4	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	<50	556	125	681	-	-	-	-	-	-	-	-
MW02	25-01-01	Off-site	<10	<1	<1	4	1	<0.1	2	483	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	<50	<100	<50	-	-	-	-	-	-	-	-
MW1	29-09-94	Off-site	<10	-	-	<10	<100	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	<40	<200	<200	-	-	-	-	-	-	-	-
MW1	25-01-01	Off-site	<10	<1	<1	3	<1	<0.1	1	575	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	59	293	140	491	-	-	-	-	-	-	-	-
MW2	27-05-93	Off-site	<100	<10	<50	<10	<100	<200	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	15	46	<1	61	-	-	-	-	-	-	-	-
MW2	29-09-94	Off-site	<10	-	-	<10	<100	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	31-05-05	Off-site	<1	<0.2	<1	<1	<1	<0.1	2	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	23000	29,000	<200	52,000	-	-	-	-	-	-	-	-
MW319	31-05-05	Off-site	<1	0.2	<1	2	<1	<0.1	6	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	100	300	<200	400	-	-	-	-	-	-	-	-
MW319	12-08-05	Off-site	<1	2	<1	2	<1	<0.1	7	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	800	<200	800	-	-	-	-	-	-	-	-
MW319	20-09-05	Off-site	<1	<0.5	<1	<1	<1	<0.1	<1	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	100	300	<200	400	-	-	-	-	-	-	-	-
MW401A	02-07-07	Off-site	1.1	11	1.5	3.9	3.8	<0.5	51	290	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	2300	1500	300	4100	-	-	-	-	-	-	-	-
MW401A	14-11-07	Off-site	<1	0.37	<1	<1	27	<0.5	15	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW401A	17-07-13	Off-site	1.6	0.1	<1	1.5	<1	<0.5	<1	190	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW402A	02-07-07	Off-site	<1	0.5	<1	9	1.5	<0.5	79	160	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW402A	14-11-07	Off-site	<1	<0.1	<1	<1	1.6	<0.5	<1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW402B	02-07-07	Off-site	2.1	<0.1	<1	1.9	<1	<0.5	-	51	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW402B	14-11-07	Off-site	<1	<0.1	<1	<1	2.2	<0.5	<1	<1	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	390	<100	<100	390	-	-	-	-	-	-	-	-
MW403B	02-07-07	Off-site	-	0.2	1.2	5.9	1.4	<0.5	11	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW403C	02-07-07	Off-site	-	0.1	1.2	2.2	2.4	<0.5	23	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	<50	<100	<10	<100	<10
MW42	27-05-93	Off-site	<100	<10	<50	200	<100	<200	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	15710	45,280	5	60 970	-	-	-	-	-	-	-	-
MW602	14-11-07	Off-site	<1	<0.1	<1	<1	<1	<0.5	4.4	2.4	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	300	870	<100	1170	-	-	-	-	-	-	-	-
MW603	14-11-07	Off-site	<1	<0.1	<1	<1	2.5	<0.5	<1	<1	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW604	14-11-07	Off-site	<1	<0.1	<1	<1	<1	<0.5	<1	<1	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW605	14-11-07	Off-site	<1	<0.1	<1	<1	<1	<0.5	1.2	9	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MW66	27-05-93	Off-site	<100	<10	<50	<10	<100	<200	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	140	<1	140	-	-	-	-	-	-	-	-
MWP208A-A	26-03-08	Off-site	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	<50	160	160	160	-	-	-	-	-	-	-	-
MWP208A-B	26-03-08	Off-site	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MWP208A-C	26-03-08	Off-site	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MWP208A-D	26-03-08	Off-site	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-
MWP208A-E	26-03-08	Off-site	4.3	<0.1	<1	<1	<1	<0.5	2	3.7	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-	-	-	-	-	-

Env Stds Comments

#1:H
#2:C,H
#3:B
#4:B,H
#5:B
#6:C
#7:Adopted from WHO Drinking Water Guideline 2011
#8:TV Calculated using hardness of 30mg/L CaCO3, refer to ANZECC & ARMCANZ (2000) for site specific hardness
#9:TV adopted from the ADWG (2011) Updated March 2015.
#10:Possible bioaccumulation & secondary poisoning, refer to ANZECC & ARMCANZ (2000) for further guidance.
#11:TV Calculated using hardness of 30mg/L CaCO3. May not protect key species from chronic toxicity. Refer to ANZECC & ARMCANZ (2000) for site specific hardness and further guidance.
#12:TV Calculated using hardness of 30mg/L CaCO3, possible bioaccumulation & secondary poisoning. Refer to ANZECC & ARMCANZ (2000) for site specific hardness and further guidance.
#13:Possible bioaccumulation & secondary poisoning, refer to ANZECC & ARMCANZ (2000) for further guidance.
#14:TV Calculated using hardness of 30mg/L CaCO3, TV May not protect key species from chronic toxicity. Refer to ANZECC & ARMCANZ (2000) for site specific hardness and further guidance.
#15:TV May not protect key species from chronic toxicity, refer to ANZECC & ARMCANZ (2000) for further guidance.
#16:To obtain F1 subtract the sum of BTEX from C6-C10.
#17:To obtain F2 subtract naohthalene from >C10-C16.
#18:Multiple factor not applied
* Data presented in ES (2014f)

Table E: Groundwater Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	TRHs (NEPC 2013) - Silica Gel	BTEX						Polycyclic Aromatic Hydrocarbons																		Monocyclic Aromatic Hydrocarbons										Miscellaneous Hydrocarbons							Chlorinated Benzenes						
	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,k)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Total Positive PAHs	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Bromobenzene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	Chlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZECC & ARMCANZ 2000 MW 95% - Disturbed																																																	
NEPM 2013 GIL - Drinking Water		1	300	800			600					0.01																					30					250[#5]	1				30	30	1500	300		40	
NEPM 2013 GIL - Fresh Waters		950				350															16																					3[#10]	85[#10]	160		260	60	
NEPM 2013 GIL - Marine Waters		500[#15]																			50[#15]																						20[#13]						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m	1000[#17]	800	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m	1000[#17]	800	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+	1000[#17]	900	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m	NL	5000	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m	NL	5000	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+	NL	5000	NL	NL			NL														NL																												
ANZECC & ARMCANZ 2000 Recreational		10	3000	8000			6000					0.1																					300		10			2500	10						15000	3000		400	
Field_ID	**Date**	**Location**																																															
MW101	02-05-03	Area 1	-	<1	<1	<1	-	-	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW101	03-05-10	Area 1	-	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<0.2
MW101	20-12-10	Area 1	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW101	12-01-11	Area 1	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW101	14-12-11	Area 1	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW102	03-05-10	Area 1	-	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	0	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<0.2
MW102	20-12-10	Area 1	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW102	12-01-11	Area 1	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW102	14-12-11	Area 1	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW103	19-03-10	Area 1	-	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	0	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<0.2
MW103	20-12-10	Area 1	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW103	12-01-11	Area 1	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW103	14-12-11	Area 1	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW103	02-08-12	Area 1	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MW103	05-02-13	Area 1	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW103	16-07-13	Area 1	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW103	31-01-14	Area 1	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW103	25-03-15	Area 1	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW49	27-05-93	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWAH1	03-08-12	Area 1	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MWAH1	06-02-13	Area 1	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MWAH1	16-07-13	Area 1	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MWAH1	31-01-14	Area 1	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MWAH1	30-03-15	Area 1	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW4	29-09-94	Area 2	-	<20	<20	<20	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW5	29-09-94	Area 3	-	<20	<20	<20	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW6	29-09-94	Area 3	-	<20	<20	<20	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107	19-03-10	Area 4	-	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	0	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<0.2
MW107	20-12-10	Area 4	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW107	12-01-11	Area 4	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107	14-12-11	Area 4	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW107	02-08-12	Area 4	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MW107	05-02-13	Area 4	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW107	16-07-13	Area 4	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW107	30-01-14	Area 4	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW107	24-03-15	Area 4	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW105	19-03-10	Area 5	-	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	0	0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	-	<10	<100	-	<10	-	<10	<10	<10	<10	<10	<10	<0.2
MW106	19-03-10	Area 5	-	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	0	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<0.2
MW106	20-12-10	Area 5	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW106	12-01-11	Area 5	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW106	14-12-11	Area 5	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW04	25-01-01	Area 6	-	<1	<2	<2	-	-	<2	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	27-05-93	Area 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03	25-01-01	Lot 12	-	<1	<2	<2	-	-	<2	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	04-04-14	Lot 12	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	24-03-15	Lot 12	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW104	03-05-10	Lot 12	-	<10	<10	<10	<20	<10	<20	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	0	0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	-	<10	<100	-	<10	-	<10	<10	<10	<10	<10	<10	<0.2
MW104	20-12-10	Lot 12	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW104	12-01-11	Lot 12	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW104	14-12-11	Lot 12	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW104	02-08-12	Lot 12	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MW104	05-02-13	Lot 12	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW104	16-07-13	Lot 12	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW104	31-01-14	Lot 12	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW104	24-03-15	Lot 12	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW149	02-05-03	Lot 12	-	<1	<1	950	-	-	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3	04-04-14	Lot 12	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3	24-03-15	Lot 12	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW301	31-05-05	Lot 12	-	<1	<1	4	-	-	5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
MW301	02-08-12	Lot 12	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MW301	31-01-14	Lot 12	<10	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW315	31-05-05	Lot 12	-	<1	<1	<1	-	-	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
MW50	27-05-93	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	16-12-10	Lot 12	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW513	12-01-11	Lot 12	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	14-12-11	Lot 12	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW56	27-05-93	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW606	14-11-07	Lot 12	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW619	02-08-12	Lot 12	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MW619	05-02-13	Lot 12	210	<1	<1	<1	<2	<1	<3	4	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW619	16-07-13	Lot 12	230	<1	<1	<1	<2	<1	<3	4	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	4.9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW619	31-01-14	Lot 12	<50	<1	<1	<1	<2	<1	<3	2	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW619	24-03-15	Lot 12	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW625	02-08-12	Lot 12	-	<1	<1	<1	<2	<2	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW625	05-02-13	Lot 12	<50	<1	<1	<1	<2	<2	<3	<1

Table E: Groundwater Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	TRHs (NEPC 2013) - Silica Gel	BTEX						Polycyclic Aromatic Hydrocarbons																	Monocyclic Aromatic Hydrocarbons										Miscellaneous Hydrocarbons							Chlorinated Benzenes						
	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,k)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Total Positive PAHs	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Bromobenzene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	Chlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZECC & ARMCANZ 2000 MW 95% - Disturbed																																																	
NEPM 2013 GIL - Drinking Water		1	300	800			600					0.01																					30					250[#5]	1				30	30	1500	300		40	
NEPM 2013 GIL - Fresh Waters		950				350															16																	3[#10]	85[#10]	160		260	60						
NEPM 2013 GIL - Marine Waters		500[#15]																			50[#15]																						20[#13]						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m	1000[#17]	800	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m	1000[#17]	800	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+	1000[#17]	900	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m	NL	5000	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m	NL	5000	NL	NL			NL														NL																												
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+	NL	5000	NL	NL			NL														NL																												
ANZECC & ARMCANZ 2000 Recreational		10	3000	8000			6000					0.1																					300		10			2500	10						15000	3000		400	

Field_ID	Date	Location																																																
MW625	16-07-13	Lot 12	<50	<1	<1	<1	<2	<2	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-
MW625	31-01-14	Lot 12	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW625	24-03-15	Lot 12	150	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	02-06-05	Lot 8	-	<1	<1	<1	-	-	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
MW328	12-08-05	Lot 8	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	20-09-05	Lot 8	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	02-08-12	Lot 8	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW328	17-07-13	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW328	30-01-14	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW328	25-03-15	Lot 8	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402	12-12-07	Lot 8	-	<1	<1	<1	<2	<1	0	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	-	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW402	02-08-12	Lot 8	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW402	05-02-13	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW402	17-07-13	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW402	30-01-14	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW402	25-03-15	Lot 8	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403	12-12-07	Lot 8	-	<1	<1	<1	<2	<1	0	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	-	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW403	02-08-12	Lot 8	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW403	05-02-13	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW403	17-07-13	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW403	30-01-14	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW403	30-03-15	Lot 8	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW405	12-12-07	Lot 8	<50	<1	<1	<1	<2	<1	0	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	-	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW405	02-08-12	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW405	05-02-13	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW405	17-07-13	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW405	30-01-14	Lot 8	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW405	25-03-15	Lot 8	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	02-05-03	Lot 9	-	<1	<1	<1	-	-	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW14	03-04-14	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW14	24-03-15	Lot 9	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	03-04-14	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	03-04-14	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	24-03-15	Lot 9	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	27-05-93	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	24-03-15	Lot 9	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW25	27-05-93	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW315	03-08-12	Lot 9	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW318	12-08-05	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	20-09-05	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	14-11-07	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318D	02-07-07	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318S	02-07-07	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	31-05-05	Lot 9	-	<1	<1	<1	-	-	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
MW322	12-08-05	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	20-09-05	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	02-07-07	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	14-11-07	Lot 9	-	<1	<1	<1	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	07-02-08	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	03-05-10	Lot 9	-	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	0	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<0.2
MW503	15-12-10	Lot 9	-	<1	<1	<1	-	-	<3	-	-	<0.1	-	<0.1	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	16-12-10	Lot 9	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW503	12-01-11	Lot 9	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	14-12-11	Lot 9	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW503	02-08-12	Lot 9	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW503	30-01-14	Lot 9	<10	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW504	07-02-08	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW504	02-08-12	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW504	03-08-12	Lot 9	-	<1	<1	<1	<2	<2	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW504	05-02-13	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW504	17-07-13	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW504	30-01-14	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW504	24-03-15	Lot 9	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW507	07-02-08	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW507	05-02-13	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW507	17-07-13	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW507	30-01-14	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW507	24-03-15	Lot 9	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	07-02-08	Lot 9	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	05-03-10	Lot 9	-	<10	<10	<10	-	-	<30	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	19-03-10	Lot 9	-	<10	<10	<10	<20	<10	<20	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	0	0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	-	<10	<100	-	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<0.2
MW508	08-06-10	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	16-12-10	Lot 9	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-
MW508	12-01-11	Lot 9	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	14-12-11	Lot 9	-	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-

Table E: Groundwater Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	TRHs (NEPC 2013) - Silica Gel	BTEX						Polycyclic Aromatic Hydrocarbons																	Monocyclic Aromatic Hydrocarbons										Miscellaneous Hydrocarbons							Chlorinated Benzenes						
	>C10 - C16 less Naphthalene (F2)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(b)pyrene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Total Positive PAHs	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Bromobenzene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	Chlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZECC & ARMCANZ 2000 MW 95% - Disturbed																																																	
NEPM 2013 GIL - Drinking Water		1	300	800			600					0.01																				30						250[#2]	1				30	30	1500	300		40	
NEPM 2013 GIL - Fresh Waters		950				350														16																							3[#10]	85[#10]	160		260	60	
NEPM 2013 GIL - Marine Waters		500[#15]																		50[#15]																								20[#13]						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m	1000[#17]	800	NL	NL			NL													NL																														
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m	1000[#17]	800	NL	NL			NL													NL																														
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+	1000[#17]	900	NL	NL			NL													NL																														
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m	NL	5000	NL	NL			NL													NL																														
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m	NL	5000	NL	NL			NL													NL																														
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+	NL	5000	NL	NL			NL													NL																														
ANZECC & ARMCANZ 2000 Recreational		10	3000	8000			6000					0.1																				300		10			2500	10						15000	3000		400	

Field_ID	Date	Location																																																
MW508	02-08-12	Lot 9	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MW508	17-07-13	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW508	30-01-14	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW508	24-03-15	Lot 9	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW511	07-02-08	Lot 9	<50	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW511	02-08-12	Lot 9	-	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MW511	05-02-13	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW511	17-07-13	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-	<1	<1	<1	<1	<1	<1	-
MW511	30-01-14	Lot 9	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW511	24-03-15	Lot 9	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	07-02-08	Lot 9	<50	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	24-03-15	Lot 9	<50	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW01	25-01-01	Off-site	-	<1	<2	<2	-	-	<2	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02	25-01-01	Off-site	-	<1	<2	<2	-	-	<2	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	29-09-94	Off-site	-	<20	<20	<20	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	25-01-01	Off-site	-	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	27-05-93	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	29-09-94	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	31-05-05	Off-site	-	<1	<1	<1	-	-	<3	2	2	1	2	0.9	3	0.6	2	<0.5	5.9	4	<0.5	3	6.2	6.9	-	39.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
MW319	31-05-05	Off-site	-	<1	<1	<1	-	-	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
MW319	12-08-05	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW319	20-09-05	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	02-07-07	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	14-11-07	Off-site	-	<1	<1	<1	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	17-07-13	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402A	02-07-07	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402A	14-11-07	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402B	02-07-07	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402B	14-11-07	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403B	02-07-07	Off-site	<50	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403C	02-07-07	Off-site	<50	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW42	27-05-93	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW602	14-11-07	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW603	14-11-07	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW604	14-11-07	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW605	14-11-07	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW66	27-05-93	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-A	26-03-08	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-B	26-03-08	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-C	26-03-08	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-D	26-03-08	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-E	26-03-08	Off-site	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

#1:H
#2:C,H
#3:B
#4:B,H
#5:B
#6:C
#7:Adopted from WHO Drinking Water Guideline 2011
#8:TV Calculated using hardness of 30mg/L CaCO3, refer to ANZECC & ARMCANZ (2000) for site specific
#9:TV adopted from the ADWG (2011) Updated March 2015.
#10:Possible bioaccumulation & secondary poisoning, refer to ANZECC & ARMCANZ (2000) for further g
#11:TV Calculated using hardness of 30mg/L CaCO3. May not protect key species from chronic toxicity.
#12:TV Calculated using hardness of 30mg/L CaCO3, possible bioaccumulation & secondary poisoning.
#13:Possible bioaccumulation & secondary poisoning, refer to ANZECC & ARMCANZ (2000) for further g
#14:TV Calculated using hardness of 30mg/L CaCO3, TV May not protect key species from chronic toxic
#15:TV May not protect key species from chronic toxicity, refer to ANZECC & ARMCANZ (2000) for furth
#16:To obtain F1 subtract the sum of BTEX from C6-C10.
#17:To obtain F2 subtract naohthalene from >C10-C16.
#18:Multiple factor not applied
* Data presented in ES (2014f)

Table E: Groundwater Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

			Polychlorinated Biphenyls								Phenols	Miscellaneous Industrial Chemicals	Organochlorine Pesticides																						Organophosphorus Pesticides									
			Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Phenols (Total)	Hexachlorobutadiene	Aldrin	Aldrin + Dieldrin (Sum of Total)	4,4-DDE	alpha-BHC	Dieldrin	beta-BHC	DDD	DDT	alpha-Chlordane	DDT+DDE+DDD (Sum of Total)	Chlordane	delta-BHC	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Ethoprophos	Fenitrothion	Ronnel
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZECC & ARMCANZ 2000 MW 95% - Disturbed																																				0.009[#3]									
NEPM 2013 GIL - Drinking Water												0.7		0.3						9			2									0.3				10		4	5	7	4	1	7	
NEPM 2013 GIL - Fresh Waters						0.3[#10]		0.01[#10]												0.006[#10]			0.03[#10]							0.01[#10]			0.01[#10]			0.01[#10]			0.15			0.2	
NEPM 2013 GIL - Marine Waters																														0.004[#13]						0.009[#13]									
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																																												
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m																																												
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+																																												
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m																																												
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m																																												
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+																																												
ANZECC & ARMCANZ 2000 Recreational												7		3						90			20									3		3000	100	100		40	50	70	40	10	70	
Field_ID	**Date**	**Location**																																											
MW101	02-05-03	Area 1	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	<0.4	-	-	<0.4	-	-	-	-	-	-	-	<0.4	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW101	03-05-10	Area 1	<2	<2	<2	<2	<2	<2	<2	0	-	<1	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW101	20-12-10	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW101	12-01-11	Area 1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	<0.002	<0.002	<0.002	-	-	-	-	-	-	-	-	-	-
MW101	14-12-11	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-	-
MW102	03-05-10	Area 1	<2	<2	<2	<2	<2	<2	<2	0	-	<1	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW102	20-12-10	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW102	12-01-11	Area 1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	<0.002	<0.002	<0.002	-	-	-	-	-	-	-	-	-	-
MW102	14-12-11	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-	-
MW103	19-03-10	Area 1	<2	<2	<2	<2	<2	<2	<2	0	-	<1	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW103	20-12-10	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW103	12-01-11	Area 1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	<0.002	<0.002	<0.002	-	-	-	-	-	-	-	-	-	-
MW103	14-12-11	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-	-
MW103	02-08-12	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2
MW103	05-02-13	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW103	16-07-13	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW103	31-01-14	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW103	25-03-15	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW49	27-05-93	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWAH1	03-08-12	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MWAH1	06-02-13	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MWAH1	16-07-13	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MWAH1	31-01-14	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MWAH1	30-03-15	Area 1	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW4	29-09-94	Area 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW5	29-09-94	Area 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW6	29-09-94	Area 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107	19-03-10	Area 4	<2	<2	<2	<2	<2	<2	<2	0	-	<1	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW107	20-12-10	Area 4	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW107	12-01-11	Area 4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.005	<0.005	<0.005	<0.005	0.0052	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-	-
MW107	14-12-11	Area 4	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-	-
MW107	02-08-12	Area 4	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW107	05-02-13	Area 4	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW107	16-07-13	Area 4	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW107	30-01-14	Area 4	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW107	24-03-15	Area 4	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW105	19-03-10	Area 5	<2	<2	<2	<2	<2	<2	<2	0	-	<10	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW106	19-03-10	Area 5	<2	<2	<2	<2	<2	<2	<2	0	-	<1	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW106	20-12-10	Area 5	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW106	12-01-11	Area 5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-	-
MW106	14-12-11	Area 5	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-	-
MW04	25-01-01	Area 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	27-05-93	Area 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03	25-01-01	Lot 12	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	04-04-14	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	-	<0.2	<0.4	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW1	24-03-15	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW104	03-05-10	Lot 12	<2	<2	<2	<2	<2	<2	<2	0	-	<10	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW104	20-12-10	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW104	12-01-11	Lot 12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-	-
MW104	14-12-11	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-	-
MW104	02-08-12	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW104	05-02-13	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW104	16-07-13	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW104	31-01-14	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW104	24-03-15	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW149	02-05-03	Lot 12	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	<0.4	-	-	<0.4	-	-	-	-	-	-	-	-	-	-	<0.2	<0.2	-	-	-	<0.2	<0.2	-	-
MW3	04-04-14	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	-	<0.2	<0.4	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW3	24-03-15	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW301	31-05-05	Lot 12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	-
MW301	02-08-12	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW301	31-01-14	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW315	31-05-05	Lot 12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	-
MW50	27-05-93	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	16-12-10	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-
MW513	12-01-11	Lot 12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-	-
MW513	14-12-11	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-	-
MW56	27-05-93	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW606	14-11-07	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW619	02-08-12	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW619	05-02-13	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW619	16-07-13	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
MW619	31-01-14	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW619	24-03-15	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW625	02-08-12	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2

Table E: Groundwater Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	Polychlorinated Biphenyls								Phenols	Miscellaneous Industrial Chemicals	Organochlorine Pesticides																						Organophosphorus Pesticides								
	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Phenols (Total)	Hexachlorobutadiene	Aldrin	Aldrin + Dieldrin (Sum of Total)	4,4-DDE	alpha-BHC	Dieldrin	beta-BHC	DDD	DDT	DDT+DDE+DDD (Sum of Total)	alpha-Chlordane	gamma-Chlordane	Chlordane	delta-BHC	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Ethoprophos	Fenitrothion	Ronnel
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZECC & ARMCANZ 2000 MW 95% - Disturbed																																	0.009[#3]								
NEPM 2013 GIL - Drinking Water										0.7		0.3						9				2									0.3		10		4	5	7	4	1	7	
NEPM 2013 GIL - Fresh Waters				0.3[#10]		0.01[#10]												0.006[#10]				0.03[#10]						0.01[#10]		0.01[#10]			0.01[#10]		0.01		0.15			0.2	
NEPM 2013 GIL - Marine Waters																												0.004[#13]					0.009[#13]								
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																																									
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m																																									
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+																																									
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m																																									
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m																																									
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+																																									
ANZECC & ARMCANZ 2000 Recreational										7		3						90				20									3		3000	100	100		40	50	70	40	10	70	

Field_ID	Date	Location																																									
MW625	16-07-13	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	-	<0.2
MW625	31-01-14	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW625	24-03-15	Lot 12	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	02-06-05	Lot 8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	<0.2	-	<0.2	-
MW328	12-08-05	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	20-09-05	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	02-08-12	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW328	17-07-13	Lot 8	-	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW328	30-01-14	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
MW328	25-03-15	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402	12-12-07	Lot 8	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402	02-08-12	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW402	05-02-13	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW402	17-07-13	Lot 8	-	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW402	30-01-14	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
MW402	25-03-15	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403	12-12-07	Lot 8	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403	02-08-12	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW403	05-02-13	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW403	17-07-13	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW403	30-01-14	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
MW403	30-03-15	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW405	12-12-07	Lot 8	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW405	02-08-12	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW405	05-02-13	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW405	17-07-13	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW405	30-01-14	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
MW405	25-03-15	Lot 8	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	02-05-03	Lot 9	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	<0.4	-	-	<0.4	-	-	-	-	-	-	-	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-
MW14	03-04-14	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	-	<0.2	<0.4	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW14	24-03-15	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	03-04-14	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	-	<0.2	<0.4	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW15	03-04-14	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	-	<0.2	<0.4	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW15	24-03-15	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	27-05-93	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	24-03-15	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW25	27-05-93	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW315	03-08-12	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW318	12-08-05	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	20-09-05	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	14-11-07	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318D	02-07-07	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318S	02-07-07	Lot 9	-	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	31-05-05	Lot 9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	<0.2	-	<0.2	-
MW322	12-08-05	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	20-09-05	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	02-07-07	Lot 9	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	14-11-07	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	07-02-08	Lot 9	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	03-05-10	Lot 9	<2	<2	<2	<2	<2	<2	<2	0	-	<1	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-
MW503	15-12-10	Lot 9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	<0.02	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-
MW503	16-12-10	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-
MW503	12-01-11	Lot 9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	-	-	-	-	-	-	-	-	-	-	-
MW503	14-12-11	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-	-	-
MW503	02-08-12	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
MW503	30-01-14	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
MW504	07-02-08	Lot 9	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW504	02-08-12	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
MW504	03-08-12	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW504	05-02-13	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW504	17-07-13	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW504	30-01-14	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
MW504	24-03-15	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	-	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
MW507	07-02-08	Lot 9	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW507	05-02-13	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW507	17-07-13	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW507	30-01-14	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW507	24-03-15	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	07-02-08	Lot 9	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	05-03-10	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	-	<0.02	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-
MW508	19-03-10	Lot 9	<2	<2	<2	<2	<2	<2	<2	0	-	<10	<0.2	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-
MW508	08-06-10	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	16-12-10	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.2	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-
MW508	12-01-11	Lot 9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-	-	-
MW508	14-12-11	Lot 9	<2	<2	<2	<2	<2	<2	<2	-	-	<1	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-	-	-

Table E: Groundwater Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	Polychlorinated Biphenyls								Phenols	Miscellaneous Industrial Chemicals	Organochlorine Pesticides																									Organophosphorus Pesticides									
	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Phenols (Total)	Hexachlorobutadiene	Aldrin	Aldrin + Dieldrin (Sum of Total)	4,4-DDE	alpha-BHC	Dieldrin	beta-BHC	DDD	DDT	alpha-Chlordane	DDT+DDE+DDD (Sum of Total)	Chlordane	delta-BHC	gamma-Chlordane	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Ethoprophos	Fenitrothion	Ronnel
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZECC & ARMCANZ 2000 MW 95% - Disturbed																																		0.009[#3]									
NEPM 2013 GIL - Drinking Water										0.7		0.3						9			2									0.3			10		4	5	7	4	1	7		
NEPM 2013 GIL - Fresh Waters				0.3[#10]		0.01[#10]												0.006[#10]			0.03[#10]						0.01[#10]			0.01[#10]			0.01[#10]		0.01		0.15			0.2	
NEPM 2013 GIL - Marine Waters																											0.004[#13]						0.009[#13]									
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m																																											
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m																																											
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+																																											
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m																																											
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m																																											
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+																																											
ANZECC & ARMCANZ 2000 Recreational										7		3						90			20									3		3000	100	100		40	50	70	40	10	70		

| Field_ID | Date | Location | | | | | | | | | | | | | | | | | | |

Table F: TCLP Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	Metals & Metalloids								Polycyclic Aromatic Hydrocarbons															
	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NSW EPA 2014 General Solid Waste (with leached)	5	1	5		5	0.2	2						0.04											
NSW EPA 2014 Restricted Solid Waste (with leached)	20	4	20		20	0.8	8						0.16											

Field_ID	Sample_Depth_Range	Sampled_Date-Time	Monitoring_Round	Matrix_Description																						
BH12/0.1-0.2	0.1-0.2	22-03-2014	Lot 8	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH12/1.0-1.1	1-1.1	22-03-2014	Lot 8	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH12/2.0-2.1	2-2.1	22-03-2014	Lot 8	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH12/3.0-3.1	3-3.1	22-03-2014	Lot 8	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001
BH12/4.0-4.1	4-4.1	22-03-2014	Lot 8	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH13/0.2-0.3	0.2-0.3	22-03-2014	Lot 8	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH13/1.0-1.1	1-1.1	22-03-2014	Lot 8	FILL	<0.05	<0.01	<0.01	-	0.02	<0.0005	0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001
BH13/2.0-2.1	2-2.1	22-03-2014	Lot 8	FILL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH13/3.0-3.1	3-3.1	22-03-2014	Lot 8	FILL	0.05	<0.01	<0.01	-	0.08	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH13/4.0-4.1	4-4.1	22-03-2014	Lot 8	NATURAL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH13/5.0-5.1	5-5.1	22-03-2014	Lot 8	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001
BH324/1.0-1.1	1-1.1	1-06-2005	Lot 8	FILL	<0.05	<0.006	<0.005	0.03	<0.04	<0.0005	0.02	0.86	-	-	-	-	<0.0005	-	-	-	-	-	-	-	-	-	0
BH327/0.8-1.0	0.8-1	1-06-2005	Lot 8	FILL	<0.05	<0.006	<0.005	0.14	0.08	<0.0005	0.03	0.42	-	-	-	-	<0.0005	-	-	-	-	-	-	-	-	-	0.002
BH328/0.0-0.1	0-0.1	1-06-2005	Lot 8	FILL	<0.05	<0.006	<0.005	<0.01	<0.04	<0.0005	0.12	0.06	-	-	-	-	<0.0005	-	-	-	-	-	-	-	-	-	0.0005
BH401/0.5-0.6	0.5-0.6	23-11-2007	Lot 8	FILL	-	-	-	-	0.07	-	0.02	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
BH402/0.5-0.6	0.5-0.6	23-11-2007	Lot 8	FILL	-	-	-	-	<0.03	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH404/0.5-1.0	0.5-1	23-11-2007	Lot 8	FILL	-	-	-	-	0.2	-	<0.02	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
BH405/0.3-0.5	0.3-0.5	23-11-2007	Lot 8	FILL	-	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH405/0.7-1.0	0.7-1	23-11-2007	Lot 8	FILL	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
BH406/0.5-1.0	0.5-1	23-11-2007	Lot 8	FILL	-	-	-	-	0.08	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10/1.0-1.1	1-1.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	0.02	-	<0.03	<0.0005	0.03	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH10/2.0-2.1	2-2.1	22-03-2001	Lot 9	FILL	<0.05	0.02	<0.01	-	0.6	<0.0005	0.03	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH10/3.0-3.1	3-3.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001
BH10/4.0-4.1	4-4.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH10/7.0-7.1	7-7.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH10/7.5-7.6	7.5-7.6	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH10/8.0-8.1	8-8.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH11/1.0-1.1	1-1.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.04	<0.0005	0.03	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH11/2.0-2.1	2-2.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH11/3.0-3.1	3-3.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	0.1	<0.0005	0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH11/4.0-4.1	4-4.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH11/5.0-5.1	5-5.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH11/7.8-7.9	7.8-7.9	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH11/8.0-8.1	8-8.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH14/1.0-1.1	1-1.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	0.03	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH14/2.5-2.6	2.5-2.6	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.07	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.002
BH14/3.0-3.1	3-3.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	0.08	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH14-1.5-1.6	1.5-1.6	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH15/1.5-1.6	1.5-1.6	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.2	<0.0005	0.06	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH15/3.0-3.1	3-3.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH16/1.0-1.1	1-1.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.1	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH16/2.0-2.1	2-2.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH7/1.0-1.1	1-1.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH7/1.5-1.6	1.5-1.6	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.4	<0.0005	<0.02	-	0.008	0.05	0.012	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	0.012	0.03	<0.001	0.019	0.08	0.01	0.22
BH7/2.0-2.1	2-2.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.3	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH7/3.0-3.1	3-3.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	0.002	0.007	0.003	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	0.003	0.007	<0.001	0.002	0.023	0.002	0.049
BH7/4.0-4.1	4-4.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH7/6.5-6.6	6.5-6.6	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH8/0.06-0.1	0.06-0.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH8/1.0-1.1	1-1.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.07	<0.0005	<0.02	-	0.005	0.009	0.005	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	0.006	0.006	<0.001	0.013	0.03	0.005	0.079
BH8/2.0-2.1	2-2.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.004	0.001	0.006
BH8/3.0-3.1	3-3.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH8/4.0-4.1	4-4.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.004	<0.001	0.006
BH8/7.0-7.1	7-7.1	22-03-2001	Lot 9	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH9/0.5-0.6	0.5-0.6	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.2	<0.0005	0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH9/1.0-1.1	1-1.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	0.4	<0.0005	0.04	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	0.003
BH9/2.0-2.1	2-2.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH9/3.0-3.1	3-3.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH9/4.0-4.1	4-4.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.002
BH9/5.0-5.1	5-5.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH9/7.5-7.6	7.5-7.6	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH9/8.0-8.1	8-8.1	22-03-2001	Lot 9	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
BH1/0.5-0.6	0.5-0.6	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	0.3	<0.0005	0.05	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH1/1.0-1.1	1-1.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH1/2.0-2.1	2-2.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH1/2.5-2.6	2.5-2.6	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001
BH1/3.0-3.1	3-3.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH1/4.0-4.1	4-4.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH1/4.5-4.6	4.5-4.6	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH1/5.0-5.1	5-5.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH1/5.5-5.6	5.5-5.6	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH1/6.0-6.1	6-6.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH1/7.0-7.1	7-7.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH136/0.5-0.6	0.5-0.6	5-01-2001	Lot 12		-	-	-	-	0.05	-	0.008	-	-	-	-	-	<0.00005	-	-	-	-	-	-	-	-	-	0
BH140/0-0.5	0-0.5	5-01-2001	Lot 12		-	-	-	-	0.33	-	-	-	-	-	-	-	<0.00005	-	-	-	-	-	-	-	-	-	0
BH140/1.0-1.1	1-1.1	5-01-2001	Lot 12		-	-	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH143/1.0-1.1	1-1.1	30-03-2003	Lot 12	FILL	-	-	-	-	1.7	<0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH143/3.0-3.1	3-3.1	30-03-2003	Lot 12	FILL	-	-	-	-	-	<0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH147B/0.5-0.6	0.5-0.6	30-03-2003	Lot 12	FILL	-	-	-	-	-	<0.0005	-	-	-	-	-	-	<0.00005	-	-	-	-	-	-	-	-	-	0
BH147B/1.0-1.1	1-1.1	30-03-2003	Lot 12	FILL	-	-	-	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH149/1.0-1.1	1-1.1	30-03-2003	Lot 12	FILL	<0.001	-	<0.005	-	0.45	<0.0005	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2/0.5-0.6	0.5-0.6	25-03-2014	Lot 12	FILL	<0.05	0.01	<0.01	-	9.6	<0.0005	0.04	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH2/1.0-1.1	1-1.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	14	<0.0005	0.04	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH2/2.0-2.1	2-2.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	0.5	<0.0005	0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH2/3.0-3.1	3-3.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH2/3.5-3.6	3.5-3.6	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.002

Table F: TCLP Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	Metals & Metalloids								Polycyclic Aromatic Hydrocarbons															
	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NSW EPA 2014 General Solid Waste (with leached)	5	1	5		5	0.2	2						0.04											
NSW EPA 2014 Restricted Solid Waste (with leached)	20	4	20		20	0.8	8						0.16											

Field_ID	Sample_Depth_Range	Sampled_Date-Time	Monitoring_Round	Matrix_Description																						
BH2/4.0-4.1	4-4.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH2/5.0-5.1	5-5.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH3/0.5-0.6	0.5-0.6	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	0.05	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH3/1.0-1.1	1-1.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH3/10.0-10.1	10-10.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH3/11.0-11.1	11-11.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	0.05	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001
BH3/12.0-12.1	12-12.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	0.3	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH3/2.0-2.1	2-2.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH3/3.0-3.1	3-3.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH3/4.0-4.1	4-4.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH3/4.7-4.8	4.7-4.8	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH4/0.35-0.4	0.35-0.4	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	0.1	<0.0005	0.2	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	0.004
BH4A/1.0-1.1	1-1.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	0.05	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH4A/2.0-2.1	2-2.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH4A/3.0-3.1	3-3.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH4A/4.0-4.1	4-4.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH4A/5.0-5.1	5-5.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH5/0.1-0.2	0.1-0.2	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	0.09	<0.0005	<0.02	-	<0.001	0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.002	<0.001	0.005
BH5/2.0-2.1	2-2.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH5/3.0-3.1	3-3.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH5/4.0-4.1	4-4.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH5/5.0-5.1	5-5.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH5/6.0-6.1	6-6.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH5/7.0-7.1	7-7.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH5/8.0-8.1	8-8.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH5/9.0-9.1	9-9.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH52/0.0-0.1	0-0.1	11-05-1993	Lot 12	FILL	<0.1	-	<0.05	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH53/0.0-0.1	0-0.1	11-05-1993	Lot 12	FILL	<0.1	-	<0.05	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH53/0.0-0.5	0-0.5	5-01-2001	Lot 12	FILL	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH53/0.5-1.0	0.5-1	11-05-1993	Lot 12	FILL	<0.1	-	<0.05	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH53/1.5-2.0	1.5-2	11-05-1993	Lot 12	FILL	<0.1	-	<0.05	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH55/0.0-0.1	0-0.1	11-05-1993	Lot 12	FILL	<0.1	-	<0.05	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH59/1.0-1.45	1-1.45	5-01-2001	Lot 12	FILL	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6/0.5-0.6	0.5-0.6	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	0.07	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH6/1.0-1.1	1-1.1	25-03-2014	Lot 12	FILL	<0.05	<0.01	<0.01	-	0.2	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH6/1.5-1.6	1.5-1.6	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	0.05	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH6/2.0-2.1	2-2.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH6/3.0-3.1	3-3.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001
BH6/4.0-4.1	4-4.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	0.04	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH6/5.0-5.1	5-5.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.004
BH6/6.0-6.1	6-6.1	25-03-2014	Lot 12	NATURAL	<0.05	<0.01	<0.01	-	<0.03	<0.0005	<0.02	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BH604/0.1-0.2	0.1-0.2	6-08-2008	Lot 12	FILL	-	-	-	-	260	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	<0.001
BH604/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH605A/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	-	-	67	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	<0.001
BH605A/1.9-2.0	1.9-2	6-08-2008	Lot 12	FILL	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH606/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	<0.05	-	-	-	0.19	-	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH608/0.1-0.2	0.1-0.2	6-08-2008	Lot 12	FILL	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH609/0.4-0.5	0.4-0.5	6-08-2008	Lot 12	FILL	-	-	-	-	0.5	-	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH611/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	-	-	0.13	-	0.02	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	<0.001
BH612/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH612/2.9-3.0	2.9-3	6-08-2008	Lot 12	FILL	-	-	-	-	0.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH613/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	-	-	0.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH614/0.4-0.5	0.4-0.5	6-08-2008	Lot 12	FILL	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH615A/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	<0.005	-	0.44	-	0.06	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	<0.001
BH616/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	<0.005	-	0.28	-	0.04	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	<0.001
BH618/0.4-0.5	0.4-0.5	6-08-2008	Lot 12	FILL	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH619/0.4-0.5	0.4-0.5	6-08-2008	Lot 12	FILL	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	<0.001
BH62/0.0-0.5	0-0.5	5-01-2001	Lot 12	FILL	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH620A/0.4-0.5	0.4-0.5	6-08-2008	Lot 12	FILL	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH622/0.2-0.3	0.2-0.3	6-08-2008	Lot 12	FILL	<0.05	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH624/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	<0.001
BH625/0.2-0.3	0.2-0.3	6-08-2008	Lot 12	FILL	-	-	-	-	0.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH625/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	-	-	0.76	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	0.04
BH626/0.9-1.0	0.9-1	6-08-2008	Lot 12	FILL	-	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA1/0.0-0.6	0-0.6	22-01-2009	Lot 12	FILL	-	-	-	-	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA1/0.6-3.0	0.6-3	22-01-2009	Lot 12	FILL	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA2/0.0-0.6	0-0.6	22-01-2009	Lot 12	FILL	-	-	-	-	9.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA2/1.7-2.0	1.7-2	22-01-2009	Lot 12	FILL	-	-	-	-	0.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA3/0.0-1.5	0-1.5	22-01-2009	Lot 12	FILL	-	-	-	-	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHA4/0.0-0.7	0-0.7	22-01-2009	Lot 12	FILL	-	-	-	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB1/0.0-0.3	0-0.3	22-01-2009	Lot 12	FILL	-	-	-	-	0.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB2/0.0-0.6	0-0.6	22-01-2009	Lot 12	FILL	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB2/0.6-1.0	0.6-1	22-01-2009	Lot 12	FILL	-	-	-	-	0.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB2/2.2-2.5	2.2-2.5	22-01-2009	Lot 12	FILL	-	-	-	-	0.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB2/3.5-4.0	3.5-4	22-01-2009	Lot 12	FILL	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB3/0.0-1.5	0-1.5	22-01-2009	Lot 12	FILL	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB4/0.0-0.2	0-0.2	22-01-2009	Lot 12	FILL	-	-	-	-	0.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB4/2.4-3.0	2.4-3	22-01-2009	Lot 12	FILL	-	-	-	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHB5/0.0-0.1	0-0.1	22-01-2009	Lot 12	FILL	-	-	-	-	0.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC1/0.0-0.2	0-0.2	22-01-2009	Lot 12	FILL	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC1/0.5-0.9	0.5-0.9	22-01-2009	Lot 12	FILL	-	-	-	-	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC2/0.6-1.0	0.6-1	22-01-2009	Lot 12	FILL	-	-	-	-	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC3/0.1-1.0	0.1-1	22-01-2009	Lot 12	FILL	-	-	-	-	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC3/1.5-2.0	1.5-2	22-01-2009	Lot 12	FILL	-	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC5/1.1-1.5	1.1-1.5	22-01-2009	Lot 12	FILL	-	-	-	-	0.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC6/0.0-1.0	0-1	22-01-2009	Lot 12	FILL	-	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table F: TCLP Analytical Results
Project Number: 51142
Project Name: Australian Technology Park

	Metals & Metalloids								Polycyclic Aromatic Hydrocarbons																
	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NSW EPA 2014 General Solid Waste (with leached)	5	1	5		5	0.2	2						0.04											
NSW EPA 2014 Restricted Solid Waste (with leached)	20	4	20		20	0.8	8						0.16											

Field_ID	Sample_Depth_Range	Sampled_Date-Time	Monitoring_Round	Matrix_Description																							
BHC6/1.4-1.5	1.4-1.5	22-01-2009	Lot 12	FILL	-	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/0.1-0.2	0.1-0.2	22-01-2009	Lot 12	FILL	-	-	-	-	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/0.5-1.0	0.5-1	22-01-2009	Lot 12	FILL	-	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/1.5-2.0	1.5-2	22-01-2009	Lot 12	FILL	-	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD1/2.5-3.0	2.5-3	22-01-2009	Lot 12	FILL	-	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/0.1-1.0	0.1-1	22-01-2009	Lot 12	FILL	-	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/1.8-2.0	1.8-2	22-01-2009	Lot 12	FILL	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/2.2-2.5	2.2-2.5	22-01-2009	Lot 12	FILL	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD2/2.5-3.0	2.5-3	22-01-2009	Lot 12	FILL	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD3/0.1-1.0	0.1-1	22-01-2009	Lot 12	FILL	-	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD3/1.2-1.8	1.2-1.8	22-01-2009	Lot 12	FILL	-	-	-	-	0.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD5/0.1-0.4	0.1-0.4	22-01-2009	Lot 12	FILL	-	-	-	-	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD5/0.5-1.1	0.5-1.1	22-01-2009	Lot 12	FILL	-	-	-	-	2.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD6/0.1-0.8	0.1-0.8	22-01-2009	Lot 12	FILL	-	-	-	-	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHD6/1.0-1.6	1-1.6	22-01-2009	Lot 12	FILL	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE1/0.0-0.2	0-0.2	22-01-2009	Lot 12	FILL	-	-	-	-	0.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE1/1.5-2.0	1.5-2	22-01-2009	Lot 12	FILL	-	-	-	-	0.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE1/2.5-3.0	2.5-3	22-01-2009	Lot 12	FILL	-	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE2/0.0-1.0	0-1	22-01-2009	Lot 12	FILL	-	-	-	-	0.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE2/1.8-2.0	1.8-2	22-01-2009	Lot 12	FILL	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE3/0.1-1.0	0.1-1.1	22-01-2009	Lot 12	FILL	-	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE3/1.5-1.8	1.5-1.8	22-01-2009	Lot 12	FILL	-	-	-	-	0.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE3/2.5-3.0	2.5-3	22-01-2009	Lot 12	FILL	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE6/0.1-0.4	0.1-0.4	22-01-2009	Lot 12	FILL	-	-	-	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHE6/0.5-1.0	0.5-1	22-01-2009	Lot 12	FILL	-	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF2/0.05-0.2	0.05-0.2	22-01-2009	Lot 12	FILL	-	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF2/0.2-1.8	0.2-1.8	22-01-2009	Lot 12	FILL	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF2/2.0-3.2	2-3.2	22-01-2009	Lot 12	FILL	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF3/0.6-1.1	0.6-1.1	22-01-2009	Lot 12	FILL	-	-	-	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF3/1.1-1.6	1.1-1.6	22-01-2009	Lot 12	FILL	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF3/2.5-3.0	2.5-3	22-01-2009	Lot 12	FILL	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF5/0.1-0.4	0.1-0.4	22-01-2009	Lot 12	FILL	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF5/0.7-0.9	0.7-0.9	22-01-2009	Lot 12	FILL	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF6/0.1-0.4	0.1-0.4	22-01-2009	Lot 12	FILL	-	-	-	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHF6/0.5-0.7	0.5-0.7	22-01-2009	Lot 12	FILL	-	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG2/0.0-1.8	0-1.8	22-01-2009	Lot 12	FILL	-	-	-	-	0.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG2/2.0-3.0	2-3	22-01-2009	Lot 12	FILL	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG3/0.0-0.3	0-0.3	22-01-2009	Lot 12	FILL	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG3/0.5-1.0	0.5-1	22-01-2009	Lot 12	FILL	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHG3/1.0-2.0	1-2	22-01-2009	Lot 12	FILL	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHLoc1/0.2-5.0	0.2-5	14-12-2011	Area 1	FILL	<0.05	<0.01	<0.01	0.03	<0.03	<0.0005	<0.02	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.016
BHLoc3/0.2-5.0	0.2-5	14-12-2011	Area 1	FILL	<0.05	<0.01	<0.01	0.05	0.04	<0.0005	<0.02	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.016
BHLoc4/0.2-5.0	0.2-5	14-12-2011	Area 1	FILL	<0.05	<0.01	<0.01	0.02	<0.03	<0.0005	<0.02	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.016
BH44/0-0.4	0-0.4	4-01-2001	OFF SITE	FILL	-	-	-	-	9.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH601/0.5	0.4-0.5	10-10-2007	OFF SITE	FILL	-	-	0.03	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix E Materials Characterisation Form Example

Material Classification Form

MCF Reference # 1000_____

Completed by	Nathan Cussen
Date	24 July 2015
Material Identification (Stockpile name and grid reference, importation source name and unique identification name etc.)	Type A Soils - Organic Garden Mix from Benedict Industries
Source location (Stockpile name and grid reference, source location and grid reference, off-site source address and description of source site residential, quarry etc.)	On site □ Details: Off site (Source Site) ☒ Details: Stockpile located at Menangle Quarry Benedict Industries, Menangle Road, Menangle, NSW.
JBS&G material classification report reference	JBS&G 1000 Date: 24 July 2015
Summary of material characterisation report as prepared by JBS&G	VENM □ for importation ENM □ Reuse on Site □ Waste Classification □ Other ☒ please describe VENM silty sand blended with recovered fines topsoil, ash, fowl manure and composted organics to be imported to site
Volume of material	Survey Information □ Field Estimate □ Required Quantity (off-site source) ☒ Approximately 65 m³
Material description (material type, colour, inclusions, etc.)	Type A Organic Garden Mix – brown VENM alluvial silty sand and topsoil blended with recovered fines topsoil, ash, fowl manure and compost organics
Is the material free of ACM, staining and malodourous soils	Yes ☒ No □ Details:
If assessment is of material from an off-site Source, is the material suitable for importation to the site?	Yes, the material is suitable to be imported to site.
If assessment is for off-site disposal of material, what is the final waste classification / reuse exemption conclusion?	N/A
If the assessment is for reuse of the material at the site, is the material suitable for reuse	Suitable for reuse: - below the capping profile in road corridor □ - above the capping profile in road corridor footprint and used in landscaped areas ☒ - below the capping profile in recreational areas □ - above the capping profile in recreational areas and used in landscaped areas ☒ - below the marker layer in Lots 8 and 9 □ - above the marker layer in Lots 8 and 9 and used within landscaped areas ☒ - below the marker layer in Lot 12 □ - above the marker layer in Lot 12 and used within landscaped areas ☒
Other comments:	Please ensure Benedict dockets are retained, the volume imported documented and all materials tracked in accordance with the materials tracking plan.

Appendix F Materials Tracking Sheet Example

Material Tracking Sheet Part A

MTS Reference #_____

Materials Tracking Form Part A (Materials Received, Excavated, Stored or Placed)										
Completed by:										
Date:										
Comment (Are there any visual or olfactory indicators of contamination):										
Load No.	**Time**	**Truck Rego / Plant ID**	**Load Quantity (m^3)**	**MCF Reference No**	**Source Location and ID**	**Temporary Stockpiled Y/N and New ID**	**Final Placement Location Y/N**	**Placement location**	**Reduced level of placement m AHD (final placement only)**	**GPS Coordinates (final placement only)**

Material Tracking Sheet Part B

MTS Reference #_____

Part B Off-site Disposal							
Completed by:							
Date:							
Receiving Site:							
Hauling subcontractor:							
Load No.	Time	Truck Rego / Plant ID	Load Quantity (m^3)	Material Classified as waste Y/N	Waste Description and JBS&G Reference No. including any visual or olfactory indicators of contamination	Source location	Receipt/Consignment No.

© JBS&G

This document is and shall remain the property of JBS&G. The document may only be used for the purposes for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited

Document Distribution

Rev No.	Copies	Recipient	Date
A	1 x electronic	Joseph Scuderi Joseph.scuderi@mirvac.com	05/11/2015
B	1 x electronic	Joseph Scuderi Joseph.scuderi@mirvac.com	24/11/2015
B	1 x electronic	Graeme Nyland gnyland@ramboll.com	24/11/2015
C	1 x electronic	Joseph Scuderi Joseph.scuderi@mirvac.com	8/12/2015
C	1 x electronic	Graeme Nyland gnyland@ramboll.com	8/12/2015
D	1 x electronic	Graeme Nyland gnyland@ramboll.com	27/05/2016
D	1 x electronic	Barry Steedman Barry.steedman@mirvac.com	27/05/2016
0	1 x electronic	Graeme Nyland gnyland@ramboll.com	15/06/2016
0	1 x electronic	Barry Steedman Barry.steedman@mirvac.com	15/06/2016

Document Status

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
A	Nathan Cussen	Andrei Woinarski	For Site Client Review	For Site Client Review	05/11/2015
B	Nathan Cussen	Andrei Woinarski	For Site Auditor Review	For Site Auditor Review	24/11/2015
C	Nathan Cussen	Andrei Woinarski	For Site Auditor Review	For Site Auditor Review	8/12/2015
D	Nathan Cussen	Andrew Lau	For Site Auditor Review	For Site Auditor Review	27/05/2016
0	Nathan Cussen	Andrew Lau	Andrew Lau		15/06/2016

