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Mirvac Projects Pty Ltd
Prepared by
Ramboll Australia Pty Ltd
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17 March 2021
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SITE AUDIT REPORT
STAGE 2 (BAYS 5 TO 15) OF LOCOMOTIVE WORKSHOP, EVELEIGH

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& HEALTH

17 March 2021

Mirvac Projects Pty Ltd
Attn.: Nathan McCoy
200 George Street
Sydney NSW 2000

By email: nathan.mccoy@mirvac.com

Dear Nathan

SITE AUDIT REPORT - STAGE 2 (BAYS 5 TO 15) OF LOCOMOTIVE WORKSHOP, EVELEIGH

Ramboll Australia
Level 3, 100 Pacific Highway
PO Box 560
North Sydney NSW 2060

T +61 2 9954 8100
www.ramboll.com

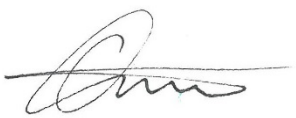
Ref 318000650

I have pleasure in submitting the Site Audit Report for the subject site. The Site Audit Statement, produced in accordance with the NSW *Contaminated Land Management Act 1997*, is included as Appendix B of the Site Audit Report. The Audit was commissioned by Mirvac Projects Pty Ltd to assess the suitability of the site for its intended use.

The Audit was initiated to comply with a condition of the approval by the Independent Planning Commission of State Significant Development (SSD) 8449 dated 22 February 2019 for Bays 5-15 and SDD 8517 dated 22 February 2019 for Bays 1-4A. Development of the travelator tunnel was approved under SSD 7317 MOD 5 dated 29 June 2018.

Thank you for giving me the opportunity to conduct this Audit. Please call me on 9954 8100 if you have any questions.

Yours faithfully,
Ramboll Australia Pty Ltd



Tom Onus
EPA Accredited Site Auditor 1505

cc: NSW EPA – Statement only
City of Sydney Council

Ramboll Australia Pty Ltd
ACN 095 437 442
ABN 49 095 437 442

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LIST OF ABBREVIATIONS

Measures

%	per cent
µg/L	Micrograms per Litre
µg/m^3	Micrograms per Cubic Metre
ha	Hectare
km	Kilometres
m	Metre
mAHD	Metres Australian Height Datum
mbgl	Metres below ground level
mg/kg	Milligrams per Kilogram
mg/L	Milligrams per Litre
mg/m^3	Milligrams per Cubic Metre
mm	Millimetre
ppm	Parts Per Million
w/w	Weight on weight

General

ABC	Ambient Background Concentration
ACL	Added Contaminant Limit
ACM	Asbestos Containing Material
ADWG	Australian Drinking Water Guidelines
AF	Asbestos Fines
AHD	Australian Height Datum
ANZG	Australian & New Zealand Guidelines
ATP	Australian Technology Park
BaP	Benzo(a)pyrene
BTEXN	Benzene, Toluene, Ethylbenzene, Xylenes & Naphthalene
CLM Act	NSW Contaminated Land Management Act 1997
COC	Chain of Custody
Council	City of Sydney Council
CSM	Conceptual Site Model
DA	Development Application
DCE	Dichloroethene
DP	Deposited Plan
DQI	Data Quality Indicator
DQO	Data Quality Objective
EIL	Ecological Investigation Level
EMP	Environmental Management Plan
Envirolab	Envirolab Services Pty Ltd
EPA	Environment Protection Authority (NSW)
EPL	Environment Protection Licence
ES	Environmental Strategies Pty Ltd
ESL	Ecological Screening Level
FA	Fibrous Asbestos
GIL	Groundwater Investigation Level
GSW	General Solid Waste
HIL	Health Investigation Level
HSL	Health Screening Level
IAA	Interim Audit Advice
JBS&G	JBS&G Australia Pty Ltd
LCS	Laboratory Control Sample
LEP	Local Environment Plan
LTEMP	Long Term Environmental Management Plan
MAH	Monocyclic Aromatic Hydrocarbons
Metals	As: Arsenic, Cd: Cadmium, Cr: Chromium, Cu: Copper, Ni: Nickel, Pb: Lead, Zn: Zinc, Hg: Mercury
ML	Management Limits
MS	Matrix Spike
NATA	National Association of Testing Authorities
NC	Not Calculated

ND	Not Detected
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NL	Non-Limiting
n	Number of Samples
OCPs	Organochlorine Pesticides
OEH	Office of Environment and Heritage
OH&S	Occupational Health & Safety
OPPs	Organophosphorus Pesticides
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PFAS	Per- and Poly-fluoroalkyl Substances
pH	A measure of acidity, hydrogen ion activity
PID	Photoionisation Detector
PQL	Practical Quantitation Limit
PSH	Phase Separated Hydrocarbon
QA/QC	Quality Assurance/Quality Control
Ramboll	Ramboll Australia Pty Ltd – previously Ramboll Environ Australia Pty Ltd and ENVIRON Australia Pty Ltd
RAP	Remediation Action Plan
RL	Relative Level
RPD	Relative Percent Difference
SAR	Site Audit Report
SAS	Site Audit Statement
SEPP	State Environmental Planning Policy
SSD	State Significant Development
SWL	Standing Water Level
TCA	Trichloroethane
TCE	Trichloroethene
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalence Quotient
TPHs	Total Petroleum Hydrocarbons
TRHs	Total Recoverable Hydrocarbons
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VC	Vinyl Chloride
VENM	Virgin Excavated Natural Material
VOCs	Volatile Organic Compounds
-	On tables is "not calculated", "no criteria" or "not applicable"

1. INTRODUCTION

1.1 Audit Details

A site contamination audit has been conducted in relation to Stage 2 of the Locomotive Workshop at 2 Locomotive Street, Eveleigh.

The Audit was conducted to provide an independent review by an EPA Accredited Auditor of whether the land is suitable for any specified use or range of uses, i.e. a "Site Audit" as defined in Section 4 (1) (b) (iii) of the NSW *Contaminated Land Management Act 1997* (the CLM Act).

The Audit was initiated to comply with a condition of the approval of State Significant Development (SSD) 8449, dated 22 February 2019, for redevelopment of Bays 5-15 of the Locomotive Workshop, and SSD 8517 dated 22 February 2019 for redevelopment of Bays 1-4A. The approved SSD applications stated that *"A Section A Site audit statement must be prepared at the end of each stage of development, including the excavation and construction of the tunnel below Locomotive Workshop to Locomotive Street, certifying the suitability of the land for the proposed use"*. The proposed uses of the Locomotive Workshop redevelopment are for adaptive reuse as commercial and retail premises, and heritage conservation.

Details of the Audit are:

Requested by:	Nathan McCoy on behalf of Mirvac Projects Pty Ltd
Request/Commencement Date:	21 December 2018
Auditor:	Tom Onus
Accreditation No.:	1505

1.2 Project Background

The site is located within the Australian Technology Park (ATP), which comprises a former railway and goods yard that has been progressively redeveloped for a variety of uses. The ATP currently comprises the Locomotive Workshop, commercial buildings, internal roads (Locomotive Street, Central Avenue and Davy Road), pedestrian walkways (Mitchell Way), recreational areas (Vice Chancellors Oval, tennis courts, basketball court) and landscaped areas along road verges and around car parks (Attachment 1, Appendix A).

The Locomotive Workshop is a heritage building located within the north of the ATP. It comprises sixteen bays (Bays 1-15), which have most recently been used for commercial and industrial uses (principally offices and a blacksmith). For the purposes of this audit, the site comprises the western portion of the Locomotive Workshop (Bays 5-15) and residual areas including a walkway to the north and running the length of the building, small frontages external to the building to the east and part of the forecourt and annexes between the building and Locomotive Street to the south (Attachment 2, Appendix A).

A number of audits have been undertaken at the ATP for the previous site owners (Redfern Waterloo Authority and UrbanGrowth NSW) and current site owner (Mirvac). These have included Section A Site Audit Statements (SAS) and accompanying Site Audit Reports (SAR) for development lots (Lot 8, Lot 9 and Lot 12) and public open space areas of the ATP.

The Auditor has recently completed (between May 2020 to October 2020) Section A SASs and SARs for Stage 1A, which comprises a portion of Bays 1-4A of the Locomotive Workshop (SAS TO-055-1), for Stage 1B, which comprises the southern portion of Bays 3 and 4A of the Locomotive Workshop (SAS TO-055-2), for Stage 1C, which comprises the southern portions of Bays 1, 2 and 4 of the Locomotive Workshop (SAS TO-055-3), and the pedestrian travelator tunnel footprint which extends from the southern portion of Bay 4, beneath Locomotive Street, towards the lower basement of Building 2 (SAS TO-055-4).

Graeme Nyland (Ramboll Environ Australia Pty Ltd) prepared a Section B SAS (GN 527) and SAR dated 24 June 2016 reviewing the JBS&G (2016) Remedial Action Plan (RAP) for the ATP. The

SAS concluded that the site can be made suitable for the proposed development if remediated in accordance with the RAP referenced below.

Remediation of the Locomotive Workshop is being undertaken in conjunction with redevelopment of the site (discussed in Section 2.5). Remediation comprises capping impacted fill material beneath concrete hardstand and ongoing management with a Long-Term Environmental Management Plan (LTEMP).

1.3 Scope of the Audit

The scope of the Audit included:

- Review of the following reports:
  - 'Environmental Investigation and Preliminary Insitu Waste Classification, Developable Lots 8, 9 and 12, Australian Technology Park, Eveleigh', dated July 2014, Environmental Strategies Pty Ltd (ES)
  - 'Site Wide Groundwater Monitoring Report, Australian Technology Park, Eveleigh NSW', dated 31 July 2014, ES
  - 'Australian Technology Park Detailed Site Assessment, 2 Locomotive Street, Eveleigh, NSW', dated 9 December 2015, JBS&G Australia Pty Ltd (JBS&G)
  - 'Human Health Risk Assessment, 2 Locomotive Street, Eveleigh, NSW', dated 15 June 2016, JBS&G
  - 'Ecological Risk Assessment, 2 Locomotive Street, Eveleigh, NSW', dated 15 June 2016, JBS&G
  - 'Australian Technology Park Remedial Action Plan, 2 Locomotive Street, Eveleigh, NSW', dated 15 June 2016, JBS&G (*the RAP*)
  - 'Australian Technology Park, Part Lot 4007 Fill Assessment' dated 28 June 2017, JBS&G.
  - 'Locomotive Workshop Soil Vapour Assessment – Australian technology Park, Eveleigh, NSW', dated 23 July 2017, JBS&G (*the SVA*)
  - 'Submission for SSDA – Travellator Tunnel from Building 2 to Locomotive Workshops, Australian Technology Park, Eveleigh, NSW', dated 21 March 2018, JBS&G (*the SSDA Letter*)
  - 'Locomotive Workshop – Travellator Soil Characterisation, Australian Technology Park, Eveleigh. NSW', dated 3 July 2018, JBS&G
  - 'Locomotive Workshop – Bays 1 & 2 Soil Characterisation Assessment, Australian Technology Park, Eveleigh, NSW', dated 15 August 2018, JBS&G
  - 'Locomotive Workshop – Bays 1 to 16 In-situ Waste Classification, Australian Technology Park, Eveleigh. NSW', dated 11 April 2019, JBS&G
  - 'Locomotive Workshop Ambient Air Assessment – July 2020, South Eveleigh Precinct, Eveleigh, NSW', dated 10 August 2020, JBS&G
  - 'Locomotive Workshop Stage 2 (Bays 5 to 15) and Residual Stage 1 Areas, Validation Report: South Eveleigh Precinct, Part Lot 4000 in DP 1194309, 2 Locomotive Street, Eveleigh, NSW 2015', dated 26 February 2021 (and previous version dated 27 January 2021), JBS&G (*the Validation Report*)
  - 'Locomotive Workshop Stages 1A, 1B and 1C, Travelator Tunnel and Stage 2, Long Term Environmental Management Plan, South Eveleigh Precinct, Part Lot 4000 DP 1194309, 2 Locomotive Street, Eveleigh, NSW 2015', dated 26 February 2021 (and previous version dated 21 January 2021), JBS&G (*the LTEMP*)
- Review of other information, including previous SARs and SASs relating to the site:

  - 'Site Audit Report – Remedial Action Plan for Australian Technology Park' prepared by Ramboll Environ (Graeme Nyland) and SAS GN 527 dated 24 June 2016 (the RAP SAR)
  - 'Interim Audit Advice Letter No.2 – Soil Vapour Assessment, Australian Technology Park' prepared by Ramboll Environ (Graeme Nyland) dated 6 October 2017 (IAA2)
- Site visits by the Auditor on 23 January 2019, 7 February 2020, 11 May 2020, 3 September 2020 and 15 March 2021.
- Discussions with Mirvac and with JBS&G who undertook the remediation and validation.

The investigations by ES and JBS&G were undertaken prior to the current Auditors engagement and no discussions with the consultants were undertaken regarding the scope of work or results. Several ambient air investigations have historically been undertaken by ES and JBS&G within the Locomotive Workshop. The reports were not reviewed during this site audit as site conditions have substantially changed as a result of the redevelopment.

A geotechnical report prepared by Douglas Partners Pty Ltd (Douglas) in 2017 for the Locomotive Workshop was not provided to the Auditor for review. It is understood that JBS&G undertook sampling from the Douglas sampling locations and presented this data in the Validation Report. This data has been used by the Auditor where applicable.

A number of audits of the ATP site have previously been undertaken by Ramboll, which included assessments of the entire ATP site. Reassessment of the data relied upon in the previous SARs has not been undertaken as it was found to be adequate in the previous SARs. This SAR includes a summary of the previous audits where relevant to the site. The data within the IAA2 has not been assessed within previous SARs. The Auditor has undertaken a review of the information presented in the IAA and agrees with the conclusions made.

2. SITE DETAILS

2.1 Location

The site locality is shown on Attachment 1, Appendix A.

The site details are as follows:

Street address:	2 Locomotive Street, Eveleigh, NSW 2015
Identifier:	Part Lot 4000 DP 1194309
Local Government:	City of Sydney Council
Owner:	Mirvac
Site Area:	Approximately 18,283 m^2

The boundaries of the site are generally defined by the exterior walls of the Locomotive Workshop, however the boundaries of the residual areas are not defined by site features. The site extent is shown in Attachment 2 in Appendix A.

The overall Locomotive Workshop extent is defined by the exterior walls.

2.2 Zoning

The current zoning of the site is C Business Zone – Local Centre under SEPP State Significant Precincts 2005.

The LTEMP indicates that the site zoning is SEPP Major Development 2005 under the City of Sydney Local Environment Plan 2012.

2.3 Adjacent Uses

The Locomotive Workshop is located in an area of commercial use. Surrounding land uses include:

North: Rail corridor.

East: Remainder of the Locomotive Workshop Building (Bays 1 to 4A) followed by Innovation Plaza (public open space), then the National Innovation Centre (commercial offices).

South: Locomotive Street, then Building 2 (commercial offices) which the travelator links to Bays 1-4A of the Locomotive Workshop.

West: State rail operations facilities.

There are stormwater detention basins in the south of the ATP. Alexandra Canal, approximately 1 km south of the site, is the closest groundwater receptor.

2.4 Site Condition

The JBS&G RAP noted the following regarding the condition of the Locomotive Workshop and ATP:

- The ATP site comprises roads (Locomotive Street, Central Avenue and Davy Road), pedestrian walkways (Mitchell Way), gardens and open space areas (Vice Chancellors Oval, tennis courts, basketball court and other areas), car parks and the Locomotive Workshop.
- The Locomotive Workshop comprises a large masonry and steel former railway building that has been reused for commercial purposes.
- The topography of the area slopes to the south, with discrete areas of the site reshaped into levelled areas for development and use.

JBS&G noted the following site condition for the Stage 2 area in the LTEMP:

- The site is located primarily within the western portion of the Locomotive Workshop (Bays 5 to 15). The site also includes residual areas including a walkway to the north running the length of the building, small frontages externally to the east and part of the forecourt and annexes between the building and Locomotive Street to the south.
- The site surface within the Locomotive Workshop is covered by concrete hardstand which acts as a permanent barrier over retained fill materials.
- The majority of the residual areas are also covered by hardstand, however some areas are covered with gravel of >100 mm thickness.

The Auditor observed similar conditions to JBS&G during the site visit on 15 March 2021. Final site surfaces had not been completed in some areas of the site, including Bay 15, Bays 5-7 and some paved areas to the south of the building.

2.5 Proposed Development

The Locomotive Workshop is being redeveloped by Mirvac for various commercial uses, including commercial and retail premises, function centre, educational establishment, general industrial (retention of the blacksmith) and indoor recreation facility.

Stage 2 is to comprise augmentations to the existing heritage building (Locomotive Workshop) to incorporate retail and commercial uses within the existing Locomotive Workshop building. Development works have included augmentations to the interior layout, management of capping arrangements, installation of steel foundation columns to facilitate alterations to the built form, construction of new or upgraded/augmentation of existing site hardstands, service trenching excavation works, replacement of in-ground physical infrastructure and upgrades to permanent hardstand pavements including the forecourt area to the south of the building with the majority of development activities undertaken within the Stage 2 site consisting of demolition of existing structures and refitting of interior layouts.

For the purposes of this audit, the 'commercial/industrial' land use scenario will be assumed.

3. SITE HISTORY

ES provided site history information for the ATP site based on a previous Phase 1 Contamination Investigation undertaken by Douglas Partners Pty Ltd (Douglas Partners). Douglas Partners reported that the ATP was previously part of the Eveleigh Railway Yards, founded in 1880, and Alexandria Goods Yards. The workshops were used for the assembly of components required for locomotives and included a locomotive workshop, a foundry, railway sidings and goods yards (Attachment 3, Appendix A). Activities were reported to have comprised brass, iron and steel founding, heavy engineering machining, blacksmith works, refuelling, cleaning and degreasing.

The foundry contained furnaces, smelting apparatus and furnace pits and appeared to have a dirt floor for the duration of its operation. Douglas reported that the potash shed to the south of the locomotive workshop was used to wash dirt and grease from the locomotive wheels and axles and to remove rust and scale through acid bath drenching.

JBS&G previously reported that *"the ATP (inclusive of the subject 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. Fill materials were reported resultant from site derived waste and materials importation"*.

Potential contaminating activities included the former workshops and goods yard, fill material placed on the site from unknown sources, and two areas of underground storage tanks (UST). The USTs were thought to be located to the west of the Locomotive Workshop and in the northeast of the ATP.

The date that the site use changed from industrial to commercial was not reported (anecdotally around 2008).

3.1 Auditor's Opinion

The Auditor considers that the ATP site history is broadly understood. Details regarding specific site usage are lacking, however has been compensated for by the density of the soil and soil vapour investigations undertaken.

4. CONTAMINANTS OF CONCERN

The RAP identified the following as contaminants of concern based on a review of previous site investigations:

- Total recoverable hydrocarbons (TRH)
- Metals, particularly lead, nickel and zinc
- Polycyclic aromatic hydrocarbons (PAHs)
- Asbestos

Consultants undertaking previous investigations of the wider ATP site additionally identified benzene, toluene, ethylbenzene and xylene (BTEX), organochlorine pesticides (OCPs), organophosphorus pesticides (OPPs), polychlorinated biphenyls (PCB) and volatile organic compounds (VOCs) as contaminants of concern based on the site history. The analytical results of the previous investigations undertaken at the site did not identify these contaminants at concentrations that would indicate they are of concern. They were therefore not included in the RAP as contaminants of concern.

VOCs were identified in soil vapour in two areas beneath the Locomotive Workshop. VOCs, particularly tetrachloroethene (PCE) and trichloroethene (TCE), were included as contaminants of concern during vapour assessments of the entire Locomotive Workshop undertaken by JBS&G.

The LTEMP and Validation Report identified the following contaminants of concern for the Stage 2 and Stage 1 areas (including Stage 1A, 1B and 1C and travelator tunnel):

- Metals
- PAHs
- TRH
- Asbestos
- VOCs (PCE and TCE) in soil vapour

4.1 Auditor's Opinion

The Auditor considers that the analyte list used by the various consultants during the previous investigations was generally consistent with the site history. The contaminants of concern identified by the LTEMP and Validation Report are considered to reflect the contaminants identified during the previous investigations.

There has been no assessment by the consultants for the presence of per- and poly-fluoroalkyl substances (PFAS) but in the Auditor's opinion there are no indications in the site history that they would be potential contaminants of concern.

5. STRATIGRAPHY AND HYDROGEOLOGY

5.1 Stratigraphy

ES indicated that the stratigraphy beneath the Locomotive Workshop comprises Middle Triassic Wianamatta Shale (shale and laminites with weathered clays). This transitions to Quaternary Botany Sand (sand with podsols and peat) approximately 100 m to the south of the site within the ATP.

The sub-surface profile of the Stage 2 area based on the 40 borehole logs provided in the Validation Report from previous intrusive investigations is summarised in Table 5.1.

Table 5.1: Stratigraphy

Depth (mbgl)	Subsurface Profile
0.0 – 0.9	A concrete slab on the site surface at all locations.
0.1 – 2.6	Fill material comprising a mix of gravel, sand, silt and clay with ash, slag, bricks, glass, concrete, plastic and metal. A black ash/slag layer of varying thickness between approximately 0.1 m and 1.45 m was noted in approximately 50% of sample locations beneath the surface pavement. TP417, TP419 and TP443 were terminated in fill at depths of 1.2, 1.0 and 0.4 mbgl respectively.
Between 0.6 and 3.2 – Depth	Natural soils comprising sand and silty clay were identified underlying the fill material. Sandstone was encountered underlying the fill soils at location TP419-C at a depth of 1.0 mbgl.

mbgl – metres below ground level

JBS&G indicated in the Validation Report that the fill materials encountered in the Stage 2 area were consistent with fill materials throughout the broader Locomotive Workshop. Generally, the subsurface profile remained the same post-remediation however clean fill material was imported to backfill hotspot excavations and excavations required for services prior to capping with concrete hardstand.

5.2 Hydrogeology

The Auditor undertook a search for registered bores in March 2020. One bore was identified within a 500 m radius of the Stage 2 area. The bore was located to the southeast of the site and registered for domestic purposes. The standing water levels (SWL) was measured at 4 mbgl in sand.

There were twenty groundwater monitoring wells on the ATP prior to redevelopment, mainly on Lots 8, 9 and 12 and the roads between them, and two wells to the northeast (Attachment 4, Appendix A). Groundwater has historically been at depths of between 2.1 m below top of well casing (mbTOC) in the south of the ATP (DP403) and 9.64 mbTOC in the northeast of the ATP (ADI_AH1). Review of the borehole logs indicates that groundwater was encountered in sand or fill material in the south of the ATP and clay in the north of the ATP.

During groundwater monitoring by ES in January 2014, measured parameters indicated that groundwater was acidic (pH 3.7-6.4), anaerobic in most wells (0.2-2 ppm), aerobic in four wells located across the site (4-5.7 ppm), and with low conductivity (2-900 µS/cm).

The JBS&G Validation Report indicated that groundwater flows to the south towards Shea's Creek/Alexandra Canal, located approximately 1.4 km south of the site. Surface water would drain in a southerly direction to the stormwater detention basins in the south of the ATP and nearby road drainage system.

JBS&G reviewed the Botany Groundwater Management Zones map as part of the Validation Report, the review indicated that the site is immediately to the north of 'Zone 2' of the Botany Sands Aquifer. Extraction of groundwater for domestic use is prohibited and existing bores for industrial use must be tested annually (no new bores are permitted).

5.3 Auditor's Opinion

The subsurface conditions are adequately known, given the variability in fill, site location near the boundary of geological units, contamination identified on the site, and remediation/management undertaken. The level of detail is considered sufficient for assessing site suitability.

6. EVALUATION OF QUALITY ASSURANCE AND QUALITY CONTROL

6.1 Previous Data Review

A review of the overall quality of the data for the ATP site was presented in the 2016 RAP SAR (GN 527) and IAA2. The data reviewed included soil, groundwater and soil vapour investigation data.

The RAP SAR and IAA2 concluded that the data was generally representative of overall site conditions, largely complete (with the exception of some missing field documentation), comparable for each sampling and analytical event, precise and accurate. IAA2 noted that there was doubt regarding the accuracy of the soil vapour data due to the sampling methodology, including potentially excessive purge volumes, higher flow rates and sample volumes than recommended, the absence of pressure meter readings during sampling, and the absence of an independent flow meter during sampling. The sampling methodology and field duplicates largely being collected from samples with concentrations less than the PQL were also noted in the IAA2 to provide uncertainty around the precision of the soil vapour data. IAA2 also noted that greater sample volumes were collected during May 2017 sampling events to achieve a lower PQL. JBS&G did not report climatic conditions during soil vapour sampling, so the potential impact of this on the comparability of the data was not known.

6.1.1 Auditor's Opinion

The Auditor has reviewed the data review information presented in the RAP SAR and IAA2 and notes that the soil and groundwater data covers the ATP, however no individual investigation locations were located within Stage 2. The Auditor agrees with the conclusions made in the RAP SAR and IAA2 that the data is adequately precise, accurate, representative, reliable and complete.

6.2 Additional Data Collected

Subsequent to the RAP SAR and IAA2, additional soil investigations were undertaken in the Locomotive Workshop. The Auditor has assessed the overall quality of the data by review of the information presented in the referenced reports, supplemented by field observations. The data sources are summarised in Table 6.1.

Table 6.1: Summary of Investigations and Remediation

Stage of Works	Field Data	Analytical Data
Geotechnical Investigation (Douglas Partners, 2017) *Fieldwork date: April 2017*	9 boreholes (BH200-BH208) spaced within the Locomotive Workshop with six (BH200-BH205) located within the Stage 2 area	Soil: Metals, TRH/BTEX, PAHs, OCPs, PCBs, VOCs, asbestos (% w/w)
Bay 1 and 2 Soil Characterisation (JBS&G, 2018) *Fieldwork date: July 2018*	12 boreholes (BH01-BH12) with no locations within the Stage 2 area	Soil: Metals, TRH/BTEX, PAHs, OCPs, PCBs, VOCs, asbestos (% w/w)
Travellator Waste Classification (JBS&G, 2019) *Fieldwork date: June 2018*	Six boreholes (TRA-1 to TRA-6) with no locations within the Stage 2 area	Soil: Metals, TRH/BTEX, PAHS, OCPs, VOCs, PCBs, asbestos (% w/w), TCLP metals and TCLP PAHs
In-situ Waste Classification (JBS&G, 2019) *Fieldwork date: June 2018 to March 2019*	A total of 74 sample locations including 56 boreholes (TP400 to TP444, TP402-A, TP402-B, TP417-A, TP417-B, TP419-A to TP419-C and TP440-A to TP440-D), the 12 locations from Bay 1 and Bay 2 characterisation and 6 locations from the travelator waste classification. 34 sample locations were located within the Stage 2 area (TP408 to TP413,	Soil: Metals, TRH/BTEX, PAHs, OCPs, PCBs, VOCs, asbestos (% w/w), TCLP metals, TCLP PAHs and TCLP TRH

Stage of Works	Field Data	Analytical Data
	TP415, TP417 to TP422, TP433 to TP444, TP417-A, TP417-B, TP419-A, TP419-B, TP419-C, TP440-A, TP440-B and TP440-C)	
Validation Report (JBS&G, 2020) *Fieldwork date: November 2016 to July 2020*	20 validation soil samples (six base and 14 wall) from Hotspot 2 (Area A) and 11 validation soil samples (two base and nine wall) from Hotspot 3 (Area D). Five primary samples from one imported material source (pipe bedding sand) 15 primary samples from one imported material source (DGB20) (10 in November 2016 and 5 in December 2019) Five ambient air samples (AA01 to AA05) within the Locomotive Workshop. Four sample locations, AA02 to AA05, located within the Stage 2 area.	Validation: Hotspot 2 - asbestos (% w/w) and Hotspot 3 – lead and PAHs Imported Materials: Metals, TRH/BTEX, PAHs, OCPs, PCBs, asbestos (% w/w) Ambient Air: VOCs, TPH, BTEX

As discussed in Section 1.3, the above noted Geotechnical Investigation report prepared by Douglas was not provided for review, however JBS&G obtained soil data from the Douglas geotechnical locations and provided the results within the Validation Report.

The Auditor's assessment of data quality follows in Tables 6.2 and 6.3.

Table 6.2: QA/QC – Sampling and Analysis Methodology Assessment

Sampling and Analysis Plan and Sampling Methodology	Auditor's Opinion
Data Quality Objectives (DQO) During various investigations conducted, JBS&G defined specific DQOs in accordance with the seven-step process outlined in Schedule B2 of NEPM (2013). The following decisions for the validation were identified in the DQOs: • Have physical separation arrangement layers been installed appropriately and/or maintained 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 remedial/development activities been undertaken in compliance with the regulatory requirements? • Is the site suitable for the proposed use?	The identified DQOs were considered appropriate for the investigations/validation conducted.
Sampling pattern and locations *Investigations:* Sample locations were generally spaced to gain coverage of the majority of the Locomotive Workshop. Select sample locations were targeted to areas for waste classification of identified fill contamination (asbestos and lead). The Bay 1/Bay 2 Characterisation investigation and the Travellator Waste Classification were targeted to specific areas of the Locomotive Workshop. The various fill and natural materials were also targeted for sampling. *Validation*: Following the remedial excavations, the exposed excavation faces (walls and base) were targeted for validation sampling. The wall samples targeted the relevant material and depth. *Imported Materials*: Sample locations were targeted to the stockpiled material at the source site and, where required, the sample locations were targeted to the stockpiled materials already imported to the site. *Ambient Air:* Sample locations targeted historic soil vapour locations where concentrations of TCE and PCE were identified at their highest concentrations. Samples targeted potential preferential pathways like cracks or fissures in the concrete hardstand pavement.	In the Auditor's opinion the sampling patterns and locations provide adequate coverage of the entire Locomotive Workshop. The entire dataset has been considered when making an assessment on site suitability and ongoing management of the site. Ambient air samples were located to target areas of concern based on historical results which is appropriate.

Sampling and Analysis Plan and Sampling Methodology	Auditor's Opinion
Sampling density *Investigations:* The combined sampling density of 83 locations over approximately 2.5 ha (entire Locomotive Workshop) exceeds the minimum recommended by EPA (1995) *Sampling Design Guidelines* (35 locations). The coverage provides a 95% confidence of detecting a residual hot spot of approximately 32 m diameter. The sampling density of 40 locations over approximately 18,283 m^2 within the Stage 2 area exceeds the minimum recommended by EPA (1995) *Sampling Design Guidelines* (30 locations). The coverage provides a 95% confidence of detecting a residual hot spot of approximately 25 m diameter. Samples analysed for asbestos were not collected according to the density outlined in NEPM (2013) (Schedule B1). *Validation*: The remedial excavations were validated by the collection of one sample per 63 m^2 (Hotspot 2) and 32 m^2 (Hotspot 3) of base and one per wall (generally one per 5-7 linear metres). *Imported Materials:* 15 primary samples were obtained from the one source/material type imported to the site (DGB20) at a frequency of one sample per 7.2 m^3 *Ambient Air:* Five ambient air samples were collected across the Locomotive Workshop, with one collected within the site.	Validation sampling densities were not specified in the RAP however the density applied is adequate. The sampling density of imported material was greater than that proposed in the RAP. The density of ambient air sampling is considered adequate to identify impact presenting a risk to human health. Overall, in the Auditor's opinion the sampling densities adopted were appropriate.
Sample depths *Investigations*: Samples were collected and analysed from a range of depths, with the primary intervals being within the shallow fill (directly beneath pavements) and at and around the fill/natural interface. Samples were also obtained from changes in fill profile and from underlying natural soils/bedrock, with the maximum depth of soil sampling at 5.6 mbgl. *Validation*: Validation samples were collected from the walls and floor of the excavation. Wall samples targeted the depth interval of the initial exceedance. *Imported Materials*: Samples were collected from stockpiles. Exact sample depths were not indicated by JBS&G however it has been indicated that samples were obtained from a minimum of 0.3 m into the stockpile material.	In the Auditor's opinion, this sampling strategy was appropriate and adequate to characterise the primary material types present on site.
Sample collection method *Investigations*: Sample collection was via solid stem auger drilling and hand auger. JBS&G have not indicated whether the soils collected from the auger flights had the external material removed prior to collecting the sample. 500 mL samples were collected for laboratory analysis for asbestos fines/ fibrous asbestos (AF/FA). Field quantification of asbestos (10 L samples) was not undertaken in accordance with the methodology outlined in NEPM (2013) (Schedule B1). *Validation and Imported Materials:* Sample collection was by hand directly from the excavation wall/floor. 500 mL samples were collected for laboratory analysis for asbestos fines/ fibrous asbestos (AF/FA). Field quantification of asbestos (10 L samples) was not undertaken in accordance with the methodology outlined in NEPM (2013) (Schedule B1). *Ambient Air:* Samples were collected directly into evacuated Summa canisters provided by the laboratory (TO-15). A 75 L plastic shroud was placed over the canister flush with the ground surface. Sampling activities were undertaken outside of normal working hours, across an 8 hour duration, and all ventilation within the building was shut-off.	Sample collection from the auger flights is not ideal as it can result in loss of volatiles and sample cross contamination. Given the key contaminants at the site are volatile organics, the soil concentrations reported must be considered as indicative only and may underestimate the actual concentrations present. The absence of field quantification of asbestos is not considered to be significant as a LTEMP has been prepared to manage impacted fill material underlying the site. Ambient air samples were undertaken to simulate a 'worst case' scenario of vapour intrusion into a confined space
Decontamination procedures Sampling equipment was cleaned with detergent, tap water and then de-ionised water prior to sampling and between sampling events to prevent cross contamination. New gloves	Acceptable

Sampling and Analysis Plan and Sampling Methodology	Auditor's Opinion
were reportedly used for each new sample. Decontamination of augers between locations was not explicitly reported.	
Sample handling and containers Samples were placed into prepared and preserved sampling containers provided by the laboratory and chilled during storage and subsequent transport to the laboratories. Samples for asbestos analysis were placed in plastic zip-lock bags. Ambient air samples were collected in Summa canisters provided by the analytical laboratory.	Acceptable
Chain of Custody (COC) Completed COC forms were provided in the reports.	Acceptable
Detailed description of field screening protocols Field screening for volatiles was undertaken using a PID. Soil sub-samples were placed in ziplock plastic bags and the headspace measured for VOCs after allowing time for equilibration.	Acceptable
Calibration of field equipment The reports indicated that calibration had been undertaken prior to use and checks were performed during use. Calibration certificates from the equipment supplier were not provided however the field calibration records performed for each day by JBS&G were provided. JBS&G indicated that the canister preparation documentation supplied by the laboratory was reviewed and the canister vacuums at laboratory dispatch recorded.	PID readings have a low reliability, however, were typically low and correlate well with laboratory analytical results.
Sampling logs *Investigations*: Soil logs are provided within the reports, indicating sample depth, PID readings and lithology. The logs reported a gravelly ash layer in some sample locations however no other indications of contamination were found. *Validation*: Logs or an individual sample description were not provided, however samples were targeted to the depth interval of the initial exceedance. *Imported Materials*: Logs or an individual sample description were not provided, however a description of the material within the stockpile has been provided in the individual import letters prepared by JBS&G. *Ambient Air:* Field sampling records were not provided, however JBS&G indicated that the canister vacuum gauge readings were consistent with the laboratory documented vacuum. The remaining vacuum at the end of sampling was recorded on the laboratory COC documentation in addition to the time of deactivation.	Acceptable

Table 6.3: QA/QC – Field and Lab Quality Assurance and Quality Control

Field and Lab QA/QC	Auditor's Opinion
Field quality control samples Field quality control samples included trip blanks, trip spikes, rinsate blanks, field intra-laboratory and inter-laboratory duplicates were undertaken. It is noted that select sampling events did not contain all the listed quality control samples (e.g. only a field blank during ambient air sampling). This was not considered to affect the usability of the data.	Acceptable
Field quality control results The results of field quality control samples were generally within appropriate limits. The following exceptions were noted: • RPDs were exceeded in nine intra-laboratory soil duplicate samples for a combination of TRH fractions, PAHs and individual metals. RPDs were also exceeded in ten inter-laboratory soil duplicate samples for a combination of TRH	Overall, in the context of the dataset reported, the elevated RPD results are not considered significant and the field quality control results are acceptable.

Field and Lab QA/QC	Auditor's Opinion
fractions, PAHs and individual metals. RPD exceedances were attributed to concentrations close to the PQL and/or material heterogeneity. • Low concentrations of individual heavy metals were detected above the PQL in two rinsate samples collected during different investigations. The detections were considered to not affect the overall data set and be a result of using tap water to undertake decontamination procedures.	
NATA registered laboratory and NATA endorsed methods Laboratories used included: Envirolab, and Eurofins | mgt. Laboratory certificates were NATA stamped. Analysis for asbestos in accordance with NEPM (2013) is not NATA accredited.	Acceptable
Analytical methods Analytical methods were included in the laboratory test certificates. The laboratories provided brief method summaries of in-house NATA accredited methods used based on USEPA and/or APHA methods (excluding asbestos) for extraction and analysis in accordance with the NEPM (2013). Asbestos identification was conducted using polarised light microscopy with dispersion staining by method AS4964-2004 *Method for the Qualitative Identification of Asbestos Bulk Samples*.	The analytical methods are considered acceptable for the purposes of the site audit, noting that the AS4964-2004 is currently the only available method in Australia for analysing asbestos. DOH (2009) and enHealth (2005) state that *"until an alternative analytical technique is developed and validated the AS4964-2004 is recommended for use"*.
Holding times Review of the COCs and laboratory certificates indicate that the holding times had been met. JBS&G also reported that holding times were met.	Acceptable
Practical Quantitation Limits (PQLs) *Soil:* PQLs (except asbestos) were less than the threshold criteria for the contaminants of concern. *Asbestos:* The NATA approved limit of detection for asbestos in soil was 0.01% w/w although NEPM (2013) analyses were reported to 0.001% w/w for AF/FA. *Ambient Air:* The following analytical method PQLs were above the site assessment criteria: • Naphthalene PQLs of <0.017 mg/m^3, <0.016 mg/m^3 and <0.015 mg/m^3 were greater than the site assessment criteria of 0.014 mg/m^3	*Soil (except asbestos):* Overall the soil PQLs are acceptable. *Asbestos:* In the absence of any other validated analytical method, the detection limit for asbestos is considered acceptable. *Ambient Air:* The elevated PQLs were only marginally above the assessment criteria, and in the context of the results reported and the historical naphthalene soil vapour results, overall these discrepancies do not materially affect the outcome of the audit.
Laboratory quality control samples Laboratory quality control samples including laboratory control samples, matrix spikes, surrogate spikes, blanks, internal standards and duplicates were undertaken by the laboratories.	Acceptable
Laboratory quality control results The results of laboratory quality control samples were generally within appropriate limits, with the following exceptions: • Four laboratory duplicate RPDs exceeded the acceptable limits. These were attributed to concentrations close to the PQL and/or material heterogeneity, however an acceptable recovery was obtained for the LCS. • Four surrogate spike recoveries were not determined due to chromatographic interference, and some of the surrogate spikes reported recoveries that were not within the acceptable limits. • Thirteen matrix spikes reported recoveries outside acceptable limits however acceptable recoveries were obtained in the LCS indicating a sample matrix interference. • JBS&G noted multiple exceedances of their adopted acceptance criteria for surrogate spikes. It is noted that the JBS&G adopted criteria are greater than those adopted by the NATA accredited laboratories.	The slightly elevated spike recoveries are not considered to affect the usability of the data as TRH and BTEX were not detected above guidelines in any of the samples analysed. In the context of the dataset reported, the exceedances are not considered significant and the laboratory quality control results are acceptable.

Field and Lab QA/QC	Auditor's Opinion
Data Quality Indicators (DQI) and Data Evaluation (completeness, comparability, representativeness, precision, accuracy) Predetermined data quality indicators (DQIs) were set for laboratory analyses including blanks, replicates, duplicates, laboratory control samples, matrix spikes, surrogate spikes and internal standards. These were discussed with regard to the five category areas. The Validation Report concluded "*The field sampling and handling procedures produced QA/QC results which indicate that the data is of an acceptable quality and suitable for use in site characterisation.* *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 data is of an acceptable quality upon which to draw conclusions regarding the environmental condition of the site*".	An assessment of the data quality with respect to the five category areas has been undertaken by the Auditor and is summarised below.

6.3 Auditor's Opinion

In considering the data as a whole the Auditor concludes that:

- The data from the investigations are likely to be representative of the overall soil and ambient air conditions at the Locomotive Workshop, including the Stage 2 area.
- The data is considered to be adequately complete.
- There is a high degree of confidence that data is comparable for each sampling and analytical event.
- The primary laboratory provided information to conclude that data is of sufficient precision.
- While most of the data is likely to be accurate, there is some doubt regarding possible loss of volatiles as a result of the sampling methods adopted.

7. ENVIRONMENTAL QUALITY CRITERIA

The Auditor has assessed the results against Tier 1 criteria from National Environmental Protection Council (NEPC) *National Environmental Protection (Assessment of Site Contamination) Measure 1999*, as Amended 2013 (NEPM, 2013). Other guidance has been adopted where NEPM (2013) is not applicable or criteria are not provided. Based on the proposed development (commercial and industrial with no basement), the human health and ecological criteria for 'commercial/industrial' use were adopted.

7.1 Soil Assessment Criteria

7.1.1 Human Health Assessment Criteria

The Auditor has adopted human health assessment criteria from the following sources:

- NEPM (2013) Health Investigation Levels (HILs) for 'Commercial/Industrial' (HIL D) land use.
- NEPM (2013) Health Screening Levels (HSLs) for 'Commercial/Industrial' (HSL D) land use. The HSLs assumed a sand soil type. Depth to source adopted was <1 m as an initial screen.
- NEPM (2013) Management Limits (MLs) for petroleum hydrocarbons for 'Commercial/Industrial' land use and assuming coarse soil texture.
- NEPM (2013) HSLs for Asbestos Contamination in Soil for 'Commercial/Industrial' (HSL D) land use.
- Friebel & Nadebaum (2011) HSLs for direct contact for all land use categories, and vapour inhalation/direct contact pathways for intrusive maintenance workers.

7.1.2 Ecological Assessment Criteria

The Auditor has not adopted ecological soil assessment criteria as the Locomotive Workshop building footprint occupies the entire site.

7.1.3 Soil Aesthetic Considerations

The Auditor has considered the need for soil remediation based on 'aesthetic' contamination as outlined in *Section 3.6 Aesthetic Considerations* of NEPM (2013) Schedule B1, which acknowledges that there are no chemical-specific numerical aesthetic guidelines. Instead, site assessment requires a balanced consideration of the quantity, type and distribution of foreign material or odours in relation to the specific land use and its sensitivity.

7.1.4 Imported Fill

Imported fill has been assessed in relation to attributes expected of virgin excavated natural material (VENM). The NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste* defines VENM as *"…natural material (such as clay, gravel, sand, soil or rock fines):*

- *'that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities*
- *'that does not contain sulphidic ores or soils, or any other waste, and includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved from time to time by a notice in the NSW Government Gazette."*

On this basis, the Auditor considers that for soil to be classified as VENM, the following criteria generally apply:

- Organic compounds (including petroleum hydrocarbons, PAHs, OCPs, PCBs and phenols) should be less than the PQLs.
- Inorganic compounds should be consistent with background concentrations.
- The material should not contain or comprise actual or potential acid sulphate soil.

7.2 Groundwater Assessment Criteria

7.2.1 Human Health Assessment Criteria

The site is located immediately north of 'Zone 2' of the Botany groundwater management zones. Zone 2 prohibits the use of groundwater for domestic use (drinking, watering gardens, washing cars, bathing or filling swimming pools) and bores for industrial use must be tested annually. The Auditor has not considered the NHMRC and NRMMC (2011) *Australian Drinking Water Guidelines* (ADWG) for potable or recreational use as there is no beneficial use of groundwater on the site and downgradient use is not permitted.

The Auditor has adopted human health assessment criteria for vapour inhalation from the NEPM (2013) for 'Commercial/Industrial' (HSL D) land use. The HSLs assumed a sand soil type and a depth to groundwater of 2 to <4 m.

Criteria for vapour inhalation of chlorinated hydrocarbons were not adopted as assessment of soil vapour was undertaken, which is considered a more direct measure of the exposure pathway.

7.2.2 Ecological Assessment Criteria

The Auditor has adopted ecological groundwater assessment criteria from the following sources:

- ANZG (2018) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality.* Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia (www.waterquality.gov.au/anz-guidelines). Criteria for marine water and 95% level of protection were adopted. 99% level of protection has been considered where the 95% is of low reliability.

7.3 Soil Vapour and Ambient Air Assessment Criteria

The Auditor has adopted soil vapour assessment criteria from the following sources:

- NEPM (2013) HSLs for 'Commercial/Industrial' land use (HSL D) were adopted. The HSLs assumed a sand soil type.
- NEPM (2013) interim soil vapour HILs for volatile organic chlorinated compounds. Interim HILs for 'Commercial/Industrial' land use (HIL D) were adopted.

Ambient air criteria were calculated based on the soil vapour HILs and application of an attenuation factor (0.1 for indoor air-to-soil vapour). Where an HIL was not available, USEPA Regional Screening Levels (RSLs) 'Composite Worker Ambient Air' assessment criteria were adopted (November 2020). Air assessment criteria derived for carcinogenic compounds were multiplied by x10 to adjust the target cancer risk level from 1:1,000,000 to 1:100,000 to be consistent with Australia's recommended target cancer risk level. For the majority of chemicals, where a criterion was derived using both non-cancer and cancer toxicity data, the lower criteria was adopted.

7.4 Auditor's Opinion

The environmental quality criteria referenced by the Auditor are consistent with those adopted by JBS&G.

8. EVALUATION OF SOIL RESULTS

The RAP SAR reviewed the available soil analytical data obtained from various investigation stages undertaken at the ATP site. The RAP SAR indicated that no soil investigations had been undertaken within the Locomotive Workshop.

Previous investigation of the ATP identified elevated concentrations of metals, TRH/TPH and PAH typically associated with fill material containing ash and slag. Asbestos was not identified visually in fill material, however, was detected in several samples analysed by the laboratory. Volatile contaminants (naphthalene and TRH F2) were detected in a limited number of samples. Other volatile contaminants (BTEX and VOCs) were not detected. No clear distribution of contaminants within the fill could be identified.

As outlined in Table 6.1, JBS&G subsequently undertook various assessments of the Locomotive Workshop which included soil sampling within the Stage 2 area. The JBS&G assessments included 40 soil sampling locations within the Stage 2 area (Attachment 5, Appendix A). The following sections outline the soil field and analytical results for the Locomotive Workshop including the Stage 2 area.

8.1 Field Results

The JBS&G sample locations identified anthropogenic material (gravel, plastic, concrete, brick, ash, metal, glass and slag) in fill soils. Slight hydrocarbon odours were noted in samples obtained from TP440-B (0.3-0.4) and TP440-C (0.2-0.3). No staining or other obvious signs of contamination were observed in the fill soils at the site. No evidence of asbestos contamination was observed within the fill.

The majority of the PID readings of samples were <1 ppm and the maximum reading was 3.1 ppm.

8.2 Analytical Results

The fill material and natural soil analytical results from beneath the Locomotive Workshop (including the Stage 2 area) were assessed against the environmental quality criteria outlined in Section 7 and are summarised in Table 8.1 below.

Table 8.1: Evaluation of Soil Analytical Results (Locomotive Workshop)– Summary Table

Analyte	n	Detections	Maximum (mg/kg)	n > Human Health Screening Criteria
AF/FA (500 mL samples)	91	12	**0.0235 % (w/w)**	**8 above HSL 0.001%**
Benzene	129	0	<PQL	0 above HSL D 0-1 m, sand 3 mg/kg
Toluene	129	4	0.5	0 above HSL D 0-1 m, sand NL
Ethylbenzene	129	0	<PQL	0 above HSL D 0-1 m, sand NL
Total Xylenes	129	0	<PQL	0 above HSL D 0-1 m, sand 230 mg/kg
F1 (TRH C_6–C_{10} minus BTEX)	129	0	<PQL	0 above HSL D 0-1 m, sand 260 mg/kg
F2 (TRH >C_{10}–C_{16} minus naphthalene)	129	11	803.6	0 above HSL D 0-1 m, sand NL
TRH C_6–C_{10}	129	0	<PQL	0 above ML (commercial/industrial) 700 mg/kg
TRH >C_{10}–C_{16}	129	11	810	0 above ML (commercial/industrial) 1000 mg/kg
TRH >C_{16}-C_{34}	129	56	**10,000**	**3 above ML (commercial/industrial) 3500 mg/kg**

Analyte	n	Detections	Maximum (mg/kg)	n > Human Health Screening Criteria
TRH >C_{34}-C_{40}	129	33	2,000	0 above ML (commercial/industrial) 10,000 mg/kg
Naphthalene	129	14	7.5	0 above HSL D 0-1 m, sand NL
Benzo(a)pyrene	129	41	46	-
Benzo(a)pyrene TEQ	129	124	**67**	**4 above HIL D 40 mg/kg**
Total PAHs	129	49	800	0 above HIL D 4000 mg/kg
Arsenic	129	91	200	0 above HIL D 3000 mg/kg
Cadmium	129	7	3.4	0 above HIL D 900 mg/kg
Chromium	129	90	130	0 above HIL D 3600 mg/kg
Copper	129	93	70,000	0 above HIL D 240,000 mg/kg
Lead	134	110	**4,600**	**6 above HIL D 1500 mg/kg**
Mercury	129	33	6.7	0 above HIL D 730 mg/kg
Nickel	129	59	260	0 above HIL D 6000 mg/kg
Zinc	129	85	2,700	0 above HIL D 400,000 mg/kg
PCB	127	1[#]	0.3	0 above HIL D 7 mg/kg
OCP	127	0	<PQL	0 above HIL D
VOCs	127	8[*]	6.1	-

n Number of samples
- No criteria available/used
NL Non-limiting
<PQL Less than the practical quantitation limit
* Seven detections of dichloromethane and one detection of trichloroethene in shallow fill
One detection of PCB (Aroclor 1242) in shallow fill

In reviewing the analytical results for the entire Locomotive Workshop footprint, the Auditor notes the following:

- Asbestos was not observed during sampling events, however, was detected as AF/FA in 12 samples. The AF/FA concentrations were above the human health criteria (HSL) in fill at various depths in eight locations. It is noted that two elevated concentrations at BH02 in the north of Bay 2 were remediated during the Stage 1A development works.
- Concentrations of TRH >C_{16}-C_{34} (TRH F3) were encountered above the Management Limit in three shallow fill samples at TP405 (Bay 3), TP425 (Bay 2) and TP440 (Bay 11).
- Concentrations of benzo(a)pyrene TEQ (BaP TEQ) and Total PAHs was encountered above the human health criteria in shallow fill at TP405 and TP425.
- Concentrations of lead were encountered above the human health criteria in 6 fill samples at BH204 (two samples in Bay 8), TP406 (Bay 3), TP440, TP440-B and TP440-C (Bay 11). Concentrations of copper, lead, nickel and zinc were elevated in numerous shallow fill soil samples but were below the human health criteria.
- A minor detection of PCBs (Aroclor 1242) was identified in shallow fill at TP430. This detection did not correlate with detections of other notable contaminant concentrations.
- A minor detection of trichloroethene (0.7 mg/kg) was identified in shallow fill at BH205 in Bay 7. Minor detections of dichloromethane (0.6 mg/kg to 6.1 mg/kg) were identified in shallow fill at six locations BH200 (Bay 13), BH202 (Bay 10), BH204 (Bay 8), BH205 (Bay 7), BH206 (Bay 1) and BH208 (two samples in Bay 4). This detection did not correlate with detections of other notable contaminant concentrations.

8.2.1 Soil Leachability

Selected samples were analysed for potential leachability to classify the fill materials beneath the Locomotive Workshop for offsite disposal. Toxicity Characteristic Leaching Procedure (TCLP) analysis for individual metals, TRH and PAHs (including BaP) was undertaken on 41 samples from within the Locomotive Workshop, with 15 samples within the Stage 2 area (arsenic, chromium, lead, nickel, PAHs and BaP). The samples analysed were generally obtained from within the upper 1.0 m and from above the groundwater table. The analysis was generally performed on the highest total soil concentrations encountered. The TCLP analysis identified minor leachable concentrations of copper, lead, nickel, TRH (one sample) and PAHs in 50% of the samples in the Locomotive Workshop. A significant leachable lead concentration (24 mg/L) was encountered at TP440 located in Bay 11. Within the Stage 2 area, low leachable concentrations of lead, nickel and PAHs (naphthalene and phenanthrene) were encountered in fill samples.

The Auditor notes that TCLP testing is an acidic procedure designed to simulate leaching of contaminants from material within putrescible landfills. The TCLP test is therefore considered to be unrealistic measure of leachability on the site and the results have therefore not been considered. Given that the site is entirely sealed by concrete hardstand of the Locomotive Workshop building, there is considered to be a low potential for contaminants to leach from fill material (present at varying depths below the Locomotive Workshop) to underlying groundwater (present at depths of 2.1 mbgl in the south of ATP, 5.6 mbgl in Locomotive Street and 9.64 mbgl in the northeast of the ATP).

8.3 Auditor's Opinion

In the Auditor's opinion, the soil analytical results are consistent with the site history and field observations. The results indicate that the fill materials beneath the Locomotive Workshop contain elevated concentrations of heavy metals, semi to non-volatile TRH, PAHs (including BaP TEQ) and asbestos (AF/FA). Remediation of the asbestos (AF/FA) and lead impacted fill material was undertaken within the Stage 2 area and is discussed in Section 11. The Auditor notes that asbestos was not observed during the sampling undertaken within the Stage 2 area and remediation was undertaken at the identified asbestos (AF/FA) impacts, however there is considered to be a high potential for asbestos to be present given the limitations of the sampling methodology, the heterogeneity of fill materials, historical land uses and the observations of building rubble related inclusions within fill materials.

The site is sealed with permanent concrete hardstand and contamination will be managed with a LTEMP (discussed in Section 14).

9. EVALUATION OF GROUNDWATER RESULTS

A number of groundwater monitoring events have been undertaken at the ATP since 1993. ES report that 82 monitoring wells were installed on the ATP between 1993 and 2014, however only 14 remained during the groundwater monitoring round in January 2014. Five additional wells were installed by ES in March 2014 and sampled in April 2014 (Attachment 4, Appendix A). Additionally, JBS&G installed one groundwater monitoring well in Locomotive Street (JBS03), downgradient of the area of highest chlorinated hydrocarbon impact identified within the Locomotive Workshop (Attachment 6, Appendix A).

Results for the ATP were presented in the RAP SAR and IAA2 and are summarised as follows:

- Concentrations of metals (copper, nickel and zinc) were above the ecological criteria for marine waters. The concentrations were generally not significantly elevated, with the exception of zinc in DP508 (up to 1,600 µg/L) located in the south of the ATP.
- Volatile contaminants were typically less than the detection limit in more recent monitoring rounds. Cis-1,2-DCE was detected in JBS03 (2 µg/L) marginally above the PQL (1 µg/L), however concentrations of PCE and TCE were less than the PQL in the well. No wells were located within the footprint of the Locomotive Workshop.
- Historically there were occasional low detections of TPH C_{10}-C_{36} (up to 730 µg/L) and PAHs (mostly naphthalene and acenaphthene). There was one detection of toluene (950 µg/L) and TPH C_6-C_9 (1,100 µg/L) in a historical well (DP149) during monitoring in May 2005. Follow-up groundwater monitoring results for DP149 were not provided. Wells located downgradient of DP149 have not identified elevated concentrations of petroleum hydrocarbons. Volatiles have rarely been detected historically. There have been no recordings of benzene in 122 individual samples analysed between 1993 and 2013.
- ES reported that PSH was identified in groundwater monitoring well CMPS&F_MW3. PSH was also reported in 2008 during piling of the commercial building located to the southwest of the Locomotive Workshop (north of Lot 9). PSH has not been identified in subsequent groundwater monitoring events and ATP wide groundwater monitoring has not identified significant concentrations of dissolved phase hydrocarbons.

The RAP SAR concluded that *"Metals concentrations exceeding the ecological criteria for marine waters are considered to be largely representative of background concentrations based on the results of wells on the up gradient boundary. The closest down gradient surface water receptor is approximately 1 km to the south of the site, and is therefore unlikely to be impacted by the metals identified in onsite wells."*

An assessment of human health risk concluded that there was no direct contact pathway, provided that abstraction of groundwater for beneficial use was precluded. Groundwater remediation was therefore not considered to be required.

9.1 Auditor's Opinion

Results of more recent groundwater monitoring events undertaken at the ATP have not identified significant groundwater contamination. Assessment of groundwater did not identify TCE and PCE above the PQL, with only a minor detection of cis-1,2-DCE reported in the well located within Locomotive Street immediately downgradient of the highest soil vapour impacts. Groundwater beneath the Locomotive Workshop was not assessed, however elevated concentrations of TCE and PCE were reported in soil vapour (discussed in Section 10). The low VOC concentrations in groundwater, down gradient of the elevated TCE and PCE soil vapour locations, indicate that significant migration of TCE and PCE in groundwater is not occurring.

Metals concentrations exceeding the ecological criteria for marine waters are considered largely representative of background concentrations based on the results of wells on the upgradient boundary. The closest downgradient surface water receptor is approximately 1.4 km to the south of the site and is therefore unlikely to be impacted by metals identified in onsite wells.

10. EVALUATION OF SOIL VAPOUR AND AMBIENT AIR

10.1 Soil Vapour

The RAP SAR reviewed soil vapour analytical results obtained during the May 2016 investigation by JBS&G within the Locomotive Workshop. Additional soil vapour analytical data obtained in 2017 from subsequent vapour assessments within the Locomotive Workshop and Locomotive Street were reviewed as part of the IAA2.

The JBS&G vapour assessments included the installation of 33 soil vapour points within the Locomotive Workshop, 12 sub-slab vapour points in Locomotive Street and 7 vapour wells in Locomotive Street. The vapour sampling locations are presented in Attachment 6, Appendix A, however it should be noted that the Bay numbers shown differ to those in the Validation Report (Bay 5 is now Bay 4A and subsequent Bays have been renumbered). Bays referred to below are those adopted in the Validation Report for consistency (i.e. those shown in Attachment 2, Appendix A).

Based on a review of the RAP SAR and IAA2, the Auditor has noted the following:

- Concentrations of TCE exceeded the HIL D criteria in sub-slab sample points located in two areas of the Locomotive Workshop: Bays 4A-6 and Bay 13. The highest TCE concentrations reported in sub-slab points in the eastern portion (Bays 4A-6) of the Locomotive Workshop. TCE was not detected in sampling locations within Locomotive Street.
- Concentrations of PCE were reported in sub-slab points in Bays 4A-6 of the Locomotive Workshop, in the west of the Locomotive Workshop (Bay 13) and in Locomotive Street. PCE concentrations were less than the HIL criteria, however, were highest in the eastern portion of the Locomotive Workshop (Bays 4A-6).
- The degradation products of PCE and TCE are cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), vinyl chloride (VC) and ethene. Concentrations of cis-1,2-DCE and VC were less than the PQL. Samples were not analysed for trans-1,2-DCE and ethene.
- Concentrations of 1,1,1-trichloroethane (1,1,1-TCA) were reported in sample locations in the Locomotive Workshop and Locomotive Street, however, were two to three orders of magnitude below the HIL criteria.
- Chloroform was detected in soil vapour wells installed in Locomotive Street.
- Concentrations of BTEX and monocyclic aromatic hydrocarbons (MAHs) were detected in sampling locations across the footprint of the Locomotive Workshop and most sub-slab locations in Locomotive Street. The reported BTEX and MAH concentrations were less than the adopted human health criteria. Concentrations were less than the PQL in soil vapour wells.

Twenty JBS&G soil vapour sub-slab/soil vapour sampling locations (SV01 to SV17 and SV32 to SV34) were within the Stage 2 area, as shown on Attachment 8, Appendix A. JBS&G undertook two sampling events at the twenty two locations, one in May 2016 and one in May 2017. In reviewing the JBS&G analytical results, the Auditor notes the following for the Stage 2 area:

- Concentrations of TCE exceeded the HIL D criteria in sub-slab sample points in both sampling events at SV03, SV07 and SV17, and in one sampling event at SV32 (May 2016), SV33 (May 2017) and SV34 (May 2016).
- Low concentrations of PCE were reported in sub-slab points SV03, SV07, SV17 and SV33, however generally at orders of magnitude below the adopted criteria.
- Low concentrations of 1,1,1-TCA were detected in SV01 and SV07, however at significant orders of magnitude below the adopted criteria.

- Low concentrations of ethylbenzene, toluene, xylenes and MAHs were detected in approximately half of the sample locations during the two sampling events. The reported concentrations were low and significantly less than the adopted human health criteria.

10.2 Ambient Air

The Validation Report indicates historical indoor ambient air monitoring has been undertaken for chlorinated hydrocarbons (PCE and TCE) in the Locomotive Workshop. JBS&G report that one round of ambient air monitoring was undertaken in March 2018 to supplement the previous indoor ambient air monitoring data collected annually by others between 2012 and 2015. JBS&G indicated that conditions encountered were not considered to represent an unacceptable risk to current and/or future site occupants, which was consistent with the previous assessment data collected by others and was considered representative of conditions within the building structure.

These reports have not been reviewed as site conditions have substantially changed since the sampling was undertaken, including removal of interior structures, installation of new internal fitout, new penetrations through the concrete slab and installation of new slabs in some areas.

The Validation Report indicates that JBS&G were engaged to undertake additional ambient air monitoring throughout the Locomotive Workshop upon completion of the travelator tunnel to address the updated LTEMP requirements for the Stage 1 area. The JBS&G ambient air monitoring report was appended to the Validation Report and indicated that the objective of the investigation was to substantiate the findings from the historic soil vapour investigations that concluded the potential intrusion of volatiles into the Locomotive Workshop building did not pose an unacceptable level of health risk to site users. Works comprised sampling and analysis for identified COPCs in ambient air at five locations (AA01 to AA05) within the Locomotive Workshop using summa canisters (Attachment 7, Appendix A). Sample location AA01 was located at the lower extent of the newly constructed pedestrian travelator, with remaining sample locations (AA02 to AA05) located within the Stage 2 area and generally selected based on historic soil vapour locations, where concentrations of COPCs were identified in their highest concentrations. Sampling activities were undertaken outside of normal working hours to minimise the chance of false positives in samples associated with construction activities. Samples were collected across an 8 hour duration, representative of potential exposure within the Locomotive Workshop over a normal working day. All ventilation within the building was shut-off as an added level of conservatism to ensure the highest probability of soil vapour accumulation as a result of migration into the building. The sample canisters were placed to target any visible cracks or fissures in the concrete hardstand pavement identified in the vicinity of the sample location. A 75 L plastic shroud was placed over the canister flush with the ground surface as an added level of conservatism, simulating the worst-possible case scenario for vapour intrusion into a confined space. Concentrations of all priority COPCs in all samples were reported to be below the LOR. Reported concentrations of several other analytes including acetone, cyclohexane and ethanol were reported at concentrations above the laboratory LOR, but below the adopted assessment criteria.

JBS&G concluded that concentrations of analytes in ambient air were generally consistent with those reported during previous monitoring events, and as such, volatile impacts identified in soil vapour beneath the Locomotive Workshops were not considered to be impacting air quality within the Locomotive Workshops building in a worst-case scenario of low air circulation, small confined assessment area and targeted to preferential pathways. Further ambient air monitoring will be undertaken in accordance with the LTEMP.

JBS&G report that a visual inspection of concrete pavement capping across the site was undertaken. Photos of penetrations through the concrete were included in the Validation Report. The Auditor undertook an inspection of the site on 15 March 2021 and observed new concrete within the Locomotive Worksop. JBS&G concluded in the Validation Report that *"…soil vapour migration potential has been sufficiently characterised beneath the site such that it is considered vapour does not present an unacceptable risk to current and future site users. Notwithstanding, to substantiate the findings, additional 'worst-case' ambient air monitoring rounds (i.e. when*

building air conditioning systems are not in operation) will be undertaken as part of the LTEMP requirements for the site to further support the conclusions that there is no risk to current and future site users".

10.3 Auditor's Opinion

Based on the soil vapour data reviewed in the RAP SAR and IAA2, the Auditor considers that the site is impacted by PCE and TCE. The source of the chlorinated hydrocarbon impacts is not known.

Sub-slab TCE concentrations in soil vapour beneath the Locomotive Workshop in the Stage 2 area exceed the human health criteria. JBS&G report that previous indoor ambient air monitoring activities within the Locomotive Workshop have shown the pathway was not complete. Changes to the site during redevelopment have the potential to change the vapour migration pathways. This was considered in the Validation Report, which concluded vapour does not present an unacceptable risk to site users.

The LTEMP proposes confirmatory ambient air monitoring following completion of the development to confirm that risks are low and acceptable under the completed development configuration (Section 14). One round of the ambient air monitoring specified in the LTEMP has been carried out by JBS&G in July 2020. The results indicated that volatile impacts identified in soil vapour beneath the Locomotive Workshop are not impacting ambient air quality within the Locomotive Workshop. Further ambient air monitoring is to be undertaken in accordance with the LTEMP.

The Auditor agrees that further ambient air monitoring is necessary to confirm that redevelopment of the site has not resulted in complete source-pathway-receptor (SPR) linkages through vapour intrusion of volatile contaminants.

11. EVALUATION OF REMEDIATION

11.1 Conceptual Site Model

A conceptual site model (CSM) is a representation of the source, pathway and receptor linkages at a site. JBS&G developed a CSM and used it iteratively throughout the site assessment to inform decisions around investigation and remediation/management requirements. The CSM was initially developed following the preliminary investigations and included in the RAP which was reviewed in the RAP SAR. JBS&G presented a pre-remediation CSM in the Validation Report however did not include an updated CSM following remediation. Table 11.1 provides the Auditors review of the CSM presented in the Validation Report.

Table 11.1: Review of the Conceptual Site Model

Element of CSM	Consultant	Auditor Opinion
Contaminant source and mechanism	Fill material underlying site structures containing heavy metals, PAHs, TRH/BTEX and asbestos. Sourced from historical industrial site use and development. Soil vapour identified at the site, including TCE and PCE. Asbestos in fill materials at Hotspot 2 (Area A).	The sources of contamination and contaminants of concern including the mechanism of contamination have generally been appropriately identified, although the Auditor notes that the sources of VOCs in soil vapour have not been identified.
Affected media	Fill material, underlying natural soils and soil vapour	Affected media have been identified
Receptor identification	Excavation/construction/maintenance workers conducting activities at, or in the vicinity of, the site who may potentially be exposed through inhalation of soil vapour or asbestos fibres, or oral and dermal contact to impacted soils/ groundwater.	Receptors also include future site users.
Exposure pathways	Dermal and oral contact with impacted soil and shallow groundwater. Inhalation of vapours migrating upwards from the impacted soils.	Exposure pathways have been identified.
Presence of preferential pathways for contaminant movement	Natural and/or man-made pathways that result in the preferential migration of COPCs as either liquids or gases. These include services installed, backfilled material of greater permeability than existing fill and any cracks or fissures in the concrete barrier that makes up the physical barrier.	The Validation Report identified the potential for preferential pathways.
Potentially complete source-pathway-receptor (SPR) linkages requiring remediation or management	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 vapours migrating upwards from current in-situ impacted soils.	The identified SPR linkages are considered representative of pre-remediation site conditions. The redevelopment included a permanent hardstand capping cover at the surface and physical barrier which will remove potential exposure pathways. Ongoing management will be required for works below the capping (concrete hardstand). The proposed capping will reduce the potential for leaching of contaminants from within fill and will reduce migration of groundwater, therefore reducing potential risks to off-site receptors. Soil vapour migration is limited by continuous concrete hardstand over the site. The LTEMP outlines ambient air monitoring requirements. The monitoring is required to confirm that soil

Element of CSM	Consultant	Auditor Opinion
		vapour concentrations pose a low and acceptable risk to site users.
Evaluation of data gaps	No data gaps identified.	Historical groundwater investigations did not include the Stage 2 area, however existing data for the ATP is considered adequate to characterise groundwater conditions.

11.1.1 Auditor's Opinion

Although a post-remediation CSM was not provided in the Validation Report or LTEMP, the Auditor is of the opinion that the CSM was a reasonable representation of the contamination at the site.

The remediation and validation works reviewed herein are considered adequate to address the identified risks to human health under a commercial/industrial land use scenario based on the CSM, subject to ongoing management (Section 14).

11.2 Remediation Required

JBS&G determined remedial requirements for the ATP site based on review of investigation results against screening criteria and consideration of aesthetic issues. These remedial requirements were documented in the RAP which was reviewed in the RAP SAR. The RAP was found to address the required information, and the Auditor concluded that the remediation approach was adequate to address contaminated fill material during redevelopment of the site. The Auditor has summarised the issues identified as requiring remediation and the preferred options considered in the RAP in Table 11.2.

Table 11.2: Remediation Required and Preferred Options

Description	Extent of Remediation Required	Preferred Options
Fill material containing metals, PAHs, TRH and asbestos	Lateral: Extends across the site Vertical: Thickness of fill materials	Cap, contain and management
VOCs in soil vapour, particularly PCE and TCE	Lateral: Identified in soil vapour in two areas beneath the Locomotive Workshop. PCE was detected offsite in Locomotive Street at concentrations below the criteria (TCE was not). Vertical: Unknown as sub-slab monitoring was undertaken. Likely to extend to the groundwater table (approximately 2.5 mbgl).	Capping with continuous concrete slab and sealing penetrations. Ambient air monitoring is to be undertaken under the LTEMP to confirm that the vapour intrusion risk is low and acceptable.

11.3 Remedial Works Undertaken

Remediation/construction works were undertaken by the civil works contactor, Delta Civil Pty Ltd (Delta), services installation contractor, Smart Plumbing Pty Ltd (Smart), pavement replacement contractor, Mansour Paving (Aust) Pty Ltd (Mansour), with environmental consulting provided by JBS&G between September 2019 and November 2020.

The remediation and validation works included:

- Intrusive excavation and construction works involving removal and replacement of existing concrete hardstand pavements, comprising:
  - Extension/augmentation of physical infrastructure/utilities (services)
  - Augmentations to the internal layout (civil works)
  - Removal of site fill materials exceeding a General Solid Waste (GSW) classification from Hotspot 2 (Area A) and Hotspot 3 (Area D) for operational and WH&S purposes.
- Management of existing capping arrangements and construction of new/upgraded hardstands, blinding slabs and pavers

The remediation/construction activities are summarised in the below sub-sections.

11.3.1 Extension/Augmentation of Physical Infrastructure/Utilities (Services)

Delta construction and excavation works included piling throughout the site to accommodate the newly constructed mezzanine level, the installation of five prefabricated concrete lift pit boxes, trenching and service installation associated with newly constructed amenities throughout the site, replacement of existing stormwater pits and water storage tanks with new infrastructure, replacement of an existing grease arrestor with new infrastructure and pavement replacement works in the forecourt to the south of the Locomotive Workshop. Where excavations took place, material was removed and disposed offsite to an appropriately licensed facility able to accept the material under the JBS&G waste classification. Waste disposal is discussed in Section 11.4.4. Backfill of excavations, where required, was completed with environmentally suitable material as per the requirements stated in the RAP. Validation of the imported material is discussed in Section 11.4.5.

11.3.2 Removal of Asbestos Impacted Fill Material Hotspot 2 (Area A)

Asbestos (AF/FA) was identified during the in-situ waste classification works undertaken by JBS&G at sample locations TP417 (0.26-0.4 m), TP419 (0.26-0.3 m) and TP419-C (0.3-0.4 m and 0.8-0.9 m). An approximate 380 m^2 area was identified by JBS&G as Hotspot 2 (Area A) requiring remediation for WHS purposes.

The Validation Report indicated that the Hotspot 2 excavation was advanced to a depth of 0.9 mbgl via excavator (Attachment 9, Appendix A). Removal works were supervised by one of JBS&G's Licensed Asbestos Assessors (LAAs) between 28 November and 4 December 2019. Appropriate controls were in place during the entirety of the works including adequate exclusion zones, air monitoring, personal protective equipment (PPE), dust suppression, decontamination facilities and processes.

Validation samples were collected from the base and walls of the excavation and submitted to a NATA accredited laboratory for analysis following a visual inspection to confirm no visible asbestos. Validation results are discussed in Section 11.4.1. Following validation, the excavation was backfilled with site-won spoil generated from piling and trenching activities from throughout the balance of site.

11.3.3 Removal of Lead Impacted Fill Hotspot 3 (Area D)

Elevated lead concentrations identified during the in-situ waste classification works undertaken by JBS&G at sample location TP440 (0.3-0.5 m) were classified as Hazardous Waste (HW). An approximate 64 m^2 area was identified by JBS&G as Hotspot 3 (Area D) requiring remediation to remove soils identified to contain chemical concentrations exceeding a GSW.

The Validation Report indicated that the Hotspot 3 excavation was advanced to a depth of 0.6 mbgl via excavator (Attachment 10, Appendix A). Removal works were undertaken by Delta between 23 and 28 October 2019.

Validation samples were collected from the base and walls of the excavation and submitted to a NATA accredited laboratory for lead and PAH analysis. Validation results are discussed in Section 11.4.2.

The remedial excavation was extended by approximately 2 m in the northern and eastern directions and additional validation samples were obtained from the excavation walls.

Following validation, the excavation was backfilled with site-won spoil generated from piling and trenching activities from throughout the balance of site.

11.3.4 Capping Arrangements and Construction of New, Upgrade/Augmentation of Existing Site Hardstands

Following backfill of excavations with validated environmentally suitable material (discussed in Section 11.4.3), the capping arrangements within the Locomotive Workshop were reinstated with a concrete slab ranging from 0.15 m to 0.60 m thickness. Reinstatement of capping arrangements was completed such that a permanent concrete hardstand pavement was present

across the entire site extent and oral and dermal contact with the underlying soil/fill material was precluded by site users.

The walkway to the north of the Locomotive Workshop comprised a combination of asphalt and concrete hardstand pavements, as well as minimal areas of igneous gravel (>100 mm).

The forecourt area part of the site between the Locomotive Workshop and Locomotive Street underwent upgrades to the surface finish comprising removal of existing pavers and approximately 100 mm of fill material, prior to replacement with minimal amount of imported DGB material, installation of a blinding slab and new pavers to form the final surface finish.

Auditor's Opinion

In the Auditor's opinion, remediation works undertaken were appropriate and generally in accordance with the RAP. Validation results and testing are discussed in Section 11.4.

11.4 Validation Activities

11.4.1 Validation of Hotspot 2 Excavation

Following the excavation and removal of fill material within the Hotspot 2 area, a walkover inspection was completed by one of JBS&G's LAAs. An asbestos clearance certificate issued by the JBS&G LAA was appended to the Validation Report and indicated that no ACM or loose asbestos was observed within the hotspot excavation or adjacent ground surfaces during the inspection.

A total of twenty validation samples were obtained from the Hotspot 2 excavation and analysed for asbestos (AF/FA), including six from the base and fourteen from the walls (at approximate 5 lineal metre spacing) at the depth of previous exceedances. Sample locations are presented in Attachment 9, Appendix A. Asbestos was not detected in the twenty validation samples. Following validation, the excavation was backfilled with site-won spoil generated from piling and trenching activities from throughout the balance of site.

11.4.2 Validation of Hotspot 3 Excavation

Following the excavation and removal of fill material within the Hotspot 3 area, a total of eight validation samples were obtained from the excavation and analysed for lead and PAHs including TCLPs. Samples were collected base (two) and walls (six) at approximate 5 lineal metre spacing at the depth of previous exceedances. Following validation failure in three wall samples located on the northern and eastern walls, additional excavation was undertaken. An additional three validation samples were obtained from the northern and eastern wall and analysed for lead and PAHs, including TCLPs. Sample locations are presented in Attachment 10, Appendix A. Following the additional validation results, the lead and PAH concentrations, were below criteria. Following validation, the excavation was backfilled with site-won spoil generated from piling and trenching activities from throughout the balance of the site.

11.4.3 Capping Layer Installation

A visual inspection undertaken by JBS&G at the completion of development works confirmed the presence of new and existing hardstand pavement across the entire Locomotive Workshop. In areas where new services were installed, the service trenches were backfilled with validated imported materials before being covered by polythene (plastic) sheeting and concrete hardstand. In areas of piling the slab surrounding the column was reinstated and tied into the existing slab.

The Validation Report indicated that JBS&G undertook a capping integrity assessment for the public domain areas of the ATP, which surround the Locomotive Workshop, in April 2020. The capping integrity assessment report was appended to the Validation Report and indicated that the capping arrangement for the area assessed, including the walkway to the north of the Locomotive Workshop and other residual areas of the site, were observed to be either hardstand or a physical capping of at least 0.1 m.

The Validation Report documents that the forecourt area of the site between the Locomotive Workshop and Locomotive Street underwent upgrades to the surface finish comprising removal of existing pavers and approximately 100 mm of fill material, prior to replacement with minimal

amount of imported DGB material, installation of a blinding slab and new pavers to form the final surface finish.

11.4.4 Material Disposed Off-Site

Waste materials generated on-site were sampled and classified in accordance with the NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*. Sampling from in-situ material was undertaken to characterise and classify the waste materials prior to off-site disposal. JBS&G estimated and reported in the Validation Report that 2,581 tonnes (t) of waste material was disposed off-site including the following waste types:

- GSW (non-putrescible)
- GSW – Special Waste (asbestos)
- Restricted Solid Waste (non-putrescible) (RSW)
- Hazardous Waste (HW)

The estimated tonnage for soil material reported by JBS&G is understood to be based on the quantity (m^3) of material multiplied by the assumed density of the material type (1.8 t/m^3). Waste materials were disposed from the site between November 2019 and April 2020. The Validation Report included supporting documentation from the contractors including waste disposal dockets.

The Auditor has reviewed the documentation provided and is of the opinion that the supplied documentation is consistent with the remedial works described. Further assessment of the waste classifications and disposal quantities is provided in Section 15.5.

11.4.5 Imported Material

Approximately 280 m^3 of material was imported for use as backfill, and classifications were provided as summarised in Table 11.3.

Table 11.3: Imported Fill

Source Site	Volume Imported (m^3)	Material Type	Summary of Testing Results	Auditor Opinion
Boral, Dunmore Quarry	220	DGB20	JBS&G indicated that the source, Boral's Dunmore Quarry, is an operational basalt quarry. JBS&G personnel completed an inspection of stockpiled material imported from the source site for use in other areas of the ATP. The material observed in the stockpile consisted of grey basalt gravel approximately 10 mm grained in size, no seepage, discolouration, staining, odours, asbestos containing material or other indicators of contamination were observed. JBS&G collected 10 primary samples on 23 November 2016. Sample analysis included metals, PAHs, TRH, BTEX, PCBs, OCP and asbestos. Metals concentrations were deemed to be within natural background levels with remaining analytes <PQL. Additional testing was undertaken on 10 December 2019. Due to the time lapse between sampling events, an additional five primary samples were collected and analysed for metals, PAHs, TRH, BTEX, PCBs, OCP and asbestos. Metals concentrations were deemed to be within natural background levels with remaining analytes <PQL. Based on the results of the two sampling events JBS&G considered that the material was consistent with the definition of VENM.	The range of potential contaminants analysed appears adequate. The sample frequency is high for the volume and source of material imported. Based on the material being a quarried product, the results from the JBS&G sampling events and visual observations, the Auditor considers the imported material to be VENM and suitable for use on the site.
Dixon River Sand, Maroota	60	VENM (Sand)	JBS&G were provided with a VENM Letter from the source (dated 1 June 2018), which was appended to the Validation Report, indicating that the source processes Hawkesbury friable sandstone and Maroota tertiary sand at its quarry located in Maroota. The process is carried out through excavation of the raw materials with the use of bulldozers and excavators and the excavated material is then processed through a crushing, screening and washing plant. The VENM letter states all of the products that Dixon produces for sale are VENM. The letter further states *"Our products comply with the definition of VENM provided in Part 3, Schedule 1 of the Protection of the Environment Operations Act 1997."* The Validation Report indicates that JBS&G reviewed the VENM letter and inspected one bulker bag of the material imported to the site for potential use. The inspected	Based on the material being a quarried product and the visual observations by JBS&G, the Auditor considers the imported material to be suitable for use on the site.

Source Site	Volume Imported (m^3)	Material Type	Summary of Testing Results	Auditor Opinion
			material comprised light yellow brown graded sand, consistent with the material type and grain sizes stated in the VENM letter. No seepage, discolouration, staining, odours, asbestos containing material or other indicators of contamination were observed. Field screening with a PID did not identify any elevated VOC concentrations. Based on a review of the VENM Letter and the visual observations, JBS&G assessed the material to be consistent with the definition of VENM and as such, deemed the material meets the requirements for use within the site.	

11.5 Auditor's Opinion

Remediation of the site has effectively capped contaminated fill material. In the Auditor's opinion, the remedial works undertaken were appropriate and generally in accordance with the RAP, and the validation undertaken was suitable to demonstrate this.

At the time of the Auditor's final site inspection on 15 March 2021, concrete slabs were present across the site however final surface finishes had not been completed in some areas (to be constructed on top of the concrete slab). These were in the process of being completed and site representatives reported that they would be completed prior to occupation of these areas of the building.

Ambient air monitoring is to be completed once development conditions are finalised to confirm that concentrations of chlorinated hydrocarbons previously detected in soil vapour in the Locomotive Workshop, including the Stage 2 area, do not pose an inhalation risk to site users. These requirements are outlined in the LTEMP (See Section 14).

12. CONTAMINATION MIGRATION POTENTIAL

Fill material containing elevated concentrations of TPH, PAHs and asbestos was identified beneath the Locomotive Workshop. Redevelopment required the entire site to be sealed with concrete hardstand. The LTEMP has been prepared to manage residual contamination remaining within the Locomotive Workshop, including the Stage 2 area, beneath the concrete hardstand and gravel. This will limit the potential for off-site migration of contaminants in surface water or dust and the potential leaching of contaminants from fill material to groundwater.

Assessment of groundwater contamination on the ATP did not identify significant groundwater contamination. PSH was identified in groundwater at the ATP in monitoring events undertaken prior to 2008. Groundwater monitoring undertaken post-2008 did not identify PSH and significant concentrations of dissolved phase hydrocarbons were not encountered. In the Auditor's opinion, contaminants detected within the soil at the ATP have not adversely affected the groundwater quality, except perhaps zinc in DP508 located in the south of the ATP.

Investigation of soil vapour beneath the Locomotive Workshop identified elevated concentrations of PCE and TCE. Investigation of soil vapour and groundwater in the adjacent and down gradient Locomotive Street did not identify concentrations indicative of migration from the source area. Minor PCE detections were reported in soil vapour within Locomotive Street, however, were in only three locations (VP02, VP03 and VP09) at concentrations two orders of magnitude less than the criteria. Ambient air sampling did not indicate a risk from vapour intrusion, and further monitoring is proposed in the EMP (Section 14).

In the Auditor's opinion, there is no evidence of significant migration of contamination under current conditions. Based on the site being largely capped with concrete, migration of contamination from the site is unlikely, subject to appropriate management controls required by the LTEMP (Section 14).

13. ASSESSMENT OF RISK

The site history indicates that there have been potential polluting industries on the ATP, including within the Locomotive Workshop. Investigation of subsurface conditions at the site identified conditions likely to be a result of the historical site use. Fill material beneath the Locomotive Workshop was found to contain ash, slag and asbestos, with elevated concentrations of TRH, PAHs, metals and asbestos.

Asbestos remediation was undertaken at isolated locations during redevelopment of the Locomotive workshop, however based on the historical land use activities and the heterogeneity of fill material, there is the potential for residual areas of asbestos impacted fill material beneath the entire Locomotive Workshop footprint.

The overall risk of exposure of human receptors to non-volatile contaminants present within fill material at the site is considered to be low following remediation by in-situ capping of the entire site beneath a concrete hardstand. Disturbance of the underlying fill material as part of regular activities undertaken on the site is unlikely. A LTEMP has been prepared to maintain the cover layer and provide management procedures should the cap need to be breached (Section 14).

Concentrations of TCE in soil vapour beneath the Locomotive Workshop exceed human health criteria, and therefore may present a risk to occupants of the site. Indoor air sampling within the Locomotive Workshop has previously been undertaken, which demonstrated that the risks to site workers were acceptable. The results of the ambient air monitoring would no longer be representative of conditions within the Locomotive Workshop following redevelopment, and therefore were not reviewed during this audit. The potential vapour inhalation risk to occupants of the development is considered to be low, however warrants further assessment at the completion of internal fitout. The LTEMP requires ambient air monitoring to be undertaken on a minimum of two occasions over 12 months during 'worst-case' conditions (when building air conditioning systems are not in operation). The monitoring is to be undertaken to support the JBS&G conclusions that soil vapour does not present an unacceptable risk to current and future site users. One round of the ambient air monitoring has been undertaken in July 2020 in accordance with the LTEMP with the results included in the Validation Report indicating that soil volatile impact identified beneath the Locomotive Workshops is not impacting air quality. Further ambient air sampling is proposed in accordance with the LTEMP to confirm this conclusion.

14. ONGOING SITE MANAGEMENT

JBS&G propose the ongoing management of remnant contamination at the site through the following document, which is attached to the SAS in Appendix B:

> 'Locomotive Workshop Stages 1A, 1B and 1C, Travelator Tunnel and Stage 2, Long Term Environmental Management Plan, South Eveleigh Precinct, Part Lot 4000 DP1194309, 2 Locomotive Street, Eveleigh, NSW, 2015, Australian Technology Park' dated 26 February 2021 by JBS&G Australia Pty Ltd.

The LTEMP supersedes previous versions issued with Site Audit Statements for portions of the Locomotive Workshop (referred to as Stages 1A, 1B, 1C and the Travelator Tunnel).

Table 14.1 presents an assessment of the LTEMP.

Table 14.1: Assessment of the LTEMP

Item	Auditor Comments
Site Specific stand-alone document The LTEMP provides site specific information, including the identification of the site and a site plan. The LTEMP also includes the management of the adjoining Stage 1A, Stage 1B, Stage 1C and travelator tunnel (portion within the Locomotive Workshop) redevelopment areas. Portions of the travelator tunnel located outside the Locomotive Workshop, situated within the public domain cadastral boundary (Lot 4007 in DP 1194309) are subject to the Public Domain LTEMP. The purpose of the LTEMP has not been directly specified however the document has been prepared to document the management requirements for the site for ongoing commercial/industrial use.	The Auditor considers that the LTEMP is a standalone document that is specific to the site.
Plan Objectives The objective is to ensure the ongoing suitability of the site for the proposed mixed uses (commercial/industrial) and pedestrian travelator tunnel via maintenance of cap/cover measures that form a physical barrier to the underlying contaminated soil present at depth beneath the site. Procedures have been provided should the cap need to be breached.	The Auditor considers that the objectives are relevant and refer to prevention as well as management if the cap is required to be breached.
When does the LTEMP apply? The LTEMP will apply indefinitely during future site operation or until such time as a SAS can be prepared by an NSW EPA Accredited Site Auditor stating that the LTEMP is not required for the site.	The Auditor considers that the applicability of the LTEMP is appropriate.
Contamination Issues Section 3 of the LTEMP outlines the contamination issues at the site. The soil contamination issues outlined in the LTEMP include fill material impacted by TRH, PAHs, metals (chromium, copper, lead, nickel, zinc and arsenic) and asbestos. Elevated concentrations of volatiles such as chlorinated alkenes (TCE and PCE) and trace	The Auditor considers that the contamination issues and potential risks are adequately outlined within the LTEMP.

Item	Auditor Comments
amounts of BTEX were identified across the site in soil vapour. The identified soil contamination is located beneath a physical barrier system (concrete hardstand and compacted granite) which, if maintained in accordance with the LTEMP, would eliminate the exposure pathway between site users and the impacted fill material. Exposure pathways and risks associated with the contamination issues are discussed.	
Management Measures The LTEMP outlines the minimum management procedures that are to be adopted during ongoing operation of the site and in the event that the physical barrier system (concrete hardstand) is breached. A number of procedures are provided in Appendix D of the LTEMP as a guide for the LTEMP implementation. Procedures include: • Site surface maintenance includes six monthly inspections of the physical barrier system (concrete hardstand and compacted granite) • Excavation works and reinstatement • Stormwater, sediment and dust controls • Ambient air monitoring (two rounds over one year) • Training and contractor/sub-contractor management • Contingency Plan • Record keeping • Non-compliances • Audit • Review • Unexpected finds	The identified management measures are considered appropriate. The contingency plan includes a trigger if ambient air sampling identifies contaminant concentrations exceeding appropriate criteria, which includes notifying the Auditor.
Extent of Capping and Specification of the Cap Section 2.2 of the LTEMP documents the physical barrier system, comprising either concrete hardstand, gravel (external residual areas Stage 2) or compacted granite (within Stage 1C), which is overlying the contaminated fill material across the site. Survey information to identify the lateral extent of the physical barrier across the site was provided in Appendix B of the LTEMP.	Although the thickness of the physical barrier system (concrete hardstand, gravel and compacted granite) is not presented, the capping details presented in the LTEMP are adequate.
Responsibilities Section 5.1 of the LTEMP indicates that Mirvac as the site owner, or its nominated representative, will be responsible for the ongoing implementation of the LTEMP. This includes the co-ordination of ambient air monitoring. A formal list of procedures is provided in Appendix D of the LTEMP. Correspondence from Mirvac (Appendix C) report that the LTEMP will be incorporated into a Work Place Risk Management Plan and Risk and Opportunity Register for the site. The responsibilities of Council (or the relevant consent authority) are as follows:	The LTEMP provides a clear indication of those responsible for environmental management and their responsibilities.

Item	Auditor Comments
• Public notification of the existence of the LTEMP on appropriate property records • Enforcement of the LTEMP as a condition in any future development consent for additions or alterations to the development that may involve a breach of the cap • Confirmation in writing to the Site Auditor that the Department of Planning and Environment (or the Council of the City of Sydney) will comply with the two items above in order for the auditor to prepare a SAS for this site.	
Timeframe The LTEMP is to be implemented for an indefinite period of time during operation of the site under the current consent or until a review has been undertaken by either a NSW EPA Accredited Site Auditor and a SAS issued, or a written approval has been provided by the Department of Planning, Industry and Environment (or Council) (as the consent authority), or a written approval has been provided by NSW EPA, that removes the need for ongoing implementation of the LTEMP.	The Auditor considers the timeframe to be adequate.
Long-term engineering security of works Section 2.3 of the LTEMP outlines maintenance requirements of the barrier system (concrete hardstand and compacted granite). In the event that the barrier system is disturbed at any time as a result of planned or unplanned activities, the procedures documented in the LTEMP are required to be implemented to repair the barrier such that there continues to be an effective barrier between the contaminated soil and future site occupants/users during day to day use of the site. Procedures are provided in Appendix D of the LTEMP for any planned or unplanned breaches of the physical barrier to ensure the barrier is reinstated appropriately.	The procedures provided in the LTEMP to ensure long-term security of the barrier are considered acceptable.
Compliant with Relevant Documentation? The LTEMP does not explicitly address the requirements of Condition E3 of the SSD, which requires the EMP to include the following: 1. A description of the nature and location of any contamination remaining on site 2. Provision to manage and monitor any remaining contamination 3. A groundwater monitoring program to assess the potential impact of fill material placed below ground water 4. Mechanisms to report results to relevant agencies **5.** Details of any contingency measures that the Applicant would carry out to address any ongoing contamination	The Auditor considers that the LTEMP addresses the requirements of Condition E3 that are applicable to the remediation and development undertaken. Fill material was not placed below groundwater, therefore monitoring of groundwater is not considered to be required. It is noted that two rounds of ambient air monitoring from within the Locomotive Workshop are to be undertaken, with results to be reported the Auditor.
Occupational Health and Safety (OH&S) The LTEMP refers to guidance under NSW *Work Health and Safety (WHS) Act 2011* (WHS Act 2011) and NSW *WHS Regulation 2011* (WHS Regulation 2017).	The Auditor considers that the OH&S requirements within the LTEMP are adequate.

Item	Auditor Comments
Safe Work Method Statement (SWMS) are required to be developed prior to works being undertaken.	
Public notification mechanisms to ensure potential purchasers or other interested parties are aware of the restrictions i.e. Section 10.7 Certificate (formerly Section 149) or placing a covenant on the title of land under the CLM Act to require maintenance of remediation under the Act. Future planning certificates as may be prepared by City of Sydney Council under s.10.7 of the *Environmental Planning and Assessment Act 1979* for subject lot(s) will document the presence of the SAS and associated LTEMP.	The Auditor considers the public notification mechanisms to be adequate.
Will be or can reasonably be made to be legally enforceable? Enforcement of the LTEMP as a condition in any future development consent for additions or alterations to the development that may involve a breach of the cap	Ongoing compliance with the EMP is a requirement of Condition E3 of SSD 8449, which states that *"…the Applicant shall manage the site in accordance with the LTEMP…"*. The LTEMP can also be made legally enforceable in the future in pre-development consent.
Are the Council in agreement with the LTEMP? JBS&G concluded that Council were accepting of an EMP as it was listed as a condition of the SSD.	The SAS and attached EMP will be provided to Council and recorded on the Section 10.7 certificate.

The appropriate conditions for the implementation of a Environmental Management Plan stated under Section 3.4.6 of NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3rd Ed.)* have been met, namely:

- The LTEMP has been reviewed by the Auditor.
- The LTEMP can reasonably be made to be legally enforceable (i.e. Development Consent conditions) in site redevelopment.
- There will be appropriate public notification of restrictions applying to the site through a notification on the Section 10.7 Certificate for the site.
- The remnant contamination is not considered to pose an unacceptable risk to onsite or offsite environments.

14.1 Auditor's Opinion

The Auditor considers that the LTEMP will provide an adequate framework for the management of the remnant contamination at the site. The LTEMP will be incorporated into the Mirvac Work Place Risk Management Plan and Risk and Opportunity Register for the site, which will ensure practical enforcement. The LTEMP is a requirement of Condition E3 of SSD 8449 and is therefore considered to be legally enforceable.

15. COMPLIANCE WITH REGULATORY GUIDELINES AND DIRECTIONS

15.1 General

The Auditor has used guidelines currently made and approved by the EPA under section 105 of the NSW *Contaminated Land Management Act 1997*.

The investigations were generally conducted in accordance with SEPP 55 Planning Guidelines and reported in accordance with the OEH (2011) *Guidelines for Consultants Reporting on Contaminated Sites* (which was applicable at the time the reports were prepared). The Validation Report and the LTEMP were generally prepared in accordance with the NSW EPA (2020) *Consultants Reporting on Contaminated Land*.

15.2 Notification

JBS&G indicated that the remediation works were classified 'Category 1' Remediation Works and consent was issued by the NSW Government Department of Planning and Environment.

15.3 Regulation

As of 10 February 2021, the ATP was listed on the NSW EPA 'List of NSW contaminated sites notified to EPA', which notes that *"Regulation under CLM Act not required"*. The Auditor contacted the NSW EPA regarding the site on 5 June 2020 and received a response on 10 June 2020. Correspondence from the NSW EPA is provided in Appendix C.

15.4 Development Approvals

The Audit was initiated to comply with a condition of the approval of State Significant Development (SSD) 8517 dated 22 February 2019 (Bays 1-4A), SSD 8449 dated 22 February 2019 (Bays 5-15) and a modification (MOD 5) to SSD 7317 dated 29 June 2018. Condition E2 states that *"A Section A Site audit statement must be prepared at the end of each stage of development, including the excavation and construction of the tunnel below Locomotive Workshop to Locomotive Street, certifying the suitability of the land for the proposed use"*. The proposed uses of the Locomotive Workshop redevelopment are for commercial and retail premises, function centre, educational establishment, general industrial (retention of the blacksmith) and indoor recreation facility.

Condition E2 also states the following:

> *"The site auditor must also verify that any excavated material disposed off-site, has been appropriately classified, validated, managed and the relevant approval obtained in accordance with the relevant legislation and relevant approved materials management plan/s".*
>
> *"On completion of remediation works, the Council shall be notified in accordance with the relevant requirements of Clauses 17 and 18 of SEPP 55 – Remediation of Land".*

Section 15.5 below provides the Auditor's comments on the verification that waste was appropriately classified, validated and managed in accordance with the relevant legislation. The Auditor understands that the Validation Report documents the completion of remediation works and that the SAS attached to this SAR will be submitted to Council which will partially comply with Clause 18 of SEPP55.

Condition E3 of the SSD notes the following with respect to the LTEMP:

> *"Prior to the issue of the first Occupation Certificate for Bays 5 – 15 [Bays 1 – 4a in SSD 8517], the Applicant shall prepare and implement a Long Term Environmental Management Plan (LTEMP). The plan shall be prepared by a suitably qualified and experienced person, be submitted to an EPA Accredited Site Auditor for review and approval within one month of the*

completion of remediation works, unless otherwise agreed by the Secretary. The LTEMP shall include, but not be limited to:

a) A description of the nature and location of any contamination remaining on site;

b) Provision to manage and monitor any remaining contamination;

c) A groundwater monitoring program to assess the potential impact of fill material placed below ground water;

d) Mechanisms to report results to relevant agencies;

e) Triggers that would indicate if further remediation is required; and

f) Detailed of any contingency measures that the Applicant would carry out to address any ongoing contamination.

Upon completion of the remediation works, the Applicant shall manage the site in accordance with the LTEMP and any on-going maintenance of remediation notice issued by the EPA under the CLM Act."

JBS&G prepared a LTEMP for Stage 1A, Stage 1B, Stage 1C, the travelator tunnel and Stage 2 of the Locomotive Workshop. The LTEMP is reviewed in Section 14 of this SAR and was found to address the requirements of Condition E3.

Condition D7 of the SSD requires that remediation works are undertaken in accordance with the RAP, with any amendments approved by the Site Auditor. Section 11 of this SAR reviews the remediation and validation undertaken in accordance with the approved RAP and Condition D7.

15.5 Waste Management

In accordance with Section 4.3.7 of the NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3rd Edition),* the Auditor has checked the following aspects relating to waste disposal and recycling.

15.5.1 Waste Classification

Waste classification letters have been prepared by JBS&G and included within the Validation Report. It was reported that wastes were classified in accordance with the NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*. The adopted waste classification strategy included sampling from in-situ material.

The in-situ waste classification report was prepared for the following soils at the Locomotive Workshop:

- GSW (non-putrescible) for remaining fill material containing slag, which considered the general approval of immobilisation for metallurgical furnace slag (2009/07).
- GSW (non-putrescible) - special waste (asbestos waste) for approximately 230 m^3 (380 m^2 x 0.6 m) of fill material within the north-centre portion within Bays 5, 6 and 7 at sample locations TP417, TP419 and TP419-C (Area A), approximately 13 m^3 (21 m^2 x 0.58 m) of fill material within the northeast corner of Bays 1 and 2 in sample location BH02 (Area B), and approximately 70 m^3 (19 m^2 x 3.55 m) of fill material within the south-centre portion within Bay 4 at sample locations TRA-4 and TP402 (Area C).
- Hazardous Waste (HW) (non-putrescible) for approximately 15 m^3 (64 m^2 x 0.2 m) of fill material within the north-western portion within Bay 11 at sample locations TP440 (Area D).

The Auditor notes that Area A (GSW special waste (asbestos waste)) and Area D (HW) are located within a portion of the Stage 2 area and that remaining fill material was classified as GSW (non-putrescible) containing slag, which considered the general approval of immobilisation for metallurgical furnace slag (2009/07).

The Validation Report included an additional waste classification assessment report prepared by Geotesta Pty Ltd (Geotesta) for the offsite disposal of fill materials excavated from within Bay 15 of the Locomotive Workshop and an additional waste classification assessment report prepared by JBS&G for surplus materials generated from earthworks and piling activities within Bay 15 north of the Locomotive Workshop. These additional assessments were based on sampling from stockpiles and skip bins. These waste classification reports were prepared for the following soils at the site:

- GSW (non-putrescible) for surplus fill material generated from earthworks and piling activities within Bay 15 north of the Locomotive Workshop (assessed by JBS&G) containing slag, which considered the general approval of immobilisation for metallurgical furnace slag (2009/07).
- RSW (non-putrescible) for the fill material assessed by Geotesta.

15.5.2 Waste Volumes, Disposal Receipts and Disposal Facilities

131 waste dockets were provided in the Validation Report for GSW, 10 for GSW-Special Waste (asbestos), 17 for RSW and five for HW for disposal dates occurring between 18 September 2019 and 18 September 2020. Additional waste dockets were also provided for the disposal of demolition and construction wastes (brick and concrete) however these have not been reviewed.

JBS&G report that a total of 2,581.22 t of waste soil was removed offsite. The Auditor has assessed the volumes in the dockets provided and calculates the same quantity.

Material was disposed to a number of facilities as listed in Table 15.1, below. The Auditor checked the EPA register on 11 February 2021 and notes that the facilities hold an Environment Protection Licence (EPL) allowing the wastes to be received.

Table 15.1: Summary of Waste Disposal

Waste Classification	Tonnage (t)	Disposal Facility	EPL No.
GSW (non-putrescible)	139.34	Breen Resources Pty Ltd (Kurnell)	4608
GSW (non-putrescible)	1,073.30	Suez (Kemps Creek)	4068
GSW (non-putrescible) – Special waste (asbestos)	77.16	Suez (Kemps Creek)	4068
RSW (non-putrescible)	98.30	Suez (Kemps Creek)	4068
HW	45.90	Cleanaway Co Pty Ltd (St Marys)	20271

15.5.3 Auditor's Opinion

The Auditor considers that the waste management assessed as part of the remedial works was undertaken in accordance with the relevant guidelines and regulations, as well as the requirements of Condition D8 of the SSD.

15.6 VENM and Other Imported Materials

Based on the information in Section 11, the Auditor is of the opinion that the material imported is consistent with VENM and/or fit for purpose at the site.

15.7 Licences

Excavation and removal of asbestos fibre contaminated soils was required to be conducted by a Class A licensed contractor.

JBS&G confirmed that all Class A asbestos removal work was completed by Pure Contracting Pty Ltd. Copies of the appropriate licences were not provided to the Auditor, however, the Auditor undertook a search of the SafeWork NSW asbestos licence database on 11 February 2021 which

indicates that Pure Contracting Pty Ltd (Licence number: AD210803) are licensed for friable asbestos removal works.

15.8 Conflict of Interest

The Auditor has considered the potential for a conflict of interest in accordance with the requirements of section 3.2.3 of the NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme*.

The Auditor considers that there are no conflicts of interest, given that:

1. The Auditor is not related to a person by whom any part of the land is owned or occupied.
2. The Auditor does not have a pecuniary interest in any part of the land or any activity carried out on any part of the land.
3. The Auditor has not reviewed any aspect of work carried out by, or a report written by, the site auditor or a person to whom the site auditor is related.

16. CONCLUSIONS AND RECOMMENDATIONS

JBS&G concluded in the Validation Report that *"the remediation works within the site have been completed and validated in general accordance with the requirements of the RAP. As such, the site is considered suitable for ongoing use as commercial land uses, subject to implementation of an updated EMP, to be prepared as a separate standalone document. The purpose of the EMP is to ensure the retention of the installed capping, or where works are required beneath the capping, implementation of appropriate management protocols to minimise environmental and WHS risks associated with the retained impacted fill material"*.

Based on the information presented in JBS&G reports and observations made on site, and following the Decision-making process for assessing urban redevelopment sites in NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3rd Edition)*, the Auditor concludes that the site is suitable for the purposes of 'commercial/industrial' subject to compliance with the following environmental management plan:

> 'Locomotive Workshop Stages 1A, 1B and 1C, Travelator Tunnel and Stage 2, Long Term Environmental Management Plan, South Eveleigh Precinct, Part Lot 4000 DP1194309, 2 Locomotive Street, Eveleigh, NSW, 2015, Australian Technology Park' dated 26 February 2021 by JBS&G Australia Pty Ltd'.

Groundwater has not been assessed for any beneficial re-use. Any future use of groundwater would require appropriate assessment and regulatory approvals from the NSW Office of Water.

17. OTHER RELEVANT INFORMATION

This Audit was conducted on the behalf of Mirvac Projects Pty Ltd for the purpose of assessing whether the land is suitable for the proposed commercial/industrial uses i.e. a "Site Audit" as defined in Section 4 (definition of a 'site audit' (b)(iii)) of the CLM Act.

This summary report may not be suitable for other uses. ES and JBS&G included limitations in their reports. The Audit must also be subject to those limitations. The Auditor has prepared this document in good faith, but is unable to provide certification outside of areas over which the Auditor had some control or is reasonably able to check.

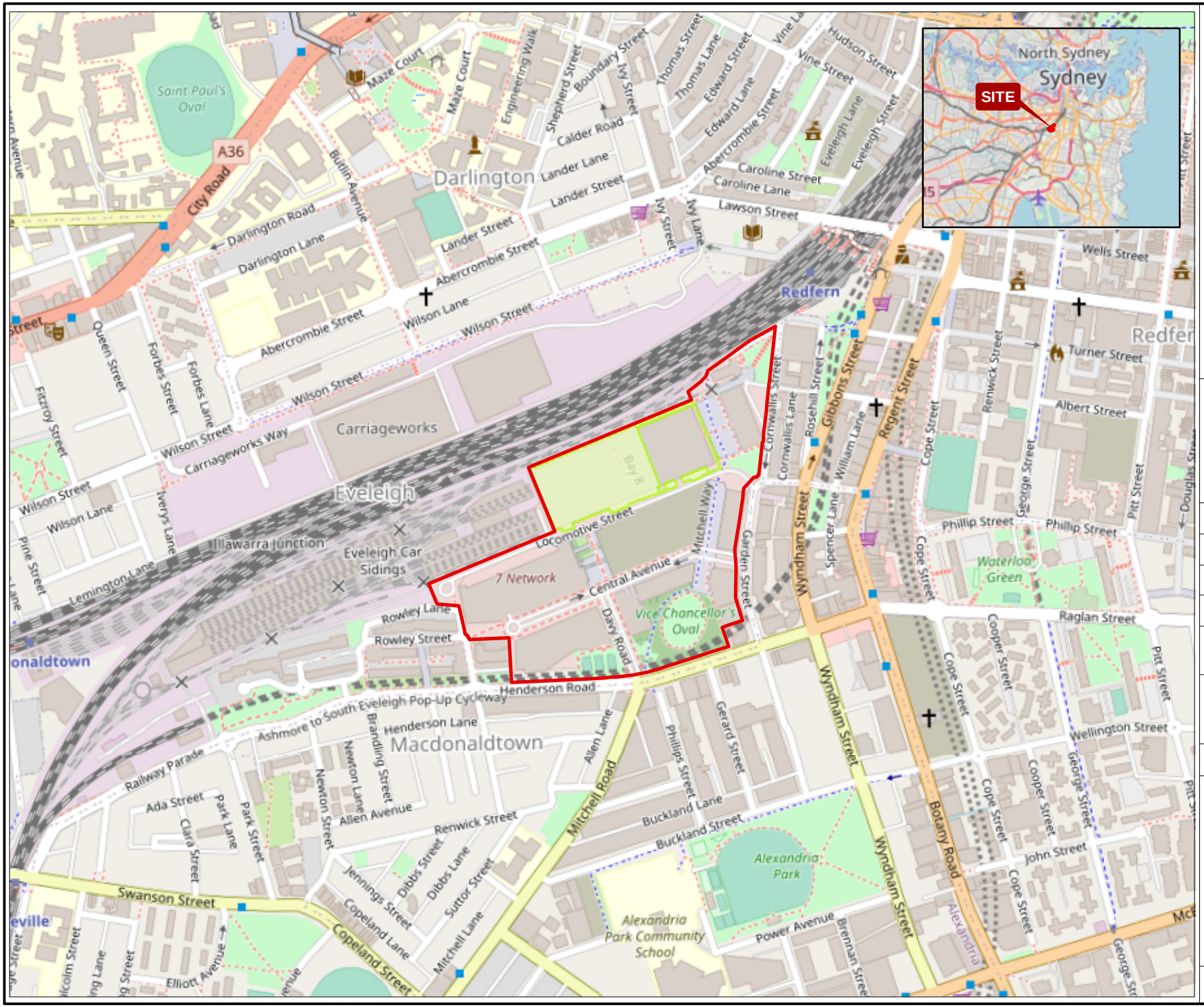
The Auditor has relied on the documents referenced in Section 1 of the Site Audit Report in preparing the Auditors' opinion. If the Auditor is unable to rely on any of those documents, the conclusions of the audit could change.

It is not possible in a Site Audit Report to present all data which could be of interest to all readers of this report. Readers are referred to the referenced reports for further data. Users of this document should satisfy themselves concerning its application to, and where necessary seek expert advice in respect to, their situation.

APPENDIX A
ATTACHMENTS

Attachment 1: Site Location
Attachment 2: Stage 2 Site Location
Attachment 3: Historical ATP Land Uses
Attachment 4: Historic Groundwater Well Locations
Attachment 5: Historic Soil Sampling Locations
Attachment 6: JBS&G Soil Vapour and Groundwater Locations
Attachment 7: Locomotive Workshop Ambient Air Locations
Attachment 8: Historic Soil Vapour and Ambient Air Locations
Attachment 9: Hotspot 2 (Area A) Soil Validation Locations
Attachment 10: Hotspot 3 (Area D) Soil Validation Locations

Attachment 1: Site Location



Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Locomotive Workshop - Validation Area

JBS&G

Job No: 51142	
Client: Mirvac	
Version: R56 Rev 0	Date: 25-Feb-2021
Drawn By: RF	Checked By: TF
Scale 1:7,500	

0 100 200
metres

Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct (SEP)
Eveleigh, NSW

SITE LOCATION

FIGURE 1

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Mirvac\51142 ATP Validation\GIS\Maps\Reports\R56 Rev 0\51142_01_SiteLoc.mxd
Reference: © OpenStreetMap (and) contributors, CC-BY-SA

Attachment 2: Stage 2 Site Locations

ID	Easting	Northing
1	332989.082	6248048.729
2	333229.334	6248148.199
3	333263.064	6248067.074
4	333264.950	6248067.858
5	333267.082	6248062.753
6	333265.184	6248061.973
7	333266.880	6248057.884
8	333266.247	6248057.625
9	333269.640	6248049.912
10	333242.045	6248038.282
11	333242.548	6248037.094
12	333225.924	6248030.209
13	333225.151	6248032.071
14	333215.090	6248027.952
15	333211.901	6248036.144
16	333247.494	6248050.776
17	333250.669	6248043.029
18	333268.365	6248050.565
19	333229.896	6248143.343
20	333146.199	6248108.476
21	333181.667	6248022.990
22	333177.116	6248021.032
23	333179.974	6248014.020
24	333190.451	6248018.412
25	333187.435	6248025.953
26	333201.653	6248032.057
27	333205.078	6248023.787
28	333175.518	6248011.517
29	333175.069	6248012.598
30	333134.270	6247995.717
31	333134.987	6247993.994
32	333109.562	6247983.465
33	333106.426	6247991.005
34	333052.044	6247968.504
35	333054.421	6247962.716
36	333038.965	6247956.318
37	333036.591	6247962.055
38	333026.690	6247957.956



Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Locomotive Workshop - Bay Number
- Locomotive Workshop - Validation Area

JBS&G

Job No: 51142

Client: Mirvac

Version: R56 Rev 0	Date: 25-Feb-2021
Drawn By: RF	Checked By: TF

Scale 1:1,250

0 25 50
metres

Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct (SEP)
Eveleigh, NSW

SITE LAYOUT

FIGURE 2

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Mirvac\51142 ATP Validation\GIS\Maps\Reports\R56 Rev 0\51142_02_SiteLayout.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Cadastral Boundaries Excluded from the SEP Precinct
- Locomotive Workshop - Validation Area

JBS&G

Job No: 51142

Client: Mirvac

Version: R56 Rev 0	Date: 25-Feb-2021
Drawn By: JA	Checked By: TF

Scale 1:3,500

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metres

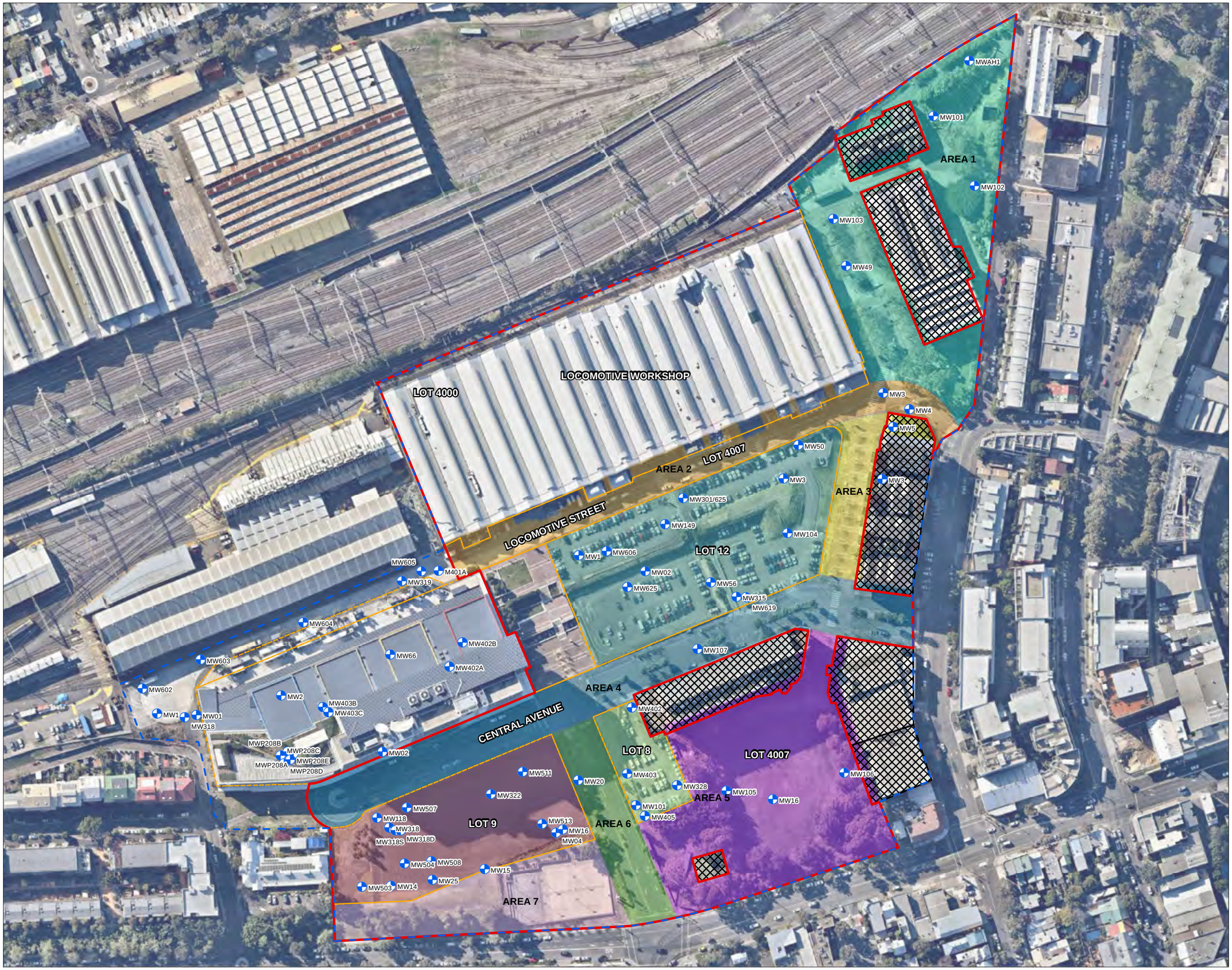
Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct, Eveleigh NSW

HISTORICAL SITE LAYOUT

FIGURE 4

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Mirvac\51142 ATP Validation\GIS\Maps\Reports\R56 Rev 0\51142_04_HistoricSiteLayout.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



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

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metres

Coord. Sys. GDA 1994 MGA Zone 56

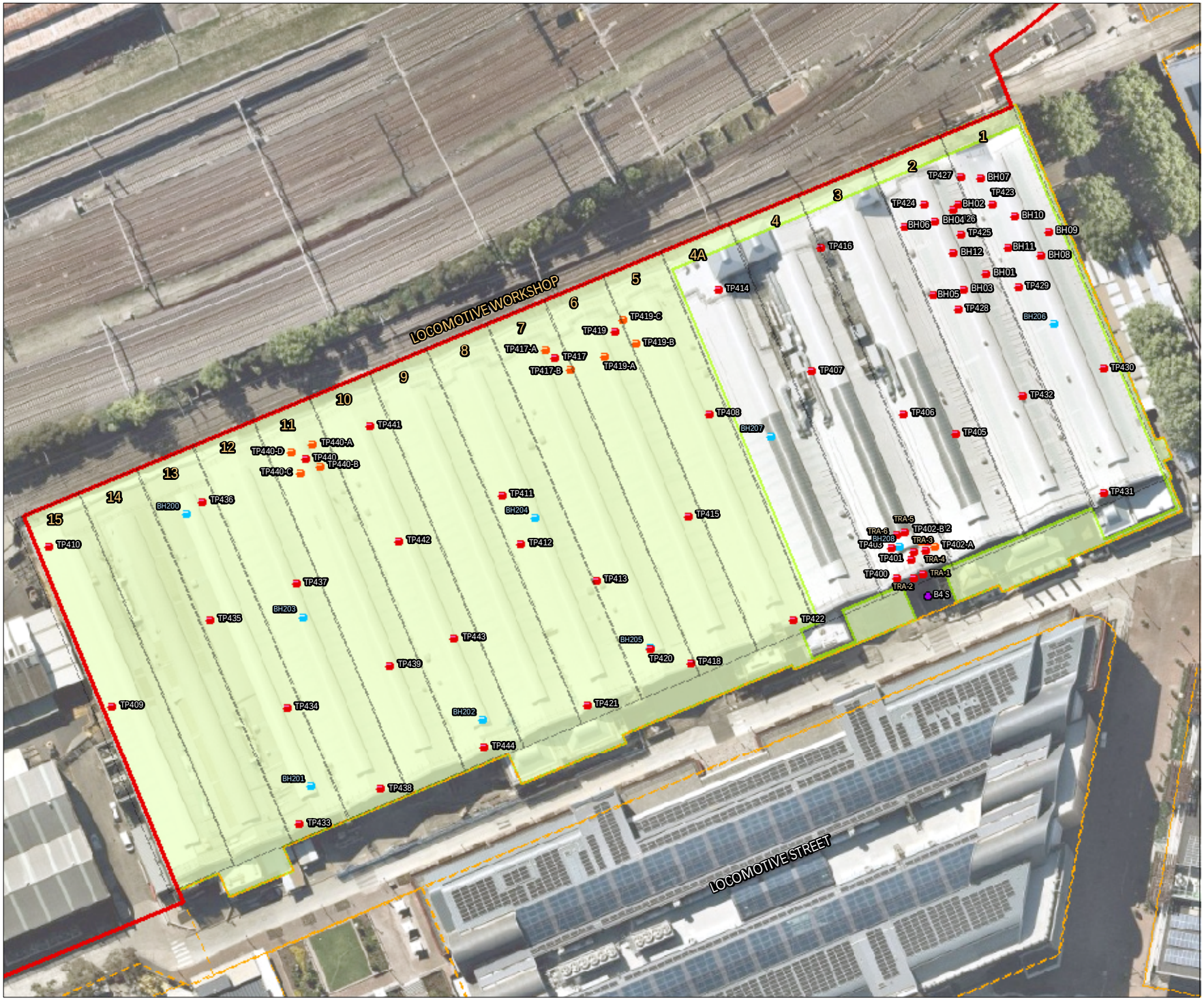
Australia Technology Park Eveleigh, NSW

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:

Attachment 5: Historic Soil Sampling Locations



Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Locomotive Workshop - Bay Number
- Locomotive Workshop - Validation Area
- Borehole Location - DP 2017
- In-situ Waste Classification (JBS&G 2019a)
- Delineation Sample Locations (JBS&G 2019a)
- Sample Location (JBS&G 2018a)

JBS&G

Job No: 51142

Client: Mirvac

Version: R56 Rev 0	Date: 25-Feb-2021
Drawn By: RF	Checked By: TF

Scale 1:1,250

0 20 40
metres

Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct, Eveleigh NSW

HISTORIC SAMPLE LOCATIONS

FIGURE 5A

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Mirvac\51142 ATP Validation\GIS\Maps\Reports\R56 Rev 0\51142_05A_Historic_CurrentSampleLocs.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

Attachment 6: JBS&G Soil Vapour and Groundwater Locations



SVE	Date	Concentration	Criteria
Analyte			
TCE	Dec-14	0.2350 mg/m³	HIL D
TCE	Apr-15	0.1170 mg/m³	HIL D

SV26	Date	Concentration	Criteria
Analyte			
Tetrachloroethene	May-16	0.9167 mg/m³	HIL D
Trichloroethene	May-16	0.2500 mg/m³	HIL D
Trichloroethene	May-17	0.0850 mg/m³	HIL D

SV35	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	2.3330 mg/m³	HIL D
Trichloroethene	May-17	5.8350 mg/m³	HIL D
Tetrachloroethene	May-17	1.0840 mg/m³	HIL D

SV17	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	10.6700 mg/m³	HIL D
Trichloroethene	May-17	1.6670 mg/m³	HIL D

SV34	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	6.1670 mg/m³	HIL D

SV32	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	0.2333 mg/m³	HIL D

SV33	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-17	0.1667 mg/m³	HIL D

SV36	Date	Concentration	Criteria
Analyte			
Tetrachloroethene	May-16	3.1670 mg/m³	HIL D
Trichloroethene	May-16	0.5667 mg/m³	HIL D
Trichloroethene	May-17	0.1600 mg/m³	HIL D

SV03	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	0.1833 mg/m³	HIL D
Trichloroethene	May-17	0.4334 mg/m³	HIL D

SV07	Date	Concentration	Criteria
Analyte			
Trichloroethene	May-16	0.5000 mg/m³	HIL D
Trichloroethene	May-17	0.1117 mg/m³	HIL D

Legend:

- Approximate Boundary - ATP Site
- Approximate Boundary - ATP Precinct
- Cadastral Boundaries
- Cadastral Boundaries Excluded from the ATP Precinct
- Assessment Area - Lot 4000 DP1194309
- Locomotive Workshop - Bay Number 2
- UST (Inferred Historical Location)

Historical Ambient Air and Soil Vapour Locations

- Ambient Air DP 2010c
- Ambient Air ES 2015a
- Soil Vapour ES 2015a
- Sub-Slab Vapour Location - May 5-6 2016
- Sub-Slab Vapour Location - May 20 2016
- Sub-Slab Vapour Location - Feb 2017
- Soil Vapour Well Location - May 2017
- Seepage Water Sample Location
- Groundwater Monitoring Well Location

JBS&G

Job No: 51142

Client: Mirvac

Version: L06 Rev 1	Date: 04-Jul-2017
Drawn By: RF	Checked By: NC

Scale 1:1,700

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

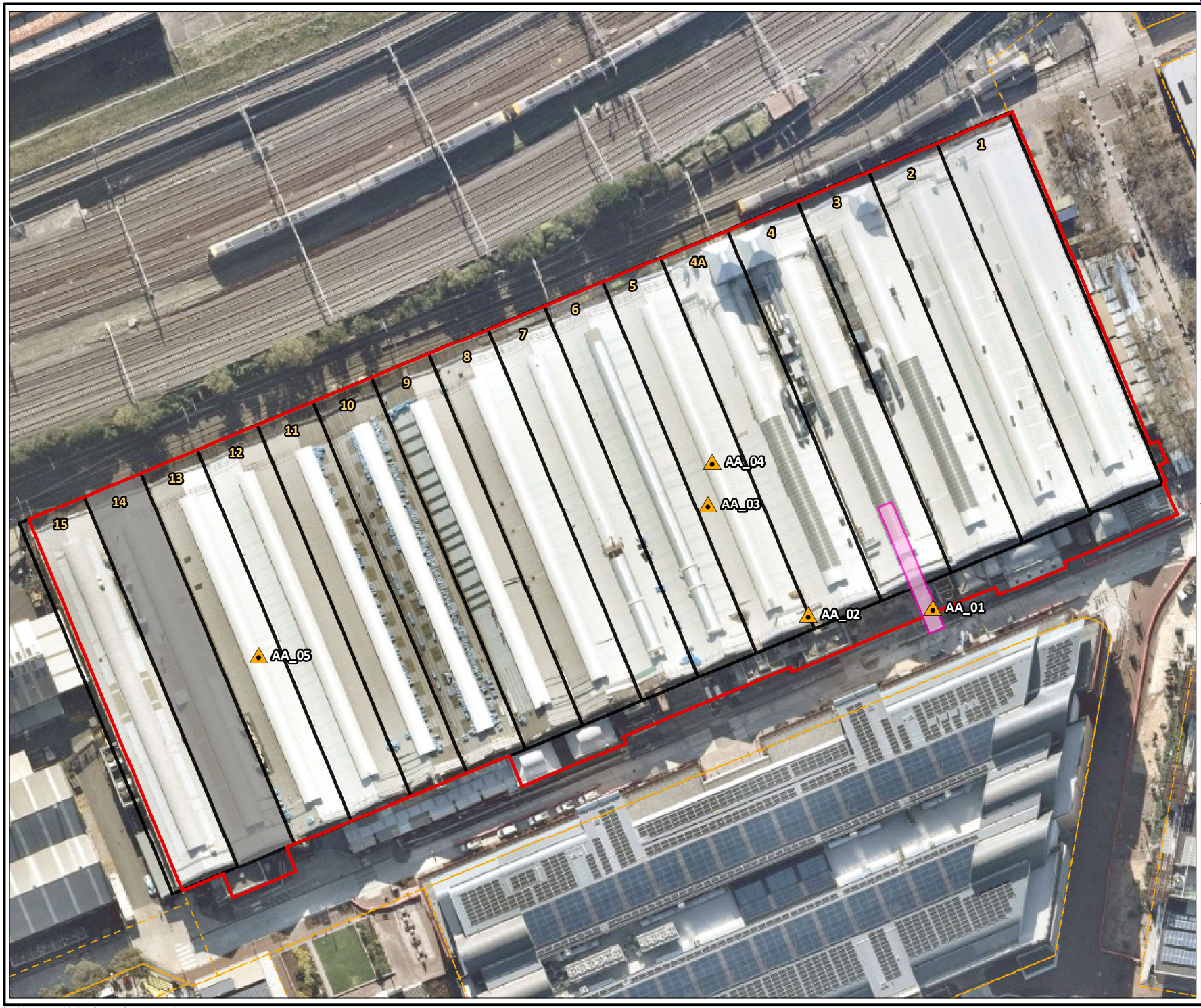
Australia Technology Park Eveleigh, NSW

SOIL VAPOUR AND GROUNDWATER LOCATIONS AND EXCEEDANCES

FIGURE 5:

File Name: 51142_05
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

Attachment 7: Locomotive Workshop Ambient Air Locations



Legend:

- Approximate Site Boundary
- Cadastral Boundaries
- Locomotive Workshop - Bay Number
- Travelator
- JBS&G Ambient Air Sample Location (July 2020)

JBS&G

Job No: 51142

Client: Mirvac

Version: L186 Rev 0	Date: 28-Jul-2020
Drawn By: JA	Checked By: TF

Scale 1:1,250

0 25 50

metres

Coor. Sys. GDA 1994 MGA Zone 56

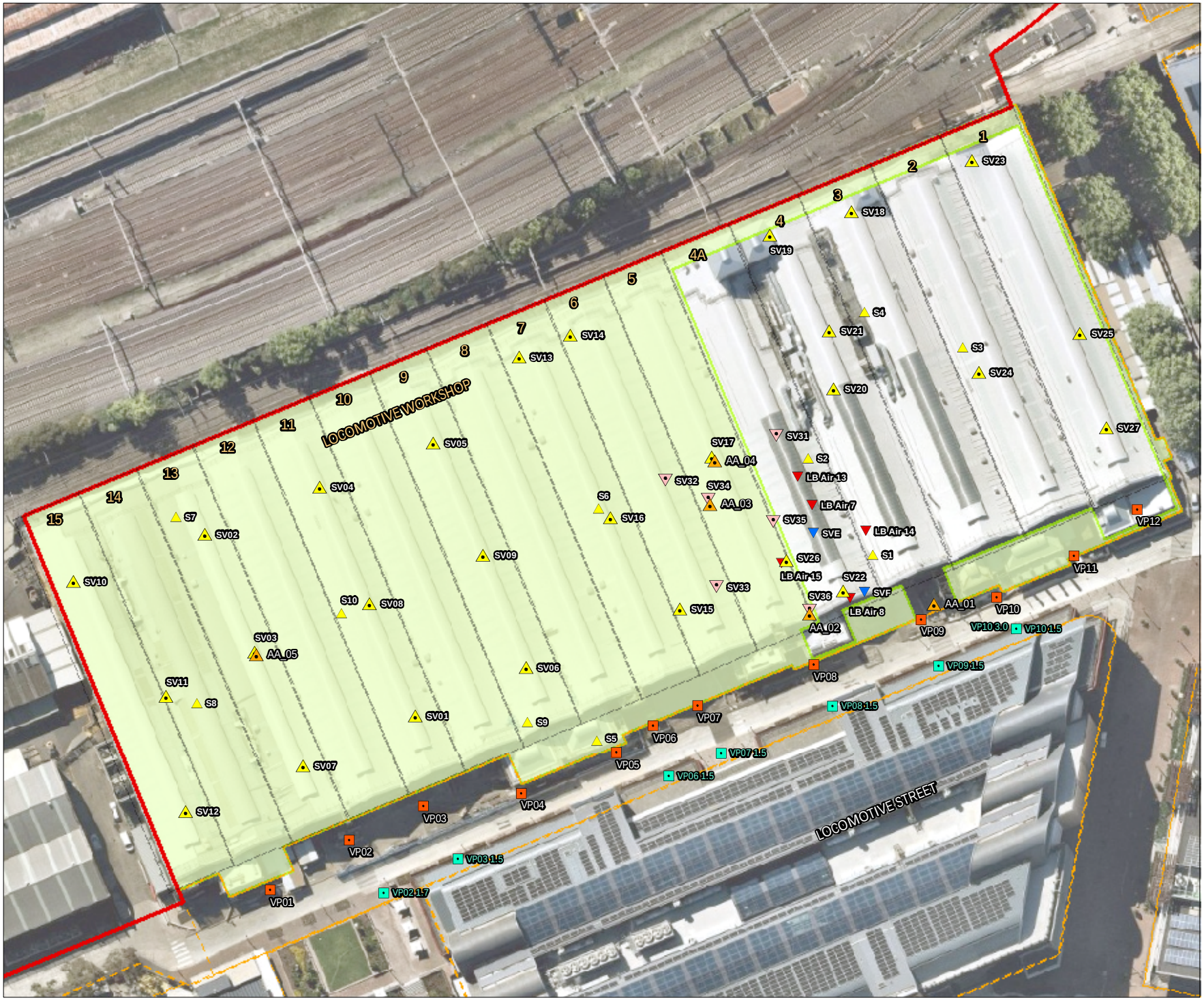
South Eveleigh Precinct (SEP), Eveleigh, NSW

CURRENT INVESTIGATION SAMPLE LOCATIONS

FIGURE 4

File Name: 51142_04_CurrentSampleLocations
Reference: Nearmap - www.nearmap.com (Capture Date: 01/06/2020)

Attachment 8: Historic Soil Vapour and Ambient Air Locations



Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Locomotive Workshop - Bay Number
- Locomotive Workshop - Validation Area
- Ambient Air DP 2010c
- Ambient Air ES
- Soil Vapour ES 2015a
- Sub-Slab Vapour Location - May 20 2016
- Sub-Slab Vapour Location - May 5-6 2016
- Sub-Slab Vapour Location - Feb 2017
- Soil Vapour Well Location - May 2017
- JBS&G Ambient Air Sample Location (July 2020)

JBS&G

Job No: 51142

Client: Mirvac

Version: R56 Rev 0	Date: 25-Feb-2021
Drawn By: JA	Checked By: TF

Scale 1:1,250

0 20 40
metres

Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct, Eveleigh NSW

SOIL VAPOUR SAMPLE LOCATIONS

FIGURE 5B

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Mirvac\51142 ATP Validation\GIS\Maps\Reports\R56 Rev 0\51142_05B_SoilVapourSampleLocs.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

Attachment 9: Hotspot 2 (Area A) Soil Validation Locations



Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Concrete Trench
- Locomotive Workshop - Bay Number
- Locomotive Workshop - Validation Area
- Hotspot 2 (Area A) Remedial Excavation
- Validation Sample Locations, JBS&G 2019b

JBS&G

Job No: 51142

Client: Mirvac

Version: R56 Rev 0	Date: 26-Feb-2021
Drawn By: RF	Checked By: TF

Scale 1:200

0 2.5 5
metres

Coor. Sys. GDA 1994 MGA Zone 56

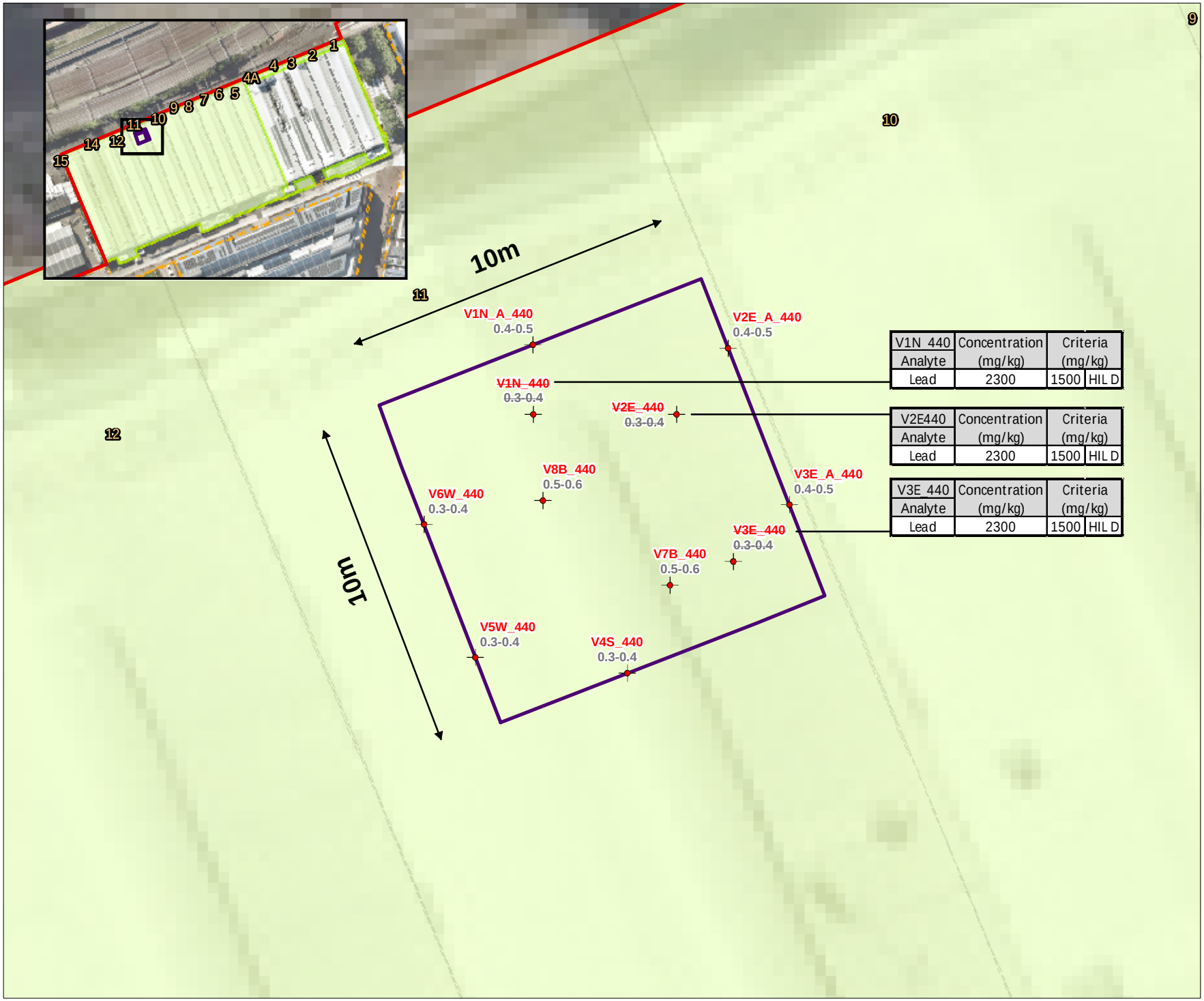
South Eveleigh Precinct (SEP)
Eveleigh, NSW

VALIDATION SAMPLE LOCATIONS (AREA A)

FIGURE 6A

File Name: N:\Projects\Mirvac\51142 ATP Validation\GIS\Maps\Reports\R56 Rev 0\51142_06A_ValidationSamplesAreaA.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

Attachment 10: Hotspot 3 (Area D) Soil Validation Locations



V1N_440 Analyte	Concentration (mg/kg)	Criteria (mg/kg)	
Lead	2300	1500	HIL D

V2E440 Analyte	Concentration (mg/kg)	Criteria (mg/kg)	
Lead	2300	1500	HIL D

V3E_440 Analyte	Concentration (mg/kg)	Criteria (mg/kg)	
Lead	2300	1500	HIL D

Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Locomotive Workshop - Bay Number
- Locomotive Workshop - Validation Area
- Hotspot 3 (Area D) Remedial Excavation
- Validation Sample Locations, JBS&G 2019b

Note:
Strikethrough locations have been removed

JBS&G

Job No: 51142

Client: Mirvac

Version: R56 Rev 0 | Date: 26-Feb-2021

Drawn By: RF | Checked By: TF

Scale 1:150

0 2 4
metres

Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct (SEP)
Eveleigh, NSW

VALIDATION SAMPLE LOCATIONS (AREA D)

FIGURE 6A

File Name: N:\Projects\Mirvac\51142 ATP Validation\GIS\Maps\Reports\R56 Rev 0\51142_06B_ValidationSamplesAreaD.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

APPENDIX B
SITE AUDIT STATEMENT

NSW Site Auditor Scheme

Site Audit Statement

A site audit statement summarises the findings of a site audit. For full details of the site auditor's findings, evaluations and conclusions, refer to the associated site audit report.

This form was approved under the *Contaminated Land Management Act 1997* on 12 October 2017.

For information about completing this form, go to Part IV.

Part I: Site audit identification

Site audit statement no. TO-055-5

This site audit is a:

☒ statutory audit

☐ non-statutory audit

within the meaning of the *Contaminated Land Management Act 1997*.

Site auditor details

(As accredited under the *Contaminated Land Management Act 1997*)

Name: Tom Onus

Company: Ramboll Australia Pty Ltd

Address: Level 3

100 Pacific Highway, North Sydney

Postcode: 2060

Phone: 02 9954 8133

Email: tonus@ramboll.com

Site details

Address: 2 Locomotive Street, Eveleigh

Postcode: 2015

Property description

(Attach a separate list if several properties are included in the site audit.)

Part of Lot 4000 DP1194309 (see plan at the end of Part I of this statement)

Local government area: City of Sydney

Area of site (include units, e.g. hectares): 18,283 m^2

Current zoning: C Business Zone – Local Centre

Regulation and notification

To the best of my knowledge:

☐ **the site is** the subject of a declaration, order, agreement, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985,* as follows: (provide the no. if applicable)

- ☐ Declaration no.
- ☐ Order no.
- ☐ Proposal no.
- ☐ Notice no.

☒ **the site is not** the subject of a declaration, order, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*.

To the best of my knowledge:

☒ the site **has** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*

☐ the site **has not** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*.

Site audit commissioned by

Name: Nathan McCoy

Company: Mirvac Projects Pty Ltd

Address: 200 George Street, Sydney

Postcode: 2000

Phone: 0417 118 747

Email: nathan.mccoy@mirvac.com

Contact details for contact person (if different from above)

Name:

Phone:

Email:

Nature of statutory requirements (not applicable for non-statutory audits)

☐ Requirements under the *Contaminated Land Management Act* 1997 (e.g. management order; please specify, including date of issue)

☐ Requirements imposed by an environmental planning instrument (please specify, including date of issue)

☒ Development consent requirements under the *Environmental Planning and Assessment Act 1979* (please specify consent authority and date of issue)

State Significant Development (SSD) 8449 dated 22 February 2019 (Condition E2) relates to Bays 5-15 and SSD 8517 dated 22 February 2019 (Condition E2) relates to Bays 1-4A of the Locomotive Sheds.

SSD 7317 MOD 5 dated 29 June 2018 (Condition E2) relates to the travelator tunnel.

☐ Requirements under other legislation (please specify, including date of issue)

Purpose of site audit

☐ **A1** To determine land use suitability

Intended uses of the land:

OR

☒ **A2** To determine land use suitability subject to compliance with either an active or passive environmental management plan

Intended uses of the land: Commercial

OR

(Tick all that apply)

☐ **B1** To determine the nature and extent of contamination

☐ **B2** To determine the appropriateness of:

- ☐ an investigation plan
- ☐ a remediation plan
- ☐ a management plan

☐ **B3** To determine the appropriateness of a **site testing plan** to determine if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*

☐ **B4** To determine the compliance with an approved:

- ☐ **voluntary management proposal** or
- ☐ **management order** under the *Contaminated Land Management Act 1997*

☐ **B5** To determine if the land can be made suitable for a particular use (or uses) if the site is remediated or managed in accordance with a specified plan.

Intended uses of the land:

Information sources for site audit

Consultancies which conducted the site investigations and/or remediation:

Environmental Strategies Pty Ltd (ES)

JBS&G Australia Pty Ltd (JBS&G)

Titles of reports reviewed:

‘Environmental Investigation and Preliminary Insitu Waste Classification Developable Lots 8, 9 and 12, Australian Technology Park, Eveleigh’, July 2014, ES

‘Site Wide Groundwater Monitoring Report, Australian Technology Park, Eveleigh NSW’, 31 July 2014, ES

‘Australian Technology Park Detailed Site Assessment, 2 Locomotive Street, Eveleigh, NSW’, 9 December 2015, JBS&G

‘Human Health Risk Assessment, 2 Locomotive Street, Eveleigh, NSW’, dated 15 June 2016, JBS&G

‘Ecological Risk Assessment, 2 Locomotive Street, Eveleigh, NSW’, dated 15 June 2016, JBS&G

‘Australian Technology Park Remedial Action Plan, 2 Locomotive Street, Eveleigh, NSW’, 15 June 2016, JBS&G

‘Australian Technology Park, Part Lot 4007 Fill Assessment’ dated 28 June 2017, JBS&G

‘Locomotive Workshop Soil Vapour Assessment – Australian technology Park, Eveleigh, NSW’, 23 July 2017, JBS&G

‘Submission for SSDA – Travellator Tunnel from Building 2 to Locomotive Workshops, Australian Technology Park, Eveleigh, NSW’, dated 21 March 2018, JBS&G

‘Locomotive Workshop – Travellator Soil Characterisation, Australian Technology Park, Eveleigh. NSW’, dated 3 July 2018, JBS&G

‘Locomotive Workshop – Bays 1 & 2 Soil Characterisation Assessment, Australian Technology Park, Eveleigh, NSW’, dated 15 August 2018, JBS&G

‘Locomotive Workshop – Bays 1 to 16 In-situ Waste Classification, Australian Technology Park, Eveleigh. NSW’, dated 11 April 2019, JBS&G

‘Locomotive Workshop Ambient Air Assessment – July 2020, South Eveleigh Precinct, Eveleigh, NSW’, dated 10 August 2020, JBS&G

‘Locomotive Workshop Stage 2 (Bays 5 to 15) and Residual Stage 1 Areas, Validation Report: South Eveleigh Precinct, Part Lot 4000 in DP 1194309, 2 Locomotive Street, Eveleigh, NSW 2015’, dated 26 February 2021, JBS&G

‘Locomotive Workshop Stages 1A, 1B and 1C, Travelator Tunnel and Stage 2, Long Term Environmental Management Plan: South Eveleigh Precinct, Part Lot 4000 DP 1194309, 2 Locomotive Street, Eveleigh, NSW 2015’, dated 26 February 2021, JBS&G

Other information reviewed, including previous site audit reports and statements relating to the site:

‘Site Audit Report – Remedial Action Plan for Australian Technology Park’ prepared by Ramboll Environ and SAS GN 527 dated 24 June 2016

‘Interim Audit Advice Letter No.2 – Soil Vapour Assessment, Australian Technology Park’ prepared by Ramboll Environ dated 6 October 2017

Site audit report details

Title:	Site Audit Report – Stage 2 (Bays 5 to 15) of Locomotive Workshop, Eveleigh	
Report no.:	TO-055-5 (Ramboll Ref: 318000650)	Date: 17 March 2021



ID	Easting	Northing
1	332989.082	6248048.729
2	333229.334	6248148.199
3	333263.064	6248067.074
4	333264.950	6248067.858
5	333267.082	6248062.753
6	333265.184	6248061.973
7	333266.880	6248057.884
8	333266.247	6248057.625
9	333269.640	6248049.912
10	333242.045	6248038.282
11	333242.548	6248037.094
12	333225.924	6248030.209
13	333225.151	6248032.071
14	333215.090	6248027.952
15	333211.901	6248036.144
16	333247.494	6248050.776
17	333250.669	6248043.029
18	333268.365	6248050.565
19	333229.896	6248143.343
20	333146.199	6248108.476
21	333181.667	6248022.990
22	333177.116	6248021.032
23	333179.974	6248014.020
24	333190.451	6248018.412
25	333187.435	6248025.953
26	333201.653	6248032.057
27	333205.078	6248023.787
28	333175.518	6248011.517
29	333175.069	6248012.598
30	333134.270	6247995.717
31	333134.987	6247993.994
32	333109.562	6247983.465
33	333106.426	6247991.005
34	333052.044	6247968.504
35	333054.421	6247962.716
36	333038.965	6247956.318
37	333036.591	6247962.055
38	333026.690	6247957.956

Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Locomotive Workshop - Bay Number
- Locomotive Workshop - Validation Area

JBS&G

Job No: 51142

Client: Mirvac

Version: R56 Rev 0	Date: 25-Feb-2021
Drawn By: RF	Checked By: TF

Scale 1:1,250

0 25 50

metres

Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct (SEP)
Eveleigh, NSW

SITE LAYOUT

FIGURE 2

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Mirvac\51142 ATP Validation\GIS\Maps\Reports\R56 Rev 0\51142_02_SiteLayout.mxd
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

Part II: Auditor's findings

Please complete either Section A1, Section A2 or Section B, not more than one section. (Strike out the irrelevant sections.)

- Use **Section A1** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **without the implementation** of an environmental management plan.
- Use **Section A2** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **with the implementation** of an active or passive environmental management plan.
- Use **Section B** where the audit is to determine:
    - (B1) the nature and extent of contamination, and/or
    - (B2) the appropriateness of an investigation, remediation or management plan[1], and/or
    - (B3) the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or
    - (B4) whether the terms of the approved voluntary management proposal or management order have been complied with, and/or
    - (B5) whether the site can be made suitable for a specified land use (or uses) if the site is remediated or managed in accordance with the implementation of a specified plan.

[1] For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

Section A1

I certify that, in my opinion:

The **site is suitable** for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

☐ Residential, including substantial vegetable garden and poultry

☐ Residential, including substantial vegetable garden, excluding poultry

☐ Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry

☐ Day care centre, preschool, primary school

☐ Residential with minimal opportunity for soil access, including units

☐ Secondary school

☐ Park, recreational open space, playing field

☐ Commercial/industrial

☐ Other (please specify):

_____

OR

☐ I certify that, in my opinion, the **site is not suitable** for any use due to the risk of harm from contamination.

Overall comments:

_____

_____

_____

_____

_____

_____

Section A2

I certify that, in my opinion:

Subject to compliance with the **attached** environmental management plan[2] (EMP), the site is suitable for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

☐ ~~Residential, including substantial vegetable garden and poultry~~

☐ ~~Residential, including substantial vegetable garden, excluding poultry~~

☐ ~~Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~

☐ ~~Day care centre, preschool, primary school~~

☐ ~~Residential with minimal opportunity for soil access, including units~~

☐ ~~Secondary school~~

☐ ~~Park, recreational open space, playing field~~

☒ Commercial/industrial

☐ ~~Other (please specify):~~

EMP details

Title:	'Locomotive Workshop Stages 1A, 1B and 1C, Travelator Tunnel and Stage 2, Long Term Environmental Management Plan, South Eveleigh Precinct, Part Lot 4000 in DP 1194309, 2 Locomotive Street, Eveleigh, NSW 2015'	
Author:	JBS&G Australia Pty Ltd	
Date:	26 February 2021	No. of pages: 113

EMP summary

This EMP (attached) is required to be implemented to address residual contamination on the site.

The EMP: (Tick appropriate box and strike out the other option.)

☐ ~~requires operation and/or maintenance of **active** control systems~~[3]

☒ requires maintenance of **passive** control systems only[3].

[2] Refer to Part IV for an explanation of an environmental management plan.
[3] Refer to Part IV for definitions of active and passive control systems.

Purpose of the EMP:

To ensure the ongoing suitability of the site for the proposed mixed commercial uses via maintenance of cap/cover measures that form a physical barrier to the underlying contaminated soil present at depth beneath the site.

The long-term environmental management plan (LTEMP) supersedes previous versions issued with Site Audit Statements for portions of the Locomotive Workshop (referred to as Stages 1A, 1B, 1C and the Travelator Tunnel).

Description of the nature of the residual contamination:

Contaminants remaining within fill material beneath the physical barrier include total recoverable hydrocarbons (TRH)/total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH) and metals (principally chromium, copper, lead, nickel, zinc and to a lesser extent arsenic). Known areas of asbestos impacted fill material were removed from within the Locomotive Workshop, however, given the heterogeneity of fill materials, historical industrial land use activities, and extensive observations of rubble and other building-material related inclusions, there is the potential for residual asbestos to be present within the retained fill material underlying the site.

Elevated concentrations of volatiles such as chlorinated alkenes (tetrachloroethene and trichloroethene) and trace concentrations of benzene, toluene, ethylbenzene and xylene (BTEX) were identified in soil vapour in two areas within the Locomotive Workshop.

Summary of the actions required by the EMP:

The LTEMP outlines the minimum management procedures and asbestos controls that should be adopted where the capping layer is required to be breached, or there is the potential for the capping layer to be breached during future intrusive works. Ambient air monitoring is required under the LTEMP and is to be undertaken once every six months for a period of one year (two monitoring events) to confirm that soil vapour does not present an unacceptable risk to site users following completion of internal development configuration.

The site owner or nominated representative will be/shall be responsible for the implementation of the LTEMP. The LTEMP will be incorporated into the Mirvac Work Place Risk Management Plan and Risk and Opportunity Register for the site, which will ensure practical enforcement.

The LTEMP includes details on requirements for site surface maintenance, excavation works, reinstatement of excavation works, stormwater, sediment, dust, training, contractor/subcontractor management, contingency plans, non-compliances, record keeping, audit of implementation, LTEMP review and asbestos unexpected finds.

How the EMP can reasonably be made to be legally enforceable:

Implementation of the LTEMP is a requirement of Condition E3 of the SSD 8449 and SSD 8517. The LTEMP can be made a condition of any future development consent for additions or alterations that may involve a breach of the cap.

How there will be appropriate public notification:

The LTEMP is attached to this site audit statement, which will be submitted to City of Sydney Council to ensure the requirements for site management are recorded on the Planning Certificate issued under Section 10.7 of *the Environmental Planning and Assessment Act*.

Overall comments:

The site comprises Bays 5-15 and small frontages external to the Locomotive Workshop. Fill material impacted by TRH, PAHs, metals and asbestos has been capped during redevelopment of the Locomotive Workshop. Appropriate validation was presented to demonstrate that fill material does not pose an unacceptable risk to onsite or offsite receptors under the current site conditions. The LTEMP will need to be followed to maintain site surfaces and limit exposure to underlying fill material.

Historical soil vapour monitoring within the Locomotive Workshop identified elevated concentrations of chlorinated alkenes, however historical ambient air monitoring did not identify vapour intrusion into the building. The internal fit-out of the Locomotive Workshop is changing during redevelopment, therefore historical ambient air monitoring is no longer representative of site conditions and works may have introduced new vapour migration pathways into the building. The LTEMP requires ambient air monitoring to be undertaken once every six months for a period of one year (two monitoring events) to confirm that soil vapour does not present an unacceptable risk to site users following completion of internal development configuration. One round of the LTEMP required ambient air monitoring has been undertaken (July 2020) with the results indicating that volatile impacts identified in fill materials beneath the Locomotive Workshops are not impacting air quality within the Locomotive Workshops including the Travelator Tunnel.

Section B

Purpose of the plan[4] which is the subject of this audit:

I certify that, in my opinion:

(B1)

☐ The nature and extent of the contamination **has** been appropriately determined

☐ The nature and extent of the contamination **has not** been appropriately determined

AND/OR (B2)

☐ The investigation, remediation or management plan **is** appropriate for the purpose stated above

☐ The investigation, remediation or management plan **is not** appropriate for the purpose stated above

AND/OR (B3)

☐ The site testing plan:

☐ **is** appropriate to determine

☐ **is not** appropriate to determine

if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*

AND/OR (B4)

☐ The terms of the approved voluntary management proposal* or management order** (strike out as appropriate):

☐ **have** been complied with

☐ **have not** been complied with.

*voluntary management proposal no.

**management order no.

AND/OR (B5)

☐ The site **can be made suitable** for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

☐ Residential, including substantial vegetable garden and poultry

☐ Residential, including substantial vegetable garden, excluding poultry

[4] For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

~~☐ Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~

~~☐ Day care centre, preschool, primary school~~

~~☐ Residential with minimal opportunity for soil access, including units~~

~~☐ Secondary school~~

~~☐ Park, recreational open space, playing field~~

~~☐ Commercial/industrial~~

~~☐ Other (please specify):~~

~~IF the site is remediated/managed* in accordance with the following plan (**attached**):~~

~~*Strike out as appropriate~~

~~Plan title~~

~~Plan author~~

~~Plan date~~ ~~No. of pages~~

~~SUBJECT to compliance with the following condition(s):~~

~~Overall comments:~~

Part III: Auditor's declaration

I am accredited as a site auditor by the NSW Environment Protection Authority (EPA) under the *Contaminated Land Management Act 1997.*

Accreditation no. 1505

I certify that:

- I have completed the site audit free of any conflicts of interest as defined in the *Contaminated Land Management Act 1997,* and
- with due regard to relevant laws and guidelines, I have examined and am familiar with the reports and information referred to in Part I of this site audit, and
- on the basis of inquiries I have made of those individuals immediately responsible for making those reports and obtaining the information referred to in this statement, those reports and that information are, to the best of my knowledge, true, accurate and complete, and
- this statement is, to the best of my knowledge, true, accurate and complete.

I am aware that there are penalties under the *Contaminated Land Management Act 1997* for wilfully making false or misleading statements.

Signed 

Date 17 March 2021

Part IV: Explanatory notes

To be complete, a site audit statement form must be issued with all four parts.

How to complete this form

Part I

Part I identifies the auditor, the site, the purpose of the audit and the information used by the auditor in making the site audit findings.

Part II

Part II contains the auditor's opinion of the suitability of the site for specified uses or of the appropriateness of an investigation, or remediation plan or management plan which may enable a particular use. It sets out succinct and definitive information to assist decision-making about the use or uses of the site or a plan or proposal to manage or remediate the site.

The auditor is to complete either Section A1 or Section A2 or Section B of Part II, **not** more than one section.

Section A1

In Section A1 the auditor may conclude that the land is *suitable* for a specified use or uses OR *not suitable* for any beneficial use due to the risk of harm from contamination.

By certifying that the site is *suitable*, an auditor declares that, at the time of completion of the site audit, no further investigation or remediation or management of the site was needed to render the site fit for the specified use(s). **Conditions must not be** imposed on a Section A1 site audit statement. Auditors may include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section A2

In Section A2 the auditor may conclude that the land is *suitable* for a specified use(s) subject to a condition for implementation of an environmental management plan (EMP).

Environmental management plan

Within the context of contaminated sites management, an EMP (sometimes also called a 'site management plan') means a plan which addresses the integration of environmental mitigation and monitoring measures for soil, groundwater and/or hazardous ground gases throughout an existing or proposed land use. An EMP succinctly describes the nature and location of contamination remaining on site and states what the objectives of the plan are, how contaminants will be managed, who will be responsible for the plan's implementation and over what time frame actions specified in the plan will take place.

By certifying that the site is suitable subject to implementation of an EMP, an auditor declares that, at the time of completion of the site audit, there was sufficient information satisfying guidelines made or approved under the *Contaminated Land Management Act 1997*

(CLM Act) to determine that implementation of the EMP was feasible and would enable the specified use(s) of the site and no further investigation or remediation of the site was needed to render the site fit for the specified use(s).

Implementation of an EMP is required to ensure the site remains suitable for the specified use(s). The plan should be legally enforceable: for example, a requirement of a notice under the CLM Act or a development consent condition issued by a planning authority. There should also be appropriate public notification of the plan, e.g. on a certificate issued under s.149 of *the Environmental Planning and Assessment Act 1979*.

Active or passive control systems

Auditors must specify whether the EMP requires operation and/or maintenance of active control systems or requires maintenance of passive control systems only. Active management systems usually incorporate mechanical components and/or require monitoring and, because of this, regular maintenance and inspection are necessary. Most active management systems are applied at sites where if the systems are not implemented an unacceptable risk may occur. Passive management systems usually require minimal management and maintenance and do not usually incorporate mechanical components.

Auditor's comments

Auditors may also include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section B

In Section B the auditor draws conclusions on the nature and extent of contamination, and/or suitability of plans relating to the investigation, remediation or management of the land, and/or the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or whether the terms of an approved voluntary management proposal or management order made under the CLM Act have been complied with, and/or whether the site can be made suitable for a specified land use or uses if the site is remediated or managed in accordance with the implementation of a specified plan.

By certifying that a site *can be made suitable* for a use or uses if remediated or managed in accordance with a specified plan, the auditor declares that, at the time the audit was completed, there was sufficient information satisfying guidelines made or approved under the CLM Act to determine that implementation of the plan was feasible and would enable the specified use(s) of the site in the future.

For a site that *can be made suitable*, any **conditions** specified by the auditor in Section B should be limited to minor modifications or additions to the specified plan. However, if the auditor considers that further audits of the site (e.g. to validate remediation) are required, the auditor must note this as a condition in the site audit statement. The condition must not specify an individual auditor, only that further audits are required.

Auditors may also include **comments** which are observations in light of the audit which provide a more complete understanding of the environmental context to aid decision-making in relation to the site.

Part III

In **Part III** the auditor certifies their standing as an accredited auditor under the CLM Act and makes other relevant declarations.

Where to send completed forms

In addition to furnishing a copy of the audit statement to the person(s) who commissioned the site audit, statutory site audit statements must be sent to

- the **NSW Environment Protection Authority**:
  nswauditors@epa.nsw.gov.au or as specified by the EPA

  AND
- the **local council** for the land which is the subject of the audit.

Mirvac Projects Pty Ltd

Locomotive Workshop Stages 1A, 1B and 1C, Travelator Tunnel and Stage 2 Long Term Environmental Management Plan South Eveleigh Precinct

Part Lot 4000 DP 1194309
2 Locomotive Street, Eveleigh, NSW, 2015

26 February 2021

51142/135751 Rev 0

JBS&G Australia Pty Ltd

www.jbsg.com.au

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Locomotive Workshop Stages 1A, 1B and 1C, Travelator Tunnel and Stage 2 Long Term Environmental Management Plan South Eveleigh Precinct

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Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AF/FA	Asbestos Fines/Fibrous Asbestos
ATP	Australian Technology Park
AHD	Australia Height Datum
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
COPC	Contaminants of Potential Concern
Council	The Council of the City of Sydney
DP	Deposited Plan
LTEMP	Long Term Environmental Management Plan
ENM	Excavated Natural Material
EPA	Environment Protection Authority
ha	Hectare
JBS&G	JBS&G Australia Pty Ltd
MCPL	Mirvac Construction Pty Ltd
Mirvac	Mirvac Projects Pty Ltd
PAH	Polycyclic Aromatic Hydrocarbons
RAP	Remedial Action Plan
SAS	Site Audit Statement
TPH	Total Petroleum Hydrocarbon
TRH	Total Recoverable Hydrocarbon
VENM	Virgin Excavated Natural Material
VOC	Volatile Organic Compounds

Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by Mirvac Projects Pty Ltd (Mirvac, the client) for the provision of environmental services associated with the remediation/validation of part of Stages 1A, 1B and 1C, the pedestrian travelator tunnel and Stage 2 of the Locomotive Workshops situated within the South Eveleigh Precinct (SEP), formerly known as the Australian Technology Park (ATP), located at 2 Locomotive Street, Eveleigh, NSW (the site) as shown on **Figures 1** and **2**. The site is legally identified as part Lot 4000 in Deposited Plan (DP) 1194309 and occupies an area of approximately 25,945 m^2.

This LTEMP applies to Mirvac owned land/facilities and will be the continuing responsibility of the future Retail Strata Corporation: Mirvac Real Estate Pty Ltd as the future site owner to implement this plan moving forward following issue of the occupation certificate (OC) by the consent authority (Department of Planning, Industry and Environment, DPIE) or the appointed certifier. Land external to the site within residual areas of Lot 4000 DP 1194309 and the broader SEP will be subject to separate validation reports and management plans, where required.

The objective of this LTEMP is to ensure the ongoing suitability of the site for the proposed mixed uses (retail and commercial) via maintenance of cap/cover measures that form a physical barrier to the underlying contaminated soil present at depth beneath the site. It is anticipated that this LTEMP will operate for the life of the development to protect the health and safety of personnel who visit and/or work on the site, and to protect the environment – both on site and off site.

The LTEMP has been prepared in accordance with the requirements outlined in the *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)*[1], as referenced in the remedial action plan (RAP, JBS&G 2016a[2]) prepared for the ATP. The plan has been designed to ensure activities which could potentially or directly result in exposure of future land users to the contaminated soils beneath the physical barrier are precluded or limited/controlled.

The plan includes:

a) Description of the nature and location of contamination remaining at depth on site;

b) Objectives of the LTEMP;

c) Procedures for residual contamination management;

d) Responsibilities for the LTEMP implementation; and

e) Implementation schedule for each action in the LTEMP.

It is anticipated that this LTEMP will form an attachment to the final site audit statement (SAS) prepared in satisfaction of conditions relating to Development Consents SSD 8517 (DPE 2019a), SSD 7317 (DPE 2019b) and SSD 8449 (DPE 2019c) applicable to the site. The site shall be maintained for the duration of the development and operation in accordance with the requirements of the LTEMP.

Please note this LTEMP replaces the Locomotive Workshop Stages 1A, 1B and 1C and Travelator Tunnel LTEMP previously prepared by JBS&G (2020a[3]) resulting in a single combined document covering the portion of Lot 4007 identified herein. JBS&G notes the balance of land comprising the pedestrian travelator tunnel situated within the public domain's cadastral boundary (Lot 4007 in DP

[1] *Contaminated Sites – Guidelines for the NSW Site Auditor Scheme (3rd Edition).* Environmental Protection Authority, published in October 2017 (EPA 2017);

[2] *Mirvac Projects Pty Ltd Australian Technology Park Remedial Action Plan – 2 Locomotive Street, Eveleigh, NSW.* JBS&G Australia Pty Ltd dated 15 June 2016 reference 51142/104280 Revision 0 (JBS&G 2016a);

[3] *Mirvac Projects Pty Ltd – Locomotive Workshop Stages 1A, 1B and 1C and Travelator Tunnel – Long Term Environmental Management Plan, South Eveleigh Precinct.* Part Lot 4000 DP 1194309. *2 Locomotive Street, Eveleigh, NSW, 2015*. JBS&G Australia Pty Ltd dated 15 October 2020 reference 51142/133016 Rev 0 (JBS&G 2020a);

1194309) is subject to a separate LTEMP (JBS&G 2020b[4]) for reference of the site auditor and relevant future parties applying the LTEMP.

[4] *Mirvac Projects Pty Ltd – Stages 1 and 2 Public Domain – Long Term Environmental Management Plan, South Eveleigh Precinct, Eveleigh, NSW, 2015*. JBS&G Australia Pty Ltd dated 14 May 2020 reference 51142/129543 Rev 0 (JBS&G 2020b);

1. Introduction

1.1 Introduction and Objective

JBS&G Australia Pty Ltd (JBS&G) was engaged by Mirvac Projects Pty Ltd (Mirvac, the client) for the provision of environmental services associated with the remediation/validation of part of Stages 1A, 1B and 1C, the pedestrian travelator tunnel and Stage 2 of the Locomotive Workshops situated within the South Eveleigh Precinct (SEP), formerly known as the Australian Technology Park (ATP), located at 2 Locomotive Street, Eveleigh, NSW (the site).

Stage 1 encompasses the entirety of Bays 1-4A, situated in the eastern portion of the Locomotive Workshop, of which Stages 1A, 1B and 1C comprise the majority of Bays 1-4A. The pedestrian travelator tunnel is situated within Bay 4 south of the locomotive workshop building and forms a link to the Building 2 basement to the south. Stage 2 encompasses Bays 5 to 15 to the west of Stage 1. The site location and layout are shown on **Figures 1** and **2** respectively. The site is legally identified as part Lot 4000 and part Lot 4007 in Deposited Plan (DP) 1194309 and occupies an area of approximately 25,945 m^2.

This LTEMP applies to Mirvac owned land/facilities and it will be the continuing responsibility of the future Retail Strata Corporation: Mirvac Real Estate Pty Ltd as the site owner to implement this plan moving forward following issue of the occupation certificate (OC) by the consenting authority (Department of Planning, Industry and Environment) or the appointed certifier. Land within residual areas of Lot 4007 in DP 1194309 will be subject to separate validation reports and management plans, where required.

The site redevelopment involves replacement of old in-ground services, installation of new services, construction of a pedestrian travelator tunnel linking the basement of Building 2 to the south, underneath Locomotive street and entering Bay 4 south of the locomotive workshop building and upgrades to permanent hardstand pavements external to the building to the south. Further developments include augmentations to the existing heritage building on the ground floor to incorporate public walkways, future retail space, stairwells and back of house space including a loading dock and waste storage area in Bays 1-2 North. Undergraduate and postgraduate education facilities are proposed on level one of Bays 3-4A North (mezzanine).

The objective of this LTEMP is to ensure the ongoing suitability of the site for the proposed mixed uses (commercial/industrial) via maintenance of cap/cover measures that form a physical barrier to the underlying contaminated soil present at depth beneath the site. It is anticipated that this LTEMP will operate for the life of the development to protect the health and safety of personnel who visit and/or work on the site, and to protect the environment – both on site and off site.

This LTEMP has been prepared in accordance with the requirements outlined in the *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition*), as referenced in the remedial action plan (RAP, JBS&G 2016a[5]) prepared for the ATP. The plan has been designed to ensure activities which could potentially or directly result in exposure of future land users to the contaminated soils beneath the physical barrier are precluded or limited/controlled.

The plan includes:

a) description of the nature and location of contamination remaining at depth on site;

b) the objectives of the LTEMP;

c) procedures for residual contamination management;

[5] *Mirvac Projects Pty Ltd Australian Technology Park Remedial Action Plan – 2 Locomotive Street, Eveleigh, NSW*. JBS&G Australia Pty Ltd dated 15 June 2016 reference 51142/104280 Revision 0 (JBS&G 2016a);

d) responsibilities for the LTEMP implementation; and

e) an implementation schedule for each action in the LTEMP.

It is anticipated that this LTEMP will form an attachment to the final site audit statement (SAS) prepared in satisfaction of conditions. conditions relating to Development Consents SSD 8517 (DPE 2019a[6]), SSD 7317 (DPE 2019b[7]) and SSD 8449 (DPE 2019c[8]) applicable to the site. The site shall be maintained for the duration of the development and operation in accordance to the requirements of the LTEMP.

Please note this LTEMP replaces the Locomotive Workshop Stages 1A, 1B, 1C and pedestrian travelator LTEMP previously prepared by JBS&G (2020a) resulting in a single combined document covering the portion of the building identified herein. JBS&G notes the balance of land comprising the pedestrian travelator tunnel situated within the public domains cadastral boundary (Lot 4007 in DP 1194309) is subject to a separate LTEMP (JBS&G 2020b[9]) for reference of the site auditor and relevant future parties applying the LTEMP.

1.2 Background

The SEP was occupied by a large complex of rail workshops and yards throughout the late nineteenth and most of the twentieth century. The northern portion of the SEP, adjacent to the railway lines was occupied by the Eveleigh Locomotive Workshops. The primary potentially contaminating activities within the 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.

Previous contamination investigations (JBS&G 2021[10]) have identified the presence of fill underlying the site reported to be impacted to varying degrees with semi to non-volatile petroleum hydrocarbons as total recoverable hydrocarbons (TRH), polycyclic aromatic hydrocarbons (PAHs) and heavy metals associated with fill materials historically used across the site or resultant from historical site activities. In addition, isolated asbestos in soil impacts have been reported. A summary of historical analytical data is presented in **Appendix A**.

Previous site development activities have resulted in either hardstand pavements (concrete hardstand) or the pedestrian travelator concrete shell serving as a physical barrier (cap) to underlying fill material.

The implemented physical barrier is to ensure that during the operational life of the site there are:

- No complete exposure pathways (inhalation/ingestion of dust, dermal contact with soil) between the contaminated fill material and future site users and/or visitors; and
- No unacceptable potential risks associated with contaminant migration via surface water movement, dust generation, vapour migration, etc.

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6 *Development Consent Application No. SSD 8517 – Locomotive Workshops (Bays 1-4A)*. NSW Govt. Department of Planning and Environment. 22 February 2019 (DPE 2019a);

7 *Development Consent Application No. SSD 7317 (Mod 5) – Pedestrian Travelator*. NSW Govt. Department of Planning and Environment. 29 June 2019 (DPE 2019b);

8 *Development Consent Application No. SSD 8449 – Locomotive Workshops (Bays 5-15)*. NSW Govt. Department of Planning and Environment. 22 February 2019 (DPE 2019c);

9 *Mirvac Projects Pty Ltd – Stages 1 and 2 Public Domain – Long Term Environmental Management Plan, South Eveleigh Precinct, Eveleigh, NSW, 2015*. JBS&G Australia Pty Ltd dated 14 May 2020 reference 51142/129543 Rev 0 (JBS&G 2020b);

10 Mirvac Projects Pty Ltd. *Locomotive Workshop – Bays 1 to 16 In situ Waste Classification, Australian Technology Park, Eveleigh. NSW*. JBS&G Australia Pty Ltd, dated 26 February 2021; Reference: 51142/135817 Rev 0 (JBS&G 2021);

The lateral extent of the site is defined as the extent of capping arrangements comprising hardstand pavements spanning the entire site ground surface as defined by survey in **Appendix B**. The ground floor development and travellator design plans are presented in **Appendix C**.

2. Summary of Site Conditions

2.1 Site Details

This site comprises the entirety of Lot 4000 with exception of the historic Davy Press in Bay 1 North and a section in the central northern portion of Bays 1 and 2. This includes the majority of Bays 1 to 4A (including the portion of the pedestrian travelator located in Bay 4A South within the lot boundary), Bays 5 to 15, and residual areas of Lot 4007 external to the building, which includes a pedestrian walkway to the north, small residual areas to the east and a public domain forecourt to the south of the building, as shown on **Figure 2.**

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 is legally identified as Part Lot 4000 in DP 1194309, occupies an area of approximately 2.57 ha and is located within the City of Sydney LGA.

The site is bound to the north by a railway easement, east by Innovation Plaza, south Building 2 of the South Eveleigh Precinct and to west by State Rail Operation Facilities (Large Erecting Shed). The travellator is situated within the southern portion of Bay 4, extending below the southern extent of the Locomotive Workshop building, beneath the Locomotive Street reserve and connecting to the basement level of Building 2. The portion beneath the street reserve is beyond the site boundary for the purposes of this LTEMP, with ongoing management regarding contamination potential for this portion of the travellator addressed in JBS&G 2020b.

The location of the site is shown in **Figure 1**, the current site layout is shown in **Figure 2**. Site details are summarised in **Table 2.1**.

Table 2.1: Site Identification

Current Lot/DP	Part Lot 4000 DP 1194309
Current Address	2 Locomotive Street, Eveleigh, NSW, 2015
Local Government Authority	City of Sydney Council
Site Area	Approximately 2.57 ha
Lot 4000 DP 1194309 Site Area	Approximately 2.7 ha
Site Owner	Mirvac Projects Pty Ltd
Future Site Owner	Mirvac Real Estate Pty Ltd
Site Developer	Mirvac Construction Pty ltd
Site Zoning	SEPP Major Development 2005 under the City of Sydney Local Environment Plan 2012
Geographical Coordinates (MGA 56)	Refer to **Figure 2**
Former Land Use	Locomotive Building and Workshop
Redeveloped Land Use	Mixed Land Uses (retail and commercial including Educational facilities)

2.2 Site Condition and Physical Barrier to Retained Fill Materials

The site is completely covered with a concrete hardstand pavement serving as a permanent physical barrier over the retained fill and underlain with fill materials of varying thicknesses (**Photographs 1** and **2**), with two exceptions;

- Stabilised decomposed (deco) granite capping arrangement surrounding heritage display items primarily located in Bays 1 and 2 south (Blacksmiths Workshop) as shown in design plans provided as **Appendix C**; and

- Areas of asphaltic hardstand pavement and minimal areas of igneous gravel capping material of a thickness' greater than 100 mm, located to the north of the Locomotive Workshop built form.

The areas of heritage item cultural displays are capped by a high density combination of compacted roadbase and a minimum of 100 mm of crushed deco granite, which has been stabilised with 10% builders cement and compacted to RMS road standard (RMS 2015[11]) as per the RAP addendum (JBS&G 2020[12]), which serves as a permanent physical barrier over the retained fill. Capping arrangement thickness' and locations are presented in **Figure 5**.

Areas to the north of the built form were assessed as part of a capping integrity inspection assessment (JBS&G 2020) to confirm the existing capping arrangements were compliant with the requirements of the superseded EMP for the site (ES 2015[13]), upon which the physical separation requirements were based.

Due to the heritage nature of the building, limited development works have occurred to facilitate the repurposing uses. Previous intrusive investigations have primarily consisted of manually and mechanically advanced boreholes concrete cored through the hardstand and reinstated with concrete following sampling (**Photographs 3** and **4**).

Construction of the pedestrian travelator tunnel linking Bay 4A south, with the basement carpark of Building 2 to the south of the site comprised the following:

- Bulk excavation achieve construction levels comprising:
  - Excavation and removal of sand and clay fill from the existing ground surface (approximately 21.5 m AHD) to 3.5 m bgs (approximately 18 m AHD); and
  - Excavation and removal of VENM sand to the base of excavation at 7.3 m bgs (approximately 14.2 m AHD).
- Installation of a pre-cast concrete box comprising:
  - 250 mm thick foundation slab at the base of excavation;
  - Combination of 200 mm concrete and 180-390 mm shotcrete walls; and
  - 550 mm thick structural roof slab.
- Backfill of overlying void space with imported fill sand material to underside of pavement capping arrangement.
- Construction and reinstatement of road reserves with a blinding slab and asphaltic concrete pavement, such that no exposure pathway was present between site users and underlying fill material.

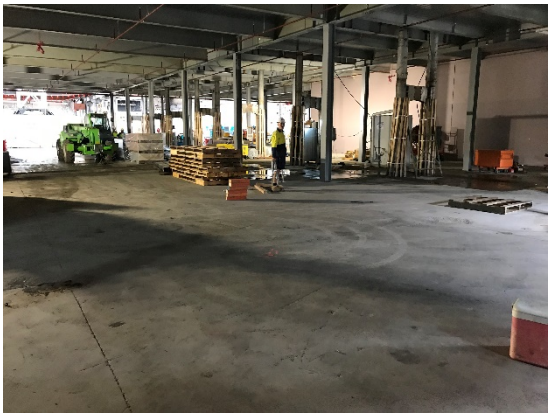
The concrete hardstand was documented by site photographs, design plans and survey information to identify the lateral extent of the physical barrier across the site. Photographs 1 to 6 document slab thickness and decomposed granite capping arrangements surrounding heritage items, Photographs 7 to 10 document the pedestrian travelator portion of the locomotive workshop. Survey documentation of capping arrangements and thickness are provided in **Appendix B**.

[11] *Laboratory Compaction of Road Construction Materials: Technical Guide | L-G-004*. Roads and Maritime Services (RMS), Ed 1/Rev 0, published February 2015 (RMS 2015).

[12] Mirvac Projects Pty Ltd. *Locomotive Workshop – Addendum to the Remedial Action Plan: Heritage Item Capping Requirements, South Eveleigh Precinct, Eveleigh. NSW*. JBS&G Australia Pty Ltd, dated 9 March 2020; Reference: 51142/128057 Rev 1 (JBS&G 2020);

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

Works throughout the balance of site comprised installation of new services and replacement of existing pavements with new permanent hardstand pavement, as well as installation of a new mezzanine which features newly installed steel piles. Upon the completion of works all permanent hardstand pavements were replaced to equal or greater thickness, resulting in a physical barrier between site fill material and site users.



Photograph 1: Concrete hardstand/physical barrier across Bays 1 – 4A



Photograph 2: Concrete hardstand/physical barrier across along the central spine of Bays 1 – 4A



Photograph 3: Illustrative concrete thickness and underlying soil.



Photograph 4: Intrusive boreholes/concrete hardstand reinstated following sampling works.



Photograph 5: Post placement of deco granite (minimum 100 mm thickness) surrounding retained heritage items as per JBS&G (2020) RAP Addendum requirements.



Photograph 6: Post placement of deco granite (minimum 100 mm thickness) surrounding retained heritage items as per JBS&G (2020) RAP Addendum requirements.



Photograph 7: Bulk earthworks within the locomotive workshop portion of the travelator.



Photograph 8: View of the travelator tunnel upon completion of the concrete shell installation such that a physical barrier was in place between underlying and adjacent fill material.



Photograph 9: Reinstated pavers following installation of a blinding slab within the footpath area of the locomotive workshop cadastral boundary, with locomotive street of the public domain beyond.



Photograph 10: View of the Bay 4 South street entrance to the Locomotive Workshop directly above the newly constructed travelator tunnel.

2.3 Maintenance of the Barrier System

The existing physical barrier system (as outlined in **Section 2.2**) must be maintained across the entire site (**Appendix B**) in order to minimise the potential for uncontrolled exposure of future site users, occupiers, visitors and contractors to contaminated soil. Provided the barrier system is maintained in accordance with this LTEMP, there are no unacceptable health or contaminant migration risks associated with the chemical contaminants as there are no complete pathways between humans and the contaminated soil.

In the event that the barrier system is disturbed at any time as a result of planned or unplanned activities, the procedures documented in this LTEMP are required to be implemented to repair the barrier such that there continues to be an effective barrier between the contaminated soil and future site occupants/users during day to day use of the site.

In addition, the physical barrier is also noted to manage potential environmental risks associated with contamination (including contaminant migration, ecological exposure within and beyond the site, etc.).

No active additional monitoring or management of subsurface soil contaminant conditions is required during everyday operation of the site. Procedures as provided in **Appendix D** will only be

needed in the event of either planned or unplanned breaches of the physical barrier occur to ensure the barrier is reinstated appropriately.

3. Summary of Identified Contamination Issues

Limited sampling was undertaken throughout the SEP prior to commencement of redevelopment to the heritage nature of the Locomotive Workshop. A Soil Characterisation Assessment (JBS&G 2018[14]) and in situ waste classification (JBS&G 2021) were undertaken in April 2018 and January 2019 throughout the Locomotive Workshop. The investigation included a total of 74 sample locations being advanced within the Site boundary (BH200 to BH208 in April 2017, B4S in August 2017, BH02-V1_N, BH02-V2_E, BH02-V3_S, BH02-V4_W and BH02-VS_B in July 2017, TRA-01 to TRA-06 in June 2018, BH02, BH04, BH06 and BH07 in July 2018, TP400 to TP427 and TP430 to TP444 in January and February 2019, TP402-B, TP402-A, TP417-A, TP417-B, TP419-A, TP419-B, TP419-C, TP440-A, TP440-B, TP440-C and TP440-D in March 2019 – **Figure 3**).

Fill and natural materials from within the Stages 1ABC, the pedestrian travelator and Stage 2 site comprised the following:

- Surface covers were noted at the time to comprise:
  - Bare ground/sand;
  - Asphalt pavement ranging from depths of 0.05 m to 0.08 m below ground surface (bgs);
  - Roadbase surface was present to depths of 0.10 m bgs; and
  - Concrete pavements to depths of 0.9 m bgs overlying;
- Heterogeneous brown to dark brown silty gravelly sand fill with anthropogenic inclusions including ash, slag, bricks, concrete, metal, plastic and glass fragments with no discernible pattern across the site, overlying;
- Natural soils first encountered at depths ranging from 0.3 m bgs (BH202) to 3.75m bgs (TRA-04) that comprised light brown to off-white sand;
- Natural brown to light brown/orange silty clay were encountered at depths ranging from 0.5 m bgs (TP440, TP441) to 3.95 m bgs (TRA-4); and
- Natural red brown with white mottled clay encountered at depths ranging from 0.35 m bgs (TP425) to 3.6m bgs (TP407).

Upon completion of remediation/redevelopment works, a description of the physical barrier and retained impacted materials is provided in **Section 2.2**. The following is a summary of contamination issues at the site beneath the physical barrier/marker layer.

3.1 Soil

Soil Analytical Data is presented in **Appendix A.**

3.1.1 Heavy Metals, PAHs and TRHs

Contaminants remaining within fill material at the site beneath the physical barrier include total recoverable hydrocarbons (TRH)/total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH) and heavy metals (principally chromium, copper, lead, nickel, zinc and to a lesser extent arsenic). Exposure to these contaminants can be via absorption through the skin, ingestion, and inhalation via dust and/or vapours (for volatile compounds – **Section 3.2**) where such pathways are complete.

[14] Mirvac Projects Pty Ltd. Loc*omotive Workshop – Bays 1 & 2 Soil Characterisation Assessment, Australian Technology Park, Eveleigh. NSW*. JBS&G Australia Pty Ltd, dated: 15 August 2018; Reference: 51142/116937 Rev 1 (JBS&G 2018);

3.1.2 Asbestos

Known areas of asbestos impacted fill material were removed from within the site footprint during the remediation works, as well as two areas where asbestos in fill material was not disturbed during site development works, and hence remains on site. Given the heterogeneity of fill materials, historical industrial land use activities, and extensive observations of rubble and other building-material related inclusions on historical borehole logs, there is further potential for residual asbestos impacts to occur within the retained fill material underlying the site. As such, an unexpected finds protocol/procedure is required to manage any such unexpected finds as may occur into the future should works below the physical barrier be required.

Non-friable asbestos material is any asbestos-containing material that is not considered to be friable asbestos, including material containing asbestos fibres reinforced with a bonding compound (SWA 2020[15]). The materials defined in the NEPC (2013[16]) as bonded asbestos are non-friable asbestos.

Friable asbestos material is any material that is in fibrous or powder form or that can be crumbled, pulverized or reduced to a powder by hand pressure when dry and contains asbestos (SWA 2020). The materials defined in the NEPM (2013) as fibrous asbestos (FA) and asbestos fines (AF) are friable asbestos.

Mechanical disturbance of asbestos containing material (ACM) fragments and disturbance of soils may result in the release of fibres and therefore, such activities should be managed to prevent any fibres becoming airborne. The health effects of asbestos are detailed in enHealth (2005) *Management of Asbestos in the Non-Occupational Environment*.

The primary issue associated with the asbestos is managing the risk of inhalation of respirable fibres where site activities encounter such material.

3.2 Soil Vapour

Elevated concentrations of volatiles such as chlorinated alkenes (trichloroethene, TCE) and trace amounts of benzene, toluene, ethylbenzene and xylene (BTEX) were identified within the site as shown in **Appendix A: Table E**). Sample Locations are shown on **Figure 4**. With the current physical barrier maintained, these contaminants do not pose a risk to site users. Notwithstanding, if the physical barrier is broken for maintenance or installation of services (or the like) then there is a risk of exposure for workers to volatile compounds that will require management.

To further demonstrate the implemented remedial strategy has resulted in appropriate attenuation of soil vapour migration risks, limited further ambient air monitoring is to be undertaken at the site in accordance with **Appendix D: EMP06** to substantiate the current data set and support the conclusions that following site development activities, there is no risk to current and future site users from soil vapour intrusion.

3.3 Groundwater

Based on available groundwater quality information, groundwater in the vicinity of the site was considered to not be significantly contaminated and did not present an unacceptable risk to future site users or down-gradient ecosystems. Minor elevated concentrations of contaminants as identified are representative of urban background environments, therefore no further remediation or management is required.

[15] *How to Safely Remove Asbestos: Code of Practice*. Safe Work Australia July 2020 (SWA 2020);

[16] *National Environment Protection (Assessment of Site Contamination) Measure 1999, Amended 11 April 2013*. National Environment Protection Council (NEPM 2013);

4. Application, Enforcement and Regulatory Requirements

4.1 Application of LTEMP

This LTEMP will apply indefinitely during future site operation or until such time as a SAS can be prepared by an NSW EPA Accredited Site Auditor or the NSW EPA stating that the LTEMP is not required for the site.

The requirements of this LTEMP are intended to apply to any activities within the site which could involve disturbance or exposure of contaminants in soil beneath the physical barrier, or partial removal of the physical barrier including, but not limited to:

- Demolition and removal of any pavements or buildings;
- Underground utility installation, maintenance or removal; or
- Excavations (e.g., dug, cut, piled or bored).

Specifically, it is anticipated that ground disturbance activities that may result in requirements under this LTEMP comprise the installation of additional and/or replacement underground services/infrastructure that require removal of part or all of the physical barrier.

4.2 Enforcement of LTEMP

This LTEMP will be enforced as a condition of consent via attachment to the SAS issued to address a Development Consent conditions (DPE 2019a/DPE 2019b/DPE 2019c).

4.3 Regulatory Requirements

Future activities on site are required to be completed in accordance with several pieces of environmental and occupational health and safety legislation and associated regulations. The primary Acts, Regulations and Guidelines are listed below with a brief summary of their applicability. Please note, however, that this list is not intended to be a comprehensive listing of acts and regulations. The site owner and contractors are required to satisfy themselves that all applicable permits, licences and legislation have been obtained and their conditions satisfied.

Work Health and Safety Act, 2011

The overarching Act for NSW setting law relating to employee health and safety and employer responsibilities.

Work Health and Safety Regulation 2017 (as amended in 2019)

Sets Regulations and details the duties for employers to achieve required employee health and safety performance.

***Contaminated Land Management Act 1997* (*CLM Act*)**

The *Contaminated Lands Management Act 1997* (CLM Act) controls the assessment of contamination and requirement of remediation of soils and groundwater. The act also contains guidance for the determination of whether a site presents a significant risk of harm and allows for accreditation of Site Auditors.

***Waste Avoidance and Resource Recovery Act 2001* (*WARR Act*)**

The *Waste Avoidance and Resource Recovery Act 2001* (WARR Act) replaced the Waste Minimisation and Management Act 1995 and controls waste generation and waste reduction.

State Environmental Planning Policy (SEPP) 55 'Remediation of Land'

SEPP 55 relates to the decision-making process in undertaking remediation of land and making planning decisions regarding contaminated and potentially contaminated land.

National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) (NEPC 2013)

National guidelines for the assessment of land contamination endorsed by NSW EPA. These guidelines include recommended soil and groundwater assessment criteria for a variety of land uses.

Protection of the Environmental Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) is the key piece of environment protection legislation administered by the EPA.

5. LTEMP Implementation

This LTEMP has been designed to ensure, via the implementation of ongoing management measures pertaining to the areas of sub-surface contamination, that:

- The risk to the future users of the site from residual sub-surface contamination continues to be acceptable; and
- Contingency actions are available to be implemented where potential risk to human users or ecological receptors occurs.

It should be noted at this point that the LTEMP is in no way intended to replace or supersede existing Environmental Management Plans, Health and Safety Plans and/or Building Materials Management Plans prepared by Mirvac as the site owner and/or future tenants for management of the site and associated improvements. Instead the LTEMP should be considered as a supplement to these documents and particularly targeted to deal with issues unique to residual contamination retained beneath the site and management of the potential for re-contamination of the site.

5.1 Responsibilities

This LTEMP will come into force at the completion of remedial activities and issue of a SAS.

Mirvac Real Estate Pty Ltd as the future site owner, or its nominated representative, will be responsible for the ongoing implementation of this LTEMP. A formal list of procedures is provided in this LTEMP (**Appendix D**). Specific responsibilities for the implementation of each procedure are detailed in the appropriate procedure.

The following detail is provided below on the key environmental responsibilities for specific personnel.

5.1.1 Site Manager

The site owner (Mirvac Real Estate Pty Ltd), or nominated representative will be/shall be responsible for the following in accordance with the specific procedures outlined in **Appendix D**:

- Management of all operations, employees and subcontractors at the site that may result in ground disturbance activities;
- Ensuring compliance with all environmental requirements outlined in this LTEMP and statutory requirements;
- Ensure that the physical barrier material, is not breached without implementation of appropriate management procedures;
- Liaison with the regulatory authorities in relation to environmental matters;
- Co-ordination of environmental monitoring, data assessment and reporting as per Management Procedure 6 (**EMP06**); included in **Appendix D**;
- Preparation of appropriate forms, registers, reporting formats, etc. as appropriate to document implementation of the LTEMP in a form able to be audited as per Environmental Management Procedure 12 (**EMP12**) included in **Appendix D**;
- Where necessary, review of environmental reports and inspections and initiating any actions to rectify conditions;
- Participation in environmental incident investigations;
- Participation in environmental meetings and programs;
- Oversee the implementation of environmental management measures at the site; and

- Ensuring that persons or sub-contractors, who are planning or likely to undertake intrusive works at the site, are made aware of their environmental responsibilities in relation to the site management requirements as described in **Section 2.3**.

5.2 Formal Notations

Future planning certificates as may be prepared by City of Sydney Council under s.10.7 of the *Environmental Planning and Assessment Act 1979* for subject lot(s) will document the presence of the SAS and associated LTEMP.

5.3 Period of Implementation

The LTEMP is to be implemented for an indefinite period of time during operation of the site under the current consent or until a review has been undertaken by either a NSW EPA Accredited Site Auditor and a SAS issued, or a written approval has been provided by the Department of Planning, Industry and Environment (DPIE) or the Council of the City of Sydney (as the potential consent authorities), or a written approval has been provided by NSW EPA, that removes the need for ongoing implementation of the LTEMP.

5.4 Environmental Management Procedures

Procedures have been provided to guide the implementation of this LTEMP. These procedures are provided in **Appendix D**.

5.5 Responsibilities of Council/DPIE – As the consent authority

As specified in Section 3.4.6 of the *Guidelines for the NSW Site Auditor Scheme (2017)*, the responsibilities of the Department of Planning and Environment (or the Council of the City of Sydney), in the role of consent authority, shall be limited to:

a) Public notification of the existence of the LTEMP on appropriate property records (refer to **Section 5.2** in this instance);

b) Enforcement of the LTEMP as a condition in any future development consent for additions or alterations to the development that may involve a breach of the cap; and

c) Confirmation in writing to the Site Auditor that the Department of Planning and Environment (or the Council of the City of Sydney) will comply with Items (a) and (b) to allow the auditor to prepare a SAS for this site.

6. 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 inquires.

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

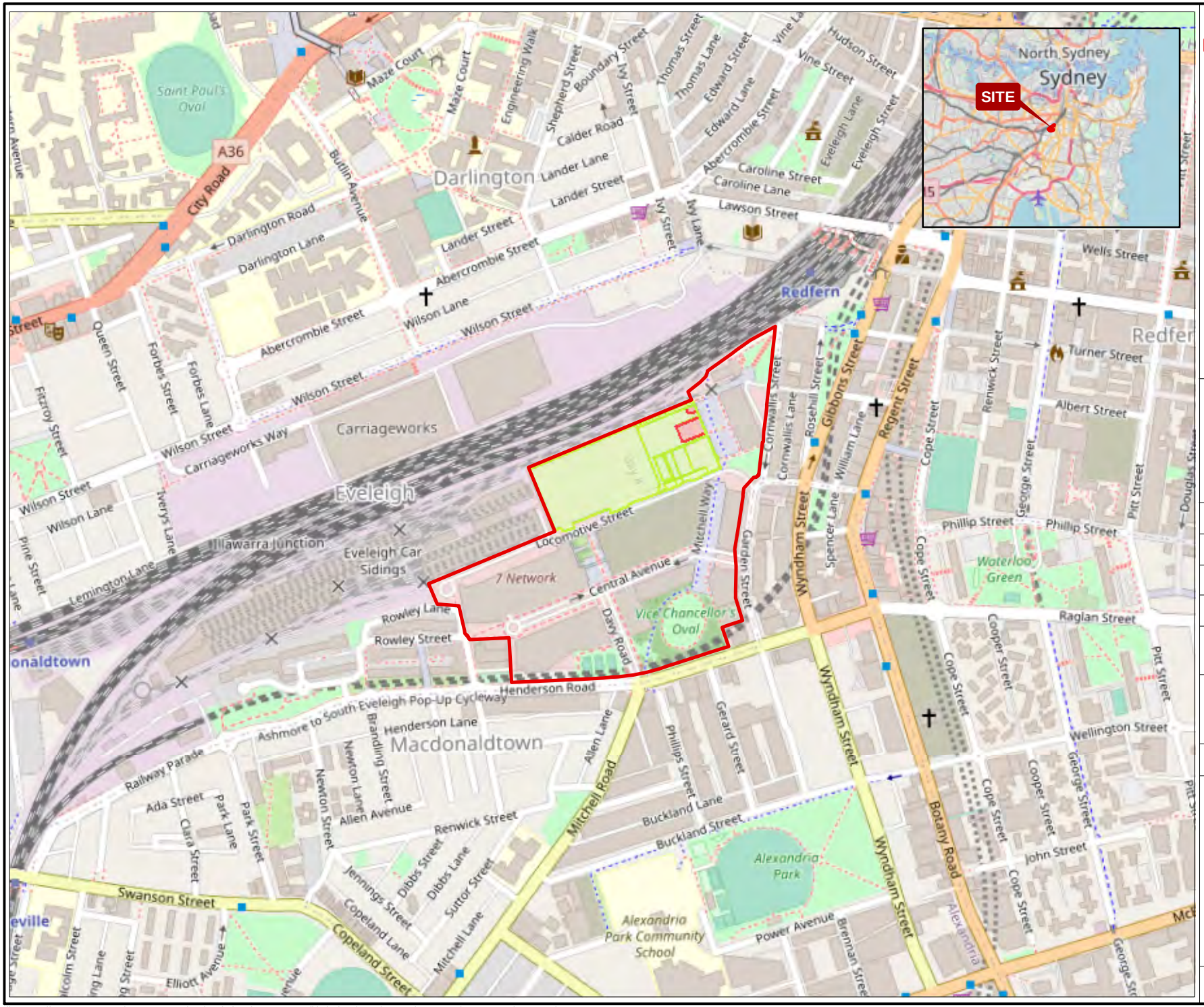
Figure 1 **Site Location**

Figure 2 **Site Layout**

Figure 3 **Historical Soil Sample Locations**

Figure 4 **Historical Soil Vapour Sample Locations**

Figure 5 **Blacksmiths Workshop Capping Arrangements**



Legend:

Approximate Boundary – Broader South Eveleigh Precinct

Locomotive Workshop - Validation Area

Excluded from Validation Area

Validation Area

JBS&G

Job No: 51142

Client: Mirvac

Version: R57 Rev 0	Date: 25-Feb-2021
Drawn By: RF	Checked By: TF

Scale 1:7,500

0 100 200

metres

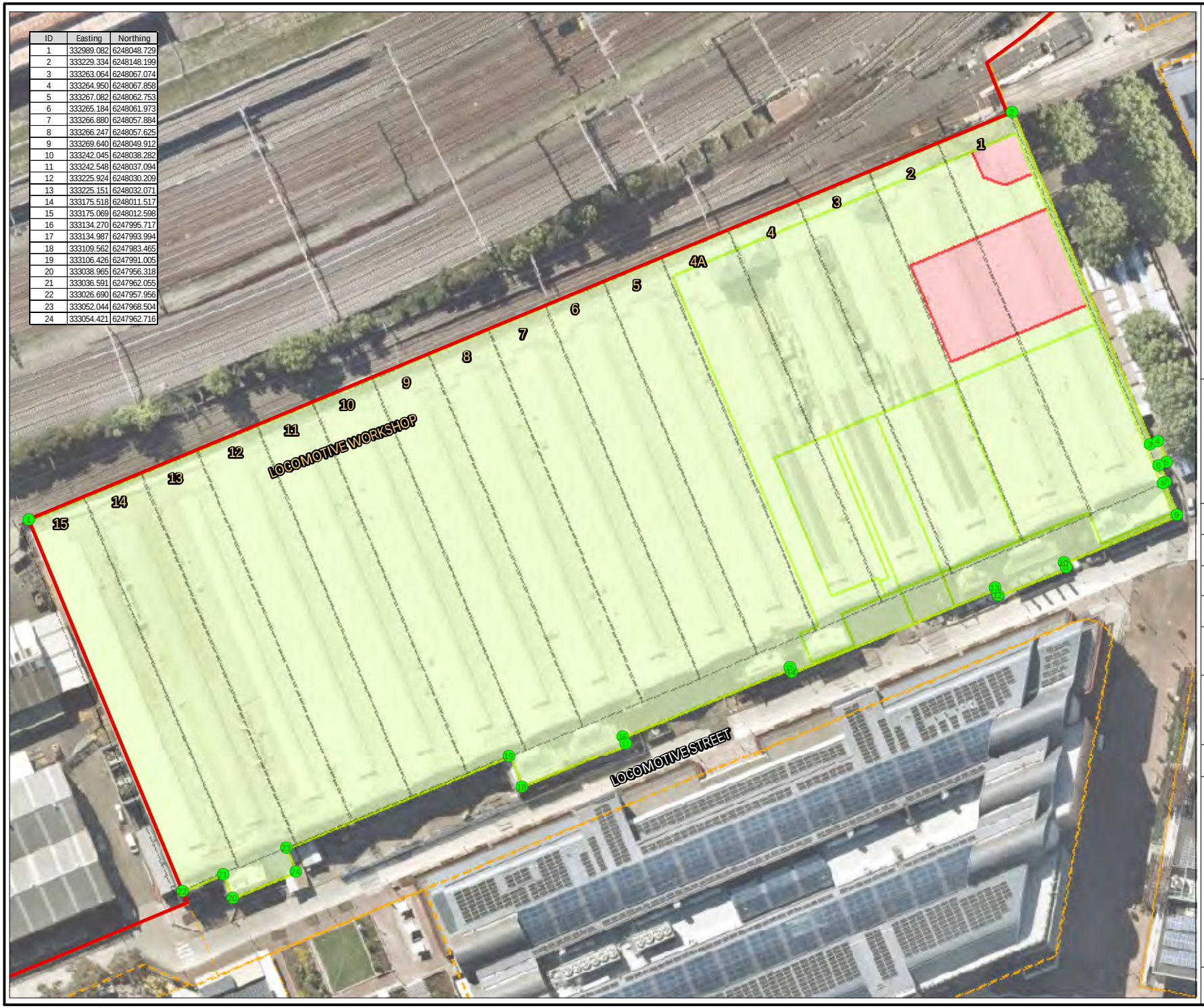
Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct (SEP)
Eveleigh, NSW

SITE LOCATION

FIGURE 1

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Mirvac\51142 ATP Validation\GIS\Maps\Reports\R57 Rev 0\51142_01_SiteLoc.mxd
Reference: © OpenStreetMap (and) contributors, CC-BY-SA



ID	Easting	Northing
1	332989.082	6248048.729
2	333229.334	6248148.199
3	333263.064	6248067.074
4	333264.950	6248067.858
5	333267.082	6248062.753
6	333265.184	6248061.973
7	333266.880	6248057.884
8	333266.247	6248057.625
9	333269.640	6248049.912
10	333242.045	6248038.282
11	333242.548	6248037.094
12	333225.924	6248030.209
13	333225.151	6248032.071
14	333175.518	6248011.517
15	333175.069	6248012.598
16	333134.270	6247995.717
17	333134.987	6247993.994
18	333109.562	6247983.465
19	333106.426	6247991.005
20	333038.965	6247956.318
21	333036.591	6247962.055
22	333026.690	6247957.956
23	333052.044	6247968.504
24	333054.421	6247962.716

Legend:

- Location_Coordinates_20210111
- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Locomotive Workshop - Bay Number

Locomotive Workshop - Validation Area

- Excluded from Validation Area
- Validation Area

JBS&G

Job No: 51142

Client: Mirvac

Version: R57 Rev 0	Date: 25-Feb-2021
Drawn By: RF	Checked By: TF

Scale 1:1,250

0 25 50
metres

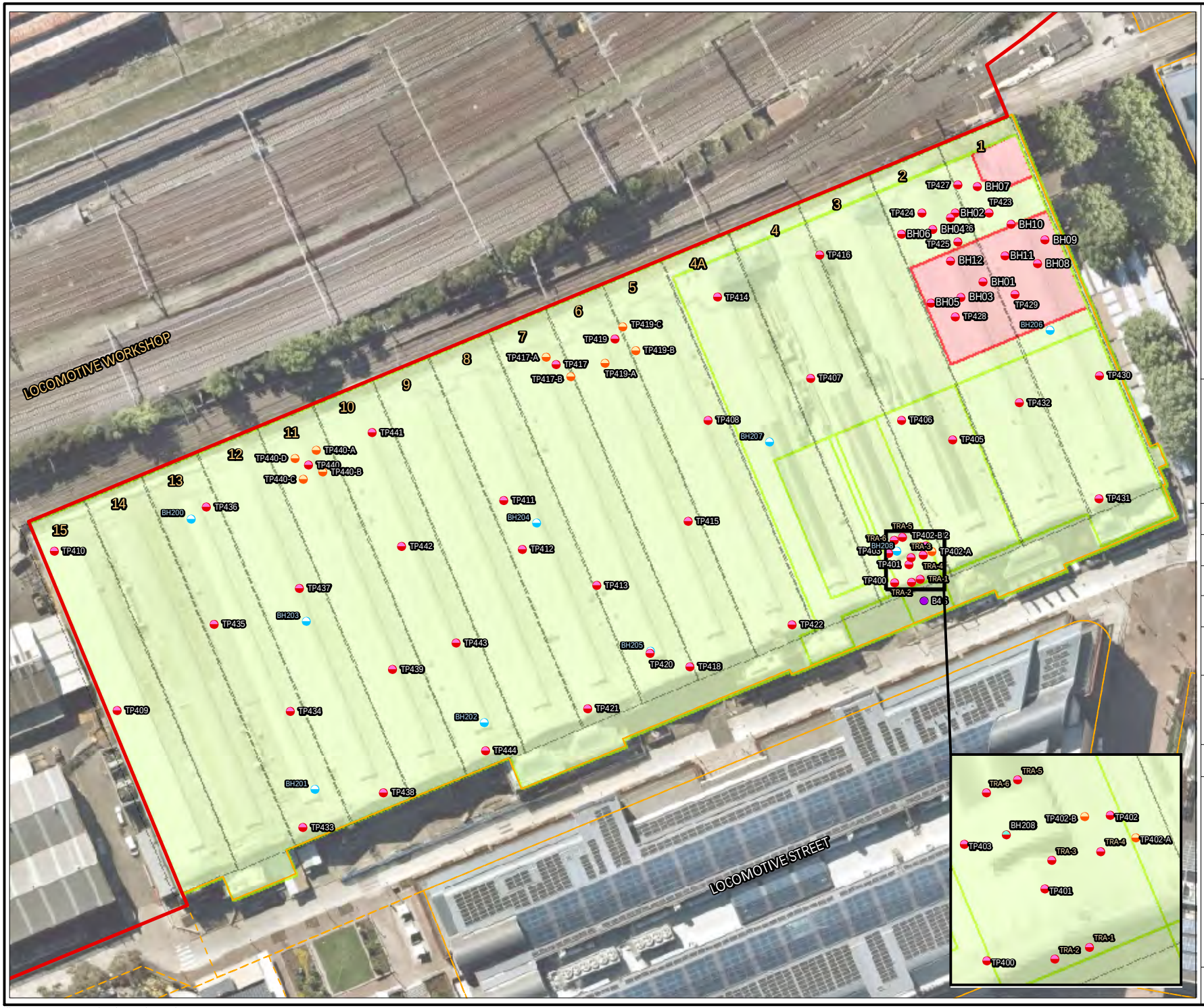
Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct, Eveleigh NSW

SITE LAYOUT

FIGURE 2

File Name: 51142_02_SiteLayout
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Locomotive Workshop - Bay Number

Locomotive Workshop - Validation Area

- Excluded from Validation
- Validation
- Borehole Location - DP 2017
- Sample Location (JBS&G 2018a)
- In-situ Waste Classification (JBS&G 2019a)
- Delineation Sample Locations (JBS&G 2019a)

JBS&G

Job No: 51142

Client: Mirvac

Version: R57 Rev 0	Date: 25-Feb-2021
Drawn By: RF	Checked By: TF

Scale 1:1,250

0 20 40
metres

Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct, Eveleigh NSW

HISTORIC SAMPLE LOCATIONS

FIGURE 3

File Name: 51142_03_HistoricSampleLocations
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



Legend:

- Approximate Boundary – Broader South Eveleigh Precinct
- Cadastral Boundaries
- Locomotive Workshop - Bay Number

Locomotive Workshop - Validation Area

- Excluded from Validation Area
- Validation Area
- Ambient Air DP 2010c
- Ambient Air ES 2015a
- Soil Vapour ES 2015a
- Sub-Slab Vapour Location - May 20 2016
- Sub-Slab Vapour Location - May 5-6 2016
- Sub-Slab Vapour Location - Feb 2017
- Soil Vapour Well Location - May 2017
- JBS&G Ambient Air Sample Location (July 2020)

JBS&G

Job No: 51142

Client: Mirvac

Version: R57 Rev 0	Date: 25-Feb-2021
Drawn By: RF	Checked By: TF

Scale 1:1,250

0 20 40
metres

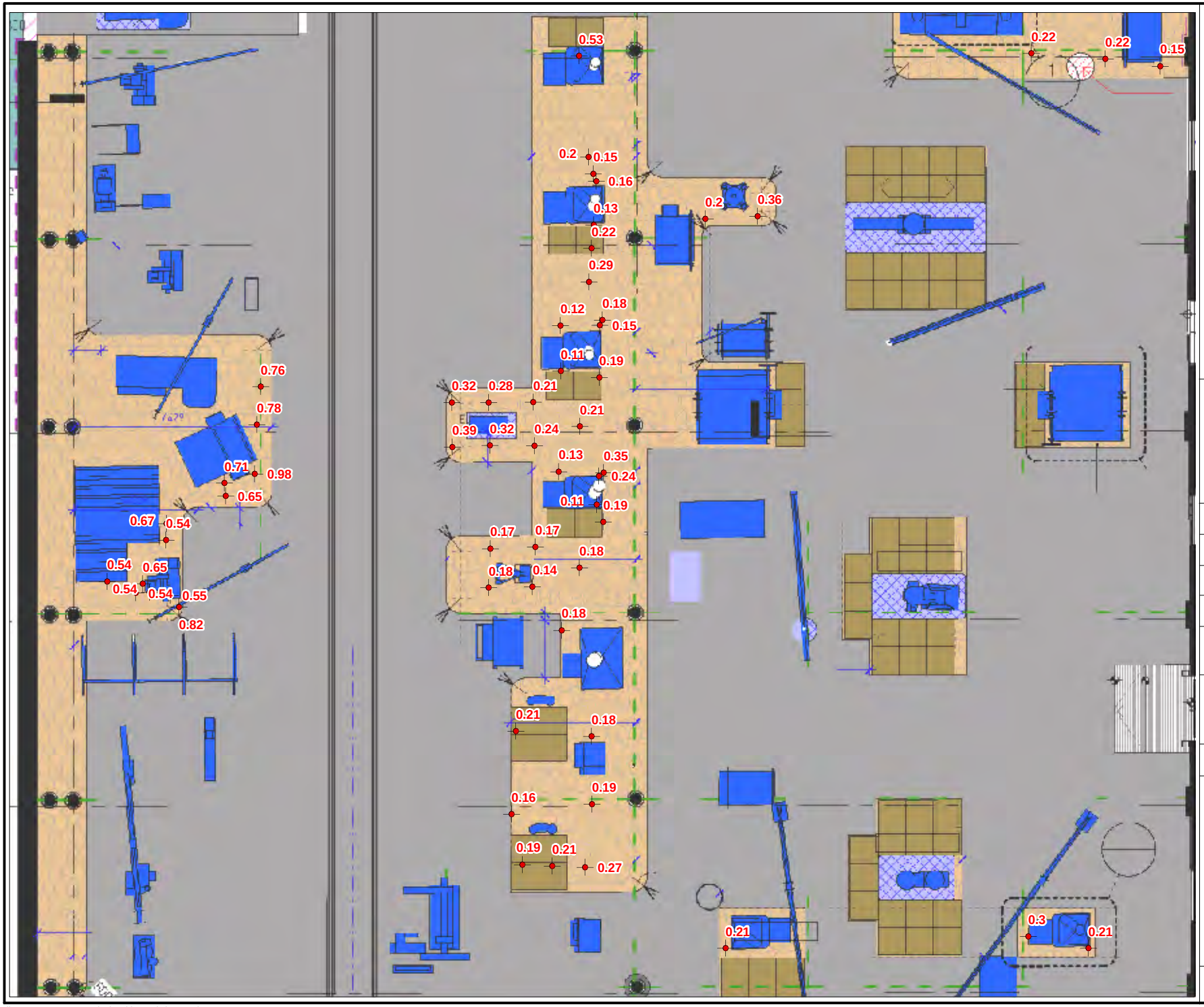
Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct, Eveleigh NSW

SOIL VAPOUR SAMPLE LOCATIONS

FIGURE 4

File Name: 51142_04_SoilVapourSampleLocs
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au



Legend:

- Deco granite capping thickness (m)
- Retained Heritage Items
- Compacted Deco Granite
- New and Existing Concrete Hardstand Pavement

JBS&G

Job No: 51142

Client: Mirvac

Version: R57 Rev A	Date: 25-Feb-2021
Drawn By: RF	Checked By: TF

Scale 1:167

0 2.5 5
metres

Coor. Sys. GDA 1994 MGA Zone 56

South Eveleigh Precinct, Eveleigh NSW

BLACKSMITHS WORKSHOP CAPPING ARRANGEMENTS

FIGURE 5

File Name: 51142_05_BlacksmithsWorkshpCapping
Reference: Imagery - www.nearmap.com: Cadastre Boundary -maps.six.nsw.gov.au

Appendix A Summary Tables

Table A - Soil Analytical Data
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

24/02/2021

				Metals & Metalloids								TRHs (NEPC 2013)							BTEXN							Polycyclic Aromatic Hydrocarbons																			
				Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C40 Fraction (Total)	>C10-C16 less Naphthalene (F2)	C6-C10 Fraction	C6-C10 less BTEX (F1)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Carcinogenic PAHs as B(a)P TEQ	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	PAHs (Total)	Pyrene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				2	0.4	1	1	1	0.1	1	1	50	100	100	50	50	20	20	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.05	0.5	0.5	0.5	0.5	0.1	0.5	0.1	0.1		0.1	0.1	0.1	0.1	0.5	0.1
NEPM 2013 Soil HIL D				3000	900	3600	240000	1500	730	6000	400000																				40	40	40						40					4000	
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																NL		260	3	NL	NL			230	NL																				
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																NL		370	3	NL	NL			NL	NL																				
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																NL		630	3	NL	NL			NL	NL																				
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil												1000	3500	10000			700																												
Sample ID	**Date**	**Lab Report**	**Location**																																										
Within Stage 1ABC, Travelator and Stage 2 Boundary																																													
BH200 0.64-0.7	19/04/2017	543119	BH200	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC01	19/04/2017	543119	BH200	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC01A	19/04/2017	165554	BH200	<4	<0.4	2	<1	1	<0.1	1	1	<50	<100	<100	<50	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.5	<0.5	-	<0.1	-	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
BH201_0.9-1.0	20/04/2017	543330	BH201	6.9	<0.4	21	640	190	0.1	15	72	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	0.6	<0.5	<0.5	0.5	1.7	0.6
BH202_0.3-0.38	20/04/2017	543330	BH202	83	<0.4	18	730	190	0.1	26	56	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH203 0.56-0.6	21/04/2017	543445	BH203	<2	<0.4	<5	52	19	<0.1	<5	12	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH204 0.6-0.7	21/04/2017	543445	BH204	51	0.5	29	9500	2500	1	42	680	<50	1200	320	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	1	2.2	1.7	2.3	2.6	2.8	1.4	1.1	1.3	2.1	<0.5	2.562	4.4	<0.5	0.9	3.8	23.8	3.9
QC02	21/04/2017	543445	BH204	200	0.9	24	70,000	3000	0.7	59	1700	55	2500	700	-	55	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5 - 1.2	<0.5	0.6	1.4	2.6	2.1	2.8	3.1	3.3	1.9	1.5	1.4	2.6	<0.5	3.091	5.6	0.9	1.1	6.7	34.6	5
QC02A	21/04/2017	165740	BH204	<4	<0.4	4	4	71	<0.1	1	11	<50	<100	<100	<50	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.5	<0.5	-	<0.1	-	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
BH204 0.9-1.0	21/04/2017	543445	BH204	33	3.4	22	5300	2400	1	34	780	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	1.7	3.1	2.5	3.4	3.6	3.9	1.9	1.4	2	3.1	<0.5	3.615	6.8	0.6	1.2	7	37.2	5.9
BH205 0.32-0.5	21/04/2017	543445	BH205	40	0.7	26	8600	1300	0.3	49	1000	78	1200	250	-	72	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	6 - 7.5	1.3	0.8	4	4.3	3.3	5	5	5	2.1	1.7	2.8	4.1	0.6	5.028	11	3.6	1.5	16	74.2	9.6
BH206 0.28-0.35	21/04/2017	543445	BH206	6.4	<0.4	7.1	74	170	<0.1	7.8	39	<50	160	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.64	0.6	<0.5	<0.5	<0.5	1.7	0.5
BH207 0.62-0.7	21/04/2017	543445	BH207	<2	<0.4	<5	35	23	<0.1	<5	16	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	0.7	<0.5	2	2.8	3.7	3.9	4.2	2.1	2.7	1.9	2	<0.5	3.927	1.7	<0.5	2.3	<0.5	20.7	2.5
BH208 0.3-0.4	21/04/2017	543445	BH208	9.4	<0.4	8.1	680	210	<0.1	7	62	120	2200	790	-	120	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<5	<5	5.7	9.7	7	8.1	11	15	<5	<5	<5	9.1	<5	11.34	17	<5	<5	15	82.5	19
BH208 0.6-0.7	21/04/2017	543445	BH208	6.4	<0.4	13	140	120	<0.1	<5	17	<50	280	110	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	1.1	0.6	0.8	1.1	1.4	<0.5	<0.5	<0.5	0.8	<0.5	1.071	1.3	<0.5	0.5	1	6.7	1.4
~~BH02 0.02-0.15~~	~~25/07/2018~~	~~609598~~	~~BH02~~	~~<2~~	~~<0.4~~	~~63~~	~~130~~	~~72~~	~~<0.1~~	~~260~~	~~140~~	~~<50~~	~~310~~	~~130~~	~~440~~	~~<50~~	~~<20~~	~~<20~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~0.6~~	~~0.7~~	~~<0.5~~	~~<0.5~~	~~0.7~~	~~1.2~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~0.8~~	~~<0.5~~	~~0.6555~~	~~1.4~~	~~<0.5~~	~~<0.5~~	~~1.7~~	~~6.6~~	~~1.4~~
~~BH02 0.3-0.4~~	~~25/07/2018~~	~~609598~~	~~BH02~~	~~3.1~~	~~<0.4~~	~~45~~	~~230~~	~~95~~	~~<0.1~~	~~120~~	~~120~~	~~<50~~	~~570~~	~~160~~	~~730~~	~~<50~~	~~<20~~	~~<20~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~0.8~~	~~<0.5~~	~~2.6~~	~~5~~	~~2.3~~	~~3.7~~	~~3.7~~	~~3.7~~	~~1.3~~	~~1~~	~~1.6~~	~~4.5~~	~~0.5~~	~~3.735~~	~~8.6~~	~~0.8~~	~~0.9~~	~~8.2~~	~~46.8~~	~~8.7~~
~~QC25072018-A~~	~~25/07/2018~~	~~197101~~	~~BH02~~	~~<4~~	~~<0.4~~	~~14~~	~~230~~	~~61~~	~~<0.1~~	~~61~~	~~87~~	~~<50~~	~~920~~	~~130~~	~~1000~~	~~<50~~	~~<25~~	~~<25~~	~~<0.2~~	~~<1~~	~~<0.5~~	~~<1~~	~~<2~~	~~<1~~	~~<1 - 0.4~~	~~3.1~~	~~<0.1~~	~~8.8~~	~~16~~	~~11~~	~~16~~	~~16~~	~~16~~	~~–~~	~~3.8~~	~~–~~	~~13~~	~~1.3~~	~~14.41~~	~~27~~	~~2.4~~	~~3.4~~	~~27~~	~~160~~	~~26~~
~~QC25072018-A - [TRIPLICATE]~~	~~25/07/2018~~	~~197101~~	~~BH02~~	~~6~~	~~<0.4~~	~~17~~	~~1800~~	~~170~~	~~<0.1~~	~~79~~	~~200~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~
~~QC25072018~~	~~26/07/2018~~	~~609598~~	~~BH02~~	~~3.4~~	~~<0.4~~	~~56~~	~~170~~	~~77~~	~~<0.1~~	~~120~~	~~140~~	~~<50~~	~~1300~~	~~270~~	~~1570~~	~~<50~~	~~<20~~	~~<20~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~1.3~~	~~<0.5~~	~~4.8~~	~~9.8~~	~~4.1~~	~~7.3~~	~~7.3~~	~~7.3~~	~~3.1~~	~~1.9~~	~~2.8~~	~~7.6~~	~~1.3~~	~~7.255~~	~~14~~	~~1.1~~	~~1.9~~	~~15~~	~~82.7~~	~~14~~
BH04 0.15-0.25	25/07/2018	609598	BH04	6.8	<0.4	50	250	160	<0.1	67	160	<50	140	<100	140	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	1	0.5	0.6	0.9	1.3	<0.5	<0.5	<0.5	1.1	<0.5	0.9385	2.2	<0.5	<0.5	1.1	8.3	2.4
BH04 0.25-0.35	25/07/2018	609598	BH04	3.9	<0.4	12	130	130	<0.1	9.1	65	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH04 08-0.9	25/07/2018	609598	BH04	<2	<0.4	<5	<5	<5	<0.1	<5	7.9	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH06 0.4-0.5	25/07/2018	609598	BH06	4.6	<0.4	7	170	100	<0.1	5.9	41	<50	820	110	930	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH06 0.7-0.8	25/07/2018	609598	BH06	<2	<0.4	<5	8.7	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH07 0.35-0.40	25/07/2018	609598	BH07	3.9	<0.4	11	37	95	<0.1	14	130	<50	350	<100	350	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH07 0.7-0.8	25/07/2018	609598	BH07	<2	<0.4	<5	<5	6.8	<0.1	<5	13	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP400 0.5-0.6	24/01/2019	637874	TP400	4.6	<0.4	12	73	82	<0.1	<5	93	<50	480	<100	480	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	1	0.8	1	1.3	1.6	<0.5	<0.5	0.8	0.7	<0.5	1.29	1.5	<0.5	<0.5	1.4	7.9	1.7
TP400 2.5-2.6	24/01/2019	637874	TP400	4.2	<0.4	17	82	130	<0.1	<5	99	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	0.6	0.6
TP400 3-3.1	24/01/2019	637874	TP400	<2	<0.4	<5	<5	<5	<0.1	<5	10	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP401 0.3	24/01/2019	637874	TP401	4.7	<0.4	8.9	300	160	0.2	6.1	220	<50	260	<100	260	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	0.9	1.8	1.2	1.6	1.9	2.1	0.7	0.7	<0.5	1.2	<0.5	1.854	3.6	<0.5	1.1	2.8	18	4
TP401 0.5-0.6	24/01/2019	637874	TP401	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TP402 0.3~~	~~24/01/2019~~	~~637874~~	~~TP402~~	~~8.6~~	~~<0.4~~	~~20~~	~~77~~	~~160~~	~~<0.1~~	~~9~~	~~62~~	~~<50~~	~~<100~~	~~<100~~	~~<100~~	~~<50~~	~~<20~~	~~<20~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~0.6~~	~~1.2~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<1.21~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP402 0.4-0.5~~	~~24/01/2019~~	~~637874~~	~~TP402~~	~~6.8~~	~~<0.4~~	~~16~~	~~170~~	~~720~~	~~0.1~~	~~9.6~~	~~150~~	~~<50~~	~~<100~~	~~<100~~	~~<100~~	~~<50~~	~~<20~~	~~<20~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~0.6~~	~~1.2~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<1.21~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP402 0.5-0.6~~	~~24/01/2019~~	~~637874~~	~~TP402~~	~~<2~~	~~<0.4~~	~~<5~~	~~<5~~	~~<5~~	~~<0.1~~	~~<5~~	~~<5~~	~~<50~~	~~<100~~	~~<100~~	~~<100~~	~~<50~~	~~<20~~	~~<20~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~0.6~~	~~1.2~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<1.21~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP402-B 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP402-B~~	~~100~~	~~<0.4~~	~~28~~	~~17,000~~	~~1100~~	~~0.1~~	~~66~~	~~230~~	~~<50~~	~~810~~	~~350~~	~~1160~~	~~<50~~	~~<20~~	~~<20~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~0.6~~	~~1.2~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<1.21~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP402-A 0.25-0.35~~	~~20/03/2019~~	~~646797~~	~~TP402-A~~	~~2.6~~	~~<0.4~~	~~16~~	~~44~~	~~28~~	~~<0.1~~	~~<5~~	~~37~~	~~<50~~	~~<100~~	~~<100~~	~~<100~~	~~<50~~	~~<20~~	~~<20~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~0.6~~	~~1.2~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<1.21~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
TP403 0.4-0.5	24/01/2019	637874	TP403	5.4	0.6	27	310	23	<0.1	15	21	<50	110	<100	110	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP404 0.3	24/01/2019	637874	TP404	<2	<0.4	31	120	15	<0.1	130	83	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP404 0.5-0.6	24/01/2019	637874	TP404	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP405 0.4-0.5	24/01/2019	637874	TP405	3.2	<0.4	17	110	40	<0.1	9	50	810	10,000	990	11,800	803.6	<40	<40	<0.2	<0.2	<0.2	<0.2	<0.4	<0.6	6.4 - 24	21	1.2	38	36	31	46	46	46	13	9.5	25	34	5.4	45.74	100	22	15	99	558.1	84
TP406 0.4	24/01/2019	637874	TP406	21	0.8	20	2400	1500	0.6	25	910	<50	340	100	440	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	0.5	1	1	1.4	1.6	1.9	0.9	0.5	1	1.3	<0.5	1.608	2.8	<0.5	0.5	2.3	14.6	2.8
TP406 0.5-0.6	24/01/2019	637874	TP406	<2	<0.4	<5	5.3	5.2	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP407 1.0-1.1	24/01/2019	637874	TP407	5.4	<0.4	12	18	120	<0.1	<5	8.9	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP407 1.5-2.0	24/01/2019	637874	TP407	<2	<0.4	<5	9.4	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP407 3.5-3.6	24/01/2019	637874	TP407	5.1	<0.4	25	<5	13	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP407 4.0-4.5	24/01/2019	637874	TP407	33	<0.4	11	<5	25	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP408 0.3	24/01/2019	637874	TP408	18	<0.4	15	870	520	0.2	22	230	<50	200	<100	200	<50	<20	<20	<0.1	<0.1	0.3	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	1.2	1.5	1.8	2.1	2.4	0.9	0.5	0.9	1.5	<0.5	2.095	3.4	<0.5	<0.5	2.4	15.6	3.3
TP408 0.5-0.6	24/01/2019	637874	TP408	9.3	<0.4	22	8.5	26	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP409 0.7-0.8	25/01/2019	637874	TP409	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP409 1-1.1	25/01/2019	637874	TP409	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP410 0.25-0.3	25/01/2019	637874	TP410	6.8	0.6	24	1000	430	1.6	38	730	<50	700	110	810	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	5.3	4.9	4.1	6	6	6	2.1	1.5	3.1	4.5	0.6	5.97	16	<0.5	2	23	83.1	16
QA20190125-01	25/01/2019	637874	TP410	8.8	0.6	23	1600	460	1.4	41	600	51	2400	470	2921	51	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	1.4	5.3	5	7.7	7.7	7.7	3.2	1.9	4.6	4	1	7.669	10	<0.5	3	4.8	55.2	11
QC20190125-01	25/01/2019	210371	TP410	28	2	75	9700	1000	1.6	110	2300	110	2300	640	3100	110	<25	<25	<0.2	<1	<0.5	<1	<2	<1	<1 - 0.4	0.7	0.1	2.5	9	6.5	9.6	9.6	9.6	-	3	-	7.2	0.8	8.562	16	0.3	2.6	9	85	16
TP410 1.4-1.5	25/01/2019	637874	TP410	5.9	<0.4	10	240	65	<0.1	<5	81	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP411 0.6-0.7	25/01/2019	637874	TP411	17	<0.4	9.3	3200	690	0.2	7.9	220	<50	410	140	550	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	1.2	2.6	1.8	2.5	2.8	3	1.1	0.7	1.5	1.7	<0.5	2.764	5.8	<0.5	1.7	4.2	28.1	5.8
TP411 2.0-2.1	25/01/2019	637874	TP411	4.9	<0.4	10	8.2	23	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP411 3.5-3.6	25/01/2019	637874	TP411	19	<0.4	14	26	17	<0.1	<5	6	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP412 0.5-0.6	25/01/2019	637874	TP412	9.2	<0.4	8.6	1100	610	0.2	7	87	<50	790	110	900	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5 - 0.7	0.6	<0.5	2.3	5.1	3.4	5.4	5.4	5.4	2.2	1.3	2.8	3.4	0.7	5.417	12	1.1	2.6	11	61.2	12
TP412 0.9-1.0	25/01/2019	637874	TP412	2.4	<0.4	7.8	5.4	5.6	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP413 0.6-0.7	29/01/2019	638188	TP413	2.9	<0.4	39	68	110	<0.1	7	24	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP413 1.6-1.7	29/01/2019	638188	TP413	<2	<0.4	17	<5	12	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table A - Soil Analytical Data
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

JBS&G

				Organochlorine Pesticides																					
				4,4-DDE	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	Chlordane	DDD	DDT	Dieldrin	DDT+DDE+DDD (Sum of Total)	delta-BHC	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	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
EQL				0.05	0.05	0.05	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	0.05	0.05	0.05	0.05	1
NEPM 2013 Soil HIL D						45			530				3600					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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																									
Sample ID	**Date**	**Lab Report**	**Location**																						
Within Stage 1ABC, Travelator and Stage 2 Boundary																									
BH200 0.64-0.7	19/04/2017	543119	BH200	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
QC01	19/04/2017	543119	BH200	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
QC01A	19/04/2017	165554	BH200	<0.1	<0.1	<0.2	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-
BH201_0.9-1.0	20/04/2017	543330	BH201	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
BH202_0.3-0.38	20/04/2017	543330	BH202	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
BH203 0.56-0.6	21/04/2017	543445	BH203	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
BH204 0.6-0.7	21/04/2017	543445	BH204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	21/04/2017	543445	BH204	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
QC02A	21/04/2017	165740	BH204	<0.1	<0.1	<0.2	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-
BH204 0.9-1.0	21/04/2017	543445	BH204	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
BH205 0.32-0.5	21/04/2017	543445	BH205	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
BH206 0.28-0.35	21/04/2017	543445	BH206	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
BH207 0.62-0.7	21/04/2017	543445	BH207	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
BH208 0.3-0.4	21/04/2017	543445	BH208	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1
BH208 0.6-0.7	21/04/2017	543445	BH208	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
~~BH02 0.02-0.15~~	~~25/07/2018~~	~~609598~~	~~BH02~~	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
~~BH02 0.3-0.4~~	~~25/07/2018~~	~~609598~~	~~BH02~~	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
~~QC25072018-A~~	~~25/07/2018~~	~~197101~~	~~BH02~~	<0.1	<0.1	<0.2	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-
~~QC25072018-A - [TRIPLICATE]~~	~~25/07/2018~~	~~197101~~	~~BH02~~	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
~~QC25072018~~	~~26/07/2018~~	~~609598~~	~~BH02~~	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH04 0.15-0.25	25/07/2018	609598	BH04	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH04 0.25-0.35	25/07/2018	609598	BH04	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH04 08-0.9	25/07/2018	609598	BH04	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH06 0.4-0.5	25/07/2018	609598	BH06	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH06 0.7-0.8	25/07/2018	609598	BH06	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH07 0.35-0.40	25/07/2018	609598	BH07	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH07 0.7-0.8	25/07/2018	609598	BH07	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP400 0.5-0.6	24/01/2019	637874	TP400	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP400 2.5-2.6	24/01/2019	637874	TP400	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP400 3-3.1	24/01/2019	637874	TP400	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP401 0.3	24/01/2019	637874	TP401	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP401 0.5-0.6	24/01/2019	637874	TP401	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
~~TP402 0.3~~	~~24/01/2019~~	~~637874~~	~~TP402~~	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
~~TP402 0.4-0.5~~	~~24/01/2019~~	~~637874~~	~~TP402~~	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
~~TP402 0.5-0.6~~	~~24/01/2019~~	~~637874~~	~~TP402~~	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
~~TP402-B 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP402-B~~	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
~~TP402-A 0.25-0.35~~	~~20/03/2019~~	~~646797~~	~~TP402-A~~	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP403 0.4-0.5	24/01/2019	637874	TP403	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP404 0.3	24/01/2019	637874	TP404	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP404 0.5-0.6	24/01/2019	637874	TP404	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP405 0.4-0.5	24/01/2019	637874	TP405	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP406 0.4	24/01/2019	637874	TP406	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP406 0.5-0.6	24/01/2019	637874	TP406	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP407 1.0-1.1	24/01/2019	637874	TP407	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP407 1.5-2.0	24/01/2019	637874	TP407	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP407 3.5-3.6	24/01/2019	637874	TP407	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP407 4.0-4.5	24/01/2019	637874	TP407	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP408 0.3	24/01/2019	637874	TP408	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP408 0.5-0.6	24/01/2019	637874	TP408	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP409 0.7-0.8	25/01/2019	637874	TP409	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP409 1-1.1	25/01/2019	637874	TP409	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP410 0.25-0.3	25/01/2019	637874	TP410	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
QA20190125-01	25/01/2019	637874	TP410	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
QC20190125-01	25/01/2019	210371	TP410	<0.1	<0.1	<0.2	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-
TP410 1.4-1.5	25/01/2019	637874	TP410	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP411 0.6-0.7	25/01/2019	637874	TP411	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP411 2.0-2.1	25/01/2019	637874	TP411	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP411 3.5-3.6	25/01/2019	637874	TP411	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP412 0.5-0.6	25/01/2019	637874	TP412	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP412 0.9-1.0	25/01/2019	637874	TP412	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP413 0.6-0.7	29/01/2019	638188	TP413	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP413 1.6-1.7	29/01/2019	638188	TP413	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1

	Chlorinated Alkanes															
	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	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane
	mg/kg	mg/kg	mg/kg	mg/kg	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	0.5	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
NEPM 2013 Soil HIL D																
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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																
Sample ID																
Within Stage 1ABC, Travelator and Stage 2 Boundary																
BH200 0.64-0.7	<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	0.8	<0.5
QC01	<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	0.7	<0.5
QC01A	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
BH201_0.9-1.0	<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
BH202_0.3-0.38	<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	0.6	<0.5
BH203 0.56-0.6	<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
BH204 0.6-0.7	<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	1.7	<0.5
QC02	<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	2.5	<0.5
QC02A	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
BH204 0.9-1.0	<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
BH205 0.32-0.5	<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	6.1	<0.5
BH206 0.28-0.35	<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	2	<0.5
BH207 0.62-0.7	<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
BH208 0.3-0.4	<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	0.8	<0.5
BH208 0.6-0.7	<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	3	<0.5
~~BH02 0.02-0.15~~	<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
~~BH02 0.3-0.4~~	<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
~~QC25072018-A~~	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
~~QC25072018-A - [TRIPLICATE]~~	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
~~QC25072018~~	<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
BH04 0.15-0.25	<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
BH04 0.25-0.35	<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
BH04 08-0.9	<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
BH06 0.4-0.5	<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
BH06 0.7-0.8	<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
BH07 0.35-0.40	<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
BH07 0.7-0.8	<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
TP400 0.5-0.6	<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
TP400 2.5-2.6	<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
TP400 3-3.1	<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
TP401 0.3	<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
TP401 0.5-0.6	<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
~~TP402 0.3~~	<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
~~TP402 0.4-0.5~~	<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
~~TP402 0.5-0.6~~	<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
~~TP402-B 0.3-0.4~~	<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
~~TP402-A 0.25-0.35~~	<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
TP403 0.4-0.5	<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
TP404 0.3	<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
TP404 0.5-0.6	<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
TP405 0.4-0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP406 0.4	<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
TP406 0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP407 1.0-1.1	<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
TP407 1.5-2.0	<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
TP407 3.5-3.6	<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
TP407 4.0-4.5	<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
TP408 0.3	<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
TP408 0.5-0.6	<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
TP409 0.7-0.8	<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
TP409 1-1.1	<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
TP410 0.25-0.3	<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
QA20190125-01	<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
QC20190125-01	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
TP410 1.4-1.5	<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
TP411 0.6-0.7	<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
TP411 2.0-2.1	<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
TP411 3.5-3.6	<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
TP412 0.5-0.6	<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
TP412 0.9-1.0	<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
TP413 0.6-0.7	<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
TP413 1.6-1.7	<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

Table A - Soil Analytical Data
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

				Chlorinated Alkenes											Polychlorinated Biphenyls							
				1,1-dichloroethene	1,3-dichloropropene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (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
EQL				0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Soil HIL D																						7
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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																						
Sample ID	**Date**	**Lab Report**	**Location**																			
Within Stage 1ABC, Travelator and Stage 2 Boundary																						
BH200 0.64-0.7	19/04/2017	543119	BH200	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC01	19/04/2017	543119	BH200	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC01A	19/04/2017	165554	BH200	<1	<2	-	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH201_0.9-1.0	20/04/2017	543330	BH201	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH202_0.3-0.38	20/04/2017	543330	BH202	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH203 0.56-0.6	21/04/2017	543445	BH203	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH204 0.6-0.7	21/04/2017	543445	BH204	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
QC02	21/04/2017	543445	BH204	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC02A	21/04/2017	165740	BH204	<1	<2	-	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH204 0.9-1.0	21/04/2017	543445	BH204	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH205 0.32-0.5	21/04/2017	543445	BH205	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH206 0.28-0.35	21/04/2017	543445	BH206	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH207 0.62-0.7	21/04/2017	543445	BH207	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH208 0.3-0.4	21/04/2017	543445	BH208	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH208 0.6-0.7	21/04/2017	543445	BH208	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
~~BH02 0.02-0.15~~	~~25/07/2018~~	~~609598~~	~~BH02~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~
~~BH02 0.3-0.4~~	~~25/07/2018~~	~~609598~~	~~BH02~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~
~~QC25072018-A~~	~~25/07/2018~~	~~197101~~	~~BH02~~	~~<1~~	~~<2~~	~~-~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~
~~QC25072018-A - [TRIPLICATE]~~	~~25/07/2018~~	~~197101~~	~~BH02~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
~~QC25072018~~	~~26/07/2018~~	~~609598~~	~~BH02~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~
BH04 0.15-0.25	25/07/2018	609598	BH04	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH04 0.25-0.35	25/07/2018	609598	BH04	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH04 08-0.9	25/07/2018	609598	BH04	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH06 0.4-0.5	25/07/2018	609598	BH06	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH06 0.7-0.8	25/07/2018	609598	BH06	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH07 0.35-0.40	25/07/2018	609598	BH07	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH07 0.7-0.8	25/07/2018	609598	BH07	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP400 0.5-0.6	24/01/2019	637874	TP400	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP400 2.5-2.6	24/01/2019	637874	TP400	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP400 3-3.1	24/01/2019	637874	TP400	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP401 0.3	24/01/2019	637874	TP401	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP401 0.5-0.6	24/01/2019	637874	TP401	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
~~TP402 0.3~~	~~24/01/2019~~	~~637874~~	~~TP402~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~
~~TP402 0.4-0.5~~	~~24/01/2019~~	~~637874~~	~~TP402~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~
~~TP402 0.5-0.6~~	~~24/01/2019~~	~~637874~~	~~TP402~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~
~~TP402-B 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP402-B~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~
~~TP402-A 0.25-0.35~~	~~20/03/2019~~	~~646797~~	~~TP402-A~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~
TP403 0.4-0.5	24/01/2019	637874	TP403	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP404 0.3	24/01/2019	637874	TP404	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP404 0.5-0.6	24/01/2019	637874	TP404	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP405 0.4-0.5	24/01/2019	637874	TP405	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP406 0.4	24/01/2019	637874	TP406	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP406 0.5-0.6	24/01/2019	637874	TP406	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP407 1.0-1.1	24/01/2019	637874	TP407	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP407 1.5-2.0	24/01/2019	637874	TP407	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP407 3.5-3.6	24/01/2019	637874	TP407	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP407 4.0-4.5	24/01/2019	637874	TP407	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP408 0.3	24/01/2019	637874	TP408	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP408 0.5-0.6	24/01/2019	637874	TP408	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP409 0.7-0.8	25/01/2019	637874	TP409	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP409 1-1.1	25/01/2019	637874	TP409	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP410 0.25-0.3	25/01/2019	637874	TP410	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QA20190125-01	25/01/2019	637874	TP410	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QC20190125-01	25/01/2019	210371	TP410	<1	<2	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP410 1.4-1.5	25/01/2019	637874	TP410	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP411 0.6-0.7	25/01/2019	637874	TP411	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP411 2.0-2.1	25/01/2019	637874	TP411	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP411 3.5-3.6	25/01/2019	637874	TP411	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP412 0.5-0.6	25/01/2019	637874	TP412	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP412 0.9-1.0	25/01/2019	637874	TP412	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP413 0.6-0.7	29/01/2019	638188	TP413	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP413 1.6-1.7	29/01/2019	638188	TP413	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

	Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons						Chlorinated Benzenes					Trihalomethanes			
	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	Isopropylbenzene	Styrene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromomethane	Dibromomethane	Iodomethane	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Bromodichloromethane	Chloroform	Dibromochloromethane	Tribromomethane
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.5	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	0.05	0.5	0.5	0.5	0.5
NEPM 2013 Soil HIL D																80				
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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																				
Sample ID																				
Within Stage 1ABC, Travelator and Stage 2 Boundary																				
BH200 0.64-0.7	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QC01	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QC01A	<1	<1	<1	<1	<1	<1	-	-	<1	<1	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1
BH201_0.9-1.0	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH202_0.3-0.38	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH203 0.56-0.6	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH204 0.6-0.7	<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	<0.5	<0.5
QC02	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QC02A	<1	<1	<1	<1	<1	<1	-	-	<1	<1	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1
BH204 0.9-1.0	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH205 0.32-0.5	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH206 0.28-0.35	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH207 0.62-0.7	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH208 0.3-0.4	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH208 0.6-0.7	<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	<0.5	<0.5
~~BH02 0.02-0.15~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~BH02 0.3-0.4~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~QC25072018-A~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~-~~	~~-~~	~~<1~~	~~<1~~	~~-~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~	~~<0.1~~	~~<1~~	~~<1~~	~~<1~~	~~<1~~
~~QC25072018-A - [TRIPLICATE]~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
~~QC25072018~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
BH04 0.15-0.25	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH04 0.25-0.35	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH04 08-0.9	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH06 0.4-0.5	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH06 0.7-0.8	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH07 0.35-0.40	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH07 0.7-0.8	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP400 0.5-0.6	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP400 2.5-2.6	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP400 3-3.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP401 0.3	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP401 0.5-0.6	<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	<0.05	<0.5	<0.5	<0.5	<0.5
~~TP402 0.3~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP402 0.4-0.5~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP402 0.5-0.6~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP402-B 0.3-0.4~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP402-A 0.25-0.35~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
TP403 0.4-0.5	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP404 0.3	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP404 0.5-0.6	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP405 0.4-0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.05	<1	<1	<1	<1
TP406 0.4	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP406 0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-
TP407 1.0-1.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP407 1.5-2.0	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP407 3.5-3.6	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP407 4.0-4.5	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP408 0.3	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP408 0.5-0.6	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP409 0.7-0.8	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP409 1-1.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP410 0.25-0.3	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QA20190125-01	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QC20190125-01	<1	<1	<1	<1	<1	<1	-	-	<1	<1	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1
TP410 1.4-1.5	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP411 0.6-0.7	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP411 2.0-2.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP411 3.5-3.6	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP412 0.5-0.6	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP412 0.9-1.0	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP413 0.6-0.7	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP413 1.6-1.7	<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	<0.05	<0.5	<0.5	<0.5	<0.5

Table A - Soil Analytical Data
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

JBS&G

				Metals & Metalloids								TRHs (NEPC 2013)						
				Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C40 Fraction (Total)	>C10-C16 less Naphthalene (F2)	C6-C10 Fraction	C6-C10 less BTEX (F1)
				mg/kg	mg/kg	mg/kg	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				2	0.4	1	1	1	0.1	1	1	50	100	100	50	50	20	20
NEPM 2013 Soil HIL D				3000	900	3600	240000	1500	730	6000	400000							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																NL		260
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																NL		370
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																NL		630
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil												1000	3500	10000			700	
Sample ID	**Date**	**Lab Report**	**Location**															
Within Stage 1ABC, Travelator and Stage 2 Boundary																		
TP415 0.6-0.7	29/01/2019	638188	TP415	27	<0.4	36	18	24	<0.1	<5	12	<50	<100	<100	<100	<50	<20	<20
TP415 2.1-2.2	29/01/2019	638188	TP415	19	<0.4	22	<5	32	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP414 0.3-0.4	31/01/2019	638290	TP414	8.7	<0.4	6.3	230	220	0.1	23	41	<50	540	<100	540	<50	<20	<20
TP414-0.3-0.5	7/02/2019	639656	TP414	11	<0.4	8.6	660	510	0.1	19	180	56	420	<100	476	56	<20	<20
QA20190130-02	29/01/2019	638188	TP416	9.9	0.5	14	1100	1100	0.2	13	220	<50	450	110	560	<50	<20	<20
QC20190129-02	29/01/2019	210631	TP416	9	0.7	15	850	270	0.2	12	210	<50	300	140	430	<50	<25	<25
TP416 0.3-0.4	29/01/2019	638188	TP416	8.2	<0.4	9.1	530	220	0.1	9.3	200	<50	780	180	960	<50	<20	<20
TP416 0.8-0.9	29/01/2019	638188	TP416	6.2	<0.4	11	<5	15	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
~~TP417 0.26-0.4~~	~~29/01/2019~~	~~638188~~	~~TP417~~	~~7.4~~	~~<0.4~~	~~6~~	~~260~~	~~340~~	~~0.1~~	~~18~~	~~53~~	~~<50~~	~~290~~	~~<100~~	~~290~~	~~<50~~	~~<20~~	~~<20~~
~~TP417-A 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP417-A~~	~~14~~	~~<0.4~~	~~8.9~~	~~430~~	~~430~~	~~0.3~~	~~22~~	~~92~~	~~<50~~	~~1200~~	~~180~~	~~1380~~	~~<50~~	~~<20~~	~~<20~~
TP418 0.3-0.5	29/01/2019	638188	TP418	25	<0.4	20	2200	1400	0.5	39	370	<50	320	<100	320	<50	<20	<20
TP418 3.0-3.1	29/01/2019	638188	TP418	18	<0.4	37	6.8	25	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
~~TP419 0.26-0.3~~	~~29/01/2019~~	~~638188~~	~~TP419~~	~~35~~	~~<0.4~~	~~15~~	~~830~~	~~720~~	~~0.8~~	~~34~~	~~200~~	~~<50~~	~~1800~~	~~320~~	~~2120~~	~~<50~~	~~<20~~	~~<20~~
~~TP419-A 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP419-A~~	~~3.5~~	~~<0.4~~	~~7.6~~	~~79~~	~~88~~	~~<0.1~~	~~<5~~	~~33~~	~~<50~~	~~430~~	~~<100~~	~~430~~	~~<50~~	~~<20~~	~~<20~~
~~TP419-C 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP419-C~~	~~67~~	~~<0.4~~	~~23~~	~~610~~	~~930~~	~~0.5~~	~~46~~	~~210~~	~~<50~~	~~2400~~	~~540~~	~~2940~~	~~<50~~	~~<20~~	~~<20~~
TP420 0.4-0.5	29/01/2019	638188	TP420	18	<0.4	14	3400	800	0.3	20	150	<50	<100	<100	<100	<50	<20	<20
TP421 0.3-0.4	29/01/2019	638188	TP421	2.3	<0.4	<5	53	87	<0.1	<5	52	<50	<100	<100	<100	<50	<20	<20
QA20190130-03	29/01/2019	638188	TP421	<2	<0.4	<5	<5	13	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
QC20190129-03	29/01/2019	210631	TP421	<4	<0.4	3	6	8	<0.1	1	9	<50	<100	<100	<50	<50	<25	<25
TP421 1.2-1.3	29/01/2019	638188	TP421	3.6	<0.4	6.3	5.2	11	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP422 0.1-0.2	29/01/2019	638188	TP422	9.3	<0.4	19	240	170	0.1	16	180	<50	230	<100	230	<50	<20	<20
TP423 0.9-1.0	29/01/2019	638188	TP423	<2	<0.4	<5	<5	<5	<0.1	<5	6.1	<50	<100	<100	<100	<50	<20	<20
TP425 1.3-1.4	29/01/2019	638188	TP425	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP425 0.1-0.2	30/01/2019	638188	TP425	5.5	<0.4	21	360	130	<0.1	28	140	220	7000	2000	9220	220	<20	<20
QA20190130-04	30/01/2019	638188	TP425	4.8	<0.4	15	450	80	<0.1	21	110	290	7600	2000	9890	290	<20	<20
QC20190130-04	30/01/2019	210631	TP425	6	<0.4	16	420	100	<0.1	21	130	240	5300	1800	7300	240	<25	<25
TP425 1.3-1.4	30/01/2019	638188	TP425	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP430 0.1-0.2	30/01/2019	638188	TP430	11	<0.4	37	130	120	0.1	84	310	<50	330	290	620	<50	<20	<20
TP430 0.8-0.9	30/01/2019	638188	TP430	2.2	<0.4	<5	5.5	5.5	<0.1	5	6.2	<50	<100	<100	<100	<50	<20	<20
TP431 0.2-0.3	30/01/2019	638188	TP431	3.1	<0.4	<5	98	83	<0.1	8	76	<50	170	200	370	<50	<20	<20
TP431 3.4-3.5	30/01/2019	638188	TP431	2.2	<0.4	7.6	<5	7.2	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP432 0.2-0.3	31/01/2019	638290	TP432	15	<0.4	17	350	270	0.2	26	230	<50	150	<100	150	<50	<20	<20
TP432 2.4-2.5	31/01/2019	638290	TP432	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP433-2.3-2.5	7/02/2019	639656	TP433	<2	<0.4	<5	9.6	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP434-0.4-0.6	7/02/2019	639656	TP434	27	<0.4	12	6500	600	0.3	24	700	<50	370	110	480	<50	<20	<20
TP435-2.3-2.7	7/02/2019	639656	TP435	<2	<0.4	<5	<5	8.1	<0.1	<5	12	<50	<100	<100	<100	<50	<20	<20
TP436-0.4-0.6	7/02/2019	639656	TP436	4.2	<0.4	12	96	130	1.1	5.6	110	<50	<100	<100	<100	<50	<20	<20
TP437-0.9-1.6	7/02/2019	639656	TP437	<2	<0.4	<5	11	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP438-0.9-1.2	7/02/2019	639656	TP438	<2	<0.4	<5	5.6	<5	<0.1	<5	<5	<50	110	<100	110	<50	<20	<20
TP439-0.4-0.7	7/02/2019	639656	TP439	<2	<0.4	<5	26	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
~~TP440-0.3-0.5~~	~~7/02/2019~~	~~639656~~	TP440	~~140~~	~~1.2~~	~~130~~	~~50,000~~	~~4600~~	~~0.9~~	~~110~~	~~2700~~	~~130~~	~~4100~~	~~680~~	~~4910~~	~~129.2~~	~~<20~~	~~<20~~
~~TP440-A 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP440-A~~	—	—	—	—	~~850~~	—	—	—	—	—	—	—	—	—	—
~~TP440-A 0.6-0.9~~	~~20/03/2019~~	~~646797~~	~~TP440-A~~	—	—	—	—	~~24~~	—	—	—	—	—	—	—	—	—	—
~~TP440-B 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP440-B~~	—	—	—	—	~~3300~~	—	—	—	—	—	—	—	—	—	—
~~QA3~~	~~20/03/2019~~	~~646797~~	~~TP440-B~~	—	—	—	—	~~3900~~	—	—	—	—	—	—	—	—	—	—
~~QC3~~	~~21/03/2019~~	~~214162~~	~~TP440-B~~	—	—	—	—	~~1100~~	—	—	—	—	—	—	—	—	—	—
~~TP440-B 0.6-0.9~~	~~20/03/2019~~	~~646797~~	~~TP440-B~~	—	—	—	—	~~32~~	—	—	—	—	—	—	—	—	—	—
~~TP440-C 0.2-0.3~~	~~20/03/2019~~	~~646797~~	~~TP440-C~~	—	—	—	—	~~1700~~	—	—	—	—	—	—	—	—	—	—
~~TP440-C 1.2-1.4~~	~~20/03/2019~~	~~646797~~	~~TP440-C~~	—	—	—	—	~~42~~	—	—	—	—	—	—	—	—	—	—
~~QA4~~	~~20/03/2019~~	~~646797~~	~~TP440-C~~	—	—	—	—	~~52~~	—	—	—	—	—	—	—	—	—	—
~~QC4~~	~~21/03/2019~~	~~214162~~	~~TP440-C~~	—	—	—	—	~~16~~	—	—	—	—	—	—	—	—	—	—
~~TP440-D 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP440-D~~	—	—	—	—	~~44~~	—	—	—	—	—	—	—	—	—	—
~~TP440-D 0.6-0.7~~	~~20/03/2019~~	~~646797~~	~~TP440-D~~	—	—	—	—	~~19~~	—	—	—	—	—	—	—	—	—	—
TP441-0.3-0.45	7/02/2019	639656	TP441	2.9	<0.4	6	63	110	<0.1	<5	41	<50	<100	<100	<100	<50	<20	<20
TP442-0.4-0.8	7/02/2019	639656	TP442	2.6	<0.4	8.7	<5	6.1	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP443-0.1-0.4	7/02/2019	639656	TP443	3	<0.4	5.8	72	110	<0.1	<5	150	<50	<100	<100	<100	<50	<20	<20
TP444-0.3-0.9	7/02/2019	639656	TP444	3	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP444-2.9-3.2	7/02/2019	639656	TP444	2.4	<0.4	8	11	5.5	<0.1	<5	18	<50	<100	<100	<100	<50	<20	<20

	BTEXN							Polycyclic Aromatic Hydrocarbons							
	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.05	0.5	0.5	0.5
NEPM 2013 Soil HIL D													40	40	40
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m	3	NL	NL			230	NL								
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m	3	NL	NL			NL	NL								
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m	3	NL	NL			NL	NL								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil															
Sample ID															
Within Stage 1ABC, Travelator and Stage 2 Boundary															
TP415 0.6-0.7	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP415 2.1-2.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP414 0.3-0.4	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP414-0.3-0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	2.4	1.9	2.7	2.9	3.2
QA20190130-02	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	2.1	4.8	8.4	11	11	11
QC20190129-02	<0.2	<1	<0.5	<1	<2	<1	<1 - 0.2	0.1	0.4	0.9	1.9	1.7	2.5	2.5	2.5
TP416 0.3-0.4	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	1.5	4.9	8.1	12	12	12
TP416 0.8-0.9	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
~~TP417 0.26-0.4~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5 - 1.1~~	~~0.5~~	~~<0.5~~	~~1.3~~	~~1.8~~	~~2.9~~	~~4.5~~	~~4.5~~	~~4.5~~
~~TP417-A 0.3-0.4~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~<0.5~~	~~0.6~~	~~0.9~~	~~8.7~~	~~8.5~~	~~13~~	~~13~~	~~13~~
TP418 0.3-0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	1.9	3.4	5.3	5.3	5.3
TP418 3.0-3.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
~~TP419 0.26-0.3~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5 - 0.6~~	~~<0.5~~	~~<0.5~~	~~1~~	~~2.8~~	~~5.4~~	~~8.2~~	~~8.2~~	~~8.2~~
~~TP419-A 0.3-0.4~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~1.5~~	~~2.6~~	~~2.3~~	~~3.1~~	~~3.3~~	~~3.6~~
~~TP419-C 0.3-0.4~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~0.5~~	~~1.9~~	~~1.8~~	~~2.5~~	~~2.7~~	~~3~~
TP420 0.4-0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP421 0.3-0.4	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
QA20190130-03	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
QC20190129-03	<0.2	<1	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.5	<0.5
TP421 1.2-1.3	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP422 0.1-0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	1.1	1.1	1.5	1.8	2
TP423 0.9-1.0	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP425 1.3-1.4	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	0.5	1.2	1.8	2.2	2.5	2.7
TP425 0.1-0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5 - 1.8	7.5	1.7	30	47	46	67	67	67
QA20190130-04	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5 - 1.6	7.2	<0.5	33	46	74	98	98	98
QC20190130-04	<0.2	<1	<0.5	<1	<2	<1	2 - 2.6	8.1	2.1	130	62	49	70	70	70
TP425 1.3-1.4	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP430 0.1-0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP430 0.8-0.9	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP431 0.2-0.3	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP431 3.4-3.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP432 0.2-0.3	<0.1	<0.1	0.5	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP432 2.4-2.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP433-2.3-2.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP434-0.4-0.6	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	0.9	1.5	1.3	1.8	2.1	2.3
TP435-2.3-2.7	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP436-0.4-0.6	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	0.5	0.9	1.2
TP437-0.9-1.6	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP438-0.9-1.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP439-0.4-0.7	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
~~TP440-0.3-0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.2~~	~~<0.3~~	~~0.8 - 1.6~~	~~2.1~~	~~1.3~~	~~12~~	~~19~~	~~19~~	~~27~~	~~27~~	~~27~~
~~TP440-A 0.3-0.4~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-A 0.6-0.9~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-B 0.3-0.4~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QA3~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QC3~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-B 0.6-0.9~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-C 0.2-0.3~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-C 1.2-1.4~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QA4~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QC4~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-D 0.3-0.4~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-D 0.6-0.7~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TP441-0.3-0.45	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP442-0.4-0.8	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP443-0.1-0.4	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP444-0.3-0.9	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TP444-2.9-3.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2

	Polycyclic Aromatic Hydrocarbons (continued)											
	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Carcinogenic PAHs as B(a)P TEQ	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	PAHs (Total)	Pyrene
	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	0.5	0.1	0.5	0.1	0.1		0.1	0.1	0.1	0.1	0.5	0.1
NEPM 2013 Soil HIL D						40					4000	
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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil												
Sample ID												
Within Stage 1ABC, Travelator and Stage 2 Boundary												
TP415 0.6-0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP415 2.1-2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP414 0.3-0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	0.8	<0.5	<0.5	1	2.6	0.8
TP414-0.3-0.5	1.4	1.4	1.8	1.8	<0.5	2.912	2.2	<0.5	1.7	1.5	18.8	2.7
QA20190130-02	4.1	1.6	4.8	4.6	1	11.02	9.8	<0.5	1.9	6.7	61.8	12
QC20190129-02	-	0.9	-	1.8	0.3	2.287	3.3	0.2	0.7	2.6	21	4
TP416 0.3-0.4	3.5	3.5	5.2	5.4	1.7	11.78	7.9	<0.5	5.3	7.2	64.2	10
TP416 0.8-0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TP417 0.26-0.4~~	~~1.3~~	~~1.7~~	~~1.8~~	~~1.7~~	~~0.8~~	~~4.454~~	~~4~~	~~0.8~~	~~2.3~~	~~5.1~~	~~30.9~~	~~3.8~~
~~TP417-A 0.3-0.4~~	~~5.7~~	~~5.1~~	~~8.2~~	~~7.5~~	~~1.4~~	~~12.97~~	~~12~~	~~<0.5~~	~~6.8~~	~~1.5~~	~~79.9~~	~~13~~
TP418 0.3-0.5	1.9	2.4	2	1.7	1	5.291	3.4	<0.5	2.7	2.7	26.5	3.4
TP418 3.0-3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TP419 0.26-0.3~~	~~2.6~~	~~3.9~~	~~3.4~~	~~2.8~~	~~1.5~~	~~8.227~~	~~5.3~~	~~<0.5~~	~~3.8~~	~~5.8~~	~~44.2~~	~~5.3~~
~~TP419-A 0.3-0.4~~	~~1.3~~	~~1.1~~	~~2~~	~~2.1~~	~~<0.5~~	~~3.342~~	~~5.5~~	~~0.8~~	~~1.7~~	~~5.8~~	~~32~~	~~5.3~~
~~TP419-C 0.3-0.4~~	~~1.5~~	~~1.2~~	~~1.6~~	~~1.6~~	~~<0.5~~	~~2.738~~	~~3~~	~~<0.5~~	~~1.6~~	~~1.7~~	~~19.4~~	~~3~~
TP420 0.4-0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.64	1	<0.5	0.6	1	3.6	1
TP421 0.3-0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA20190130-03	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC20190129-03	-	<0.1	-	<0.1	<0.1	<0.172	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
TP421 1.2-1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP422 0.1-0.2	0.9	0.8	0.9	0.6	<0.5	1.794	2.2	<0.5	1.4	1.4	12.7	2.3
TP423 0.9-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP425 1.3-1.4	0.8	0.9	1.1	1.2	<0.5	2.481	2.5	<0.5	1	2.5	16	2.5
TP425 0.1-0.2	36	21	35	44	6.3	66.55	91	6.2	18	96	581.5	94
QA20190130-04	31	16	52	43	8.4	98.19	95	6.1	23	100	636.3	100
QC20190130-04	-	15	-	52	5.6	62.67	120	6.5	12	140	800	120
TP425 1.3-1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP430 0.1-0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP430 0.8-0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP431 0.2-0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP431 3.4-3.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP432 0.2-0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP432 2.4-2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP433-2.3-2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP434-0.4-0.6	0.9	0.9	1.3	1.4	<0.5	2.063	3.2	<0.5	1.2	3.7	19.6	3.3
TP435-2.3-2.7	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP436-0.4-0.6	<0.5	<0.5	<0.5	<0.5	<0.5	0.855	1.2	<0.5	<0.5	0.6	3.5	1.2
TP437-0.9-1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP438-0.9-1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP439-0.4-0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TP440-0.3-0.5~~	~~14~~	~~11~~	~~13~~	~~17~~	~~2.1~~	~~27.18~~	~~46~~	~~2.9~~	~~12~~	~~31~~	~~249~~	45
~~TP440-A 0.3-0.4~~	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-A 0.6-0.9~~	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-B 0.3-0.4~~	—	—	—	—	—	—	—	—	—	—	—	—
~~QA3~~	—	—	—	—	—	—	—	—	—	—	—	—
~~QC3~~	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-B 0.6-0.9~~	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-C 0.2-0.3~~	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-C 1.2-1.4~~	—	—	—	—	—	—	—	—	—	—	—	—
~~QA4~~	—	—	—	—	—	—	—	—	—	—	—	—
~~QC4~~	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-D 0.3-0.4~~	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440-D 0.6-0.7~~	—	—	—	—	—	—	—	—	—	—	—	—
TP441-0.3-0.45	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP442-0.4-0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP443-0.1-0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP444-0.3-0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP444-2.9-3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table A - Soil Analytical Data
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

24/02/2021

	Organochlorine Pesticides																						Chlorinated Alkanes																
	4,4-DDE	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	Chlordane	DDD	DDT	Dieldrin	DDT+DDE+DDD (Sum of Total)	delta-BHC	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Toxaphene	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	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.05	0.05	0.05	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	0.05	0.05	0.05	0.05	1	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
NEPM 2013 Soil HIL D			45			530				3600					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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																						
Sample ID	**Date**	**Lab Report**	**Location**																																				
Within Stage 1ABC, Travelator and Stage 2 Boundary																																						
TP415 0.6-0.7	29/01/2019	638188	TP415	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP415 2.1-2.2	29/01/2019	638188	TP415	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP414 0.3-0.4	31/01/2019	638290	TP414	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP414-0.3-0.5	7/02/2019	639656	TP414	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
QA20190130-02	29/01/2019	638188	TP416	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
QC20190129-02	29/01/2019	210631	TP416	<0.1	<0.1	<0.2	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
TP416 0.3-0.4	29/01/2019	638188	TP416	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP416 0.8-0.9	29/01/2019	638188	TP416	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
~~TP417 0.26-0.4~~	~~29/01/2019~~	~~638188~~	~~TP417~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<1~~	~~<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~~
~~TP417 A 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP417 A~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<1~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TP418 0.3-0.5	29/01/2019	638188	TP418	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP418 3.0-3.1	29/01/2019	638188	TP418	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
~~TP419 0.26-0.3~~	~~29/01/2019~~	~~638188~~	~~TP419~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<1~~	~~<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~~
~~TP419 A 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP419 A~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<1~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP419 C 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP419 C~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<1~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TP420 0.4-0.5	29/01/2019	638188	TP420	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP421 0.3-0.4	29/01/2019	638188	TP421	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
QA20190130-03	29/01/2019	638188	TP421	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
QC20190129-03	29/01/2019	210631	TP421	<0.1	<0.1	<0.2	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
TP421 1.2-1.3	29/01/2019	638188	TP421	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP422 0.1-0.2	29/01/2019	638188	TP422	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP423 0.9-1.0	29/01/2019	638188	TP423	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP425 1.3-1.4	29/01/2019	638188	TP425	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP425 0.1-0.2	30/01/2019	638188	TP425	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
QA20190130-04	30/01/2019	638188	TP425	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
QC20190130-04	30/01/2019	210631	TP425	<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
TP425 1.3-1.4	30/01/2019	638188	TP425	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP430 0.1-0.2	30/01/2019	638188	TP430	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP430 0.8-0.9	30/01/2019	638188	TP430	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP431 0.2-0.3	30/01/2019	638188	TP431	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP431 3.4-3.5	30/01/2019	638188	TP431	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP432 0.2-0.3	31/01/2019	638290	TP432	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP432 2.4-2.5	31/01/2019	638290	TP432	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP433-2.3-2.5	7/02/2019	639656	TP433	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP434-0.4-0.6	7/02/2019	639656	TP434	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP435-2.3-2.7	7/02/2019	639656	TP435	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP436-0.4-0.6	7/02/2019	639656	TP436	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP437-0.9-1.6	7/02/2019	639656	TP437	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP438-0.9-1.2	7/02/2019	639656	TP438	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP439-0.4-0.7	7/02/2019	639656	TP439	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
~~TP440-0.3-0.5~~	~~7/02/2019~~	~~639656~~	~~TP440~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<1~~	~~<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~~
~~TP440 A 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP440 A~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 A 0.6-0.9~~	~~20/03/2019~~	~~646797~~	~~TP440 A~~	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-
~~TP440 B 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP440 B~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QA3~~	~~20/03/2019~~	~~646797~~	~~TP440 B~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QC3~~	~~21/03/2019~~	~~214162~~	~~TP440 B~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 B 0.6-0.9~~	~~20/03/2019~~	~~646797~~	~~TP440 B~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 C 0.2-0.3~~	~~20/03/2019~~	~~646797~~	~~TP440 C~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 C 1.2-1.4~~	~~20/03/2019~~	~~646797~~	~~TP440 C~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QA4~~	~~20/03/2019~~	~~646797~~	~~TP440 C~~	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-
~~QC4~~	~~21/03/2019~~	~~214162~~	~~TP440 C~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 D 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP440 D~~	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-	-"-
~~TP440 D 0.6-0.7~~	~~20/03/2019~~	~~646797~~	~~TP440 D~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TP441-0.3-0.45	7/02/2019	639656	TP441	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP442-0.4-0.8	7/02/2019	639656	TP442	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP443-0.1-0.4	7/02/2019	639656	TP443	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP444-0.3-0.9	7/02/2019	639656	TP444	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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
TP444-2.9-3.2	7/02/2019	639656	TP444	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<1	<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

Table A - Soil Analytical Data
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

24/02/2021

				Chlorinated Alkenes											Polychlorinated Biphenyls								Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons						Chlorinated Benzenes						Trihalomethanes			
				1,1-dichloroethene	1,3-dichloropropene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (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)	Bromomethane	Dibromomethane	Iodomethane	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Bromodichloromethane	Chloroform	Dibromochloromethane	Tribromomethane
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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	0.05	0.5	0.5	0.5	0.5
NEPM 2013 Soil HIL D																					7																80				
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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																									
Sample ID	**Date**	**Lab Report**	**Location**																																							
Within Stage 1ABC, Travelator and Stage 2 Boundary																																									
TP415 0.6-0.7	29/01/2019	638188	TP415	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP415 2.1-2.2	29/01/2019	638188	TP415	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP414 0.3-0.4	31/01/2019	638290	TP414	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP414-0.3-0.5	7/02/2019	639656	TP414	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QA20190130-02	29/01/2019	638188	TP416	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QC20190129-02	29/01/2019	210631	TP416	<1	<2	-	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	-	-	<1	<1	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1
TP416 0.3-0.4	29/01/2019	638188	TP416	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP416 0.8-0.9	29/01/2019	638188	TP416	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
~~TP417 0.26-0.4~~	~~29/01/2019~~	~~638188~~	~~TP417~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP417 A 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP417 A~~	—	—	—	—	—	—	—	—	—	—	—	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	~~<0.05~~	—	—	—	—
TP418 0.3-0.5	29/01/2019	638188	TP418	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP418 3.0-3.1	29/01/2019	638188	TP418	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
~~TP419 0.26-0.3~~	~~29/01/2019~~	~~638188~~	~~TP419~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP419 A 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP419 A~~	—	—	—	—	—	—	—	—	—	—	—	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	~~<0.05~~	—	—	—	—
~~TP419 C 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP419 C~~	-	-	-	-	-	-	-	-	-	-	-	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	-	-	-	-	-	-	-	-	-	-	-	-	-	-	~~<0.05~~	-	-	-	-
TP420 0.4-0.5	29/01/2019	638188	TP420	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP421 0.3-0.4	29/01/2019	638188	TP421	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QA20190130-03	29/01/2019	638188	TP421	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QC20190129-03	29/01/2019	210631	TP421	<1	<2	-	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1
TP421 1.2-1.3	29/01/2019	638188	TP421	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP422 0.1-0.2	29/01/2019	638188	TP422	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP423 0.9-1.0	29/01/2019	638188	TP423	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP425 1.3-1.4	29/01/2019	638188	TP425	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP425 0.1-0.2	30/01/2019	638188	TP425	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QA20190130-04	30/01/2019	638188	TP425	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QC20190130-04	30/01/2019	210631	TP425	<1	<2	-	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1	<1	-	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP425 1.3-1.4	30/01/2019	638188	TP425	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP430 0.1-0.2	30/01/2019	638188	TP430	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	0.3	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP430 0.8-0.9	30/01/2019	638188	TP430	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP431 0.2-0.3	30/01/2019	638188	TP431	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP431 3.4-3.5	30/01/2019	638188	TP431	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP432 0.2-0.3	31/01/2019	638290	TP432	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP432 2.4-2.5	31/01/2019	638290	TP432	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP433-2.3-2.5	7/02/2019	639656	TP433	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP434-0.4-0.6	7/02/2019	639656	TP434	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP435-2.3-2.7	7/02/2019	639656	TP435	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP436-0.4-0.6	7/02/2019	639656	TP436	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP437-0.9-1.6	7/02/2019	639656	TP437	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP438-0.9-1.2	7/02/2019	639656	TP438	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP439-0.4-0.7	7/02/2019	639656	TP439	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
~~TP440-0.3-0.5~~	~~7/02/2019~~	~~639656~~	~~TP440~~	~~<0.5~~	~~<1~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<0.1~~	~~<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~~	~~<0.05~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~
~~TP440 A 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP440 A~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 A 0.6-0.9~~	~~20/03/2019~~	~~646797~~	~~TP440 A~~	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
~~TP440 B 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP440 B~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QA3~~	~~20/03/2019~~	~~646797~~	~~TP440 B~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QC3~~	~~21/03/2019~~	~~214162~~	~~TP440 B~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 B 0.6-0.9~~	~~20/03/2019~~	~~646797~~	~~TP440 B~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 C 0.2-0.3~~	~~20/03/2019~~	~~646797~~	~~TP440 C~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 C 1.2-1.4~~	~~20/03/2019~~	~~646797~~	~~TP440 C~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~QA4~~	~~20/03/2019~~	~~646797~~	~~TP440 C~~	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
~~QC4~~	~~21/03/2019~~	~~214162~~	~~TP440 C~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
~~TP440 D 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP440 D~~	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
~~TP440 D 0.6-0.7~~	~~20/03/2019~~	~~646797~~	~~TP440 D~~	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TP441-0.3-0.45	7/02/2019	639656	TP441	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP442-0.4-0.8	7/02/2019	639656	TP442	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP443-0.1-0.4	7/02/2019	639656	TP443	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP444-0.3-0.9	7/02/2019	639656	TP444	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP444-2.9-3.2	7/02/2019	639656	TP444	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5

Table A - Soil Analytical Data
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

24/02/2021

				Metals & Metalloids								TRHs (NEPC 2013)						
				Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C40 Fraction (Total)	>C10-C16 less Naphthalene (F2)	C6-C10 Fraction	C6-C10 less BTEX (F1)
				mg/kg	mg/kg	mg/kg	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				2	0.4	1	1	1	0.1	1	1	50	100	100	50	50	20	20
NEPM 2013 Soil HIL D				3000	900	3600	240000	1500	730	6000	400000							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																NL		260
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																NL		370
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m																NL		630
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil												1000	3500	10000			700	
Sample ID	**Date**	**Lab Report**	**Location**															
Within Stage 1ABC, Travelator and Stage 2 Boundary																		
~~B4S(0.6-0.7)~~	9/08/2017	557933	B4S	6.4	<0.4	14	160	100	<0.1	16	80	<50	250	<100	–	<50	<20	<20
~~B4S(1.8-1.9)~~	9/08/2017	557933	B4S	7.3	<0.4	17	11	28	<0.1	<5	25	<50	<100	<100	–	<50	<20	<20
~~B4S(2.5-2.6)~~	9/08/2017	557933	B4S	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	–	<50	<20	<20
~~B4S(3.4-3.5)~~	9/08/2017	557933	B4S	<2	<0.4	5.1	<5	7.9	<0.1	<5	<5	<50	<100	<100	–	<50	<20	<20
~~B4S(4.6-4.7)~~	9/08/2017	557933	B4S	7.4	<0.4	13	<5	15	<0.1	<5	<5	<50	<100	<100	—	<50	<20	<20
~~B4S(5.5-5.6)~~	9/08/2017	557933	B4S	6.6	<0.4	11	5.2	19	<0.1	<5	<5	<50	<100	<100	—	<50	<20	<20
~~TRA-01 0.16-0.3~~	12/06/2018	602775	TRA-01	100	<0.4	15	27,000	730	0.3	28	250	<50	270	<100	—	<50	<20	<20
~~TRA-01 3.0-3.2~~	12/06/2018	602775		<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	—	<50	<20	<20
~~TRA-02 0.6-0.85~~	12/06/2018	602775	TRA-02	5.3	<0.4	7.3	500	250	<0.1	<5	43	<50	260	<100	—	<50	<20	<20
~~TRA-02 5.0-5.2~~	12/06/2018	602775		2.9	<0.4	7.3	<5	19	<0.1	<5	<5	<50	<100	<100	—	<50	<20	<20
~~TRA-03 0.8-1.0~~	12/06/2018	602775	TRA-03	13	0.5	7.8	2600	1200	<0.1	11	840	<50	110	<100	–	<50	<20	<20
~~TRA-03 1.1-1.3~~	12/06/2018	602775		<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	–	<50	<20	<20
~~TRA-4 3.2-3.75~~	12/06/2018	602775	TRA-04	3.2	<0.4	7.2	220	66	<0.1	16	58	<50	<100	<100	–	<50	<20	<20
~~TRA-4 3.95-4.1~~	12/06/2018	602775		19	<0.4	34	<5	31	<0.1	<5	<5	<50	<100	<100	–	<50	<20	<20
~~TRA-5 0.8-1.0~~	12/06/2018	602775	TRA-05	<2	<0.4	<5	13	11	<0.1	<5	11	<50	<100	<100	–	<50	<20	<20
~~TRA-5 2.0-2.2~~	12/06/2018	602775		<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	–	<50	<20	<20
~~TRA-6 0.65-0.9~~	12/06/2018	602775	TRA-06	2.3	<0.4	<5	110	57	<0.1	7.8	56	<50	210	<100	–	<50	<20	<20
~~TRA-6 4.0-4.2~~	12/06/2018	602775		9.6	<0.4	22	<5	34	<0.1	<5	<5	<50	<100	<100	–	<50	<20	<20
External to Stage 1ABC, Travelator and Stage 2 Boundary																		
BH01 0.07-0.15	25/07/2018	609598	BH01	15	<0.4	8.3	370	260	0.2	25	120	<50	640	310	950	<50	<20	<20
BH01 0.15-0.25	25/07/2018	609598	BH01	28	<0.4	6.8	140	180	<0.1	18	77	<50	<100	<100	<100	<50	<20	<20
BH01 0.5-0.6	25/07/2018	609598	BH01	<2	<0.4	<5	<5	5.8	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
BH03 0.07-0.12	25/07/2018	609598	BH03	2	<0.4	12	8	6.4	<0.1	7.5	32	<50	<100	<100	<100	<50	<20	<20
BH03 0.5-0.6	25/07/2018	609598	BH03	5.5	<0.4	8.2	17	14	<0.1	<5	8.5	<50	<100	<100	<100	<50	<20	<20
BH03 1.0-1.1	25/07/2018	609598	BH03	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
BH05 0.15-0.25	25/07/2018	609598	BH05	26	<0.4	19	180	130	0.2	40	85	<50	130	<100	130	<50	<20	<20
BH08 0.1-0.2	26/07/2018	609598	BH08	2	<0.4	17	99	13	<0.1	24	57	<50	160	210	370	<50	<20	<20
BH08 0.6-0.7	26/07/2018	609598	BH08	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
BH10 0.06-0.1	26/07/2018	609598	BH10	6.2	<0.4	20	120	96	<0.1	82	130	<50	150	<100	150	<50	<20	<20
BH10 0.2-0.3	26/07/2018	609598	BH10	13	<0.4	8.2	560	150	<0.1	25	300	<50	210	<100	210	<50	<20	<20
QC26072018	26/07/2018	609598	BH10	8.5	<0.4	8.5	390	140	<0.1	27	240	<50	220	<100	220	<50	<20	<20
QC26072018-A	26/07/2018	197101	BH10	5	<0.4	5	420	120	<0.1	17	180	<50	<100	<100	<50	<50	<25	<25
BH11 0.2-0.4	26/07/2018	609598	BH11	5.5	<0.4	25	150	120	<0.1	21	130	<50	150	<100	150	<50	<20	<20
BH11 0.8-0.9	26/07/2018	609598	BH11	<2	<0.4	<5	7.4	14	<0.1	<5	5.4	<50	<100	<100	<100	<50	<20	<20
BH12 0.3-0.4	26/07/2018	609598	BH12	6.8	<0.4	12	43	310	<0.1	<5	110	<50	<100	<100	<100	<50	<20	<20
BH12 1-1.1	26/07/2018	609598	BH12	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP428 0.3-0.4	30/01/2019	638188	TP428	23	<0.4	16	740	430	6.7	34	210	<50	270	<100	270	<50	<20	<20
TP428 1.4-1.5	30/01/2019	638188	TP428	<2	<0.4	<5	<5	<5	<0.1	<5	<5	<50	<100	<100	<100	<50	<20	<20
TP429 0.2-0.25	30/01/2019	638188	TP429	78	<0.4	16	240	410	0.3	110	150	<50	170	<100	170	<50	<20	<20
Statistical Summary																		
Number of Results				131	131	131	131	143	131	131	131	130	130	130	112	130	130	130
Number of Detects				93	9	94	95	117	32	64	87	8	54	28	49	8	0	0
Minimum Concentration				<2	<0.4	3	<5	<5	<0.1	1	<5	<50	<100	<100	<50	<50	<20	<20
Minimum Detect				2	0.5	3	5.2	5.2	0.1	1	5.4	51	110	100	110	51	ND	ND
Maximum Concentration				140	2	130	50000	4600	6.7	260	2700	810	10000	2000	11800	803.6	<40	<40
Maximum Detect				140	2	130	50000	4600	6.7	260	2700	810	10000	2000	11800	803.6	ND	ND
Average Concentration				10	0.24	14	1115	272	0.19	19	134	38	496	138	691	38	10	10
Median Concentration				4.6	0.2	9.3	68	57	0.05	2.5	41	25	50	50	50	25	10	10
Standard Deviation				20	0.2	16	5223	636	0.63	35	336	77	1394	307	1881	77	1	1
Number of Guideline Exceedances				0	0	0	0	5	0	0	0	0	5	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)				0	0	0	0	5	0	0	0	0	5	0	0	0	0	0

	BTEXN							Polycyclic Aromatic Hydrocarbons					
Sample ID	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.05	0.5
NEPM 2013 Soil HIL D													40
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m	3	NL	NL			230	NL						
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m	3	NL	NL			NL	NL						
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 2 to <4m	3	NL	NL			NL	NL						
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil													
Within Stage 1ABC, Travelator and Stage 2 Boundary													
~~B4S(0.6-0.7)~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5 - 0.6	0.6	<0.5	1.8	2.1	1.7	2.8
~~B4S(1.8-1.9)~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~B4S(2.5-2.6)~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~B4S(3.4-3.5)~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~B4S(4.6-4.7)~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~B4S(5.5-5.6)~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~TRA-01 0.16-0.3~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	0.6	1	0.9	1.7
~~TRA-01 3.0-3.2~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~TRA-02 0.6-0.85~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	2.1	4.2	3.9	5.8
~~TRA-02 5.0-5.2~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~TRA-03 0.8-1.0~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~TRA-03 1.1-1.3~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~TRA-4 3.2-3.75~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~TRA-4 3.95-4.1~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~TRA-5 0.8-1.0~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~TRA-5 2.0-2.2~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
~~TRA-6 0.65-0.9~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	4.4	4	5.8
~~TRA-6 4.0-4.2~~	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
External to Stage 1ABC, Travelator and Stage 2 Boundary													
BH01 0.07-0.15	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01 0.15-0.25	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01 0.5-0.6	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03 0.07-0.12	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03 0.5-0.6	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03 1.0-1.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05 0.15-0.25	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08 0.1-0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08 0.6-0.7	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH10 0.06-0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH10 0.2-0.3	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC26072018	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC26072018-A	<0.2	<1	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.1	0.08	<0.5
BH11 0.2-0.4	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH11 0.8-0.9	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH12 0.3-0.4	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH12 1-1.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP428 0.3-0.4	<0.1	<0.1	0.5	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP428 1.4-1.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP429 0.2-0.25	<0.1	<0.1	0.3	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Statistical Summary													
Number of Results	130	130	130	130	130	130	130	130	130	130	130	130	130
Number of Detects	0	0	4	0	0	0	12	13	7	29	37	37	50
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5
Minimum Detect	ND	ND	0.3	ND	ND	ND	0.8	0.1	0.1	0.5	0.1	0.08	0.5
Maximum Concentration	<0.2	<1	0.5	<1	<2	<1	24	21	2.1	130	62	74	98
Maximum Detect	ND	ND	0.5	ND	ND	ND	24	21	2.1	130	62	74	98
Average Concentration	0.053	0.071	0.07	0.071	0.14	0.17	0.41	0.63	0.29	2.4	2.7	2.7	3.8
Median Concentration	0.05	0.05	0.05	0.05	0.1	0.15	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Standard Deviation	0.011	0.095	0.075	0.095	0.19	0.075	1.3	2.1	0.24	12	8.7	9.2	13
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	4
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	4

	Polycyclic Aromatic Hydrocarbons													
Sample ID	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Carcinogenic PAHs as B(a)P TEQ	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	PAHs (Total)	Pyrene
	mg/kg	mg/kg	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	0.5	0.5	0.5	0.1	0.5	0.1	0.1		0.1	0.1	0.1	0.1	0.5	0.1
NEPM 2013 Soil HIL D	40	40						40					4000	
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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil														
Within Stage 1ABC, Travelator and Stage 2 Boundary														
~~B4S(0.6-0.7)~~	2.5	2.3	1.4	0.9	1.1	1.9	<0.5	–	4.8	0.8	0.8	5.5	28.7	4.7
~~B4S(1.8-1.9)~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~B4S(2.5-2.6)~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~B4S(3.4-3.5)~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~B4S(4.6-4.7)~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~B4S(5.5-5.6)~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TRA-01 0.16-0.3~~	1.4	1.2	0.8	0.6	0.7	0.9	<0.5	—	1.6	<0.5	<0.5	1.8	10.5	1.6
~~TRA-01 3.0-3.2~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TRA-02 0.6-0.85~~	5.8	5.8	3.6	1.9	3.1	3.6	0.6	—	6.8	0.5	1.5	7.1	45.8	6.9
~~TRA-02 5.0-5.2~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TRA-03 0.8-1.0~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	0.5	<0.5	<0.5	<0.5	0.5	<0.5
~~TRA-03 1.1-1.3~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TRA-4 3.2-3.75~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TRA-4 3.95-4.1~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TRA-5 0.8-1.0~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TRA-5 2.0-2.2~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
~~TRA-6 0.65-0.9~~	5.8	5.8	3.4	1.2	2.7	3.5	0.6	–	4.7	<0.5	1.2	0.7	31.5	5.1
~~TRA-6 4.0-4.2~~	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
External to Stage 1ABC, Travelator and Stage 2 Boundary														
BH01 0.07-0.15	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01 0.15-0.25	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01 0.5-0.6	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03 0.07-0.12	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03 0.5-0.6	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03 1.0-1.1	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05 0.15-0.25	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08 0.1-0.2	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08 0.6-0.7	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH10 0.06-0.1	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH10 0.2-0.3	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC26072018	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC26072018-A	<0.5	<0.5	-	<0.1	-	0.1	<0.1	0.1465	0.2	<0.1	<0.1	0.2	0.92	0.2
BH11 0.2-0.4	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH11 0.8-0.9	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH12 0.3-0.4	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH12 1-1.1	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP428 0.3-0.4	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	0.8	<0.5	<0.5	0.8	2.4	0.8
TP428 1.4-1.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP429 0.2-0.25	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.63	0.7	<0.5	0.5	0.7	2.5	0.6
Statistical Summary														
Number of Results	130	130	124	130	124	130	130	112	130	130	130	130	130	130
Number of Detects	128	114	29	33	29	37	21	36	43	15	33	42	44	43
Minimum Concentration	<0.5	<0.5	<0.5	<0.1	<0.5	<0.1	<0.1	0.1465	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
Minimum Detect	0.6	1.2	0.7	0.5	0.7	0.1	0.3	0.1465	0.2	0.2	0.5	0.2	0.5	0.2
Maximum Concentration	98	98	36	21	52	52	8.4	98.19	120	22	23	140	800	120
Maximum Detect	98	98	36	21	52	52	8.4	98.19	120	22	23	140	800	120
Average Concentration	4	4.3	1.4	1.1	1.7	2.4	0.54	4.3	5.3	0.62	1.2	5.1	32	5.3
Median Concentration	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.605	0.25	0.25	0.25	0.25	0.25	0.25
Standard Deviation	13	13	4.5	2.9	6.1	7.7	1.1	13	18	2.1	3.2	19	115	18
Number of Guideline Exceedances	4	4	0	0	0	0	0	4	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	4	4	0	0	0	0	0	4	0	0	0	0	0	0

JBS&G

Organochlorine Pesticides

Sample ID	Date	Lab Report	Location	4,4-DDE	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	Chlordane	DDD	DDT	Dieldrin	DDT+DDE+DDD (Sum of Total)	delta-BHC	Endosulfan alpha	Endosulfan beta	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	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
EQL				0.05	0.05	0.05	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	0.05	0.05	0.05	0.05	1
NEPM 2013 Soil HIL D						45			530				3600					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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																									
Within Stage 1ABC, Travelator and Stage 2 Boundary																									
~~B4S(0.6-0.7)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~
~~B4S(1.8-1.9)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~
~~B4S(2.5-2.6)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~
~~B4S(3.4-3.5)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~
~~B4S(4.6-4.7)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~
~~B4S(5.5-5.6)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~
~~TRA-01 0.16-0.3~~	~~12/06/2018~~	~~602775~~	~~TRA-01~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-01 3.0-3.2~~	~~12/06/2018~~	~~602775~~		~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-02 0.6-0.85~~	~~12/06/2018~~	~~602775~~	~~TRA-02~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-02 5.0-5.2~~	~~12/06/2018~~	~~602775~~		~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-03 0.8-1.0~~	~~12/06/2018~~	~~602775~~	~~TRA-03~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-03 1.1-1.3~~	~~12/06/2018~~	~~602775~~		~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-4 3.2-3.75~~	~~12/06/2018~~	~~602775~~	~~TRA-04~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-4 3.95-4.1~~	~~12/06/2018~~	~~602775~~		~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-5 0.8-1.0~~	~~12/06/2018~~	~~602775~~	~~TRA-05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-5 2.0-2.2~~	~~12/06/2018~~	~~602775~~		~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-6 0.65-0.9~~	~~12/06/2018~~	~~602775~~	~~TRA-06~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
~~TRA-6 4.0-4.2~~	~~12/06/2018~~	~~602775~~		~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<0.05~~	~~<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~~	~~–~~	~~<0.05~~	~~<1~~
External to Stage 1ABC, Travelator and Stage 2 Boundary																									
BH01 0.07-0.15	25/07/2018	609598	BH01	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH01 0.15-0.25	25/07/2018	609598	BH01	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH01 0.5-0.6	25/07/2018	609598	BH01	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH03 0.07-0.12	25/07/2018	609598	BH03	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH03 0.5-0.6	25/07/2018	609598	BH03	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH03 1.0-1.1	25/07/2018	609598	BH03	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH05 0.15-0.25	25/07/2018	609598	BH05	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH08 0.1-0.2	26/07/2018	609598	BH08	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH08 0.6-0.7	26/07/2018	609598	BH08	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH10 0.06-0.1	26/07/2018	609598	BH10	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH10 0.2-0.3	26/07/2018	609598	BH10	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
QC26072018	26/07/2018	609598	BH10	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
QC26072018-A	26/07/2018	197101	BH10	<0.1	<0.1	<0.2	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-
BH11 0.2-0.4	26/07/2018	609598	BH11	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH11 0.8-0.9	26/07/2018	609598	BH11	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH12 0.3-0.4	26/07/2018	609598	BH12	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
BH12 1-1.1	26/07/2018	609598	BH12	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP428 0.3-0.4	30/01/2019	638188	TP428	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP428 1.4-1.5	30/01/2019	638188	TP428	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
TP429 0.2-0.25	30/01/2019	638188	TP429	<0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05	<0.05	<1
Statistical Summary																									
Number of Results				130	130	130	130	130	124	130	130	130	130	130	130	130	130	130	130	124	130	130	112	130	124
Number of Detects				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1
Minimum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration				<1	<1	<2	<1	<1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1
Maximum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration				0.03	0.03	0.035	0.03	0.03	0.046	0.03	0.033	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.025	0.03	0.03	0.03	0.033	0.5
Median Concentration				0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.5
Standard Deviation				0.042	0.042	0.086	0.042	0.042	0.0088	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0	0.042	0.042	0.045	0.044	0
Number of Guideline Exceedances				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Chlorinated Alkanes

Sample ID	Date	Lab Report	Location	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	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane
				mg/kg	mg/kg	mg/kg	mg/kg	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				0.5	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
NEPM 2013 Soil HIL D																			
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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																			
Within Stage 1ABC, Travelator and Stage 2 Boundary																			
~~B4S(0.6-0.7)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<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~~
~~B4S(1.8-1.9)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<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~~
~~B4S(2.5-2.6)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<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~~
~~B4S(3.4-3.5)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<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~~
~~B4S(4.6-4.7)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<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~~
~~B4S(5.5-5.6)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	~~<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~~
~~TRA-01 0.16-0.3~~	~~12/06/2018~~	~~602775~~	~~TRA-01~~	~~<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~~
~~TRA-01 3.0-3.2~~	~~12/06/2018~~	~~602775~~		~~<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~~
~~TRA-02 0.6-0.85~~	~~12/06/2018~~	~~602775~~	~~TRA-02~~	~~<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~~
~~TRA-02 5.0-5.2~~	~~12/06/2018~~	~~602775~~		~~<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~~
~~TRA-03 0.8-1.0~~	~~12/06/2018~~	~~602775~~	~~TRA-03~~	~~<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~~
~~TRA-03 1.1-1.3~~	~~12/06/2018~~	~~602775~~		~~<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~~
~~TRA-4 3.2-3.75~~	~~12/06/2018~~	~~602775~~	~~TRA-04~~	~~<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~~
~~TRA-4 3.95-4.1~~	~~12/06/2018~~	~~602775~~		~~<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~~
~~TRA-5 0.8-1.0~~	~~12/06/2018~~	~~602775~~	~~TRA-05~~	~~<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~~
~~TRA-5 2.0-2.2~~	~~12/06/2018~~	~~602775~~		~~<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~~
~~TRA-6 0.65-0.9~~	~~12/06/2018~~	~~602775~~	~~TRA-06~~	~~<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~~
~~TRA-6 4.0-4.2~~	~~12/06/2018~~	~~602775~~		~~<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~~
External to Stage 1ABC, Travelator and Stage 2 Boundary																			
BH01 0.07-0.15	25/07/2018	609598	BH01	<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
BH01 0.15-0.25	25/07/2018	609598	BH01	<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
BH01 0.5-0.6	25/07/2018	609598	BH01	<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
BH03 0.07-0.12	25/07/2018	609598	BH03	<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
BH03 0.5-0.6	25/07/2018	609598	BH03	<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
BH03 1.0-1.1	25/07/2018	609598	BH03	<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
BH05 0.15-0.25	25/07/2018	609598	BH05	<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
BH08 0.1-0.2	26/07/2018	609598	BH08	<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
BH08 0.6-0.7	26/07/2018	609598	BH08	<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
BH10 0.06-0.1	26/07/2018	609598	BH10	<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
BH10 0.2-0.3	26/07/2018	609598	BH10	<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
QC26072018	26/07/2018	609598	BH10	<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
QC26072018-A	26/07/2018	197101	BH10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
BH11 0.2-0.4	26/07/2018	609598	BH11	<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
BH11 0.8-0.9	26/07/2018	609598	BH11	<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
BH12 0.3-0.4	26/07/2018	609598	BH12	<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
BH12 1-1.1	26/07/2018	609598	BH12	<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
TP428 0.3-0.4	30/01/2019	638188	TP428	<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
TP428 1.4-1.5	30/01/2019	638188	TP428	<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
TP429 0.2-0.25	30/01/2019	638188	TP429	<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
Statistical Summary																			
Number of Results				126	126	126	126	126	126	126	126	126	126	126	126	126	126	120	126
Number of Detects				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				<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
Minimum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration				0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.26
Median Concentration				0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Standard Deviation				0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.023	0.057
Number of Guideline Exceedances				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JBS&G

Sample ID	Date	Lab Report	Location	1,1-dichloroethene	1,3-dichloropropene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (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)	Bromomethane	Dibromomethane	Iodomethane	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Bromodichloromethane	Chloroform	Dibromochloromethane	Tribromomethane
				Chlorinated Alkenes											Polychlorinated Biphenyls								Monocyclic Aromatic Hydrocarbons					Miscellaneous Hydrocarbons						Chlorinated Benzenes					Trihalomethanes			
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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	0.05	0.5	0.5	0.5	0.5
NEPM 2013 Soil HIL D																						7																80				
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 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																										
Within Stage 1ABC, Travelator and Stage 2 Boundary																																										
~~B4S(0.6-0.7)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~B4S(1.8-1.9)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~B4S(2.5-2.6)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~B4S(3.4-3.5)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~B4S(4.6-4.7)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~B4S(5.5-5.6)~~	~~9/08/2017~~	~~557933~~	~~B4S~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-01 0.16-0.3~~	~~12/06/2018~~	~~602775~~	~~TRA-01~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-01 3.0-3.2~~	~~12/06/2018~~	~~602775~~		<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-02 0.6-0.85~~	~~12/06/2018~~	~~602775~~	~~TRA-02~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-02 5.0-5.2~~	~~12/06/2018~~	~~602775~~		<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-03 0.8-1.0~~	~~12/06/2018~~	~~602775~~	~~TRA-03~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-03 1.1-1.3~~	~~12/06/2018~~	~~602775~~		<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-4 3.2-3.75~~	~~12/06/2018~~	~~602775~~	~~TRA-04~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-4 3.95-4.1~~	~~12/06/2018~~	~~602775~~		<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-5 0.8-1.0~~	~~12/06/2018~~	~~602775~~	~~TRA-05~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-5 2.0-2.2~~	~~12/06/2018~~	~~602775~~		<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-6 0.65-0.9~~	~~12/06/2018~~	~~602775~~	~~TRA-06~~	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
~~TRA-6 4.0-4.2~~	~~12/06/2018~~	~~602775~~		<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5
External to Stage 1ABC, Travelator and Stage 2 Boundary																																										
BH01 0.07-0.15	25/07/2018	609598	BH01	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH01 0.15-0.25	25/07/2018	609598	BH01	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH01 0.5-0.6	25/07/2018	609598	BH01	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH03 0.07-0.12	25/07/2018	609598	BH03	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH03 0.5-0.6	25/07/2018	609598	BH03	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH03 1.0-1.1	25/07/2018	609598	BH03	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH05 0.15-0.25	25/07/2018	609598	BH05	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH08 0.1-0.2	26/07/2018	609598	BH08	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH08 0.6-0.7	26/07/2018	609598	BH08	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH10 0.06-0.1	26/07/2018	609598	BH10	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH10 0.2-0.3	26/07/2018	609598	BH10	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QC26072018	26/07/2018	609598	BH10	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
QC26072018-A	26/07/2018	197101	BH10	<1	<2	-	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1
BH11 0.2-0.4	26/07/2018	609598	BH11	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH11 0.8-0.9	26/07/2018	609598	BH11	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH12 0.3-0.4	26/07/2018	609598	BH12	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
BH12 1-1.1	26/07/2018	609598	BH12	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP428 0.3-0.4	30/01/2019	638188	TP428	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP428 1.4-1.5	30/01/2019	638188	TP428	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
TP429 0.2-0.25	30/01/2019	638188	TP429	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5

Statistical Summary

	1,1-dichloroethene	1,3-dichloropropene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (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)	Bromomethane	Dibromomethane	Iodomethane	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Bromodichloromethane	Chloroform	Dibromochloromethane	Tribromomethane
Number of Results	126	108	120	126	126	126	126	126	126	126	126	130	130	130	130	130	130	130	130	126	126	126	126	126	126	120	120	126	126	120	126	126	126	126	130	126	126	126	126
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	18	18	18	18	18	18	18	18	18	18	18	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.05	<0.5	<0.5	<0.5	<0.5
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.26	0.53	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.087	0.077	0.087	0.088	0.087	0.087	0.087	0.088	0.27	0.27	0.27	0.27	0.27	0.27	0.25	0.25	0.27	0.27	0.25	0.26	0.26	0.26	0.26	0.03	0.26	0.26	0.26	0.26
Median Concentration	0.25	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.025	0.25	0.25	0.25	0.25
Standard Deviation	0.057	0.12	0.023	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.22	0.22	0.22	0.23	0.22	0.22	0.22	0.23	0.062	0.062	0.062	0.062	0.062	0.062	0.025	0.025	0.062	0.062	0.025	0.057	0.057	0.057	0.057	0.042	0.057	0.057	0.057	0.057
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A - Asbestos in Soil Analytical Data

24/02/2021

Project Number: 51142

Project Name: Locomotive Workshop LTEMP

				Asbestos									
				Approx. Sample Mass	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass ACM	Mass Asbestos in ACM	Mass FA	Mass Asbestos in FA	Mass AF	Mass Asbestos in AF	Mass Asbestos in FA & AF
				g	%w/w	%w/w	g	g	g	g	g	g	g
EQL													
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Commercial/Industrial - HSL D					0.05								
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL						0.001							
Sample ID	**Date**	**Lab Report**	**Location**										
Within Stage 1ABC, Travelator and Stage 2 Boundary													
BH200 0.64-0.7	19/04/2017	543119	BH200	578	0	0	0	0	0	0	0	0	0
QC01	19/04/2017	543119	BH200	569	0	0	0	0	0	0	0	0	0
BH201_0.9-1.0	20/04/2017	543330	BH201	233	0	0	0	0	0	0	0	0	0
BH202_0.3-0.38	20/04/2017	543330	BH202	767	0	0	0	0	0	0	0	0	0
BH203 0.56-0.6	21/04/2017	543445	BH203	658	0	0	0	0	0	0	0	0	0
QC02	21/04/2017	543445	BH204	520	0	0.0017	0	0	0	0	0.0086	0.0086	0.0086
BH204 0.9-1.0	21/04/2017	543445	BH204	531	0	0.0014	0	0	0	0	0.0072	0.0072	0.0072
BH205 0.32-0.5	21/04/2017	543445	BH205	516	0	0.005	0	0	0.0364	0.0255	0.0005	0.0005	0.026
BH206 0.28-0.35	21/04/2017	543445	BH206	450	0	0	0	0	0	0	0	0	0
BH207 0.62-0.7	21/04/2017	543445	BH207	573	0	0	0	0	0	0	0	0	0
BH208 0.3-0.4	21/04/2017	543445	BH208	550	0	0	0	0	0	0	0	0	0
~~BH02 0.02-0.15~~	~~25/07/2018~~	~~609598~~	~~BH02~~	~~944~~	~~0~~	~~0.0004~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0.0036~~	~~0.0036~~	~~0.0036~~
~~BH02 0.3-0.4~~	~~25/07/2018~~	~~609598~~	~~BH02~~	~~1114~~	~~0~~	~~0.003~~	~~0~~	~~0~~	~~0.0315~~	~~0.0315~~	~~0.0018~~	~~0.0018~~	~~0.0333~~
~~QC25072018~~	~~26/07/2018~~	~~609598~~	~~BH02~~	~~975~~	~~0~~	~~0.0007~~	~~0~~	~~0~~	~~0.0056~~	~~0.0056~~	~~0.0012~~	~~0.0012~~	~~0.0068~~
QA_30/7	30/07/2019	668643	BH02-V1_N	558	0	0	0	0	0	0	0	0	0
V1_N	30/07/2019	668643	BH02-V1_N	637	0	0	0	0	0	0	0	0	0
V2_E	30/07/2019	668643	BH02-V2_E	584	0	0	0	0	0	0	0	0	0
V3_S	30/07/2019	668643	BH02-V3_S	805	0	0	0	0	0	0	0	0	0
V4_W	30/07/2019	668643	BH02-V4_W	774	0	0	0	0	0	0	0	0	0
VS_B	30/07/2019	668643	BH02-VS_B	702	0	0	0	0	0	0	0	0	0
BH04 0.15-0.25	25/07/2018	609598	BH04	653	0	0	0	0	0	0	0	0	0
BH04 0.25-0.35	25/07/2018	609598	BH04	601	0	0	0	0	0	0	0	0	0
BH06 0.4-0.5	25/07/2018	609598	BH06	778	0	0	0	0	0	0	0	0	0
BH07 0.35-0.40	25/07/2018	609598	BH07	843	0	0	0	0	0	0	0	0	0
TP400 0.5-0.6	24/01/2019	637874	TP400	620	0	0	0	0	0	0	0	0	0
TP400 2.5-2.6	24/01/2019	637874	TP400	628	0	0	0	0	0	0	0	0	0
TP401 0.3	24/01/2019	637874	TP401	987	0	0	0	0	0	0	0	0	0
~~TP402 0.3~~	~~24/01/2019~~	~~637874~~	~~TP402~~	~~635~~	~~0~~	~~0.0001~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0.0004~~	~~0.0004~~	~~0.0004~~
~~TP402 0.4-0.5~~	~~24/01/2019~~	~~637874~~	~~TP402~~	~~689~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
TP402-A 0.25-0.35	20/03/2019	646797	TP402-A	707	0	0	0	0	0	0	0	0	0
TP402-A 0.5-0.6	20/03/2019	646797	TP402-A	720	0	0	0	0	0	0	0	0	0
~~TP402-B 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP402-B~~	~~654~~	~~0~~	~~0.0029~~	~~0~~	~~0~~	~~0.0315~~	~~0.0189~~	~~0~~	~~0~~	~~0.0189~~
~~TP402-B 0.6-0.9~~	~~20/03/2019~~	~~646797~~	~~TP402-B~~	~~598~~	~~0~~	~~0.0014~~	~~0~~	~~0~~	~~0.0105~~	~~0.0084~~	~~0~~	~~0~~	~~0.0084~~
TP403 0.4-0.5	24/01/2019	637874	TP403	580	0	0	0	0	0	0	0	0	0
TP404 0.3	24/01/2019	637874	TP404	743	0	0	0	0	0	0	0	0	0
TP404 0.5-0.6	24/01/2019	637874	TP404	532	0	0	0	0	0	0	0	0	0
TP405 0.4-0.5	24/01/2019	637874	TP405	541	0	0	0	0	0	0	0	0	0
TP406 0.4	24/01/2019	637874	TP406	526	0	0	0	0	0	0	0	0	0
TP407 1.0-1.1	24/01/2019	637874	TP407	603	0	0	0	0	0	0	0	0	0
TP407 1.5-2.0	24/01/2019	637874	TP407	509	0	0	0	0	0	0	0	0	0
TP408 0.3	24/01/2019	637874	TP408	353	0	0	0	0	0	0	0	0	0
TP409 0.7-0.8	25/01/2019	637874	TP409	699	0	0	0	0	0	0	0	0	0
TP410 0.25-0.3	25/01/2019	637874	TP410	487	0	0	0	0	0	0	0	0	0
QA20190125-01	25/01/2019	637874	TP410	372	0	0	0	0	0	0	0	0	0
TP411 0.6-0.7	25/01/2019	637874	TP411	367	0	0	0	0	0	0	0	0	0
TP412 0.5-0.6	25/01/2019	637874	TP412	579	0	0	0	0	0	0	0	0	0
TP413 0.6-0.7	29/01/2019	638188	TP413	705	0	0	0	0	0	0	0	0	0
TP414 0.3-0.4	31/01/2019	638290	TP414	463	0	0	0	0	0	0	0	0	0
TP414-0.3-0.5	7/02/2019	639656	TP414	489	0	0	0	0	0	0	0	0	0
TP415 0.6-0.7	29/01/2019	638188	TP415	521	0	0	0	0	0	0	0	0	0
QA20190130-02	29/01/2019	638188	TP416	485	0	0	0	0	0	0	0	0	0
TP416 0.3-0.4	29/01/2019	638188	TP416	478	0	0	0	0	0	0	0	0	0
~~TP417 0.26-0.4~~	~~29/01/2019~~	~~638188~~	~~TP417~~	~~487~~	~~0~~	~~0.0006~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0.0028~~	~~0.0028~~	~~0.0028~~
TP417-A 0.3-0.4	20/03/2019	646797	TP417-A	448	0	0	0	0	0	0	0	0	0
TP417-A 0.8-0.9	20/03/2019	646797	TP417-A	517	0	0	0	0	0	0	0	0	0
TP417-A 1.3-1.5	20/03/2019	646797	TP417-A	652	0	0	0	0	0	0	0	0	0
QA5	20/03/2019	646797	TP417-B	581	0	0	0	0	0	0	0	0	0
TP417-B 0.4-0.5	20/03/2019	646797	TP417-B	508	0	0	0	0	0	0	0	0	0
TP418 0.3-0.5	29/01/2019	638188	TP418	540	0	0	0	0	0	0	0	0	0
~~TP419 0.26-0.3~~	~~29/01/2019~~	~~638188~~	~~TP419~~	~~489~~	~~0~~	~~0.0025~~	~~0~~	~~0~~	~~0.0128~~	~~0.0122~~	~~0~~	~~0~~	~~0.0122~~
TP419-A 0.3-0.4	20/03/2019	646797	TP419-A	550	0	0	0	0	0	0	0	0	0
TP419-A 0.8-0.9	20/03/2019	646797	TP419-A	659	0	0	0	0	0	0	0	0	0
TP419-B 0.3-0.4	20/03/2019	646797	TP419-B	586	0	0	0	0	0	0	0	0	0
QA6	20/03/2019	646797	TP419-B	634	0	0	0	0	0	0	0	0	0
~~TP419-C 0.3-0.4~~	~~20/03/2019~~	~~646797~~	~~TP419-C~~	~~281~~	~~0~~	~~0.0039~~	~~0~~	~~0~~	~~0.0138~~	~~0.011~~	~~0~~	~~0~~	~~0.011~~
~~TP419-C 0.8-0.9~~	~~20/03/2019~~	~~646797~~	~~TP419-C~~	~~637~~	~~0~~	~~0.0001~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0.0006~~	~~0.0006~~	~~0.0006~~
TP420 0.4-0.5	29/01/2019	638188	TP420	439	0	0	0	0	0	0	0	0	0
TP421 0.3-0.4	29/01/2019	638188	TP421	691	0	0	0	0	0	0	0	0	0
QA20190130-03	29/01/2019	638188	TP421	835	0	0	0	0	0	0	0	0	0
TP422 0.1-0.2	29/01/2019	638188	TP422	727	0	0	0	0	0	0	0	0	0
TP423 0.0-0.1	29/01/2019	638188	TP423	1106	0	0	0	0	0	0	0	0	0

Table A - Asbestos in Soil Analytical Data

24/02/2021

Project Number: 51142

Project Name: Locomotive Workshop LTEMP

	Asbestos									
	Approx. Sample Mass	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass ACM	Mass Asbestos in ACM	Mass FA	Mass Asbestos in FA	Mass AF	Mass Asbestos in AF	Mass Asbestos in FA & AF
	g	%w/w	%w/w	g	g	g	g	g	g	g
EQL										
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Commercial/Industrial - HSL D		0.05								
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL			0.001							
Sample ID	**Date**	**Lab Report**	**Location**										
Within Stage 1ABC, Travelator and Stage 2 Boundary													
TP424 0.05-0.15	29/01/2019	638188	TP424	678	0	0	0	0	0	0	0	0	0
TP425 0.1-0.2	30/01/2019	638188	TP425	599	0	0	0	0	0	0	0	0	0
QA20190130-04	30/01/2019	638188	TP425	795	0	0	0	0	0	0	0	0	0
TP426 0.1-0.2	30/01/2019	638188	TP426	1098	0	0	0	0	0	0	0	0	0
TP427 0.05-0.2	30/01/2019	638188	TP427	761	0	0	0	0	0	0	0	0	0
TP428 0.3-0.4	30/01/2019	638188	TP428	513	0	0	0	0	0	0	0	0	0
TP429 0.2-0.25	30/01/2019	638188	TP429	655	0	0	0	0	0	0	0	0	0
TP430 0.1-0.2	30/01/2019	638188	TP430	901	0	0	0	0	0	0	0	0	0
TP430 0.8-0.9	30/01/2019	638188	TP430	813	0	0	0	0	0	0	0	0	0
TP431 0.2-0.3	30/01/2019	638188	TP431	599	0	0	0	0	0	0	0	0	0
TP431 3.4-3.5	30/01/2019	638188	TP431	807	0	0	0	0	0	0	0	0	0
TP432 0.2-0.3	31/01/2019	638290	TP432	493	0	0	0	0	0	0	0	0	0
TP432 2.4-2.5	31/01/2019	638290	TP432	619	0	0	0	0	0	0	0	0	0
TP433-2.3-2.5	7/02/2019	639656	TP433	822	0	0	0	0	0	0	0	0	0
TP434-0.4-0.6	7/02/2019	639656	TP434	624	0	0	0	0	0	0	0	0	0
TP436-0.4-0.6	7/02/2019	639656	TP436	744	0	0	0	0	0	0	0	0	0
TP439-0.4-0.7	7/02/2019	639656	TP439	697	0	0	0	0	0	0	0	0	0
TP440-0.3-0.5	7/02/2019	639656	TP440	679	0	0	0	0	0	0	0	0	0
TP441-0.3-0.45	7/02/2019	639656	TP441	524	0	0	0	0	0	0	0	0	0
TP442-0.4-0.8	7/02/2019	639656	TP442	536	0	0	0	0	0	0	0	0	0
TP443-0.1-0.4	7/02/2019	639656	TP443	808	0	0	0	0	0	0	0	0	0
TP444-0.3-0.9	7/02/2019	639656	TP444	734	0	0	0	0	0	0	0	0	0
TRA-01 0.16-0.3	12/06/2018	602775	TRA-01	385	0	0	0	0	0	0	0	0	0
TRA-02 0.6-0.85	12/06/2018	602775	TRA-02	657	0	0	0	0	0	0	0	0	0
TRA-03 0.8-1.0	12/06/2018	602775	TRA-03	654	0	0	0	0	0	0	0	0	0
~~TRA-4 3.2-3.75~~	~~12/06/2018~~	~~602775~~	~~TRA-04~~	~~558~~	~~0~~	~~0.0235~~	~~0~~	~~0~~	~~0.497~~	~~0.1243~~	~~0.0066~~	~~0.0066~~	~~0.1309~~
TRA-5 0.8-1.0	12/06/2018	602775	TRA-05	364	0	0	0	0	0	0	0	0	0
TRA-6 0.65-0.9	12/06/2018	602775	TRA-06	620	0	0	0	0	0	0	0	0	0
External to Stage 1ABC, Travelator and Stage 2 Boundary													
BH01 0.07-0.15	25/07/2018	609598	BH01	519	0	0	0	0	0	0	0	0	0
BH01 0.15-0.25	25/07/2018	609598	BH01	492	0	0	0	0	0	0	0	0	0
BH03 0.07-0.12	25/07/2018	609598	BH03	847	0	0	0	0	0	0	0	0	0
BH03 0.5-0.6	25/07/2018	609598	BH03	585	0	0	0	0	0	0	0	0	0
BH05 0.15-0.25	25/07/2018	609598	BH05	608	0	0	0	0	0	0	0	0	0
BH08 0.1-0.2	26/07/2018	609598	BH08	821	0	0	0	0	0	0	0	0	0
BH10 0.06-0.1	26/07/2018	609598	BH10	945	0	0	0	0	0	0	0	0	0
BH10 0.2-0.3	26/07/2018	609598	BH10	498	0	0	0	0	0	0	0	0	0
QC26072018	26/07/2018	609598	BH10	546	0	0	0	0	0	0	0	0	0
BH11 0.2-0.4	26/07/2018	609598	BH11	659	0	0	0	0	0	0	0	0	0
BH12 0.3-0.4	26/07/2018	609598	BH12	630	0	0	0	0	0	0	0	0	0

*** Note *** Samples denoted with a strikethrough have been removed from the site and do not

Statistical Summary

Number of Results	110	110	110	110	110	110	110	110	110	110
Number of Detects	110	110	110	110	110	110	110	110	110	110
Minimum Concentration	233	0	0	0	0	0	0	0	0	0
Minimum Detect	233	ND	0.0001	ND	ND	0.0056	0.0056	0.0004	0.0004	0.0004
Maximum Concentration	1114	0	0.0235	0	0	0.497	0.1243	0.0086	0.0086	0.1309
Maximum Detect	1114	ND	0.0235	ND	ND	0.497	0.1243	0.0086	0.0086	0.1309
Average Concentration	631	0	0.00043	0	0	0.0058	0.0022	0.0003	0.0003	0.0025
Median Concentration	613.5	0	0	0	0	0	0	0	0	0
Standard Deviation	163	0	0.0024	0	0	0.048	0.013	0.0013	0.0013	0.013
Number of Guideline Exceedances	0	0	9	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	9	0	0	0	0	0	0	0

Table C - Soil Leachate Analytical Data
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

4/11/2020

	Metals & Metalloids					TPHs (NEPC 1999)				TRHs (NEPC 2013)				BTEXN	Polycyclic Aromatic Hydrocarbons																	Ionic Balance			
	Arsenic (Total)	Copper	Chromium (Total)	Lead	Nickel	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C40 Fraction (Total)	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(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	Phenanthrene	PAHs (Total)	Pyrene	Total Positive PAHs	pH (TCLP - HCl addition)	pH (TCLP - initial)	pH (TCLP - off)	pH (Leachate fluid)
	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	ph Units	ph Units	ph Units	ph Units
EQL	0.01	0.01	0.01	0.01	0.01	0.05	0.1	0.1	0.5	0.05	0.1	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		0.1	0.1	0.1	0.1
Sample ID	**Date**	**Lab Report**	**Location**																																
Within Stage 1A, 1B and 1C, Travelator and Stage 2 Boundary																																			
BH02_0.02-0.15	25/07/2018	611467	BH02	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	8.3	5.5	5.1
BH02_0.3-0.4	25/07/2018	611467	BH02	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.7	9	5.3	5.1
QC25072018	25/07/2018	611467	BH02	-	-	-	0.02	0.02	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.7	7.7	5.3	5.1
BH04_0.15-0.25	25/07/2018	611467	BH04	-	-	-	<0.01	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	5.9	5.8	5.1
BH04_0.25-0.35	25/07/2018	611467	BH04	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	8	5.9	5.1
BH06_0.4-0.5	25/07/2018	611467	BH06	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	6.5	6.2	5.1
TP402 0.4-0.5	24/01/2019	639929	TP402	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	9.2	5.4	5.1
TP402 0.4-0.5	24/01/2019	639929	TP402	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	9.2	5.4	5.1
TP402-B 0.3-0.4	20/03/2019	648519	TP402-B	-	-	-	1	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	8.4	5.4	5
TP402-B 0.3-0.4	20/03/2019	648519	TP402-B	-	-	-	1	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	8.4	5.4	5
TP404 0.3	24/01/2019	639929	TP404	-	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	9.4	5.7	5.1
TP405 0.4-0.5	24/01/2019	639929	TP405	-	-	-	-	-	0.71	1.1	0.2	2.01	0.93	1.1	<0.1	2.03	0.031	0.009	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	0.003	0.049	<0.001	-	1.9	9.7	7	5.1
TP406 0.4	24/01/2019	639929	TP406	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	9.2	6	5.1
TP408 0.3	24/01/2019	639929	TP408	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.9	9.6	5.9	5.1
QA20190125-01	24/01/2019	639929	TP410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.9	7.5	5.7	5.1
QC20190125-01	25/01/2019	210371-A	TP410	-	-	-	3.8	-	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	-	<0.001	0.001	-	-	-	-
TP410 0.25-0.3	24/01/2019	639929	TP410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	2	8.8	5.6	5.1
TP411 0.6-0.7	24/01/2019	639929	TP411	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	8	5.5	5.1
TP412 0.5-0.6	24/01/2019	639929	TP412	-	-	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.9	9.7	5.5	5.1
TP414 0.3-0.4	7/02/2019	641074	TP414	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.9	8.2	5.1	5
QA20190130-02	24/01/2019	639929	TP416	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.8	6.3	5.2	5.1
TP416 0.3-0.4	24/01/2019	639929	TP416	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	2	7.9	5.1	5.1
TP417-A 0.3-0.4	20/03/2019	648519	TP417-A	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.7	8.2	5.2	5
TP418 0.3-0.5	24/01/2019	639929	TP418	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.8	9.4	6.6	5.1
TP419 0.26-0.3	24/01/2019	639929	TP419	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.8	6.8	6	5.1
TP419-A 0.3-0.4	20/03/2019	648519	TP419-A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.7	8.4	5	5
TP419-C 0.3-0.4	20/03/2019	648519	TP419-C	-	-	-	0.06	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.7	8.6	5.4	5
TP420 0.4-0.5	24/01/2019	639929	TP420	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	10	6.4	5.1
QA20190130-04	24/01/2019	639929	TP425	-	-	-	-	-	-	-	-	-	-	-	0.002	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	0.003	0.007	<0.001	-	1.8	7.3	5.7	5.1
QC20190130-04	30/01/2019	210631-A	TP425	-	-	-	-	-	-	-	-	-	-	-	0.002	0.002	<0.001	0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	0.001	<0.001	0.006	-	<0.001	0.012	-	-	-	-
TP425 0.1-0.2	24/01/2019	639929	TP425	-	-	-	-	-	-	-	-	-	-	-	0.003	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	0.003	0.01	<0.001	-	1.9	9.3	5.5	5.1
TP428 0.3-0.4	24/01/2019	639929	TP428	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	10	5.2	5.1
TP429 0.2-0.25	24/01/2019	639929	TP429	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	7.2	5.4	5.1
TP434 0.4-0.6	7/02/2019	641074	TP434	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	1.8	8.2	6.6	5
TP440 0.3-0.5	7/02/2019	641074	TP440	<0.01	-	<0.01	24	0.12	-	-	-	-	-	-	-	0.001	<0.001	<0.001	<0.001	<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	-	1.8	8.3	5.6	5
TP440-A 0.6-0.9	20/03/2019	648519	TP440-A	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	8.7	4.9	5
QA3	20/03/2019	648519	TP440-B	-	-	-	0.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	8.5	6.4	5
TP440-B 0.3-0.4	20/03/2019	648519	TP440-B	-	-	-	0.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	8.6	6.4	5
TP440-C 0.2-0.3	20/03/2019	648519	TP440-C	-	-	-	0.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	8.3	5.2	5
TRA-1 0.16-0.3	12/06/2018	604193	TRA-01	-	0.04	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	4.9	1.7	6.3 - 6.7	6.1 - 8.3
TRA-2 0.6-0.85	12/06/2018	604193	TRA-02	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	4.9	1.7	5.4 - 5.5	8.2 - 8.3
TRA-3 0.8-1.0	12/06/2018	604193	TRA-03	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.9	1.7	6.3 - 7.25	6.1 - 8.7
TRA-6 0.65-0.9	12/06/2018	604193	TRA-06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	4.9	1.7	5.1 - 5.2	5.4 - 5.6
External to Stage 1A, 1B and 1C, Travelator and Stage 2 Boundary																																			
BH01_0.07-0.15	25/07/2018	611467	BH01	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	5.8	5.2	5.1
BH01_0.15-0.25	25/07/2018	611467	BH01	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	5.9	5.2	5.1
BH05_0.15-0.25	25/07/2018	611467	BH05	-	-	-	0.02	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	6.3	5.1	5.1
BH10_0.06-0.1	25/07/2018	611467	BH10	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	8.6	6.3	5.1
BH10_0.2-0.3	25/07/2018	611467	BH10	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	6.9	5.3	5.1
BH11_0.2-0.4	25/07/2018	611467	BH11	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	7.1	6.6	5.1
BH12_0.3-0.4	25/07/2018	611467	BH12	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	7.3	5.6	5.1
Statistical Summary																																			
Number of Results			1		1	22	4	0	0	0	0	0	0	0	0	4	4	4	4	4	15	3	4	3	4	4	4	4	4	4	3	4	1	29	29	29	29
Number of Detects			0		0	17	1	0	0	0	0	0	0	0	0	4	3	0	1	0	0	0	0	0	0	0	0	0	2	0	4	3	0	1	29	29	29	29
Minimum Concentration			<0.01		<0.01	<0.01	<0.01	99999	99999	99999	99999	99999	99999	99999	99999	0.001	<0.001	<0.001	<0.001	<0.001	<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	0.012	1.6	1.7	4.9	5
Minimum Detect			ND		ND	0.02	0.12	ND	ND	ND	ND	ND	ND	ND	ND	0.001	0.002	ND	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001	ND	0.001	0.002	ND	0.012	1.6	1.7	4.9	5
Maximum Concentration			<0.01		<0.01	24	0.12	0	0	0	0	0	0	0	0	0.003	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	0.006	0.01	<0.001	0.012	4.9	10	7.25	8.7
Maximum Detect			ND		ND	24	0.12	ND	ND	ND	ND	ND	ND	ND	ND	0.003	0.003	ND	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001	ND	0.006	0.01	ND	0.012	4.9	10	7.25	8.7
Average Concentration						1.2	0.034									0.002	0.0019	0.0005	0.00063	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.00075	0.0005	0.0033	0.0063	0.0005		2.2	7.1	5.7	5.3
Median Concentration	0.005		0.005	0.035	0.005										0.002	0.002	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.00075	0.0005	0.003	0.007	0.0005	0.012	1.8	7.9	5.45	5.1
Standard Deviation				5.1	0.058										0.00082	0.001	0	0.00025	0	0	0	0	0	0	0	0	0	0	0.00029	0	0.0021	0.004	0		1.1	2.4	0.61	0.81
Number of Guideline Exceedances	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table D: Soil Vapour Field Measurements
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

4/11/2020

Well ID	Date	Time (seconds)	Physcial Parameters						Flow Rate and Run Times					Observations
			CH4 %	CO2 %	O2 %	LEL %	PID	Barometric Pressure	Flow Rate (mL/min)	Pump On	Pump Off	Run Time	Sample Volume	Comments
Within Stage 1ABC, Travelator and Stage 2 Boundary														
VP01	18-May-17	20	0.0	0.0	20.3	0.6	2.0	1026.9	200	9:10	4:25	See comments	60 L	Pump stalled at 138 mins, replaced punp with a new pump set to 300 mL/min for remaining 1 hr 50 mins. Leak detection passed.
		40	0.1	0.0	20.1	3.2	-							
		60	0.1	0.0	20.0	1.9	1.8							
VP02	18-May-17	20	0.0	0.0	20.1	0.0	0.0	1026.9	-	-	-	See comments	60 L	60 L Sample noted to be collected. Leak detection passed.
		40	0.0	0.0	20.0	0.0	-							
		60	0.0	0.0	19.9	0.0	0.0							
VP02_1.7	16-Jun-17	20	0.0	3.2	12.5	0.0	3.3	1026.1	200	8:23	2:31	6 hours	72 L	Leak detection passed.
		40	0.0	3.3	11.3	0.01	-							
		60	0.0	3.3	11.3	0.01	-							
		80	0.0	3.3	11.3	0.01	-							
		100	0.0	3.3	11.3	0.01	-							
		120	0.0	3.3	11.4	0.01	3.1							
VP03	18-May-17	20	0.3	0.0	20.0	7.0	5.8	1026.9	200	9:30	2:31	5 hours	60 L	Leak detection passed.
		40	0.1	0.0	19.9	3.8	-							
		60	0.1	0.0	19.9	2.5	5.7							
VP03_1.5	16-Jun-17	20	0.0	1.7	8.2	0.0	1.4	1026.1	200	8:46	2:16	5.5 hours	66 L	Leak detection passed.
		40	0.0	2.2	14.1	0.0	-							
		60	0.0	2.7	14.2	0.0	-							
		80	0.0	3.1	14.5	0.0	-							
		100	0.0	3.3	14.6	0.0	1.5							
VP03_2.7	16-Jun-17	20	0.0	8.0	14.5	0.0	2.9	1026.1	200	8:47	2:12	5.5 hours	66 L	Moisture noted in carbon tube
		40	0.0	10.2	10.6	0.0	-							
		60	0.0	10.2	10.3	0.0	-							
		80	0.0	10.1	10.4	0.0	-							
		100	0.0	9.9	10.6	0.0	-							
		120	0.0	9.8	14.6	0.0	0.4							
VP04	18-May-17	20	0.0	0.0	20.0	0.6	2.3	1026.9	200	9:37	2:37	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	19.9	0.6	-							
		60	0.0	0.0	19.8	1.6	2.3							
VP05	18-May-17	20	0.1	0.0	20.0	2.5	0.6	1026.9	-	-	-	See comments	60 L	60 L Sample noted to be collected. Leak detection passed.
		40	0.0	0.0	19.8	1.9	-							
		60	0.0	0.0	19.8	1.3	0.7							
VP06	18-May-17	20	0.0	0.0	20.2	0.0	1.6	1026.9	-	-	-	See comments	60 L	60 L Sample noted to be collected. Leak detection passed.
		40	0.0	0.0	19.9	0.0	-							
		60	0.0	0.0	19.9	0.0	1.4							
VP06_1.5	16-Jun-17	20	0.0	1.9	15.6	0.0	0.0	1026.1	200	8:57	2:45	5.5 hours	72 L	Leak detection passed.
		40	0.0	1.9	14.9	0.0	-							
		60	0.0	1.9	14.8	0.0	-							
		80	0.0	1.9	14.9	0.0	-							
		100	0.0	1.9	14.9	0.0	0.0							
VP06_2.5	16-Jun-17	20	0.0	4.9	1.2	0.01	1.3	-	-	-	-	-	-	No Sample, probe drew water after 80 seconds purging.
		40	0.0	12.9	0.7	0.01	-							
		60	0.0	12.7	1.1	0.01	1.2							
VP07	18-May-17	20	0.0	0.0	20.0	0.0	1.2	1026.9	-	-	-	See comments	60 L	60 L Sample noted to be collected. Leak detection passed.
		40	0.0	0.1	19.9	0.3	-							
		60	0.0	0.1	19.9	0.3	1.5							
VP07_1.5	16-Jun-17	20	0.0	3.6	12.1	0.0	0.6	1026.1	200	9:02	2:20	5 hours	60 L	Leak detection passed.
		40	0.0	3.6	11.8	0.0	-							
		60	0.0	3.6	11.8	0.0	-							
		80	0.0	3.6	11.8	0.0	-							
		100	0.0	3.6	11.8	0.0	0.3							
VP08	18-May-17	20	0.0	0.0	20.2	0.0	7.6	1026.9	-	-	-	See comments	60 L	60 L Sample noted to be collected. Leak detection passed.
		40	0.0	0.1	20.1	0.0	-							
		60	0.0	0.1	20.1	0.0	7.3							
VP08_1.5	16-Jun-17	20	0.0	1.7	17.3	0.0	2.2	1026.1	200	9:17	2:49	5.5 hours	66 L	Leak detection passed.
		40	0.0	1.8	14.9	0.0	-							
		60	0.0	1.8	14.1	0.0	-							
		80	0.0	1.9	14.1	0.0	-							
		100	0.0	1.9	14.1	0.0	2.2							
VP08_2.5	16-Jun-17	-	-	-	-	-	-	-	-	-	-	-	-	No Sample, probe drew water during purging.
VP09	18-May-17	20	0.0	0.0	20.2	0.0	0.9	1026.9	-	-	-	See comments	60 L	60 L Sample noted to be collected. Leak detection passed.
		40	0.0	0.0	20.1	0.6	-							
		60	0.0	0.0	20.1	0.6	0.7							
VP09_1.5	16-Jun-17	20	0.0	5.0	13.0	0.0	1.6	1026.1	200	9:23	2:24	5 hours	60 L	Leak detection passed.
		40	0.0	5.0	12.3	0.0	-							
		60	0.0	5.0	12.2	0.0	-							
		80	0.0	5.0	12.2	0.0	-							
		100	0.0	5.0	12.2	0.0	0.3							
VP09_3.0	16-Jun-17	-	-	-	-	-	-	-	-	-	-	-	-	No Sample, probe drew water during purging.
VP10	18-May-17	20	0.0	0.0	20.3	0.0	2.4	1026.9	-	-	-	See comments	60 L	60 L Sample noted to be collected. Leak detection passed.
		40	0.0	0.0	19.8	0.6	-							
		60	0.0	0.0	19.9	0.6	2.5							
VP10_1.5	16-Jun-17	20	0.0	4.6	15.6	0.0	0.0	1026.1	200	9:38	2:54	5 hours	60 L	Leak detection passed.
		40	0.0	4.7	14.1	0.0	-							
		60	0.0	4.7	13.9	0.0	-							
		80	0.0	4.7	13.8	0.0	-							
		100	0.0	4.7	13.8	0.0	0.0							
VP10_3.0	16-Jun-17	20	0.0	5.3	14.8	0.0	0.8	1026.1	200	9:39	2:55	5 hours	60 L	Leak detection passed.
		40	0.0	5.3	13.7	0.0	-							
		60	0.0	5.3	13.6	0.0	-							
		80	0.0	5.3	13.6	0.0	-							
		100	0.0	5.3	13.6	0.0	-							
		120	0.0	5.3	13.6	0.0	0.7							
VP11	18-May-17	20	0.0	0.0	20.1	0.0	0.8	1026.9	-	-	-	See comments	60 L	60 L Sample noted to be collected. Leak detection passed.
		40	0.0	0.0	19.2	0.0	-							
		60	0.0	0.0	19.1	0.0	0.6							
VP12	18-May-17	20	0.0	0.0	18.8	0.0	0.3	1026.9	-	-	-	See comments	60 L	60 L Sample noted to be collected. Leak detection passed.
		40	0.0	0.0	18.5	0.0	-							
		60	0.0	0.0	18.4	0.0	0.4							
SV01	30-May-17	20	0.0	0.4	19.8	0.0	0.6	1020.1	200	10:25	3:32	5 hours	60 L	Leak detection passed.
		40	0.0	0.7	17.8	0.0	-							
		60	0.0	0.8	18.2	0.0	-							
		80	0.0	0.9	18.3	0.0	0.5							
SV02	30-May-17	20	0.0	0.0	18.6	0.0	0.3	1023.2	200	9:40	2:42	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	19.1	0.0	-							
		60	0.0	0.1	19.1	0.0	0.3							
SV03	30-May-17	20	0.0	2.0	18.2	0.0	0.3	1023.2	200	9:29	2:35	5 hours	60 L	Leak detection passed.
		40	0.0	2.1	17.7	0.0	-							
		60	0.0	2.1	17.6	0.0	0.3							
SV04	30-May-17	20	0.0	5.0	14.3	0.0	0.3	1023.2	200	9:47	2:54	5 hours	60 L	Leak detection passed.
		40	0.0	4.7	10.1	0.0	-							
		60	0.0	4.7	11.1	0.0	-							
		80	0.0	4.6	12.2	0.0	0.4							
SV05	30-May-17	20	0.0	0.2	16.8	0.0	0.9	1023.2	200	9:54	2:57	5 hours	60 L	Leak detection passed.
		40	0.0	0.5	18.8	0.0	-							
		60	0.0	0.5	19.1	0.0	0.9							
SV06	30-May-17	20	0.0	0.0	17.2	0.0	0.5	1020.1	200	10:16	3:18	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	19.3	0.0	-							
		60	0.0	0.0	20.2	0.0	-							
		80	0.0	0.0	20.3	0.0	0.4							
SV07	30-May-17	20	0.0	0.3	19.2	0.0	0.8	1023.2	200	9:30	2:37	5 hours	60 L	Leak detection passed.
		40	0.0	0.3	18.8	0.0	-							
		60	0.0	0.4	18.8	0.0	0.8							

Table D: Soil Vapour Field Measurements
Project Number: 51142
Project Name: Locomotive Workshop LTEMP

4/11/2020

Well ID	Date	Time (seconds)	Physcial Parameters						Flow Rate and Run Times					Observations
			CH4 %	CO2 %	O2 %	LEL %	PID	Barometric Pressure	Flow Rate (mL/min)	Pump On	Pump Off	Run Time	Sample Volume	Comments
SV08	30-May-17	20	0.0	0.0	18.1	0.0	0.7	1020.1	200	10:01	3:06	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	17.0	0.0	-							
		60	0.0	0.0	17.0	0.0	0.7							
SV09	30-May-17	20	0.0	0.4	17.2	0.0	0.5	1020.1	200	10:09	3:13	5 hours	60 L	Leak detection passed.
		40	0.0	0.6	16.1	0.0	-							
		60	0.0	0.7	16.7	0.0	-							
		80	0.0	0.7	17.0	0.0	0.5							
SV10	24-May-17	20	0.0	0.0	20.4	0.0	4.2	1014.7	200	7:36	12:37	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	20.3	0.0	-							
		60	0.0	0.0	20.3	0.0	4.2							
SV11	24-May-17	20	0.0	0.0	20.1	0.0	0.6	1014.7	200	7:26	12:28	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	20.1	0.0	-							
		60	0.0	0.0	20.1	0.0	0.5							
SV12	24-May-17	20	0.0	0.0	20.6	0.0	0.3	1014.7	200	7:47	12:50	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	20.7	0.0	-							
		60	0.0	0.0	20.7	0.0	0.2							
SV13	24-May-17	20	0.0	0.0	19.9	0.0	1.1	1014.7	200	6:41	11:41	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	19.8	0.0	-							
		60	0.0	0.0	19.8	0.0	1.0							
SV14	24-May-17	20	0.0	0.2	20.4	0.0	0.1	1014.7	200	6:53	11:53	5 hours	60 L	Leak detection passed.
		40	0.0	0.2	20.4	0.0	-							
		60	0.0	0.2	20.4	0.0	0.1							
SV15	24-May-17	20	0.0	2.8	16.9	0.0	0.1	1014.7	200	6:46	11:46	5 hours	60 L	Leak detection passed.
		40	0.0	3.0	16.4	0.0	-							
		60	0.0	3.0	16.4	0.0	-							
		80	0.0	3.0	16.4	0.0	0.1							
SV16	24-May-17	20	0.0	2.8	17.7	0.0	0.0	1014.7	200	6:22	11:23	5 hours	60 L	Leak detection passed.
		40	0.0	3.2	17.4	0.0	-							
		60	0.0	3.3	17.3	0.0	-							
		80	0.0	3.3	17.3	0.0	0.0							
SV17	23-May-17	20	0.0	0.6	18.9	0.0	0.0	1017.0	200	12:31	5:32	5 hours	60 L	Leak detection passed.
		40	0.0	0.6	19.2	0.0	-							
		60	0.0	0.6	19.2	0.0	0.0							
SV18	23-May-17	20	0.0	0.0	20.1	0.0	-	1017.0	200	12:01	5:01	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	20.2	0.0	-							
		60	0.0	0.0	20.2	0.0	-							
SV19	23-May-17	20	0.0	0.6	19.5	0.0	0.2	1017.0	200	11:49	4:49	5 hours	60 L	Leak detection passed.
		40	0.0	0.8	19.4	0.0	0.1							
		60	0.0	0.9	19.4	0.0	0.1							
SV20	23-May-17	20	0.0	0.7	18.4	0.0	0.2	1022.0	200	8:28	1:30	5 hours	60 L	Leak detection passed.
		40	0.0	0.7	18.4	0.0	-							
		60	0.0	0.7	18.3	0.0	0.1							
SV21	23-May-17	20	0.0	0.4	15.1	0.9	0.5	1022.0	200	8:46	1:46	5 hours	60 L	Leak detection passed.
		40	0.0	0.3	17.6	0.0	-							
		60	0.0	0.3	18.3	0.0	-							
		80	0.0	0.3	18.3	0.0	0.5							
SV22	23-May-17	20	0.0	0.2	18.7	0.0	1.8	1022.0	200	8:14	1:15	5 hours	60 L	Leak detection passed.
		40	0.0	0.2	18.6	0.0	-							
		60	0.0	0.2	18.6	0.0	2.0							
SV23	22-May-17	20	0.0	0.5	20.1	0.0	0.1	1021.8	300	1:50	5:10	3 hours + 20 minutes	60 L	Leak detection passed.
		40	0.0	0.5	20.1	0.0	-							
		60	0.0	0.5	20.1	0.0	0.1							
SV24	22-May-17	20	0.0	0.6	19.1	0.0	0.6	1021.8	300	1:19	3:39	3 hours + 20 minutes	60 L	Leak detection passed.
		40	0.0	0.7	18.8	0.0	-							
		60	0.0	0.7	18.7	0.0	0.3							
SV25	22-May-17	20	0.0	0.0	20.1	0.0	0.6	1021.8	300	1:37	4:57	3 hours + 20 minutes	60 L	Leak detection passed.
		40	0.0	0.0	19.9	0.0	-							
		60	0.0	0.0	19.9	0.0	0.6							
SV26	24-May-17	20	0.0	0.4	19.9	0.0	0.1	1014.7	200	10:49	3:51	5 hours	60 L	Leak detection passed.
		40	0.0	0.5	19.8	0.0	-							
		60	0.0	0.5	19.8	0.0	0.0							
SV27	22-May-17	20	0.0	1.6	18.7	0.0	0.1	1021.8	300	1:28	4:49	3 hours + 20 minutes	60 L	Leak detection passed.
		40	0.0	1.6	18.7	0.0	-							
		60	0.0	1.6	18.6	0.0	0.0							
SV31	23-May-17	20	0.0	0.0	19.8	0.0	19.2	1017.0	200	12:13	5:14	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	19.9	0.0	-							
		60	0.0	0.0	19.9	0.0	18.5							
SV35	23-May-17	20	0.0	0.1	18.3	0.0	4.6	1017.0	200	12:20	5:22	5 hours	60 L	Leak detection passed.
		40	0.0	0.2	18.6	0.0	-							
		60	0.0	0.2	18.6	0.0	4.4							
SV36	23-May-17	20	0.0	0.0	19.2	0.0	0.1	1022.0	200	8:02	1:03	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	19.1	0.0	-							
		60	0.0	0.0	19.1	0.0	0.0							
SV32	23-May-17	20	0.0	0.0	19.2	0.0	0.5	1017.0	200	12:40	5:40	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	19.2	0.0	-							
		60	0.0	0.0	19.2	0.0	0.5							
SV33	24-May-17	20	0.0	0.0	20.5	0.0	0.1	1014.7	200	8:26	2:07	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	20.5	0.0	-							
		60	0.0	0.0	20.5	0.0	0.1							
SV34	24-May-17	20	0.0	0.0	20.6	0.0	0.1	1014.7	200	8:35	2:11	5 hours	60 L	Leak detection passed.
		40	0.0	0.0	20.7	0.0	-							
		60	0.0	0.0	20.7	0.0	0.0							

Table E: Soil Vapour Analytical Results
Project Name: 51142
Project Number: Locomotive Workshop LTEMP

JBS&G

				Chlorinated Alkanes																	Chlorinated Alkenes									
				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
EQL				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																														
Sample ID	Location	Date	Lab Report																											
VP01	Locomotion Street - Bay 14	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP01	Locomotion Street - Bay 14	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP02	Locomotion Street - Bay 12/13	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP02	Locomotion Street - Bay 12/13	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP02_1.7	Locomotion Street South - Bay 12/13	16/06/2017	550933	<0.008335	0.1234	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.02	<0.008335	0.02667	<0.008335	<0.008335	<0.008335	0.02	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP03	Locomotion Street - Bay 11/12	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP03	Locomotion Street - Bay 11/12	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP03 1.5	Locomotion Street South - Bay 11/12	19/06/2017	550933	<0.008335	0.01667	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.02	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP04	Locomotion Street - Bay 10	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP04	Locomotion Street - Bay 10	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP05	Locomotion Street - Bay 8	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP05	Locomotion Street - Bay 8	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP06	Locomotion Street - Bay 7/8	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP06	Locomotion Street - Bay 7/8	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP06_1.5	Locomotion Street South - Bay 7/8	16/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP07	Locomotion Street - Bay 7	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP07	Locomotion Street - Bay 7	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP07 1.5	Locomotion Street South - Bay 7	19/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP08	Locomotion Street - Bay 5	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP08	Locomotion Street - Bay 5	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP08_1.5	Locomotion Street South - Bay 5	16/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP09	Locomotion Street - Bay 4	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP09	Locomotion Street - Bay 4	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP09 1.5	Locomotion Street South - Bay 4	19/06/2017	550933	<0.008335	0.015	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.02667	<0.008335	0.5001	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.03834	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP10	Locomotion Street - Bay 3	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP10	Locomotion Street - Bay 3	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP10_1.5	Locomotion Street South - Bay 3	16/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP10_3.0	Locomotion Street South - Bay 3	16/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP11	Locomotion Street - Bay 2	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP11	Locomotion Street - Bay 2	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
VP12	Locomotion Street - Bay 1	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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 - Duplicate of VP12	Locomotion Street - Bay 1	13/02/2017	534159	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334
VP12	Locomotion Street - Bay 1	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV01	Bay 11 South	4/05/2016	499538	<0.08334	0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 11 South	30/05/2017	548344	<0.008335	0.1384	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV02	Bay 13 North	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 13 North	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV03	Bay 13 Central	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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
SV03	Bay 13 Central	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.4001	<0.008335	<0.008335	<0.008335	<0.008335	0.4334	<0.008335
SV04	Bay 11 North	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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 - Duplicate of SV04	Bay 11 North	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 11 North	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV05	Bay 9 North	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 9 North	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV06	Bay 9 South	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 9 South	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV07	Bay 13 South	4/05/2016	499538	<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	0.7667	<0.08334	<0.08334	<0.08334	<0.08334	0.5	<0.08334
SV07	Bay 13 South	30/05/2017	548344	<0.008335	0.03001	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.1284	<0.008335	<0.008335	<0.008335	<0.008335	0.1117	<0.008335
SV08	Bay 11 Central	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 11 Central	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV09	Bay 9 Central	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 9 Central	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV10	Bay 15 North	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 15 North	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
QC06 - Duplicate of SV10	Bay 15 North	24/05/2017	167815	-	-	-	-	-	-	-	<0.08335	-	-	-	-	-	<0.08335	-	-	-	-	-	-	<0.08335	-	-	-	-	<0.08335	-
SV11	Bay 14/15 Central	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 14/15 Central	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
QC05 - Duplicate of SV11	Bay 14/15 Central	24/05/2017	547611	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV12	Bay 15 South	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 15 South	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV13	Bay 7 North	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 7 North	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
QC02 - Duplicate of SV13	Bay 7 North	24/05/2017	167815	-	-	-	-	-	-	-	<0.08335	-	-	-	-	-	<0.08335	-	-	-	-	-	-	<0.08335	-	-	-	-	<0.08335	-
SV14	Bay 6 North	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 6 North	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
QC04 - Duplicate of SV14	Bay 6 North	24/05/2017	167815	-	-	-	-	-	-	-	<0.08335	-	-	-	-	-	<0.08335	-	-	-	-	-	-	<0.08335	-	-	-	-	<0.08335	-
SV15	Bay 6 South	4/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 6 South	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
QC03 - Duplicate of SV15	Bay 6 South	24/05/2017	547611	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV16	Bay 7 Central	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 7 Central	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
QC01 - Dupilcate of SV16	Bay 7 Central	24/05/2017	547611	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335

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				BTEX				PAHs	Monocyclic Aromatic Hydrocarbons										Misc. Hydrocarbons				Chlorinated Benzenes						Org. Alcohols	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	Tribromomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	Chlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Isopropyl alcohol	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	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	0.01	0.08	0.08	0.08	0.08	0.08	0.08	1.67	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																					
Sample ID	**Location**	**Date**	**Lab Report**																										
VP01	Locomotion Street - Bay 14	13/02/2017	534159	<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	<1.667	<0.08334
VP01	Locomotion Street - Bay 14	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP02	Locomotion Street - Bay 12/13	13/02/2017	534159	<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	<1.667	<0.08334
VP02	Locomotion Street - Bay 12/13	18/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP02_1.7	Locomotion Street South - Bay 12/13	16/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.02501	<0.08335#1	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	-	<0.008335
VP03	Locomotion Street - Bay 11/12	13/02/2017	534159	<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	<1.667	<0.08334
VP03	Locomotion Street - Bay 11/12	18/05/2017	547283	<0.008335	0.03334	0.04668	0.12	<0.008335	0.2667	0.06501	<0.008335	<0.008335	<0.008335	0.02834	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP03 1.5	Locomotion Street South - Bay 11/12	19/06/2017	550933	<0.008335	0.01334	0.04834	0.05001	<0.08335#1	0.02	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	-	<0.008335
VP04	Locomotion Street - Bay 10	13/02/2017	534159	<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	<1.667	<0.08334
VP04	Locomotion Street - Bay 10	18/05/2017	547283	<0.008335	0.1834	0.2667	0.6668	<0.008335	1.184	0.2834	0.015	0.03834	0.02334	0.1434	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP05	Locomotion Street - Bay 8	13/02/2017	534159	<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	<1.667	<0.08334
VP05	Locomotion Street - Bay 8	18/05/2017	547283	<0.008335	0.1134	0.1467	0.4501	<0.008335	0.9169	0.2167	0.01167	0.03001	0.02	0.1	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP06	Locomotion Street - Bay 7/8	13/02/2017	534159	<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	<1.667	<0.08334
VP06	Locomotion Street - Bay 7/8	18/05/2017	547283	<0.008335	0.09335	0.1517	0.3334	<0.008335	0.4334	0.1117	<0.008335	0.02	<0.008335	0.06168	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP06_1.5	Locomotion Street South - Bay 7/8	16/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.02501	<0.08335#1	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	--	<0.008335
VP07	Locomotion Street - Bay 7	13/02/2017	534159	<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	<1.667	<0.08334
VP07	Locomotion Street - Bay 7	18/05/2017	547283	<0.008335	0.01334	0.03334	0.03667	<0.008335	0.1284	0.02501	<0.008335	<0.008335	<0.008335	0.01334	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP07 1.5	Locomotion Street South - Bay 7	19/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.02501	<0.08335#1	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	-	<0.008335
VP08	Locomotion Street - Bay 5	13/02/2017	534159	<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	<1.667	<0.08334
VP08	Locomotion Street - Bay 5	18/05/2017	547283	<0.008335	0.03501	0.06501	0.1317	<0.008335	0.2667	0.06335	<0.008335	<0.008335	<0.008335	0.02667	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP08_1.5	Locomotion Street South - Bay 5	16/06/2017	550933	<0.008335	<0.008335	0.01334	<0.02501	<0.08335#1	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	-	<0.008335
VP09	Locomotion Street - Bay 4	13/02/2017	534159	<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	<1.667	<0.08334
VP09	Locomotion Street - Bay 4	18/05/2017	547283	<0.008335	0.1017	0.2	0.3334	<0.008335	0.5168	0.1234	<0.008335	0.02167	<0.008335	0.06335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP09 1.5	Locomotion Street South - Bay 4	19/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.02501	<0.08335#1	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	-	<0.008335
VP10	Locomotion Street - Bay 3	13/02/2017	534159	<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	<1.667	<0.08334
VP10	Locomotion Street - Bay 3	18/05/2017	547283	<0.008335	0.015	0.01667	0.07835	<0.008335	0.3667	0.06668	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP10_1.5	Locomotion Street South - Bay 3	16/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.02501	<0.08335#1	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	-	<0.008335
VP10_3.0	Locomotion Street South - Bay 3	16/06/2017	550933	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	-	<0.008335
VP11	Locomotion Street - Bay 2	13/02/2017	534159	<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	<1.667	<0.08334
VP11	Locomotion Street - Bay 2	18/05/2017	547283	<0.008335	0.06335	0.1134	0.2501	<0.008335	0.4168	0.1017	<0.008335	<0.008335	<0.008335	0.05168	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
VP12	Locomotion Street - Bay 1	13/02/2017	534159	<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	<1.667	<0.08334
QC01 - Duplicate of VP12	Locomotion Street - Bay 1	13/02/2017	534159	<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	<1.667	<0.08334
VP12	Locomotion Street - Bay 1	18/05/2017	547283	<0.008335	0.02334	0.07335	0.1067	<0.008335	0.1834	0.03834	<0.008335	<0.008335	<0.008335	0.02167	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV01	Bay 11 South	4/05/2016	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	<1.667	<0.08334
SV01	Bay 11 South	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	0.03667	0.02	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV02	Bay 13 North	4/05/2016	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	<1.667	<0.08334
SV02	Bay 13 North	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.02501	<0.08335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV03	Bay 13 Central	4/05/2016	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	<1.667	<0.08334
SV03	Bay 13 Central	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.02501	<0.08335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV04	Bay 11 North	4/05/2016	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	<1.667	<0.08334
QCO1 - Duplicate of SV04	Bay 11 North	4/05/2016	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	<1.667	<0.08334
SV04	Bay 11 North	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.02501	<0.08335	0.03334	0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV05	Bay 9 North	4/05/2016	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	<1.667	<0.08334
SV05	Bay 9 North	30/05/2017	548344	<0.008335	<0.008335	0.01667	<0.02501	<0.08335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV06	Bay 9 South	4/05/2016	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	<1.667	<0.08334
SV06	Bay 9 South	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV07	Bay 13 South	4/05/2016	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	<1.667	<0.08334
SV07	Bay 13 South	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV08	Bay 11 Central	4/05/2016	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	<1.667	<0.08334
SV08	Bay 11 Central	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.02501	<0.08335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV09	Bay 9 Central	4/05/2016	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	<1.667	<0.08334
SV09	Bay 9 Central	30/05/2017	548344	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	0.03001	0.02	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV10	Bay 15 North	4/05/2016	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	<1.667	<0.08334
SV10	Bay 15 North	24/05/2017	547469	<0.008335	<0.008335	0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
QC06 - Duplicate of SV10	Bay 15 North	24/05/2017	167815	<0.03334	<0.08335	<0.08335	-	<0.08335	-	-	-	<0.08335	-	-	-	<0.08335	-	-	-	-	-	-	-	-	<0.08335	-	-	<0.08335	-
SV11	Bay 14/15 Central	4/05/2016	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	<1.667	<0.08334
SV11	Bay 14/15 Central	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
QC05 - Duplicate of SV11	Bay 14/15 Central	24/05/2017	547611	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV12	Bay 15 South	4/05/2016	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	<1.667	<0.08334
SV12	Bay 15 South	24/05/2017	547469	<0.008335	<0.008335	0.01334	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV13	Bay 7 North	4/05/2016	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	<1.667	<0.08334
SV13	Bay 7 North	24/05/2017	547469	<0.008335	<0.008335	0.01667	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
QC02 - Duplicate of SV13	Bay 7 North	24/05/2017	167815	<0.03334	<0.08335	<0.08335	-	<0.08335	-	-	-	<0.08335	-	-	-	<0.08335	-	-	-	-	-	-	-	-	<0.08335	-	-	<0.08335	-
SV14	Bay 6 North	4/05/2016	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	<1.667	<0.08334
SV14	Bay 6 North	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
QC04 - Duplicate of SV14	Bay 6 North	24/05/2017	167815	<0.03334	<0.08335	<0.08335	-	<0.08335	-	-	-	<0.08335	-	-	-	<0.08335	-	-	-	-	-	-	-	-	<0.08335	-	-	<0.08335	-
SV15	Bay 6 South	4/05/2016	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	<1.667	<0.08334
SV15	Bay 6 South	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
QC03 - Duplicate of SV15	Bay 6 South	24/05/2017	547611	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV16	Bay 7 Central	5/05/2016	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	<1.667	<0.08334
SV16	Bay 7 Central	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
QC01 - Dupilcate of SV16	Bay 7 Central	24/05/2017	547611	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335

Table E: Soil Vapour Analytical Results
Project Name: 51142
Project Number: Locomotive Workshop LTEMP

4/11/2020

				Chlorinated Alkanes																	Chlorinated Alkenes									
				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
EQL				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																														
Sample ID	**Location**	**Date**	**Lab Report**																											
SV17	Bay 5 Central	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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
SV17	Bay 5 Central	23/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.01667	<0.008335	<0.008335	<0.008335	<0.008335	1.667	<0.008335
SV18	Bay 3 North	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 3 North	23/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV19	Bay 4 North	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 4 North	23/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV20	Bay 4 Central	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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 - Duplicate of SV20	Bay 4 Central	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 4 Central	23/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV21	Bay 4 Central/North	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 4 Central/North	23/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV22	Bay 4A South	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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
SV22	Bay 4A South	23/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV23	Bay 1 North	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 1 North	22/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV24	Bay 2 Central	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 2 Central	22/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV25	Bay 1 Central	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 1 Central	22/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV26	Bay 4A/5 South	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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
SV26	Bay 4A/5 South	24/05/2017	547611	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.08335	<0.008335	<0.008335	<0.008335	<0.008335	0.08502	<0.008335
SV27	Bay 1 South	5/05/2016	499538	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 1 South	22/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV31	Bay 4A Central	20/05/2016	501366	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 4A Central	23/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV32	Bay 6 Central	20/05/2016	501366	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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 - Duplicate of SV32	Bay 6 Central	20/05/2016	501366	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 6 Central	23/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV33	Bay 6 South	20/05/2016	501366	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<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	Bay 6 South	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.08835	<0.008335	<0.008335	<0.008335	<0.008335	0.1667	<0.008335
SV34	Bay 5 Central	20/05/2016	501366	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	6.167	<0.08334
SV34	Bay 5 Central	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335
SV35	Bay 4A/5 Central/South	20/05/2016	501366	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	2.333	<0.08334
SV35	Bay 4A/5 Central/South	23/05/2017	547469	<0.008335	0.03334	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	1.084	<0.008335	<0.008335	<0.008335	<0.008335	5.835	<0.008335
SV36	Bay 4A/5 South	20/05/2016	501366	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	<0.08334	3.167	<0.08334	<0.08334	<0.08334	<0.08334	0.5667	<0.08334
SV36	Bay 4A/5 South	23/05/2017	547283	<0.008335	0.06168	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	0.4834	<0.008335	<0.008335	<0.008335	<0.008335	0.16	<0.008335

Env Stds Comments

#1:Oregon Department of Environmental Quality Guidelines factor of 0.001 applied to commercial buildings, based on a detailed study of soil vapour / building vapour measurements.
#2:Factor of 0.1 conversion used from indoor air to soil vapour

Table E: Soil Vapour Analytical Results
Project Name: 51142
Project Number: Locomotive Workshop LTEMP

4/11/2020

				BTEX				PAHs	Monocyclic Aromatic Hydrocarbons									Misc. Hydrocarbons				Chlorinated Benzenes						Org. Alcohols	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	Tribromomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	Chlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Isopropyl alcohol	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	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	0.01	0.08	0.08	0.08	0.08	0.08	0.08	1.67	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																					
Sample ID	**Location**	**Date**	**Lab Report**																										
SV17	Bay 5 Central	5/05/2016	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	<1.667	<0.08334
SV17	Bay 5 Central	23/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV18	Bay 3 North	5/05/2016	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	<1.667	<0.08334
SV18	Bay 3 North	23/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV19	Bay 4 North	5/05/2016	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	<1.667	<0.08334
SV19	Bay 4 North	23/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV20	Bay 4 Central	5/05/2016	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	<1.667	<0.08334
QC02 - Duplicate of SV20	Bay 4 Central	5/05/2016	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	<1.667	<0.08334
SV20	Bay 4 Central	23/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV21	Bay 4 Central/North	5/05/2016	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	<1.667	<0.08334
SV21	Bay 4 Central/North	23/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV22	Bay 4A South	5/05/2016	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	<1.667	<0.08334
SV22	Bay 4A South	23/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV23	Bay 1 North	5/05/2016	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	<1.667	<0.08334
SV23	Bay 1 North	22/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV24	Bay 2 Central	5/05/2016	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	<1.667	<0.08334
SV24	Bay 2 Central	22/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV25	Bay 1 Central	5/05/2016	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	<1.667	<0.08334
SV25	Bay 1 Central	22/05/2017	547283	<0.008335	<0.008335	0.01334	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV26	Bay 4A/5 South	5/05/2016	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	<1.667	<0.08334
SV26	Bay 4A/5 South	24/05/2017	547611	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV27	Bay 1 South	5/05/2016	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	<1.667	<0.08334
SV27	Bay 1 South	22/05/2017	547283	<0.008335	<0.008335	0.01334	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV31	Bay 4A Central	20/05/2016	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	<1.667	<0.08334
SV31	Bay 4A Central	23/05/2017	547469	0.2334	0.04001	0.4168	0.2667	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV32	Bay 6 Central	20/05/2016	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	<1.667	<0.08334
QC03 - Duplicate of SV32	Bay 6 Central	20/05/2016	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	<1.667	<0.08334
SV32	Bay 6 Central	23/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV33	Bay 6 South	20/05/2016	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	<1.667	<0.08334
SV33	Bay 6 South	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV34	Bay 5 Central	20/05/2016	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	<1.667	<0.08334
SV34	Bay 5 Central	24/05/2017	547469	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV35	Bay 4A/5 Central/South	20/05/2016	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	<1.667	<0.08334
SV35	Bay 4A/5 Central/South	23/05/2017	547469	<0.008335	<0.008335	0.02501	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335
SV36	Bay 4A/5 South	20/05/2016	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	<1.667	<0.08334
SV36	Bay 4A/5 South	23/05/2017	547283	<0.008335	<0.008335	<0.008335	<0.02501	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.08335	<0.008335	<0.008335	-	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.008335	<0.1667	<0.008335

Env Stds Comments

#1:Oregon Department of Environmental Quality Guidelines factor of 0.001 applied to commercial buildings, based on a detailed study of soil vapour / building vapour measurements.
#2:Factor of 0.1 conversion used from indoor air to soil vapour

Table F: Groundwater Analytical Results
Project Number: 51142
Project Name: Locomotive Workshop Stage LTEMP

JBS&G

Metals & Metalloids

Sample ID	Date	Location	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs						1.3[#1]	4.4[#1]			15[#2]
NEPM 2013 GIL - Drinking Water			10	2[#8]	50	2000[#8]	10[#8]	1	20[#8]	3000
NEPM 2013 GIL - Fresh Waters				0.2[#8]		1.4[#8]	3.4[#8]	0.06[#10]	11[#8]	8[#11]
NEPM 2013 GIL - Marine Waters				0.7[#12]		1.3[#8]	4.4[#8]	0.1[#13]	7[#8]	15[#14]
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+										
NEPM 2013 GIL - Recreational			100	20	500	20000	100	10	200	30,000
MW101	2/05/2003	Area 1	1	0.3	2	<1	1	<0.1	6	20
MW101	3/05/2010	Area 1	<1	<0.1	<1	3	<1	<0.5	13	23
MW101	20/12/2010	Area 1	<1	0.2	<1	2	<1	<0.4	2	11
MW101	12/01/2011	Area 1	-	-	-	-	-	-	-	-
MW101	14/12/2011	Area 1	<1	<0.1	<1	2	<1	<0.05	2	15
MW102	3/05/2010	Area 1	<1	<0.1	<1	2	<1	<0.5	8	33
MW102	20/12/2010	Area 1	<1	<0.1	<1	4	<1	<0.4	5	19
MW102	12/01/2011	Area 1	-	-	-	-	-	-	-	-
MW102	14/12/2011	Area 1	<1	<0.1	<1	2	<1	<0.05	2	11
MW103	19/03/2010	Area 1	<1	<0.1	<1	<1	<1	<0.5	2	17
MW103	20/12/2010	Area 1	<1	<0.1	<1	<1	<1	<0.4	<1	2
MW103	12/01/2011	Area 1	-	-	-	-	-	-	-	-
MW103	14/12/2011	Area 1	<1	<0.1	<1	2	<1	<0.05	1	8
MW103	2/08/2012	Area 1	<1	<0.1	<1	<1	<1	<0.05	<1	3
MW103	5/02/2013	Area 1	<1	<0.1	<1	2	<1	<0.05	<1	3
MW103	16/07/2013	Area 1	<1	<0.1	<1	<1	<1	<0.05	<1	<1
MW103	31/01/2014	Area 1	<1	<0.1	<1	<1	<1	<0.05	<1	3
MW103	25/03/2015	Area 1	<1	<0.1	<1	1	<1	<0.05	<1	6
MW49	27/05/1993	Area 1	<100	<10	<50	<10	<100	<200	-	<10
MWAH1	3/08/2012	Area 1	2	0.1	2	6	5	<0.05	11	78
MWAH1	6/02/2013	Area 1	5	0.8	<1	67	1	<0.05	80	440
MWAH1	16/07/2013	Area 1	<10	0.6	<1	11	<1	<0.05	29	600
MWAH1	31/01/2014	Area 1	2	<0.1	<1	1	<1	<0.05	11	83
MWAH1	30/03/2015	Area 1	<1	1	<1	4	<1	<0.05	12	92
MW4	29/09/1994	Area 2	<10	-	-	<10	10	-	-	<10
MW5	29/09/1994	Area 3	<10	-	-	<10	<100	-	-	10
MW6	29/09/1994	Area 3	<10	-	-	<10	<100	-	-	<10
MW107	19/03/2010	Area 4	<1	<0.1	<1	2	<1	<0.5	<1	8
MW107	20/12/2010	Area 4	<1	<0.1	<1	<1	<1	<0.4	<1	9
MW107	12/01/2011	Area 4	-	-	-	-	-	-	-	-
MW107	14/12/2011	Area 4	<1	<0.1	<1	1	<1	<0.05	<1	14
MW107	2/08/2012	Area 4	<1	<0.1	<1	<1	<1	<0.05	<1	11
MW107	5/02/2013	Area 4	<1	<0.1	<1	3	<1	<0.05	<1	4
MW107	16/07/2013	Area 4	<1	<0.1	<1	2	<1	<0.05	<1	7
MW107	30/01/2014	Area 4	<1	<0.1	<1	<1	<1	<0.05	<1	9
MW107	24/03/2015	Area 4	<1	<0.1	<1	2	<1	<0.05	<1	9
MW105	19/03/2010	Area 5	<1	<0.1	1	<1	1	<0.5	2	19
MW106	19/03/2010	Area 5	<1	<0.1	<1	2	1	<0.5	<1	31
MW106	20/12/2010	Area 5	<1	0.1	<1	<1	<1	<0.4	<1	130
MW106	12/01/2011	Area 5	-	-	-	-	-	-	-	-
MW106	14/12/2011	Area 5	<1	0.2	<1	2	<1	<0.05	<1	99
MW04	25/01/2001	Area 6	<10	<1	2	3	3	<0.1	<1	456
MW20	27/05/1993	Area 6	<100	<10	<50	<10	<100	<200	-	30
MW03	25/01/2001	Lot 12	<10	<1	<1	3	1	<0.1	1	455
MW1	4/04/2014	Lot 12	<1	<0.1	<1	6	<1	<0.05	<1	17
MW1	24/03/2015	Lot 12	<1	<0.1	1	2	<1	<0.05	<1	4
MW104	3/05/2010	Lot 12	<1	0.2	<1	3	<1	<0.5	11	160
MW104	20/12/2010	Lot 12	<1	0.2	<1	5	<1	<0.4	4	140
MW104	12/01/2011	Lot 12	-	-	-	-	-	-	-	-
MW104	14/12/2011	Lot 12	<1	0.2	<1	5	1	<0.05	2	120
MW104	2/08/2012	Lot 12	<1	<0.1	<1	1	<1	<0.05	1	43
MW104	5/02/2013	Lot 12	<1	<0.1	<1	10	<1	<0.05	1	60
MW104	16/07/2013	Lot 12	<1	<0.1	<1	<1	<1	<0.05	1	53
MW104	31/01/2014	Lot 12	<1	<0.1	<1	<1	<1	<0.05	<1	31
MW104	24/03/2015	Lot 12	<1	<0.1	<1	<1	<1	<0.05	2	37
MW149	2/05/2003	Lot 12	2	0.9	2	<1	<1	<0.1	<5	30
MW3	4/04/2014	Lot 12	2	<0.1	<1	<1	<1	<0.05	<1	12
MW3	24/03/2015	Lot 12	<1	<0.1	<1	<1	<1	<0.05	<1	<1
MW301	31/05/2005	Lot 12	1	<0.2	<1	2	<1	<0.1	5	52
MW301	2/08/2012	Lot 12	<1	<0.1	<1	5	<1	<0.05	<1	38
MW301	31/01/2014	Lot 12	<1	0.1	<1	10	<1	<0.05	2	90
MW315	31/05/2005	Lot 12	<1	<0.2	<1	1	<1	<0.1	10	120
MW50	27/05/1993	Lot 12	<100	<10	<50	<10	<100	<200	-	<10
MW513	16/12/2010	Lot 12	<1	<0.1	1	<1	<1	<0.4	<1	4
MW513	12/01/2011	Lot 12	-	-	-	-	-	-	-	-
MW513	14/12/2011	Lot 12	<1	<0.1	2	1	<1	<0.05	<1	13
MW56	27/05/1993	Lot 12	<100	<10	<50	<10	<100	<200	-	<10
MW606	14/11/2007	Lot 12	<1	<0.1	<1	<1	7	<0.5	24	12
MW619	2/08/2012	Lot 12	3	<0.1	<1	1	<1	<0.05	3	27
MW619	5/02/2013	Lot 12	<1	<0.1	<1	<1	<1	<0.05	1	7
MW619	16/07/2013	Lot 12	4	<0.1	<1	<1	<1	<0.05	4	27
MW619	31/01/2014	Lot 12	2	<0.1	<1	<1	<1	<0.05	1	9
MW619	24/03/2015	Lot 12	<1	<0.1	<1	2	<1	<0.05	2	16
MW625	2/08/2012	Lot 12	<1	<0.1	<1	2	<1	<0.05	<1	38

Chlorinated Alkanes

Sample ID	Date	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
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs				1900																		
NEPM 2013 GIL - Drinking Water									3					250[#9]	3		250[#9]		250[#9]		4	
NEPM 2013 GIL - Fresh Waters				6500																		
NEPM 2013 GIL - Marine Waters				1900																		
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+																						
NEPM 2013 GIL - Recreational									30					2500	30		2500		2500		40	
MW101	2/05/2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW101	3/05/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10
MW101	20/12/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW101	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW101	14/12/2011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW102	3/05/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10
MW102	20/12/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW102	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW102	14/12/2011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW103	19/03/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10
MW103	20/12/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW103	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW103	14/12/2011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW103	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW103	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW103	16/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW103	31/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW103	25/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW49	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWAH1	3/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MWAH1	6/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MWAH1	16/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MWAH1	31/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MWAH1	30/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW4	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW5	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW6	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107	19/03/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10
MW107	20/12/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW107	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107	14/12/2011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW107	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW107	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW107	16/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW107	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW107	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW105	19/03/2010	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<100	<10	<100	<10	<10	-	<100
MW106	19/03/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10
MW106	20/12/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW106	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW106	14/12/2011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW04	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	4/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW104	3/05/2010	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<100	<10	<100	<10	<10	-	<100
MW104	20/12/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW104	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW104	14/12/2011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW104	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW104	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW104	16/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW104	31/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW104	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW149	2/05/2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3	4/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW301	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW301	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW301	31/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<10	<1	<10	-	<1
MW315	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	16/12/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW513	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	14/12/2011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW56	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW606	14/11/2007	-	2.2	-	-	3.8	-	-	3.8	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW619	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW619	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	2	<10	<1	<10	-	<1
MW619	16/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW619	31/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW619	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW625	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1

Chlorinated Alkenes; TPHs (NEPC 1999); TPHs (NEPC 1999) - Silica Gel

Sample ID	Date	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	1,1-dichloropropene	2-chlorotoluene	3-chloropropene	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)
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs																					
NEPM 2013 GIL - Drinking Water		50	30										0.3								
NEPM 2013 GIL - Fresh Waters																					
NEPM 2013 GIL - Marine Waters																					
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m														1000[#16]	1000[#17]						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m														1000[#16]	1000[#17]						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+														1000[#16]	1000[#17]						
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m														6000[#16]							
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m														6000[#16]							
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+														7000[#16]							
NEPM 2013 GIL - Recreational		500	300									200[#7]	3								
MW101	2/05/2003	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	-	-	-	-
MW101	3/05/2010	-	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-
MW101	20/12/2010	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW101	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW101	14/12/2011	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW102	3/05/2010	-	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-
MW102	20/12/2010	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW102	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW102	14/12/2011	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	15	<50	<100	<100	<250	-	-	-
MW103	19/03/2010	-	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-
MW103	20/12/2010	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW103	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW103	14/12/2011	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW103	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1	<10	<50	<100	<100	<250	-	-	-
MW103	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW103	16/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW103	31/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW103	25/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW49	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	21	5	26	-	-	-
MWAH1	3/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MWAH1	6/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MWAH1	16/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MWAH1	31/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MWAH1	30/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW4	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-	200	9200	64,000	4600	79,000	-	-	-
MW5	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-	<20	<40	<200	<200	-	-	-	-
MW6	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-	100	7100	55,000	3800	66,000	-	-	-
MW107	19/03/2010	-	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-
MW107	20/12/2010	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	260	160	420	-	-	-
MW107	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	160	<100	160	<50	150	<100
MW107	14/12/2011	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW107	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1	<10	<50	<100	<100	<250	-	-	-
MW107	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW107	16/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW107	30/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW107	24/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW105	19/03/2010	-	<10	-	<10	-	<10	<10	<10	<10	<10	<10	<100	<10	<50	<100	<100	0	-	-	-
MW106	19/03/2010	-	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	0	-	-	-
MW106	20/12/2010	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW106	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW106	14/12/2011	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW04	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-	<20	<50	<100	<50	-	-	-	-
MW20	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	<1	5	14	4	23	-	-	-
MW03	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-	<20	<50	280	128	408	-	-	-
MW1	4/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-
MW1	24/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW104	3/05/2010	-	<10	-	<10	-	<10	<10	<10	<10	<10	<10	<100	<100	60	410	<100	470	-	-	-
MW104	20/12/2010	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW104	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW104	14/12/2011	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW104	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1	<10	<50	<100	<100	<250	-	-	-
MW104	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW104	16/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW104	31/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW104	24/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW149	2/05/2003	-	-	-	-	-	-	-	-	-	-	-	-	1100	<100	<200	<200	<500	-	-	-
MW3	4/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-
MW3	24/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW301	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-	<40	<100	<200	<200	0	-	-	-
MW301	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1	<10	<50	<100	<100	<250	-	-	-
MW301	31/01/2014	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW315	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-	<40	100	<200	<200	100	-	-	-
MW50	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	220	<1	220	-	-	-
MW513	16/12/2010	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW513	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	100	<100	100	<50	<100	<100
MW513	14/12/2011	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	160	<100	160	-	-	-
MW56	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	<1	4	19	<1	22	-	-	-
MW606	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<250	-	-	-
MW619	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1	<10	120	390	<100	560	-	-	-
MW619	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	110	360	<100	520	-	-	-
MW619	16/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	120	500	110	730	-	-	-
MW619	31/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW619	24/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-
MW625	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<50	<100	<100	<250	-	-	-

Project Name: Locomotive Workshop Stage LTEMP

			TRHs (NEPC 2013)					TRHs (NEPC 2013) - Silica Gel	BTEX						Polycyclic Aromatic Hydrocarbons																	Monocyclic Aromatic Hydrocarbons										Miscellaneous Hydrocarbons							
			>C10-C16 Fraction	>C16-C34 Fraction	>C6-C10 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,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
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs																																															
NEPM 2013 GIL - Drinking Water									1	300	800			600					0.01																					30					250[#8]	1				
NEPM 2013 GIL - Fresh Waters									950				350														16																					
NEPM 2013 GIL - Marine Waters									500[#15]																		50[#15]																					
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m						1000[#16]		1000[#17]	800	NL	NL			NL													NL																					
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m						1000[#16]		1000[#17]	800	NL	NL			NL													NL																					
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+						1000[#16]		1000[#17]	900	NL	NL			NL													NL																					
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m						6000[#16]		NL	5000	NL	NL			NL													NL																					
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m						6000[#16]		NL	5000	NL	NL			NL													NL																					
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+						7000[#16]		NL	5000	NL	NL			NL													NL																					
NEPM 2013 GIL - Recreational									10	3000	8000			6000					0.1																					300					2500	10				
Sample ID	**Date**	**Location**																																														
MW101	2/05/2003	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	<0.5	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW101	3/05/2010	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	<10	-	<1	-
MW101	20/12/2010	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	-
MW101	12/01/2011	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW101	14/12/2011	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	-
MW102	3/05/2010	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	<10	-	<1	-
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MW20	27/05/1993	Area 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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MW50	27/05/1993	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	16/12/2010	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	-
MW513	12/01/2011	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	14/12/2011	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	-
MWS6	27/05/1993	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW606	14/11/2007	Lot 12	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW619	2/08/2012	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	-
MW619	5/02/2013	Lot 12	210	220	<10	<100	<10	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	<10	<1	<1	-
MW619	16/07/2013	Lot 12	230	460	<10	<100	<10	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	<10	<1	<1	-
MW619	31/01/2014	Lot 12	<50	<100	<10	<100	<10	<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
MW619	24/03/2015	Lot 12	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW625	2/08/2012	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	<10	<1	<1	-

Table F: Groundwater Analytical Results
Project Number: 51142
Project Name: Locomotive Workshop Stage LTEMP

Sample ID	Date	Location	Chlorinated Benzenes: 1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	Chlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Polychlorinated Biphenyls: Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Phenols: Phenols (Total)	Miscellaneous Industrial Chemicals: Hexachlorobutadiene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs																			
NEPM 2013 GIL - Drinking Water			30	30	1500	300		40											0.7
NEPM 2013 GIL - Fresh Waters			3[#10]	85[#10]	160		260	60					0.3[#10]		0.01[#10]				
NEPM 2013 GIL - Marine Waters				20[#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+																			
NEPM 2013 GIL - Recreational					15000	3000		400											7
MW101	2/05/2003	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW101	3/05/2010	Area 1	<1	<1	<1	<1	<1	<1	<0.2	<2	<2	<2	<2	<2	<2	<2	0	-	<1
MW101	20/12/2010	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW101	12/01/2011	Area 1	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-
MW101	14/12/2011	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW102	3/05/2010	Area 1	<1	<1	<1	<1	<1	<1	<0.2	<2	<2	<2	<2	<2	<2	<2	0	-	<1
MW102	20/12/2010	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW102	12/01/2011	Area 1	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-
MW102	14/12/2011	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW103	19/03/2010	Area 1	<1	<1	<1	<1	<1	<1	<0.2	<2	<2	<2	<2	<2	<2	<2	0	-	<1
MW103	20/12/2010	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW103	12/01/2011	Area 1	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-
MW103	14/12/2011	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW103	2/08/2012	Area 1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW103	5/02/2013	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW103	16/07/2013	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW103	31/01/2014	Area 1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW103	25/03/2015	Area 1	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW49	27/05/1993	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWAH1	3/08/2012	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MWAH1	6/02/2013	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MWAH1	16/07/2013	Area 1	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MWAH1	31/01/2014	Area 1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MWAH1	30/03/2015	Area 1	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW4	29/09/1994	Area 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW5	29/09/1994	Area 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW6	29/09/1994	Area 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107	19/03/2010	Area 4	<1	<1	<1	<1	<1	<1	<0.2	<2	<2	<2	<2	<2	<2	<2	0	-	<1
MW107	20/12/2010	Area 4	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW107	12/01/2011	Area 4	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-
MW107	14/12/2011	Area 4	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW107	2/08/2012	Area 4	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW107	5/02/2013	Area 4	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW107	16/07/2013	Area 4	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW107	30/01/2014	Area 4	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW107	24/03/2015	Area 4	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW105	19/03/2010	Area 5	<10	<10	<10	<10	<10	<10	<0.2	<2	<2	<2	<2	<2	<2	<2	0	-	<10
MW106	19/03/2010	Area 5	<1	<1	<1	<1	<1	<1	<0.2	<2	<2	<2	<2	<2	<2	<2	0	-	<1
MW106	20/12/2010	Area 5	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW106	12/01/2011	Area 5	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-
MW106	14/12/2011	Area 5	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW04	25/01/2001	Area 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	27/05/1993	Area 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03	25/01/2001	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
MW1	4/04/2014	Lot 12	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW1	24/03/2015	Lot 12	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW104	3/05/2010	Lot 12	<10	<10	<10	<10	<10	<10	<0.2	<2	<2	<2	<2	<2	<2	<2	0	-	<10
MW104	20/12/2010	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW104	12/01/2011	Lot 12	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-
MW104	14/12/2011	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW104	2/08/2012	Lot 12	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW104	5/02/2013	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW104	16/07/2013	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW104	31/01/2014	Lot 12	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW104	24/03/2015	Lot 12	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW149	2/05/2003	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3	4/04/2014	Lot 12	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW3	24/03/2015	Lot 12	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW301	31/05/2005	Lot 12	-	-	-	-	-	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	-
MW301	2/08/2012	Lot 12	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW301	31/01/2014	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW315	31/05/2005	Lot 12	-	-	-	-	-	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	-
MW50	27/05/1993	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	16/12/2010	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW513	12/01/2011	Lot 12	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-
MW513	14/12/2011	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW56	27/05/1993	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW606	14/11/2007	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW619	2/08/2012	Lot 12	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW619	5/02/2013	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW619	16/07/2013	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW619	31/01/2014	Lot 12	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW619	24/03/2015	Lot 12	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW625	2/08/2012	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2

Sample ID	Date	Location	Organochlorine Pesticides: 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
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs																								
NEPM 2013 GIL - Drinking Water				0.3						9			2										0.3	
NEPM 2013 GIL - Fresh Waters										0.006[#10]			0.03[#10]						0.01[#10]			0.01[#10]		
NEPM 2013 GIL - Marine Waters																			0.004[#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+																								
NEPM 2013 GIL - Recreational				3						90			20									3		3000
MW101	2/05/2003	Area 1	<0.2	-	-	-	<0.2	-	-	<0.4	-	-	<0.4	-	-	-	-	-	-	-	-	<0.4	-	-
MW101	3/05/2010	Area 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	20/12/2010	Area 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	12/01/2011	Area 1	<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	14/12/2011	Area 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	3/05/2010	Area 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	20/12/2010	Area 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	12/01/2011	Area 1	<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	14/12/2011	Area 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	19/03/2010	Area 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	20/12/2010	Area 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	12/01/2011	Area 1	<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	14/12/2011	Area 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	2/08/2012	Area 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	5/02/2013	Area 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	16/07/2013	Area 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	31/01/2014	Area 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	25/03/2015	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW49	27/05/1993	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWAH1	3/08/2012	Area 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
MWAH1	6/02/2013	Area 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
MWAH1	16/07/2013	Area 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
MWAH1	31/01/2014	Area 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
MWAH1	30/03/2015	Area 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW4	29/09/1994	Area 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW5	29/09/1994	Area 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW6	29/09/1994	Area 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107	19/03/2010	Area 4	<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	20/12/2010	Area 4	<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	12/01/2011	Area 4	<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	14/12/2011	Area 4	<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	2/08/2012	Area 4	<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	5/02/2013	Area 4	<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	16/07/2013	Area 4	<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	30/01/2014	Area 4	<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	24/03/2015	Area 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW105	19/03/2010	Area 5	<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	19/03/2010	Area 5	<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	20/12/2010	Area 5	<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	12/01/2011	Area 5	<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	14/12/2011	Area 5	<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	25/01/2001	Area 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	27/05/1993	Area 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03	25/01/2001	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	4/04/2014	Lot 12	<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
MW1	24/03/2015	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW104	3/05/2010	Lot 12	<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	20/12/2010	Lot 12	<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	12/01/2011	Lot 12	<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	14/12/2011	Lot 12	<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	2/08/2012	Lot 12	<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	5/02/2013	Lot 12	<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	16/07/2013	Lot 12	<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	31/01/2014	Lot 12	<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	24/03/2015	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW149	2/05/2003	Lot 12	<0.2	-	-	-	-	-	-	<0.4	-	-	<0.4	-	-	-	-	-	-	-	-	<0.2	-	-
MW3	4/04/2014	Lot 12	<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
MW3	24/03/2015	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW301	31/05/2005	Lot 12	<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
MW301	2/08/2012	Lot 12	<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
MW301	31/01/2014	Lot 12	<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
MW315	31/05/2005	Lot 12	<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
MW50	27/05/1993	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	16/12/2010	Lot 12	<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	12/01/2011	Lot 12	<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	14/12/2011	Lot 12	<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	27/05/1993	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW606	14/11/2007	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW619	2/08/2012	Lot 12	<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
MW619	5/02/2013	Lot 12	<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
MW619	16/07/2013	Lot 12	<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
MW619	31/01/2014	Lot 12	<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
MW619	24/03/2015	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW625	2/08/2012	Lot 12	<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

Sample ID	Date	Location	Organophosphorus Pesticides: 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
ANZG (2018) Marine water 95% toxicant DGVs				0.009[#3]								
NEPM 2013 GIL - Drinking Water				10		4	5	7	4	1	7	
NEPM 2013 GIL - Fresh Waters				0.01[#10]		0.01		0.15			0.2	
NEPM 2013 GIL - Marine Waters				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+												
NEPM 2013 GIL - Recreational			100	100		40	50	70	40	10	70	
MW101	2/05/2003	Area 1	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW101	3/05/2010	Area 1	-	-	-	-	-	-	-	-	-	-
MW101	20/12/2010	Area 1	-	-	-	-	-	-	-	-	-	-
MW101	12/01/2011	Area 1	-	-	-	-	-	-	-	-	-	-
MW101	14/12/2011	Area 1	-	-	-	-	-	-	-	-	-	-
MW102	3/05/2010	Area 1	-	-	-	-	-	-	-	-	-	-
MW102	20/12/2010	Area 1	-	-	-	-	-	-	-	-	-	-
MW102	12/01/2011	Area 1	-	-	-	-	-	-	-	-	-	-
MW102	14/12/2011	Area 1	-	-	-	-	-	-	-	-	-	-
MW103	19/03/2010	Area 1	-	-	-	-	-	-	-	-	-	-
MW103	20/12/2010	Area 1	-	-	-	-	-	-	-	-	-	-
MW103	12/01/2011	Area 1	-	-	-	-	-	-	-	-	-	-
MW103	14/12/2011	Area 1	-	-	-	-	-	-	-	-	-	-
MW103	2/08/2012	Area 1	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2
MW103	5/02/2013	Area 1	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW103	16/07/2013	Area 1	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW103	31/01/2014	Area 1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW103	25/03/2015	Area 1	-	-	-	-	-	-	-	-	-	-
MW49	27/05/1993	Area 1	-	-	-	-	-	-	-	-	-	-
MWAH1	3/08/2012	Area 1	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MWAH1	6/02/2013	Area 1	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MWAH1	16/07/2013	Area 1	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MWAH1	31/01/2014	Area 1	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MWAH1	30/03/2015	Area 1	-	-	-	-	-	-	-	-	-	-
MW4	29/09/1994	Area 2	-	-	-	-	-	-	-	-	-	-
MW5	29/09/1994	Area 3	-	-	-	-	-	-	-	-	-	-
MW6	29/09/1994	Area 3	-	-	-	-	-	-	-	-	-	-
MW107	19/03/2010	Area 4	-	-	-	-	-	-	-	-	-	-
MW107	20/12/2010	Area 4	-	-	-	-	-	-	-	-	-	-
MW107	12/01/2011	Area 4	-	-	-	-	-	-	-	-	-	-
MW107	14/12/2011	Area 4	-	-	-	-	-	-	-	-	-	-
MW107	2/08/2012	Area 4	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2
MW107	5/02/2013	Area 4	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW107	16/07/2013	Area 4	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW107	30/01/2014	Area 4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW107	24/03/2015	Area 4	-	-	-	-	-	-	-	-	-	-
MW105	19/03/2010	Area 5	-	-	-	-	-	-	-	-	-	-
MW106	19/03/2010	Area 5	-	-	-	-	-	-	-	-	-	-
MW106	20/12/2010	Area 5	-	-	-	-	-	-	-	-	-	-
MW106	12/01/2011	Area 5	-	-	-	-	-	-	-	-	-	-
MW106	14/12/2011	Area 5	-	-	-	-	-	-	-	-	-	-
MW04	25/01/2001	Area 6	-	-	-	-	-	-	-	-	-	-
MW20	27/05/1993	Area 6	-	-	-	-	-	-	-	-	-	-
MW03	25/01/2001	Lot 12	-	-	-	-	-	-	-	-	-	-
MW1	4/04/2014	Lot 12	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW1	24/03/2015	Lot 12	-	-	-	-	-	-	-	-	-	-
MW104	3/05/2010	Lot 12	-	-	-	-	-	-	-	-	-	-
MW104	20/12/2010	Lot 12	-	-	-	-	-	-	-	-	-	-
MW104	12/01/2011	Lot 12	-	-	-	-	-	-	-	-	-	-
MW104	14/12/2011	Lot 12	-	-	-	-	-	-	-	-	-	-
MW104	2/08/2012	Lot 12	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2
MW104	5/02/2013	Lot 12	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW104	16/07/2013	Lot 12	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW104	31/01/2014	Lot 12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW104	24/03/2015	Lot 12	-	-	-	-	-	-	-	-	-	-
MW149	2/05/2003	Lot 12	<0.2	<0.2	-	-	-	-	<0.2	<0.2	-	-
MW3	4/04/2014	Lot 12	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW3	24/03/2015	Lot 12	-	-	-	-	-	-	-	-	-	-
MW301	31/05/2005	Lot 12	<0.2	<0.2	-	-	-	-	<0.2	-	<0.2	-
MW301	2/08/2012	Lot 12	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2
MW301	31/01/2014	Lot 12	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2
MW315	31/05/2005	Lot 12	<0.2	<0.2	-	-	-	-	<0.2	-	<0.2	-
MW50	27/05/1993	Lot 12	-	-	-	-	-	-	-	-	-	-
MW513	16/12/2010	Lot 12	-	-	-	-	-	-	-	-	-	-
MW513	12/01/2011	Lot 12	-	-	-	-	-	-	-	-	-	-
MW513	14/12/2011	Lot 12	-	-	-	-	-	-	-	-	-	-
MW56	27/05/1993	Lot 12	-	-	-	-	-	-	-	-	-	-
MW606	14/11/2007	Lot 12	-	-	-	-	-	-	-	-	-	-
MW619	2/08/2012	Lot 12	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2
MW619	5/02/2013	Lot 12	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW619	16/07/2013	Lot 12	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2
MW619	31/01/2014	Lot 12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW619	24/03/2015	Lot 12	-	-	-	-	-	-	-	-	-	-
MW625	2/08/2012	Lot 12	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2

4/11/2020

Project Name: Locomotive Workshop Stage LTEMP

JBS&G

Metals & Metalloids

Sample ID	Date	Location	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs						1.3[#1]	4.4[#1]			15[#2]
NEPM 2013 GIL - Drinking Water			10	2[#8]	50	2000[#8]	10[#8]	1	20[#8]	3000
NEPM 2013 GIL - Fresh Waters				0.2[#8]		1.4[#8]	3.4[#8]	0.06[#10]	11[#8]	8[#11]
NEPM 2013 GIL - Marine Waters				0.7[#12]		1.3[#8]	4.4[#8]	0.1[#13]	7[#8]	15[#14]
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+										
NEPM 2013 GIL - Recreational			100	20	500	20000	100	10	200	30,000
MW625	5/02/2013	Lot 12	<1	0.2	1	19	<1	<0.05	1	99
MW625	16/07/2013	Lot 12	<1	<0.1	<1	8	<1	<0.05	1	64
MW625	31/01/2014	Lot 12	<1	0.1	<1	10	<1	<0.05	2	90
MW625	24/03/2015	Lot 12	-	-	-	-	-	-	-	-
MW328	2/06/2005	Lot 8	<1	0.1	<1	<1	10	<1	27	1
MW328	12/08/2005	Lot 8	2	<0.2	1	6	<1	<0.1	2	45
MW328	20/09/2005	Lot 8	1	<0.5	<1	<1	1	<0.1	<1	67
MW328	2/08/2012	Lot 8	3	<0.1	<1	2	<1	<0.05	<1	5
MW328	17/07/2013	Lot 8	2	<0.1	<1	2	<1	<0.05	<1	5
MW328	30/01/2014	Lot 8	3	<0.1	<1	<1	<1	<0.05	<1	5
MW328	25/03/2015	Lot 8	7	<0.1	<1	1	<1	<0.05	<1	1.3
MW402	12/12/2007	Lot 8	1.6	0.1	<1	1.5	<1	<0.5	<1	180
MW402	2/08/2012	Lot 8	<1	0.2	<1	6	<1	<0.05	1	100
MW402	5/02/2013	Lot 8	2	0.2	1	3	<1	<0.05	<1	52
MW402	17/07/2013	Lot 8	5	0.2	1	7	<1	<0.05	1	70
MW402	30/01/2014	Lot 8	3	0.2	<1	2	<1	0.05	<1	47
MW402	25/03/2015	Lot 8	4	0.2	<1	3	<1	0.05	<1	57
MW403	12/12/2007	Lot 8	<1	<0.1	<1	<1	<1	<0.5	1.2	180
MW403	2/08/2012	Lot 8	1	<0.1	<1	<1	<1	<0.05	<1	3
MW403	5/02/2013	Lot 8	<1	<0.1	<1	<1	<1	<0.05	<1	<1
MW403	17/07/2013	Lot 8	1	<0.1	<1	<1	<1	<0.05	<1	2
MW403	30/01/2014	Lot 8	<1	<0.1	<1	<1	<1	<0.05	<1	1
MW403	30/03/2015	Lot 8	1	<0.1	<1	<1	<1	<0.05	<1	55
MW405	12/12/2007	Lot 8	2.2	<0.1	<1	<1	<1	<0.5	1.2	16
MW405	2/08/2012	Lot 8	<1	<0.1	1	<1	<1	<0.05	<1	19
MW405	5/02/2013	Lot 8	1	<0.1	<1	<1	<1	<0.05	<1	12
MW405	17/07/2013	Lot 8	1	<0.1	<1	3	<1	<0.05	<1	20
MW405	30/01/2014	Lot 8	2	<0.1	1	<1	<1	<0.05	<1	14
MW405	25/03/2015	Lot 8	2	<0.1	<1	2	<1	<0.05	<1	8
MW118	2/05/2003	Lot 9	1	0.3	1	2	2	<0.1	7	50
MW14	3/04/2014	Lot 9	2	<0.1	<1	1	<1	<0.05	7	17
MW14	24/03/2015	Lot 9	<1	<0.1	<1	1	<1	<0.05	2	4
MW15	3/04/2014	Lot 9	2	<0.1	<1	<1	<1	<0.05	1	25
MW15	3/04/2014	Lot 9	<1	<0.1	1	<1	<1	<0.05	2	10
MW15	24/03/2015	Lot 9	2	<0.1	<1	<1	<1	<0.05	3	3
MW16	27/05/1993	Lot 9	<100	<10	<50	<10	<100	<200	-	30
MW16	24/03/2015	Lot 9	<1	<0.1	1	<1	<1	<0.05	<1	1
MW25	27/05/1993	Lot 9	<100	<10	<50	<10	<100	<200	-	10
MW315	3/08/2012	Lot 9	3	<0.1	<1	1	<1	<0.05	3	27
MW318	12/08/2005	Lot 9	<1	1	<1	6	<1	<0.1	5	200
MW318	20/09/2005	Lot 9	1	<0.5	<1	<1	<1	<0.1	<1	130
MW318	14/11/2007	Lot 9	<1	0.15	<1	8.3	<1	<0.5	2.4	200
MW318D	2/07/2007	Lot 9	-	-	-	-	-	-	-	-
MW318S	2/07/2007	Lot 9	<1	0.1	<1	5.6	<1	<0.5	52	179
MW322	31/05/2005	Lot 9	4	<0.2	<1	<1	<1	<0.1	2	350
MW322	12/08/2005	Lot 9	5	<0.5	1	<1	<1	<0.1	5	890
MW322	20/09/2005	Lot 9	5	<0.5	<1	<1	1	<0.1	<1	900
MW322	2/07/2007	Lot 9	2	0.6	<1	7.4	19	<0.5	290	770
MW322	14/11/2007	Lot 9	<1	0.15	<1	<1	<1	0.5	<1	430
MW503	7/02/2008	Lot 9	1.2	0.1	1	4.3	4	<0.5	6.6	57
MW503	3/05/2010	Lot 9	<1	<0.1	<1	2	<1	<0.5	<1	4
MW503	15/12/2010	Lot 9	<1	<0.1	<1	<1	<1	<0.5	<1	3
MW503	16/12/2010	Lot 9	<1	<0.1	<1	<1	<1	<0.4	<1	3
MW503	12/01/2011	Lot 9	-	-	-	-	-	-	-	-
MW503	14/12/2011	Lot 9	<1	<0.1	1	1	<1	<0.05	<1	10
MW503	2/08/2012	Lot 9	7	<0.1	<1	<1	<1	<0.05	<1	<1
MW503	30/01/2014	Lot 9	1	<0.1	<1	<1	<1	0.05	<1	5
MW504	7/02/2008	Lot 9	1.3	<0.1	1.3	<1	<1	<0.5	27	16
MW504	2/08/2012	Lot 9	<1	<0.1	<1	2	<1	<0.05	<1	10
MW504	3/08/2012	Lot 9	<1	<0.1	<1	2	<1	<0.05	<1	10
MW504	5/02/2013	Lot 9	<1	<0.1	<1	1	<1	<0.05	<1	9
MW504	17/07/2013	Lot 9	<1	<0.1	<1	3	2	<0.05	<1	21
MW504	30/01/2014	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	5
MW504	24/03/2015	Lot 9	4	<0.1	<1	<1	<1	<0.05	<1	2
MW507	7/02/2008	Lot 9	2.7	<0.1	<1	<1	<1	<0.5	27	32
MW507	5/02/2013	Lot 9	<1	<0.1	<1	3	<1	<0.05	<1	3
MW507	17/07/2013	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	30
MW507	30/01/2014	Lot 9	<1	<0.1	<1	1	1	<0.05	<1	6
MW507	24/03/2015	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	9
MW508	7/02/2008	Lot 9	1.2	<0.1	<1	<1	<1	<0.5	15	33
MW508	5/03/2010	Lot 9	<1	13	<1	5	<1	<0.5	3	1600
MW508	19/03/2010	Lot 9	<1	1.3	<1	5	<1	<0.5	3	1600
MW508	8/06/2010	Lot 9	-	-	-	-	-	-	-	16
MW508	16/12/2010	Lot 9	<1	<0.1	<1	<1	<1	<0.4	2	540

Chlorinated Alkanes

Sample ID	Date	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
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs				1900																		
NEPM 2013 GIL - Drinking Water									3					250[#9]	3		250[#9]		250[#9]		4	
NEPM 2013 GIL - Fresh Waters				6500																		
NEPM 2013 GIL - Marine Waters				1900																		
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+																						
NEPM 2013 GIL - Recreational									30					2500	30		2500		2500		40	
MW625	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW625	16/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW625	31/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW625	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW328	2/06/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	12/08/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	20/09/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW328	17/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW328	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW328	25/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW402	12/12/2007	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	-	<10	<1	<10
MW402	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW402	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW402	17/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	1	<10	<1	<10	-	<1
MW402	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW402	25/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW403	12/12/2007	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	-	<10	<1	<10
MW403	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW403	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
MW403	17/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
MW403	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW403	30/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW405	12/12/2007	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	-	<10	<1	<10
MW405	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW405	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW405	17/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW405	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW405	25/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW118	2/05/2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW14	3/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW14	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW15	3/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	3/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW16	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW25	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW315	3/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW318	12/08/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	20/09/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	14/11/2007	-	6.8	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW318D	2/07/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW318S	2/07/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW322	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	12/08/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	20/09/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	2/07/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW322	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	7/02/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW503	3/05/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<10	<1	<10	<1	<1	-	<10
MW503	15/12/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	16/12/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW503	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	14/12/2011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW503	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW503	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<10	<1	<10	-	<1
MW504	7/02/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW504	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW504	3/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW504	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW504	17/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW504	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW504	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW507	7/02/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW507	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW507	17/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW507	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW507	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW508	7/02/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW508	5/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	19/03/2010	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<100	<10	<100	<10	<10	-	<100
MW508	8/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	16/12/2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10

Chlorinated Alkenes

Sample ID	Date	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	1,1-dichloropropene	2-chlorotoluene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs													
NEPM 2013 GIL - Drinking Water		50	30										0.3
NEPM 2013 GIL - Fresh Waters													
NEPM 2013 GIL - Marine Waters													
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+													
NEPM 2013 GIL - Recreational		500	300									200[#7]	3
MW625	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW625	16/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW625	31/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW625	24/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW328	2/06/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW328	12/08/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW328	20/09/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW328	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1
MW328	17/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW328	30/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW328	25/03/2015	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW402	12/12/2007	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW402	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1
MW402	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW402	17/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW402	30/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW402	25/03/2015	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW403	12/12/2007	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW403	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1
MW403	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MW403	17/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
MW403	30/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW403	30/03/2015	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW405	12/12/2007	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW405	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1
MW405	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW405	17/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW405	30/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW405	25/03/2015	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW118	2/05/2003	-	-	-	-	-	-	-	-	-	-	-	-
MW14	3/04/2014	-	-	-	-	-	-	-	-	-	-	-	-
MW14	24/03/2015	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW15	3/04/2014	-	-	-	-	-	-	-	-	-	-	-	-
MW15	3/04/2014	-	-	-	-	-	-	-	-	-	-	-	-
MW15	24/03/2015	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW16	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-
MW16	24/03/2015	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW25	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-
MW315	3/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW318	12/08/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW318	20/09/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW318	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW318D	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW318S	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW322	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW322	12/08/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW322	20/09/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW322	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW322	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW503	7/02/2008	-	-	-	-	-	-	-	-	-	-	-	-
MW503	3/05/2010	-	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<10
MW503	15/12/2010	-	-	-	-	-	-	-	-	-	-	-	-
MW503	16/12/2010	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW503	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-
MW503	14/12/2011	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW503	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1
MW503	30/01/2014	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW504	7/02/2008	-	-	-	-	-	-	-	-	-	-	-	-
MW504	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1
MW504	3/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW504	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW504	17/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW504	30/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW504	24/03/2015	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW507	7/02/2008	-	-	-	-	-	-	-	-	-	-	-	-
MW507	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW507	17/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW507	30/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW507	24/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW508	7/02/2008	-	-	-	-	-	-	-	-	-	-	-	-
MW508	5/03/2010	-	-	-	-	-	-	-	-	-	-	-	-
MW508	19/03/2010	-	<10	-	<10	-	<10	<10	<10	<10	<10	<10	<100
MW508	8/06/2010	-	-	-	-	-	-	-	-	-	-	-	-
MW508	16/12/2010	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10

TPHs (NEPC 1999) and TPHs (NEPC 1999) - Silica Gel

Sample ID	Date	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)
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs									
NEPM 2013 GIL - Drinking Water									
NEPM 2013 GIL - Fresh Waters									
NEPM 2013 GIL - Marine Waters									
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m		1000[#16]	1000[#17]						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m		1000[#16]	1000[#17]						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+		1000[#16]	1000[#17]						
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m		6000[#16]							
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m		6000[#16]							
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+		7000[#16]							
NEPM 2013 GIL - Recreational									
MW625	5/02/2013	<10	<50	<100	<100	<250	-	-	-
MW625	16/07/2013	<10	<50	<100	<100	<250	-	-	-
MW625	31/01/2014	<10	<50	<100	<100	<250	-	-	-
MW625	24/03/2015	<10	150	<100	<100	<250	-	-	-
MW328	2/06/2005	<40	<100	300	<200	300	-	-	-
MW328	12/08/2005	<40	<100	<200	<200	<500	-	-	-
MW328	20/09/2005	<40	<100	<200	<200	<500	-	-	-
MW328	2/08/2012	<10	<50	<100	<100	<250	-	-	-
MW328	17/07/2013	<10	<50	<100	<100	<250	-	-	-
MW328	30/01/2014	<10	<50	<100	<100	<250	-	-	-
MW328	25/03/2015	<10	<50	<100	<100	<250	-	-	-
MW402	12/12/2007	<10	<50	<100	<50	<250	-	-	-
MW402	2/08/2012	<10	<50	<100	<100	<250	-	-	-
MW402	5/02/2013	<10	<50	<100	<100	<250	-	-	-
MW402	17/07/2013	<10	<50	<100	<100	<250	-	-	-
MW402	30/01/2014	<10	<50	<100	<100	<250	-	-	-
MW402	25/03/2015	<10	<50	<100	<100	<250	-	-	-
MW403	12/12/2007	<10	<50	380	<100	380	-	-	-
MW403	2/08/2012	<10	<50	<100	<100	<250	-	-	-
MW403	5/02/2013	<10	<50	<100	<100	<250	-	-	-
MW403	17/07/2013	<10	<50	<100	<100	<250	-	-	-
MW403	30/01/2014	<10	<50	<100	<100	<250	-	-	-
MW403	30/03/2015	<10	<50	<100	<100	<250	-	-	-
MW405	12/12/2007	<10	<50	<100	<100	<250	-	-	-
MW405	2/08/2012	<10	<50	<100	<100	<250	-	-	-
MW405	5/02/2013	<10	<50	<100	<100	<250	-	-	-
MW405	17/07/2013	<10	<50	<100	<100	<250	-	-	-
MW405	30/01/2014	<10	<50	<100	<100	<250	-	-	-
MW405	25/03/2015	<10	<50	<100	<100	<250	-	-	-
MW118	2/05/2003	<40	<100	<200	<200	<500	-	-	-
MW14	3/04/2014	<10	<50	<100	<100	<250	-	-	-
MW14	24/03/2015	<10	<50	<100	<100	<250	-	-	-
MW15	3/04/2014	<10	<50	<100	<100	<250	-	-	-
MW15	3/04/2014	<10	<50	<100	<100	<250	-	-	-
MW15	24/03/2015	<10	<50	<100	<100	<250	-	-	-
MW16	27/05/1993	<1	4	29	4	36	-	-	-
MW16	24/03/2015	<10	<50	<100	<100	<250	-	-	-
MW25	27/05/1993	<1	11	24	<1	35	-	-	-
MW315	3/08/2012	<10	120	390	<100	520	-	-	-
MW318	12/08/2005	<40	200	600	<200	800	-	-	-
MW318	20/09/2005	<40	2400	2900	<200	5300	-	-	-
MW318	14/11/2007	66	<50	<100	<100	<250	-	-	-
MW318D	2/07/2007	-	-	-	-	-	-	-	-
MW318S	2/07/2007	<10	200	960	<100	1160	-	-	-
MW322	31/05/2005	<40	<100	<200	<200	0	-	-	-
MW322	12/08/2005	<40	<100	<200	<200	<500	-	-	-
MW322	20/09/2005	<40	<100	<200	<200	<500	-	-	-
MW322	2/07/2007	<10	<50	<100	<100	<250	-	-	-
MW322	14/11/2007	<10	<50	<100	<100	<250	-	-	-
MW503	7/02/2008	<10	<50	<100	<100	<250	-	-	-
MW503	3/05/2010	<10	<50	<100	<100	0	-	-	-
MW503	15/12/2010	<10	<50	<100	<100	<250	-	-	-
MW503	16/12/2010	<10	<50	<100	<100	<250	-	-	-
MW503	12/01/2011	-	-	-	-	-	-	-	-
MW503	14/12/2011	<10	<50	<100	<100	<250	-	-	-
MW503	2/08/2012	<10	<50	<100	<100	<250	-	-	-
MW503	30/01/2014	<10	<50	<100	<100	<250	-	-	-
MW504	7/02/2008	-	-	-	-	-	-	-	-
MW504	2/08/2012	<10	<50	<100	<100	<250	-	-	-
MW504	3/08/2012	<10	<50	<100	<100	<250	-	-	-
MW504	5/02/2013	<10	<50	<100	<100	<250	-	-	-
MW504	17/07/2013	<10	<50	<100	<100	<250	-	-	-
MW504	30/01/2014	<10	<50	<100	<100	<250	-	-	-
MW504	24/03/2015	<10	<50	<100	<100	<250	-	-	-
MW507	7/02/2008	<10	<50	<100	<100	<250	-	-	-
MW507	5/02/2013	<10	<50	<100	<100	<250	-	-	-
MW507	17/07/2013	<10	<50	<100	<100	<250	-	-	-
MW507	30/01/2014	<10	<50	<100	<100	<250	-	-	-
MW507	24/03/2015	<10	<50	<100	<100	<250	-	-	-
MW508	7/02/2008	<10	<50	<100	<100	<250	-	-	-
MW508	5/03/2010	<100	-	-	-	-	-	-	-
MW508	19/03/2010	<100	<50	<100	<100	0	-	-	-
MW508	8/06/2010	-	-	-	-	-	-	-	-
MW508	16/12/2010	<10	<50	<100	<100	<250	-	-	-

			TRHs (NEPC 2013)					TRHs (NEPC 2013) - Silica Gel	BTEX						Polycyclic Aromatic Hydrocarbons																	Monocyclic Aromatic Hydrocarbons											Miscellaneous Hydrocarbons							
			>C10-C16 Fraction	>C16-C34 Fraction	>C6-C10 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,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
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs																																															
NEPM 2013 GIL - Drinking Water									1	300	800			600					0.01																					30					250[#8]	1				
NEPM 2013 GIL - Fresh Waters									950				350														16																						
NEPM 2013 GIL - Marine Waters									500[#15]																		50[#15]																						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m						1000[#16]		1000[#17]	800	NL	NL			NL													NL																						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m						1000[#16]		1000[#17]	800	NL	NL			NL													NL																						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+						1000[#16]		1000[#17]	900	NL	NL			NL													NL																						
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m						6000[#16]		NL	5000	NL	NL			NL													NL																						
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m						6000[#16]		NL	5000	NL	NL			NL													NL																						
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+						7000[#16]		NL	5000	NL	NL			NL													NL																						
NEPM 2013 GIL - Recreational									10	3000	8000			6000					0.1																					300					2500	10				
Sample ID	**Date**	**Location**																																														
MW625	5/02/2013	Lot 12	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<2	<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	-
MW625	16/07/2013	Lot 12	<50	<100	<10	<100	<10	<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	<10	<1	<1	-
MW625	31/01/2014	Lot 12	<50	<100	<10	<100	<10	<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
MW625	24/03/2015	Lot 12	150	<100	<10	<100	<10	150	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	2/06/2005	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	12/08/2005	Lot 8	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	20/09/2005	Lot 8	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	2/08/2012	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	-
MW328	17/07/2013	Lot 8	<50	<100	<10	<100	<10	<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	-
MW328	30/01/2014	Lot 8	<50	<100	<10	<100	<10	<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	<10	<1	<1	<1
MW328	25/03/2015	Lot 8	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402	12/12/2007	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	-
MW402	2/08/2012	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	-
MW402	5/02/2013	Lot 8	<50	<100	<10	<100	<10	<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	-
MW402	17/07/2013	Lot 8	<50	<100	<10	<100	<10	<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	-
MW402	30/01/2014	Lot 8	<50	<100	<10	<100	<10	<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	<10	<1	<1	<1
MW402	25/03/2015	Lot 8	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403	12/12/2007	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	-
MW403	2/08/2012	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	-
MW403	5/02/2013	Lot 8	<50	<100	<10	<100	<10	<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	-
MW403	17/07/2013	Lot 8	<50	<100	<10	<100	<10	<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	-
MW403	30/01/2014	Lot 8	<50	<100	<10	<100	<10	<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	-
MW403	24/03/2015	Lot 8	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW405	12/12/2007	Lot 8	<50	<100	<10	<100	<10	<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	-
MW405	2/08/2012	Lot 8	<50	<100	<10	<100	<10	<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	-
MW405	5/02/2013	Lot 8	<50	<100	<10	<100	<10	<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	-
MW405	17/07/2013	Lot 8	<50	<100	<10	<100	<10	<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	-
MW405	30/01/2014	Lot 8	<50	<100	<10	<100	<10	<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	<10	<1	<1	<1
MW405	25/03/2015	Lot 8	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	2/05/2003	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	1	<0.5	<0.5	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW14	3/04/2014	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW14	24/03/2015	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	3/04/2014	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	3/04/2014	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	24/03/2015	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	27/05/1993	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	24/03/2015	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW25	27/05/1993	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW315	3/08/2012	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	-
MW318	12/08/2005	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	20/09/2005	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	14/11/2007	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318D	2/07/2007	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318S	2/07/2007	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	31/05/2005	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	12/08/2005	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	20/09/2005	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	2/07/2007	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	14/11/2007	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	7/02/2008	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	3/05/2010	Lot 9	-	-	-	-	-	-	<1	<1	<1	<2	<1	<2	<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	-	-	<10	-	-	<1	-
MW503	15/12/2010	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	<0.1	-	<0.1	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	16/12/2010	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	-	-	<10	<1	<1	<1	-
MW503	12/01/2011	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	14/12/2011	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	<1	<10	<1	<1	-
MW503	2/08/2012	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	-
MW503	30/01/2014	Lot 9	<50	<100	<10	<100	<50	<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	-
MW504	7/02/2008	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW504	2/08/2012	Lot 9	<50	<100	<10	<100	<10	<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	-
MW504	3/08/2012	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	-
MW504	5/02/2013	Lot 9	<50	<100	<10	<100	<10	<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	-
MW504	17/07/2013	Lot 9	<50	<100	<10	<100	<10	<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	-
MW504	30/01/2014	Lot 9	<50	<100	<10	<100	<10	<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	<10	<1	<1	<1
MW504	24/03/2015	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW507	7/02/2008	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW507	5/02/2013	Lot 9	<50	<100	<10	<100	<10	<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	-
MW507	17/07/2013	Lot 9	<50	<100	<10	<100	<10	<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	-
MW507	30/01/2014	Lot 9	<50	<100	<10	<100	<10	<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	<10	<1	<1	<1
MW507	24/03/2015	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	7/02/2008	Lot 9	-	-	-	-	-	-	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	5/03/2010	Lot 9	-	-	-	-	-	-	<10	<10	<10	-	-	<30	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	19/03/2010	Lot 9	-	-	-	-	-	-	<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	<100	-	<10	-
MW508	8/06/2010	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	16/12/2010	Lot 9	-	-	-	-	-	-	<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	-	-	<10	<1	<1	<1	-

Project Name: Locomotive Workshop Stage LTEMP

JBS&G

			Chlorinated Benzenes							Polychlorinated Biphenyls								Phenols	Miscellaneous Industrial Chemicals
Sample ID	Date	Location	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	Chlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Phenols (Total)	Hexachlorobutadiene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs																			
NEPM 2013 GIL - Drinking Water			30	30	1500	300		40											0.7
NEPM 2013 GIL - Fresh Waters			3[#10]	85[#10]	160		260	60					0.3[#10]		0.01[#10]				
NEPM 2013 GIL - Marine Waters				20[#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+																			
NEPM 2013 GIL - Recreational					15000	3000		400											7
MW625	5/02/2013	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW625	16/07/2013	Lot 12	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW625	31/01/2014	Lot 12	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW625	24/03/2015	Lot 12	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW328	2/06/2005	Lot 8	-	-	-	-	-	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	-
MW328	12/08/2005	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	20/09/2005	Lot 8	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW328	2/08/2012	Lot 8	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW328	17/07/2013	Lot 8	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	<0.2
MW328	30/01/2014	Lot 8	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW328	25/03/2015	Lot 8	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW402	12/12/2007	Lot 8	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	<1
MW402	2/08/2012	Lot 8	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW402	5/02/2013	Lot 8	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW402	17/07/2013	Lot 8	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	<0.2
MW402	30/01/2014	Lot 8	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW402	25/03/2015	Lot 8	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW403	12/12/2007	Lot 8	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	<1
MW403	2/08/2012	Lot 8	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW403	5/02/2013	Lot 8	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW403	17/07/2013	Lot 8	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW403	30/01/2014	Lot 8	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW403	30/03/2015	Lot 8	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW405	12/12/2007	Lot 8	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	<1
MW405	2/08/2012	Lot 8	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW405	5/02/2013	Lot 8	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW405	17/07/2013	Lot 8	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW405	30/01/2014	Lot 8	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW405	25/03/2015	Lot 8	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW118	2/05/2003	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW14	3/04/2014	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW14	24/03/2015	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW15	3/04/2014	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW15	3/04/2014	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW15	24/03/2015	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW16	27/05/1993	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	24/03/2015	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW25	27/05/1993	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW315	3/08/2012	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW318	12/08/2005	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	20/09/2005	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	14/11/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318D	2/07/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318S	2/07/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	-
MW322	31/05/2005	Lot 9	-	-	-	-	-	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	-
MW322	12/08/2005	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	20/09/2005	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	2/07/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-
MW322	14/11/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
MW503	3/05/2010	Lot 9	<1	<1	<1	<1	<1	<1	<0.2	<2	<2	<2	<2	<2	<2	<2	0	-	<1
MW503	15/12/2010	Lot 9	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-
MW503	16/12/2010	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW503	12/01/2011	Lot 9	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-
MW503	14/12/2011	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW503	2/08/2012	Lot 9	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW503	30/01/2014	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW504	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
MW504	2/08/2012	Lot 9	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW504	3/08/2012	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW504	5/02/2013	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW504	17/07/2013	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW504	30/01/2014	Lot 9	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW504	24/03/2015	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW507	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
MW507	5/02/2013	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW507	17/07/2013	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<0.2
MW507	30/01/2014	Lot 9	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	-	-	<1
MW507	24/03/2015	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW508	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
MW508	5/03/2010	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	-	-	-
MW508	19/03/2010	Lot 9	<10	<10	<10	<10	<10	<10	<0.2	<2	<2	<2	<2	<2	<2	<2	0	-	<10
MW508	8/06/2010	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	16/12/2010	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<2	<2	<2	<2	<2	<2	-	-	<1

			Organochlorine Pesticides																						Organophosphorus Pesticides									
Sample ID	Date	Location	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
ANZG (2018) Marine water 95% toxicant DGVs																										0.009[#3]								
NEPM 2013 GIL - Drinking Water				0.3						9			2										0.3			10		4	5	7	4	1	7	
NEPM 2013 GIL - Fresh Waters										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+																																		
NEPM 2013 GIL - Recreational				3						90			20									3		3000	100	100		40	50	70	40	10	70	
MW625	5/02/2013	Lot 12	<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
MW625	16/07/2013	Lot 12	<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
MW625	31/01/2014	Lot 12	<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	24/03/2015	Lot 12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	2/06/2005	Lot 8	<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	-
MW328	12/08/2005	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	20/09/2005	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW328	2/08/2012	Lot 8	<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	17/07/2013	Lot 8	<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	30/01/2014	Lot 8	<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
MW328	25/03/2015	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402	12/12/2007	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402	2/08/2012	Lot 8	<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	5/02/2013	Lot 8	<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	17/07/2013	Lot 8	<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	30/01/2014	Lot 8	<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
MW402	25/03/2015	Lot 8																																
MW403	12/12/2007	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403	2/08/2012	Lot 8	<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
MW403	5/02/2013	Lot 8	<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
MW403	17/07/2013	Lot 8	<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
MW403	30/01/2014	Lot 8	<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
MW403	30/03/2015	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW405	12/12/2007	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW405	2/08/2012	Lot 8	<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	5/02/2013	Lot 8	<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	17/07/2013	Lot 8	<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	30/01/2014	Lot 8	<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
MW405	25/03/2015	Lot 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	2/05/2003	Lot 9	<0.2	-	-	-	-	-	-	<0.4	-	-	<0.4	-	-	-	-	-	-	-	-	<0.2	-	-	<0.2	<0.2	-	-	-	-	<0.2	<0.2	-	-
MW14	3/04/2014	Lot 9	<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
MW14	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW15	3/04/2014	Lot 9	<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
MW15	3/04/2014	Lot 9	<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
MW15	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	27/05/1993	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW16	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW25	27/05/1993	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW315	3/08/2012	Lot 9	<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	12/08/2005	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	20/09/2005	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	14/11/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318D	2/07/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318S	2/07/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	31/05/2005	Lot 9	<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	-
MW322	12/08/2005	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	20/09/2005	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	2/07/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW322	14/11/2007	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW503	3/05/2010	Lot 9	<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	15/12/2010	Lot 9	<0.02	-	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-
MW503	16/12/2010	Lot 9	<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	12/01/2011	Lot 9	<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	14/12/2011	Lot 9	<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	2/08/2012	Lot 9	<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
MW503	30/01/2014	Lot 9	<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	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW504	2/08/2012	Lot 9	<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	3/08/2012	Lot 9	<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	5/02/2013	Lot 9	<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	17/07/2013	Lot 9	<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	30/01/2014	Lot 9	<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
MW504	24/03/2015	Lot 9	<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
MW507	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW507	5/02/2013	Lot 9	<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	17/07/2013	Lot 9	<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	30/01/2014	Lot 9	<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	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	5/03/2010	Lot 9	<0.02	-	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-
MW508	19/03/2010	Lot 9	<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	8/06/2010	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	16/12/2010	Lot 9	<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	-	-	-	-	-	-	-	-	-	-

4/11/2020

Project Name: Locomotive Workshop Stage LTEMP

JBS&G

Metals & Metalloids

Sample ID	Date	Location	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs						1.3[#1]	4.4[#1]			15[#2]
NEPM 2013 GIL - Drinking Water			10	2[#8]	50	2000[#8]	10[#8]	1	20[#8]	3000
NEPM 2013 GIL - Fresh Waters				0.2[#8]		1.4[#8]	3.4[#8]	0.06[#10]	11[#8]	8[#11]
NEPM 2013 GIL - Marine Waters				0.7[#12]		1.3[#8]	4.4[#8]	0.1[#13]	7[#8]	15[#14]
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+										
NEPM 2013 GIL - Recreational			100	20	500	20000	100	10	200	30,000
Sample ID	**Date**	**Location**								
MW508	12/01/2011	Lot 9	-	-	-	-	-	-	-	-
MW508	14/12/2011	Lot 9	<1	0.1	<1	2	<1	<0.05	<1	410
MW508	2/08/2012	Lot 9	7	<0.1	<1	<1	<1	<0.05	2	890
MW508	17/07/2013	Lot 9	<1	0.3	<1	1	<1	<0.05	1	810
MW508	30/01/2014	Lot 9	4	<0.1	<1	<1	<1	<0.05	3	690
MW508	24/03/2015	Lot 9	20	<0.1	<1	<1	<1	<0.05	3	650
MW511	7/02/2008	Lot 9	1.4	<0.1	1.6	<1	<1	<0.5	33	20
MW511	2/08/2012	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	1
MW511	5/02/2013	Lot 9	<1	<0.1	<1	3	<1	<0.5	<1	2
MW511	17/07/2013	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	2
MW511	30/01/2014	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	<1
MW511	24/03/2015	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	<1
MW513	7/02/2008	Lot 9	<1	<0.1	1.1	3.8	1.7	<0.05	18	84
MW513	24/03/2015	Lot 9	<1	<0.1	<1	<1	<1	<0.05	<1	4
MW01	25/01/2001	Off-site	<10	<1	<1	3	<1	<0.1	4	570
MW02	25/01/2001	Off-site	<10	<1	<1	4	1	<0.1	2	483
MW1	29/09/1994	Off-site	<10	-	-	<10	<100	-	-	<10
MW1	25/01/2001	Off-site	<10	<1	<1	3	<1	<0.1	1	575
MW2	27/05/1993	Off-site	<100	<10	<50	<10	<100	<200	-	<10
MW2	29/09/1994	Off-site	<10	-	-	<10	<100	-	-	10
MW318	31/05/2005	Off-site	<1	<0.2	<1	<1	<1	<0.1	2	9
MW319	31/05/2005	Off-site	<1	0.2	<1	2	<1	<0.1	6	31
MW319	12/08/2005	Off-site	<1	2	<1	2	<1	<0.1	7	110
MW319	20/09/2005	Off-site	<1	<0.5	<1	<1	<1	<0.1	<1	79
MW401A	2/07/2007	Off-site	1.1	11	1.5	3.9	3.8	<0.5	51	290
MW401A	14/11/2007	Off-site	<1	0.37	<1	<1	27	<0.5	15	7
MW401A	17/07/2013	Off-site	1.6	0.1	<1	1.5	<1	<0.5	<1	190
MW402A	2/07/2007	Off-site	<1	0.5	<1	9	1.5	<0.5	79	160
MW402A	14/11/2007	Off-site	<1	<0.1	<1	<1	1.6	<0.5	<1	17
MW402B	2/07/2007	Off-site	2.1	<0.1	<1	1.9	<1	<0.5	-	51
MW402B	14/11/2007	Off-site	<1	<0.1	<1	<1	2.2	<0.5	<1	<1
MW403B	2/07/2007	Off-site	-	0.2	1.2	5.9	1.4	<0.5	11	370
MW403C	2/07/2007	Off-site	-	0.1	1.2	2.2	2.4	<0.5	23	74
MW42	27/05/1993	Off-site	<100	<10	<50	200	<100	<200	-	20
MW602	14/11/2007	Off-site	<1	<0.1	<1	<1	<1	<0.5	4.4	2.4
MW603	14/11/2007	Off-site	<1	<0.1	<1	<1	2.5	<0.5	<1	<1
MW604	14/11/2007	Off-site	<1	<0.1	<1	<1	<1	<0.5	<1	<1
MW605	14/11/2007	Off-site	<1	<0.1	<1	<1	<1	<0.5	1.2	9
MW66	27/05/1993	Off-site	<100	<10	<50	<10	<100	<200	-	20
MWP208A-A	26/03/2008	Off-site	-	-	-	-	-	-	-	-
MWP208A-B	26/03/2008	Off-site	-	-	-	-	-	-	-	-
MWP208A-C	26/03/2008	Off-site	-	-	-	-	-	-	-	-
MWP208A-D	26/03/2008	Off-site	-	-	-	-	-	-	-	-
MWP208A-E	26/03/2008	Off-site	4.3	<0.1	<1	<1	<1	<0.5	2	3.7

Chlorinated Alkanes

Sample ID	Date	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
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs				1900																		
NEPM 2013 GIL - Drinking Water									3					250[#9]	3		250[#9]		250[#9]		4	
NEPM 2013 GIL - Fresh Waters				6500																		
NEPM 2013 GIL - Marine Waters				1900																		
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+																						
NEPM 2013 GIL - Recreational									30					2500	30		2500		2500		40	
MW508	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	14/12/2011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	-	<10
MW508	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW508	17/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW508	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW508	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW511	7/02/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW511	2/08/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<10
MW511	5/02/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW511	17/07/2013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW511	30/01/2014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
MW511	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW513	7/02/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW513	24/03/2015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<10	-	<1
MW01	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW319	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW319	12/08/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW319	20/09/2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	2/07/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	2.2	-	-	-	-	-
MW401A	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	17/07/2013	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW402A	2/07/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW402A	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402B	2/07/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW402B	14/11/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW403B	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403C	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW42	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW602	14/11/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW603	14/11/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW604	14/11/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW605	14/11/2007	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
MW66	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-A	26/03/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-B	26/03/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-C	26/03/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-D	26/03/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-E	26/03/2008	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-

Chlorinated Alkenes

Sample ID	Date	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	1,1-dichloropropene	2-chlorotoluene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs													
NEPM 2013 GIL - Drinking Water		50	30										0.3
NEPM 2013 GIL - Fresh Waters													
NEPM 2013 GIL - Marine Waters													
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+													
NEPM 2013 GIL - Recreational		500	300									200[#7]	3
MW508	12/01/2011	-	-	-	-	-	-	-	-	-	-	-	-
MW508	14/12/2011	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW508	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1
MW508	17/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW508	30/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW508	24/03/2015	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW511	7/02/2008	-	-	-	-	-	-	-	-	-	-	-	-
MW511	2/08/2012	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	<1
MW511	5/02/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW511	17/07/2013	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW511	30/01/2014	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW511	24/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW513	7/02/2008	-	-	-	-	-	-	-	-	-	-	-	-
MW513	24/03/2015	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<10
MW01	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-
MW02	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-
MW1	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-
MW1	25/01/2001	-	-	-	-	-	-	-	-	-	-	-	-
MW2	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-
MW2	29/09/1994	-	-	-	-	-	-	-	-	-	-	-	-
MW318	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW319	31/05/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW319	12/08/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW319	20/09/2005	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	17/07/2013	-	-	-	-	-	-	-	-	-	-	-	-
MW402A	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW402A	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW402B	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW402B	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW403B	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW403C	2/07/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW42	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-
MW602	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW603	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW604	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW605	14/11/2007	-	-	-	-	-	-	-	-	-	-	-	-
MW66	27/05/1993	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-A	26/03/2008	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-B	26/03/2008	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-C	26/03/2008	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-D	26/03/2008	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-E	26/03/2008	-	-	-	-	-	-	-	-	-	-	-	-

TPHs (NEPC 1999) / **TPHs (NEPC 1999) - Silica Gel**

Sample ID	Date	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)
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs									
NEPM 2013 GIL - Drinking Water									
NEPM 2013 GIL - Fresh Waters									
NEPM 2013 GIL - Marine Waters									
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m		1000[#16]	1000[#17]						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m		1000[#16]	1000[#17]						
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+		1000[#16]	1000[#17]						
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m		6000[#16]							
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m		6000[#16]							
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+		7000[#16]							
NEPM 2013 GIL - Recreational									
MW508	12/01/2011	-	-	-	-	-	-	-	-
MW508	14/12/2011	<10	<50	<100	<100	<250	-	-	-
MW508	2/08/2012	<10	<50	<100	<100	<250	-	-	-
MW508	17/07/2013	<10	<50	<100	<100	<250	-	-	-
MW508	30/01/2014	<10	<50	<100	<100	<250	-	-	-
MW508	24/03/2015	<10	<50	<100	<100	<250	-	-	-
MW511	7/02/2008	<10	<50	<100	<100	<250	-	-	-
MW511	2/08/2012	<10	<50	<100	<100	<250	-	-	-
MW511	5/02/2013	<10	<50	<100	<100	<250	-	-	-
MW511	17/07/2013	<10	<50	<100	<100	<250	-	-	-
MW511	30/01/2014	<10	<50	<100	<100	<250	-	-	-
MW511	24/03/2015	<10	<50	<100	<100	<250	-	-	-
MW513	7/02/2008	<10	<50	<100	<100	<250	-	-	-
MW513	24/03/2015	<10	<50	<100	<100	<250	-	-	-
MW01	25/01/2001	<20	<50	556	125	681	-	-	-
MW02	25/01/2001	<20	<50	<100	<50	-	-	-	-
MW1	29/09/1994	<20	<40	<200	<200	-	-	-	-
MW1	25/01/2001	<20	59	293	140	491	-	-	-
MW2	27/05/1993	<1	15	46	<1	61	-	-	-
MW2	29/09/1994	-	-	-	-	-	-	-	-
MW318	31/05/2005	<40	23000	29,000	<200	52,000	-	-	-
MW319	31/05/2005	<40	100	300	<200	400	-	-	-
MW319	12/08/2005	<40	<100	800	<200	800	-	-	-
MW319	20/09/2005	<40	100	300	<200	400	-	-	-
MW401A	2/07/2007	<10	2300	1500	300	4100	-	-	-
MW401A	14/11/2007	<10	<50	<100	<100	<250	-	-	-
MW401A	17/07/2013	<10	<50	<100	<100	<250	-	-	-
MW402A	2/07/2007	<10	<50	<100	<100	<250	-	-	-
MW402A	14/11/2007	<10	<50	<100	<100	<250	-	-	-
MW402B	2/07/2007	<10	<50	<100	<100	<250	-	-	-
MW402B	14/11/2007	<10	390	<100	<100	390	-	-	-
MW403B	2/07/2007	<10	<50	<100	<100	<250	-	-	-
MW403C	2/07/2007	<10	<50	<100	<100	<250	-	-	-
MW42	27/05/1993	4	15710	45,280	5	60 970	-	-	-
MW602	14/11/2007	<10	300	870	<100	1170	-	-	-
MW603	14/11/2007	<10	<50	<100	<100	<250	-	-	-
MW604	14/11/2007	<10	<50	<100	<100	<250	-	-	-
MW605	14/11/2007	<10	<50	<100	<100	<250	-	-	-
MW66	27/05/1993	<1	<1	140	<1	140	-	-	-
MWP208A-A	26/03/2008	24	<50	160	160	160	-	-	-
MWP208A-B	26/03/2008	<10	<50	<100	<100	<250	-	-	-
MWP208A-C	26/03/2008	<10	<50	<100	<100	<250	-	-	-
MWP208A-D	26/03/2008	<10	<50	<100	<100	<250	-	-	-
MWP208A-E	26/03/2008	<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 (2014a)

Table F: Groundwater Analytical Results
Project Number: 51142
Project Name: Locomotive Workshop Stage LTEMP

JBS&G

TRHs (NEPC 2013), TRHs (NEPC 2013) - Silica Gel and BTEX

Sample ID	Date	Location	TRHs (NEPC 2013) >C10-C16 Fraction	>C16-C34 Fraction	C6-C10 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)	TRHs (NEPC 2013) - Silica Gel >C10 - C16 less Naphthalene (F2)	BTEX Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs														
NEPM 2013 GIL - Drinking Water									1	300	800			600
NEPM 2013 GIL - Fresh Waters									950				350	
NEPM 2013 GIL - Marine Waters									500#15					
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m							1000#16	1000#17	800	NL	NL			NL
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m							1000#16	1000#17	800	NL	NL			NL
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+							1000#16	1000#17	900	NL	NL			NL
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m							6000#16	NL	5000	NL	NL			NL
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m							6000#16	NL	5000	NL	NL			NL
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+							7000#16	NL	5000	NL	NL			NL
NEPM 2013 GIL - Recreational									10	3000	8000			6000
Sample ID	**Date**	**Location**												
MW508	12/01/2011	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-
MW508	14/12/2011	Lot 9	-	-	-	-	-	-	<1	<1	<1	<2	<1	-
MW508	2/08/2012	Lot 9	-	-	-	-	-	-	<1	<1	<1	<2	<1	<3
MW508	17/07/2013	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3
MW508	30/01/2014	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3
MW508	24/03/2015	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3
MW511	7/02/2008	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	-	-	<3
MW511	2/08/2012	Lot 9	-	-	-	-	-	-	<1	<1	<1	<2	<1	<3
MW511	5/02/2013	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3
MW511	17/07/2013	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3
MW511	30/01/2014	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3
MW511	24/03/2015	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	<2	<1	<3
MW513	7/02/2008	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	-	-	<3
MW513	24/03/2015	Lot 9	<50	<100	<10	<100	<10	<50	<1	<1	<1	-	-	<3
MW01	25/01/2001	Off-site	-	-	-	-	-	-	<1	<2	<2	-	-	<2
MW02	25/01/2001	Off-site	-	-	-	-	-	-	<1	<2	<2	-	-	<2
MW1	29/09/1994	Off-site	-	-	-	-	-	-	<20	<20	<20	-	-	<20
MW1	25/01/2001	Off-site	-	-	-	-	-	-	<1	<2	<2	-	-	<2
MW2	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-
MW2	29/09/1994	Off-site	-	-	-	-	-	-	-	-	-	-	-	-
MW318	31/05/2005	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW319	31/05/2005	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW319	12/08/2005	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW319	20/09/2005	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW401A	2/07/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW401A	14/11/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<2
MW401A	17/07/2013	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW402A	2/07/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW402A	14/11/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW402B	2/07/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW402B	14/11/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW403B	2/07/2007	Off-site	<50	<100	<10	<100	<10	<50	<1	<1	<1	-	-	<3
MW403C	2/07/2007	Off-site	<50	<100	<10	<100	<10	<50	<1	<1	<1	-	-	<3
MW42	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-
MW602	14/11/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW603	14/11/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW604	14/11/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW605	14/11/2007	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MW66	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-A	26/03/2008	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MWP208A-B	26/03/2008	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MWP208A-C	26/03/2008	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MWP208A-D	26/03/2008	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3
MWP208A-E	26/03/2008	Off-site	-	-	-	-	-	-	<1	<1	<1	-	-	<3

Polycyclic Aromatic Hydrocarbons

Sample ID	Date	Location	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)	Total Positive PAHs
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs																			
NEPM 2013 GIL - Drinking Water							0.01												
NEPM 2013 GIL - Fresh Waters															16				
NEPM 2013 GIL - Marine Waters															50#15				
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 2 to <4m															NL				
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 4 to <8m															NL				
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Sand 8m+															NL				
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 2 to <4m															NL				
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 4 to <8m															NL				
NEPM 2013 Groundwater HSL D for Vapour Intrusion - Sand 8m+															NL				
NEPM 2013 GIL - Recreational							0.1												
MW508	12/01/2011	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0
MW508	14/12/2011	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0
MW508	2/08/2012	Lot 9	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0
MW508	17/07/2013	Lot 9	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-
MW508	30/01/2014	Lot 9	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0
MW508	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0
MW511	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1
MW511	2/08/2012	Lot 9	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0
MW511	5/02/2013	Lot 9	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-
MW511	17/07/2013	Lot 9	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-
MW511	30/01/2014	Lot 9	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0
MW511	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0
MW513	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1
MW513	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0
MW01	25/01/2001	Off-site	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	<2
MW02	25/01/2001	Off-site	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	<2
MW1	29/09/1994	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	25/01/2001	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	29/09/1994	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	31/05/2005	Off-site	2	2	1	2	0.9	3	0.6	2	<0.5	5.9	4	<0.5	3	6.2	6.9	-	39.2
MW319	31/05/2005	Off-site	<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
MW319	12/08/2005	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0
MW319	20/09/2005	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	0
MW401A	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10
MW401A	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1
MW401A	17/07/2013	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1
MW402A	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1
MW402A	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	1
MW402B	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	<1
MW402B	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-
MW403B	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10
MW403C	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<10
MW42	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW602	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1
MW603	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1
MW604	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1
MW605	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1
MW66	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-A	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1
MWP208A-B	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1
MWP208A-C	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1
MWP208A-D	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1
MWP208A-E	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1

Monocyclic Aromatic Hydrocarbons and Miscellaneous Hydrocarbons

Sample ID	Date	Location	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
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs																				
NEPM 2013 GIL - Drinking Water											30					250#9	1			
NEPM 2013 GIL - Fresh Waters																				
NEPM 2013 GIL - Marine Waters																				
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+																				
NEPM 2013 GIL - Recreational											300		10			2500	10			
MW508	12/01/2011	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW508	14/12/2011	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	-
MW508	2/08/2012	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-
MW508	17/07/2013	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-
MW508	30/01/2014	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1
MW508	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW511	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW511	2/08/2012	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<10	<1	<1	-
MW511	5/02/2013	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-
MW511	17/07/2013	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<10	<1	<1	-
MW511	30/01/2014	Lot 9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1
MW511	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	24/03/2015	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW01	25/01/2001	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02	25/01/2001	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	29/09/1994	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	25/01/2001	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	29/09/1994	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	31/05/2005	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW319	31/05/2005	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW319	12/08/2005	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW319	20/09/2005	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	17/07/2013	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402A	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402A	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402B	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402B	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403B	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403C	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW42	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW602	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW603	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW604	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW605	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW66	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-A	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-B	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-C	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-D	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-E	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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 (2014a)

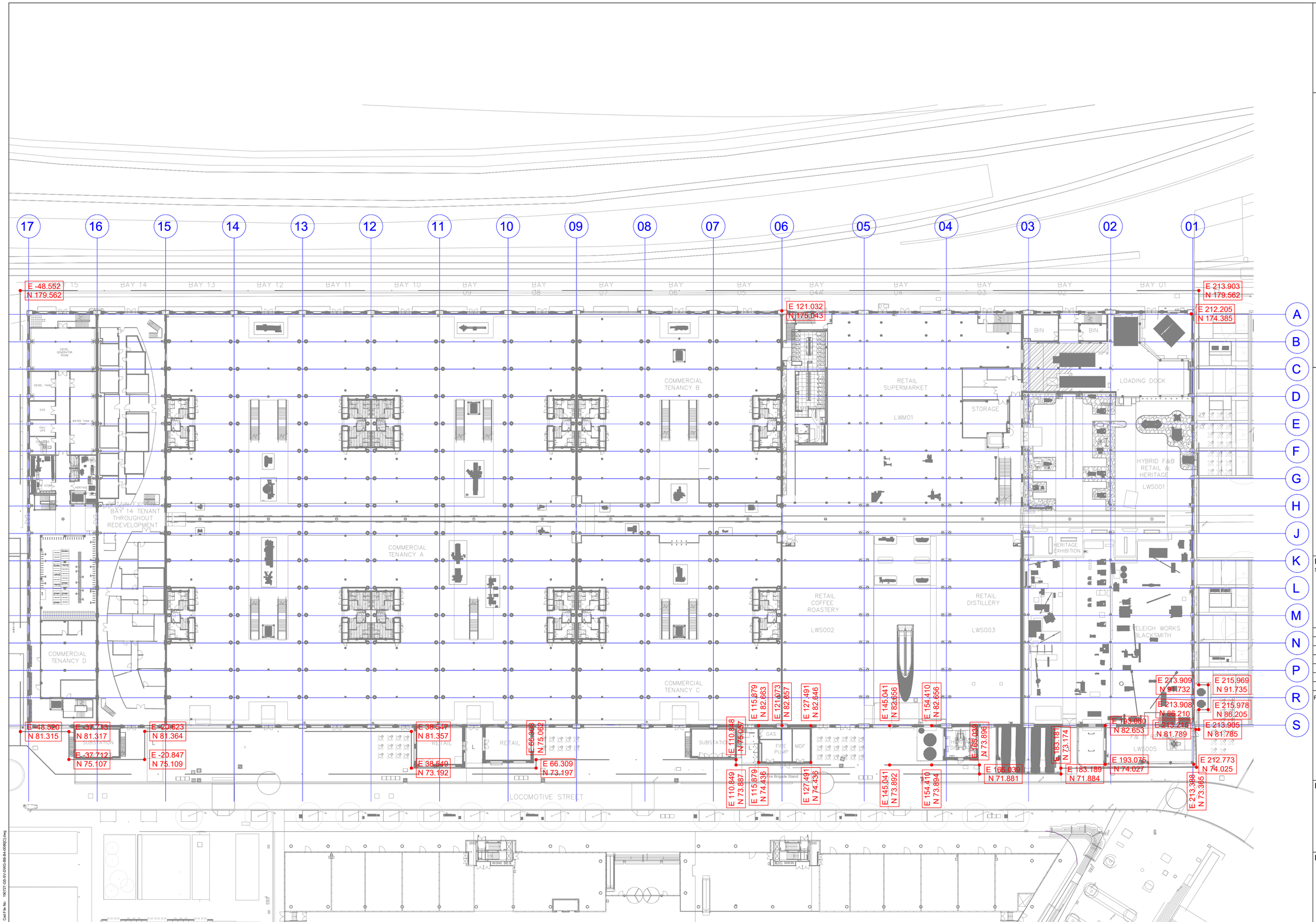
			Chlorinated Benzenes							Polychlorinated Biphenyls								Phenols	Miscellaneous Industrial Chemicals	Organochlorine Pesticides																								Organophosphorus Pesticides									
			1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	Chlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	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	µg/L	µg/L	µg/L
ANZG (2018) Marine water 95% toxicant DGVs																																										0.009[#3]									
NEPM 2013 GIL - Drinking Water			30	30	1500	300		40											0.7		0.3					9			2									0.3			10		4	5	7	4	1	7	
NEPM 2013 GIL - Fresh Waters			3[#10]	85[#10]	160		260	60					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				20[#11]																															0.004[#11]					0.009[#11]								
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+																																																	
NEPM 2013 GIL - Recreational					15000	3000		400											7		3					90			20									3		3000	100	100		40	50	70	40	10	70	
Sample ID	**Date**	**Location**																																																
MW508	12/01/2011	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	<0.005	-	-	-	-	-	-	-	-	-
MW508	14/12/2011	Lot 9	<1	<1	<1	<1	<1	-	<2	<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	<0.01	<0.03	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	-	-	-	-	-	-	-	-	-
MW508	2/08/2012	Lot 9	<1	<1	<1	<1	<1	<1	<1	<2	<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	<0.6	-	<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
MW508	17/07/2013	Lot 9	<1	<1	<1	<1	<1	-	<2	<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	<0.2	<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
MW508	30/01/2014	Lot 9	<1	<1	<1	<1	<1	<1	<1	<2	<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	<0.6	-	<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
MW508	24/03/2015	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW511	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW511	2/08/2012	Lot 9	<1	<1	<1	<1	<1	<1	<1	<2	<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	<0.6	-	<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
MW511	5/02/2013	Lot 9	<1	<1	<1	<1	<1	-	<2	<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	<0.2	<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
MW511	17/07/2013	Lot 9	<1	<1	<1	<1	<1	<1	-	<2	<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	<0.2	<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
MW511	30/01/2014	Lot 9	<1	<1	<1	<1	<1	<1	<1	<2	<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	<0.6	-	<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
MW511	24/03/2015	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	7/02/2008	Lot 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW513	24/03/2015	Lot 9	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW01	25/01/2001	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02	25/01/2001	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	29/09/1994	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1	25/01/2001	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2	29/09/1994	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW318	31/05/2005	Off-site	-	-	-	-	-	-	<0.2	<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	<0.2	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	-
MW319	31/05/2005	Off-site	-	-	-	-	-	-	<0.2	<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	<0.2	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	-
MW319	12/08/2005	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW319	20/09/2005	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW401A	17/07/2013	Off-site	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402A	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402A	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402B	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW402B	14/11/2007	Off-site	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403B	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW403C	2/07/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW42	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW602	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW603	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW604	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW605	14/11/2007	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW66	27/05/1993	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-A	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-B	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-C	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-D	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP208A-E	26/03/2008	Off-site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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 (2014a)

Appendix B Survey Plans



NORTH (APPROX)

LEGEND

GRIDS

NOTES:

1. ALL MARKS PLACED ARE ACCURATE AND CORRECT AT DATE OF SURVEY.

2. IF MARKS ARE PLACED PRIOR TO STRESSING, GEOSURV TAKE NO RESPONSIBILITY FOR THE ACCURACY OF THOSE MARKS PLACED ONCE STRESSING HAS BEEN CARRIED OUT.

3. CONSTRUCTION WORKS MUST BE RELATED TO THE BENCHMARK ONLY AND NOT LEVELS OF STRUCTURES SHOWN ON THIS PLAN.

4. IT IS THE SOLE RESPONSIBILITY OF THE BUILDER TO MAINTAIN THE INTEGRITY OF MARKS TO BE USED BY CONTRACTORS PRIOR TO USE.

5. THIS SURVEY IS FOR SETOUT PURPOSES ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE

6. PLAN HAS BEEN PRODUCED AS A PRIORITY AS PER BUILDERS REQUEST. FOR CLARITY OF THE OFFSET MARKS SHOWN PLEASE ENLARGE SECTION OF THE PLAN WHEN PRINTING. SEEK CLARIFICATION FROM GEOSURV IF UNSURE OF THE OFFSET OR THE DIRECTION OF THE OFFSET TO THE LOCATION OF THE MARK PLACED

PLANS USED:

SA-AR-DWG-BB-B4-0530[L]

REV.	DATE	AMENDMENTS	INT.
C	19/01/21	Point Amendments	ARF
B	30/10/20	Point Amendments	ARF
A	19/10/20	Issued to Client	ARF
PRE	19/10/20	Preliminary Issue	ARF

PREPARED BY:

geosurv
with you from beginning to end

locating surveying 3Dscanning

www.geosurv.com.au 1300 554 675

PREPARED FOR:

MIRVAC CONSTRUCTIONS PTY LTD

PLAN OF:

STAGE 1D
VALIDATION SURVEY
APT B4 BUILDING
2 LOCOMOTIVE STREET
EVELEIGH,NSW

ORIGINAL SIZE:	A1		
SCALE:	1:400	CO-ORD:	SITE
DATUM:	SITE	ORIG DATUM:	ADOPTED
SURVEY BY:	-	DATE:	-
DRAWN BY:	ARF	DATE:	19/10/20
CHECKED BY:	GP	DATE:	19/10/20
APPROVED BY:	JT	DATE:	19/10/20

DRAWING #: GS-SV-DWG-BB-B4-0086

REV: C

Cad File No: 190727-GS-SV-DWG-BB-B4-0086[C].dwg

Plot Date: 19 January 2021 - 12:56 PM

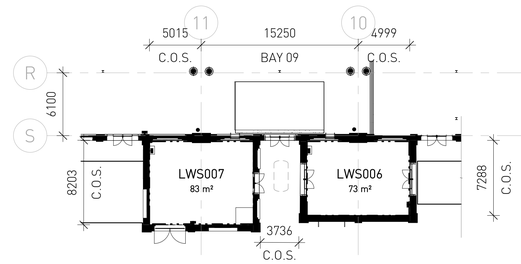
Appendix C Design Plans

REFER TO DWG 1105
FOR ZONE E

REFER TO DWG 1106
FOR ZONE F



1 GROUND FLOOR GENERAL ARRANGEMENT PLAN
1 : 250



2 TENANCY LWS 006 & LWS 007
1 : 250

North

12/02/2020 12:36:18 PM

TD	TURNDISH
FSL:	FINISH SLAB LEVEL
SSL:	SLAB SOFFIT LEVEL
FFL:	FINISHED FLOOR LEVEL
BSL:	BEAM SOFFIT LEVEL
GLZ-X	GLAZING - REFER TO DWG 4200 SERIES FOR DETAILS
NSC:	NEW STEEL COLUMN
ESC:	EXISTING STEEL COLUMN
BOL:	BOLLARD
UL:	UPLIGHT
HDB	HOUSE DISTRIBUTION BOARD
BS	AGED BRASS STRIP
	HERITAGE ITEM TO RETAIN IN SITU
	VOID
	NOT IN SCOPE
	6000MM CLEAR SERVICE & PUBLIC ACCESS EASEMENT
	EXISTING COLUMNS & WALLS
	LEASE LINE
	EXPANSION JOINT FOR TILES WITH BRASS TRIM
	EXPANSION JOINT FILLING TO MATCH CONCRETE COLOUR
	ISOLATION JOINTS
	SAW CUT JOINT
	BARRIER

NOTES

- FOR FACADE & ROOF SCOPE REFER TO SISSONS DRAWINGS 3000 - 4000 SERIES
- FOR PUBLIC DOMAIN WORKS REFER TO ASPECT STUDIOS DRAWINGS 1300 SERIES
- FOR STRUCTURAL ENGINEERS DETAILS REFER TO ARCADIS DRAWINGS 1700 - 4000 SERIES
- FOR TRAVELATOR & GLASS BRIDGE REFER TO SISSONS DRAWINGS 2740 - 2745
- FOR STEEL BARRIER LASER CUT TEXT LOCATION REFER TO DRAWINGS 0101 & 0102

H	NEW STEEL COLUMN
	EXISTING STRUCTURAL COLUMN
	EXISTING STRUCTURAL COLUMN

REVISION 4 -
NEW FIRE RATED DOOR ADDED TO CLEANERS ROOM

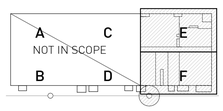
notes

ALL EXISTING CONDITIONS TO BE CHECKED ON SITE.
ALL OMISSIONS OR DISCREPANCIES TO BE NOTIFIED TO THE ARCHITECT.

NOMINATED ARCHITECT: ANTHONY PALAMARA NSW ARN 7274
DO NOT SCALE THIS DRAWING. VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK. COPYRIGHT © 2019 BUCHAN. THIS DRAWING REMAINS THE PROPERTY OF THE BUCHAN GROUP AUSTRALIA PTY LTD. REPRODUCTION IN WHOLE OR IN PART WITHOUT PRIOR CONSENT IS FORBIDDEN.

DRAWING BEST PRINTED IN COLOUR

key plan



rev	date	description	by	chk
G	20.12.18	FOR CONSTRUCTION - PRIMARY STEEL ONLY	SB	SB
H	15.05.19	TOP ED SERVICES COORDINATION	MC	SB
I	20.05.19	FOR PRELIMINARY TENDER	SW	SB
J	29.05.19	ISSUED FOR INFORMATION	SB	SB
K	27.06.19	FOR INFORMATION	SW	SB
L	16.08.19	FOR CONSTRUCTION CERTIFICATE	MM	SW
M	09.10.19	FOR CONSTRUCTION CERTIFICATE -04	SW	SW
1	28.10.19	FOR CONSTRUCTION	MM	SW
2	29.10.19	CONSTRUCTION CERTIFICATE	AA	SW
3	15.11.19	CONSTRUCTION CERTIFICATE	SW	SW
4	12.02.2020	FOR CONSTRUCTION	SW	SW

client
MIRVAC
Level 28, 200 George St, Sydney, NSW 2000
Tel.+61 2 9080 8000

LOCOMOTIVE WORKSHOPS
2 Locomotive St, Eveleigh NSW 2015

retail & heritage interpretation architect
BUCHAN
Level 1, 7 Kelly St, Ultimo NSW 2007
Tel. 02 9566 1611

principal architect
SISSONS
5/81 Alexander St, Crows Nest NSW 2065
Tel. 02 9460 8002

drawing title
OVERALL GA PLAN - GROUND

status
FOR CONSTRUCTION

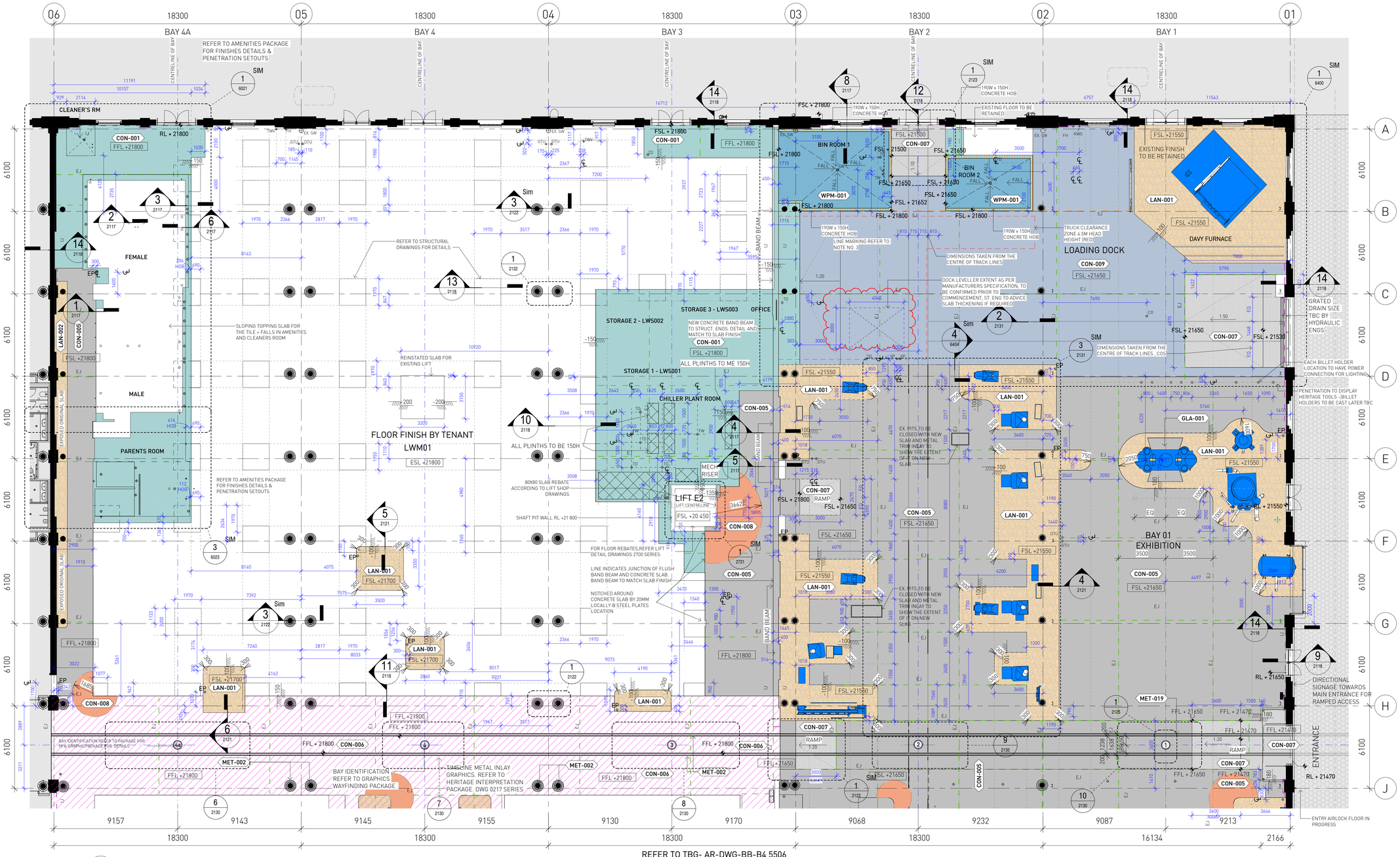
project no.	scale	date
217150	As indicated @B1	12.02.2020

drawing no.
TBG-AR-DWG-BB-B4-1016

rev
4

B1 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 DO NOT SCALE DIMENSIONS FROM DRAWING

original sheet size B1 = 1000 x 707mm



1 GROUND FLOOR - ZONE E - CONCRETE SETOUT & FLOOR FINISHES PLAN

1 : 125

NOTE:
FOR STEEL SETOUT REFER TO 2126 to 2128

BAY IDENTIFICATION NUMBER INLAY TO BE CENTERED TO THE CENTRELINE OF THE BAYS REFER TO 'HI' AND 'WAYFINDING GRAPHIC' PAKAGE FOR FURTHER DETAILS; FOR ALL TEXT INLAYS EXTENTS AND SETOUT DETAILS REFER 'HI' DWG 0217 SERIES

FOUNDATION FOR FOR NEW JIB CRANE LOCATION TBC

LOWLEVEL LIGHTING PROVISION TO BE CONFIRMED BY LIGHTING SPECIALIST

FLOOR FINISHES LEGEND

- CON-001 - STEEL TROWEL FINISH. ACHIEVE P3 SLIP RATING AND TO BE TESTED ON SELECTED AREAS FOR APPROVAL
- CON-005 - HONED CONCRETE FINISH - CONCRETE WITH SMALL SIZED AGGREGATE WITH 0.5MM LIGHT HONED FINISH. SEALED WITH CLEAR MATT SEALER. ACHIEVE P3 SLIP RATING AND TO BE TESTED ON SELECTED AREAS FOR APPROVAL
- CON-006 - HYDRONIC SLAB IN HONED CONCRETE FINISH CONCRETE WITH SMALL SIZED AGGREGATE WITH 0.5MM LIGHT HONED FINISH. SEALED WITH CLEAR MATT SEALER. ACHIEVE P3 SLIP RATING AND TO BE TESTED ON SELECTED AREAS FOR APPROVAL
- CON-007 - CHISELLED CONCRETE TO RAMP TO ACHIEVE P4 SLIP RATING AND TO BE TESTED ON SITE 5MM GROOVES @ 20MM C/L
- CON-008 - HONED CONCRETE FINISH WITH NUTS & BOLTS. P3 SLIP RATING
- CON-009 - STEEL TROWEL FINISH. ACHIEVE P5 SLIP RATING AND TO BE TESTED ON SELECTED AREAS FOR APPROVAL
- WPM-001 - ARDEX WPM 908 , TRAFFICABLE WATERPROOFING MEMBRANE. CONTINUES 300MM UP ADJOINING WALLS
- LAN-001 - INDUSTRIAL SAND AND GRAVEL MIX TO BLACKSMITH WORKSHOP
- GLA-001 - TOUGHENED GLAZED PANEL -P1 SLIP RESISTANT
- EXISTING FOOTING OR METAL FLOOR PLATE
- CONCRETE PLINTHS ; REFER TO MECH. ENG. DETAILS
- CONCRETE HOB ; REFER TO MECH. ENG. DETAILS
- STA-002 - STA-002 - BRASS TACTILE INDICATOR TO AS1428
- MET-007 - MET-007 - OXIDISED MILD STEEL FLOOR PLATE
- EXPENSION JOINT FOR TILES WITH BRASS TRIM
- EXPANSION JOINT FILLING TO MATCH CONCRETE COLOUR
- ISOLATION JOINTS
- SAW CUT JOINT

DTU	DRAINAGE TURN UP
CO	CLEAR OUT
GTU	GAS TURN UP
EP +	ELECTRIC POINT
FB +	RECESSED FLOOR BOX ON HORNED CONCRETE WITH OXIDISED STEEL GROMET
FB1 +	RECESSED FLOOR BOX IN TENANCIES
FH	FIRE HYDRANT
RWO	RAIN WATER OUTLET
TD	TURNDISH
TW	TRADE WASTE
TWV	TRADE WASTE VENT
TWVP	TRADE WASTE VENT PIPE
STU	SANITARY TURN UP
V	VENT
H	NEW STEEL COLUMN
	EXISTING STRUCTURAL COLUMN
	EXISTING STRUCTURAL COLUMN
ESL	EXISTING SLAB LEVEL
FSL	FINISH SLAB LEVEL
FFL	FINISH FLOOR LEVEL

NOTES

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2. NOMINATED CODES SHOULD BE CROSS REFERENCED WITH THE ARCHITECTURAL SCHEDULES.
3. LINE MARKING - 100 WIDE AT 600 CTC WITH YELLOW PAINT.
4. ALL NEW GROUND SLABS TO HAVE NECESSARY TRAFFICABLE DAMP PROOF MEMBRANE UNDER SLAB UNLESS OTHERWISE STATED.
5. REFER TO AS-0340 CONCRETE FINISHES SPECIFICATIONS.
6. ALL EXPOSED CONCRETE FINISHES TO HAVE CLEAR PENETRATIVE SEALER. REFER TO AS-0340 CONCRETE FINISHES SPECIFICATIONS.
7. REFER TO DWG 2117 &2118 FOR CONCRETE DETAILS.
8. REFER TO STRUCTURAL DRAWINGS.
9. REFER TO DWG 5551 FOR EXISTING COLUMN DETAILS.
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14. REFER TO CIVIL ENGINEER'S DRAWINGS AND SPECIFICATION FOR ALL INTERFACE REQUIREMENTS WITH EXTERNAL AND PUBLIC DOMAIN WORKS.
15. MOVEMENT JOINTSREFER TO STRUCTURAL ENGINEER'S DRAWINGS.
16. REFER TO DWG 1/5551 FOR EXISTING COLUMN DETAILS.
17. DRAWING TO BE READ IN CONJUNCTION WITH HERITAGE INTERPRETATION PACKAGE.
18. 100MM SETBACK FROM ANY ADDITIONAL HERITAGE MACHINERY FOOTINGS IF FOUND

13-Dec-19 4:39:39 PM

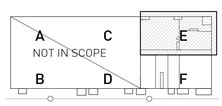
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key plan



rev	date	description	by	chk
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5	16.10.19	FOR CONSTRUCTION	SW	SW
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10	31.10.19	FOR CONSTRUCTION	AA	SW
11	07.11.19	EARTH FLOORING LOCATIONS	MC	MC
12	15.11.19	CONSTRUCTION CERTIFICATE	SW	SW
13	13.12.19	FOR CONSTRUCTION	PM	MH

client
MIRVAC
Level 28, 200 George St, Sydney, NSW 2000
Tel.+61 2 9080 8000

LOCOMOTIVE WORKSHOPS
2 Locomotive St, Eveleigh NSW 2015

retail & heritage interpretation architect
BUCHAN
Level 1, 7 Kelly St, Ultimo NSW 2007
Tel. 02 9566 1611

principal architect
SISSONS
5/81 Alexander St, Crows Nest NSW 2065
Tel. 02 9460 8002

drawing title
CONCRETE SETOUT & FLOOR FINISHES - GROUND - ZONE E

status
FOR CONSTRUCTION

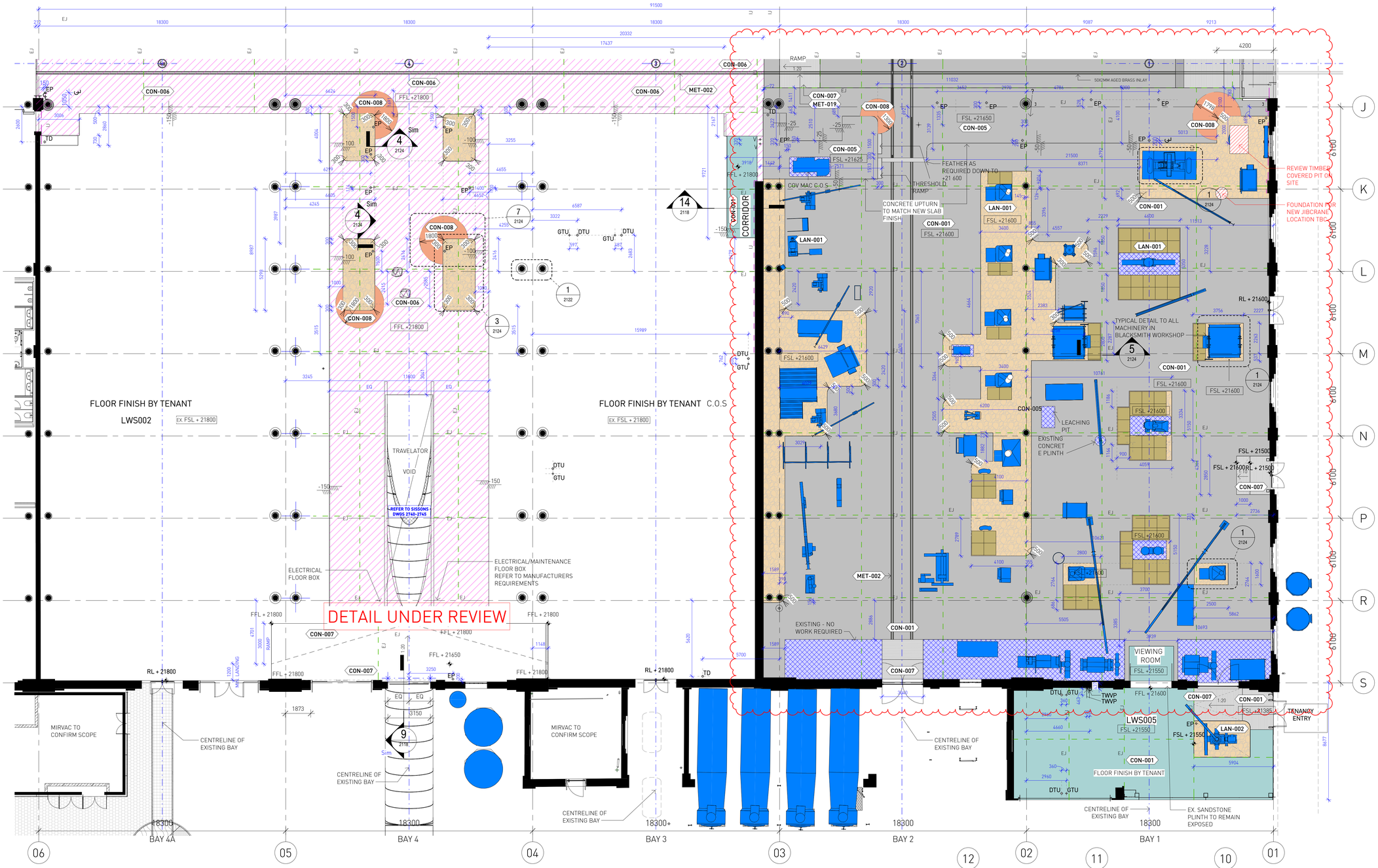
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217150	As indicated @B1	13.12.19

drawing no. TBG-AR-DWG-BB-B4-2105 rev 13

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REFER TO TBG- AR-DWG-BB-B4 5505



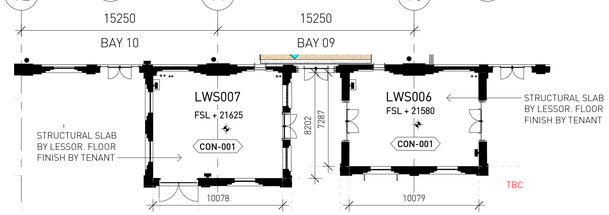
1 GROUND FLOOR - ZONE F - CONCRETE & FLOOR FINISHES PLAN

1 : 125

CONFIRM ALL TENANCY SERVICES PRIOR TO COMMENCEMENT

FOUNDATION FOR NEW JIB CRANE LOCATION TBC

NOTE:
FOR STEEL SETOUT REFER TO 2125 to 2127



2 TENANCY LWS006 & 7 FLOOR PLAN

1 : 200

FLOOR FINISHES LEGEND

- CON-001 - STEEL TROWEL FINISH. ACHIEVE P3 SLIP RATING AND TO BE TESTED ON SELECTED AREAS FOR APPROVAL
- CON-005 - HONED CONCRETE FINISH - CONCRETE WITH SMALL SIZED AGGREGATE WITH 0.5MM LIGHT HONED FINISH, SEALED WITH CLEAR MATT SEALER. ACHIEVE P3 SLIP RATING AND TO BE TESTED ON SELECTED AREAS FOR APPROVAL
- CON-006 - HYDRONIC SLAB IN HONED CONCRETE FINISH CONCRETE WITH SMALL SIZED AGGREGATE WITH 0.5MM LIGHT HONED FINISH. SEALED WITH CLEAR MATT SEALER. ACHIEVE P3 SLIP RATING AND TO BE TESTED ON SELECTED AREAS FOR APPROVAL
- CON-007 - CHISELED CONCRETE TO RAMP TO ACHIEVE P4 SLIP RATING AND TO BE TESTED ON SITE 5MM GROOVES @ 20MM C/L
- CON-008 - HONED CONCRETE FINISH WITH NUTS & BOLTS. P3 SLIP RATING
- CON-09 - STEEL TROWEL FINISH. ACHIEVE P5 SLIP RATING AND TO BE TESTED ON SELECTED AREAS FOR APPROVAL
- WPM-001 - ARDEX WPM 908 , TRAFFICABLE WATERPROOFING MEMBRANE. CONTINUES 300MM UP ADJOINING WALLS
- LAN-001 - INDUSTRIAL SAND AND GRAVEL MIX TO BLACKSMITH WORKSHOP
- GLA-001 - TOUGHENED GLAZED PANEL -P1 SLIP RESISTANT
- HERITAGE STEEL PLATES 900MMX900MM
- METAL/CONCRETE FOOTING TO BE RETAINED
- CONCRETE PLINTHS ; REFER TO MECH. ENG. DETAILS
- CONCRETE HOB ; REFER TO MECH. ENG. DETAILS
- MET-002 - MET-002 - OXIDISED MILD STEEL TRACK INLAY
- MET-007 - MET-007 - OXIDISED MILD STEEL FLOOR PLATE
- EXPANSION JOINT FOR TILES WITH BRASS TRIM
- EXPANSION JOINT FILLING TO MATCH CONCRETE COLOUR
- ISOLATION JOINTS
- SAW CUT JOINT
- DTU DRAINAGE TURN UP
- CO CLEAR OUT
- GTU GAS TURN UP
- EP ELECTRIC POINT
- FB RECESSED FLOOR BOX ON HORNED CONCRETE WITH OXIDISED STEEL GROMET
- FB1 RECESSED FLOOR BOX IN TENANCIES
- FH FIRE HYDRANT
- RWO RAIN WATER OUTLET
- TD TURNDISH
- TW TRADE WASTE
- TWV TRADE WASTE VENT
- TWVP TRADE WASTE VENT PIPE
- STU SANITARY TURN UP
- V VENT
- H NEW STEEL COLUMN
- EXISTING STRUCTURAL COLUMN
- EXISTING STRUCTURAL COLUMN
- ESL EXISTING SLAB LEVEL
- FSL FINISH SLAB LEVEL
- FFL FINISH FLOOR LEVEL

NOTES

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North

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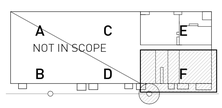
notes

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key plan



rev	date	description	by	chk
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11	15.11.19	CONSTRUCTION CERTIFICATE	SW	SW
12	13.12.19	FOR CONSTRUCTION	PM	MH
13	18.12.19	FOR CONSTRUCTION	PM	MH

client
MIRVAC
Level 28, 200 George St, Sydney, NSW 2000
Tel.+61 2 9080 8000

LOCOMOTIVE WORKSHOPS
2 Locomotive St, Eveleigh NSW 2015

retail & heritage interpretation architect
BUCHAN
Level 1, 7 Kelly St, Ultimo NSW 2007
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SISSONS
5/81 Alexander St, Crows Nest NSW 2065
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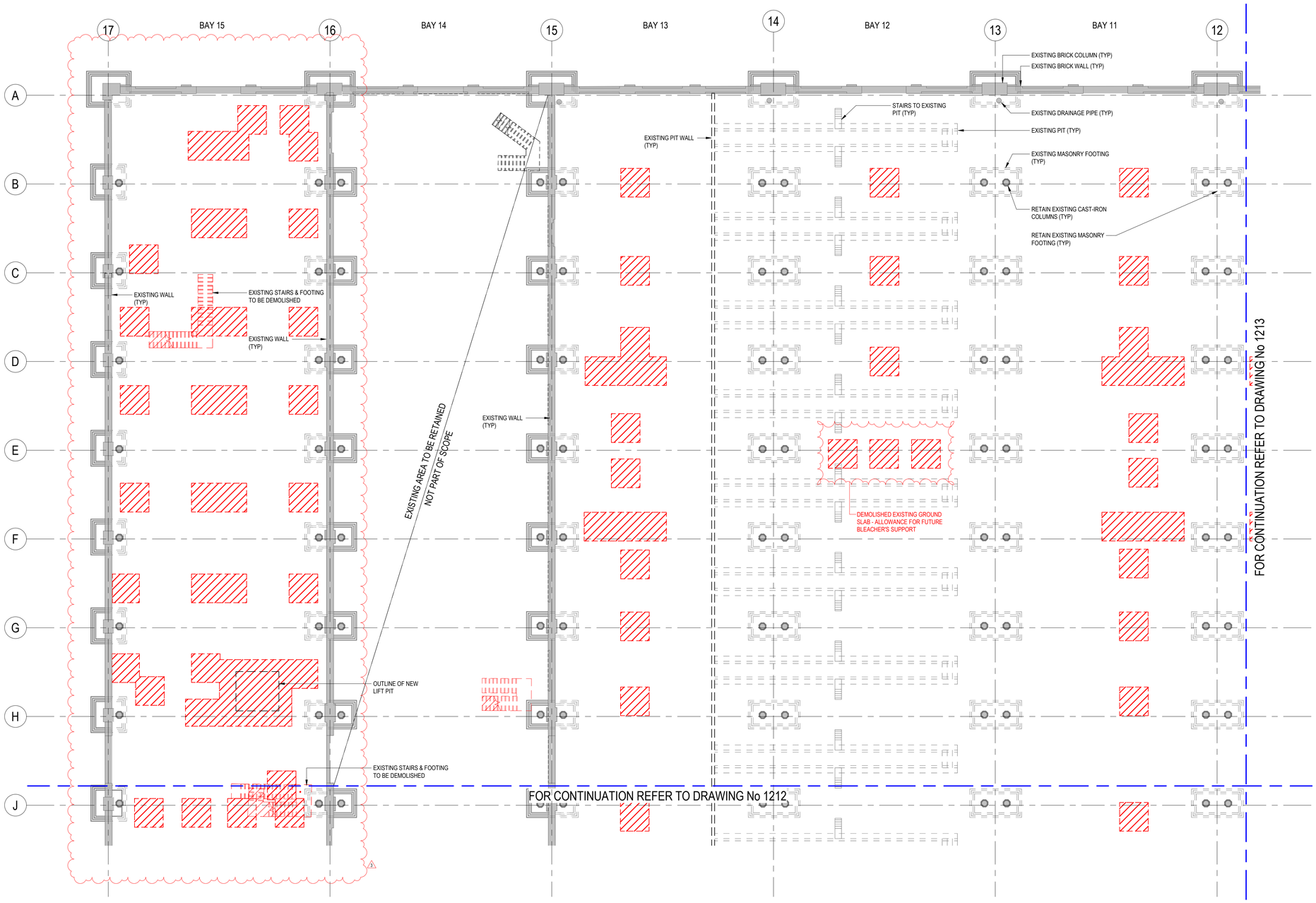
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CONCRETE SETOUT & FLOOR FINISHES - GROUND - ZONE F

status
CONSTRUCTION CERTIFICATE

project no. 217150
scale As indicated @B1
date 18.12.19
drawing no. TBG-AR-DWG-BB-B4-2106
rev 13

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original sheet size B1 = 1000 x 707mm



ZONE A - GROUND FLOOR DEMOLITION PLAN

1 : 125

North

NOTES

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4. RETAIN ALL EXISTING CAST-IRON COLUMNS, HERITAGE CRANE AND CRANE GIRDERS U.N.O.
5. DO NOT UNDERMINE EXISTING FOUNDATIONS U.N.O.- CONSULT WITH STRUCTURAL ENGINEER IF IN DOUBT.
6. DEMOLISH EXISTING COLUMN FOOTINGS AND LIFT PITS AS NOTED IN THE DRAWINGS.
7. REFER TO ARCHITECT DRAWINGS FOR SET-OUT OF NEW COLUMNS. THE SET-OUT OF NEW BORED PILES TO ALIGN WITH THE NEW COLUMNS.

LEGEND

EXISTING GROUND SLAB TO BE DEMOLISHED. THE EXTENT OF GROUND SLAB DEMOLITION AROUND DEEP EXCAVATION FOR LIFT PIT TO SUIT THE REQUIRED TEMPORARY BATTER SLOPE AND TO BE CONFIRMED BY GEOTECHNICAL ENGINEER. LOCATION SHOWN INDICATIVELY. DEMOLITION TO BE CENTERED AROUND NEW PILES OR LIFT PITS.

EXISTING SLAB/ASPHALT ON SITE TO BE DEMOLISHED AND BACKFILLED TO ALLOW NEW CONCRETE SLAB ON GRADE TO BE CONSTRUCTED.

DEMOLISH EXISTING PIT RETAINING WALL TO ALLOW FOR PILE CAP INSTALLATION REINSTATE WITH 200 THICK RC WALL WITH VERTICAL STARTER BARS DRILLED TO EXISTING PIT BASE SLAB. SEE DETAIL ON AR-ST-DWG-BB-B4-3413.

NOTES:

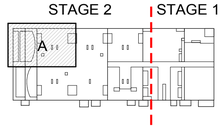
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notes

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rev	date	description	by	chk
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B	05-03-18	ISSUED FOR TENDER	KU	JL
C	01-06-18	ISSUED FOR TENDER	AP	JL
D	31-10-18	ISSUED FOR TENDER	EA	JL
E	08-11-18	ISSUED FOR TENDER	EA	JL
F	01-03-19	ISSUED FOR TENDER	JC	JL
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1	17-04-19	ISSUED FOR CONSTRUCTION	MV	JL
2	17-07-19	ISSUED FOR CONSTRUCTION	MM	JL
3	13-02-20	ISSUED FOR CONSTRUCTION	CL	JL

structural consultant
ARCADIS
Level 16, 580 George St, Sydney NSW 2000
Tel. +61 (0)2 8907 9000

client
MIRVAC
Level 28, 200 George St
Sydney NSW 2000

principal architect
SISSONS ARCHITECTS
Studio 5, 81 Alexander St, Crows Nest, NSW 2065
Tel. 02 9460 8002

retail architect
BUCHAN
Level 7, 7 Kelly St. Ultimo, NSW 2007
Tel. 02 9566 1611

project
LOCOMOTIVE WORKSHOP - BUILDING 4
2 Locomotive St, Eveleigh NSW 2015

drawing title
DEMOLITION PLAN
GROUND LEVEL
ZONE A

status
ISSUED FOR CONSTRUCTION

project no.	scale	date
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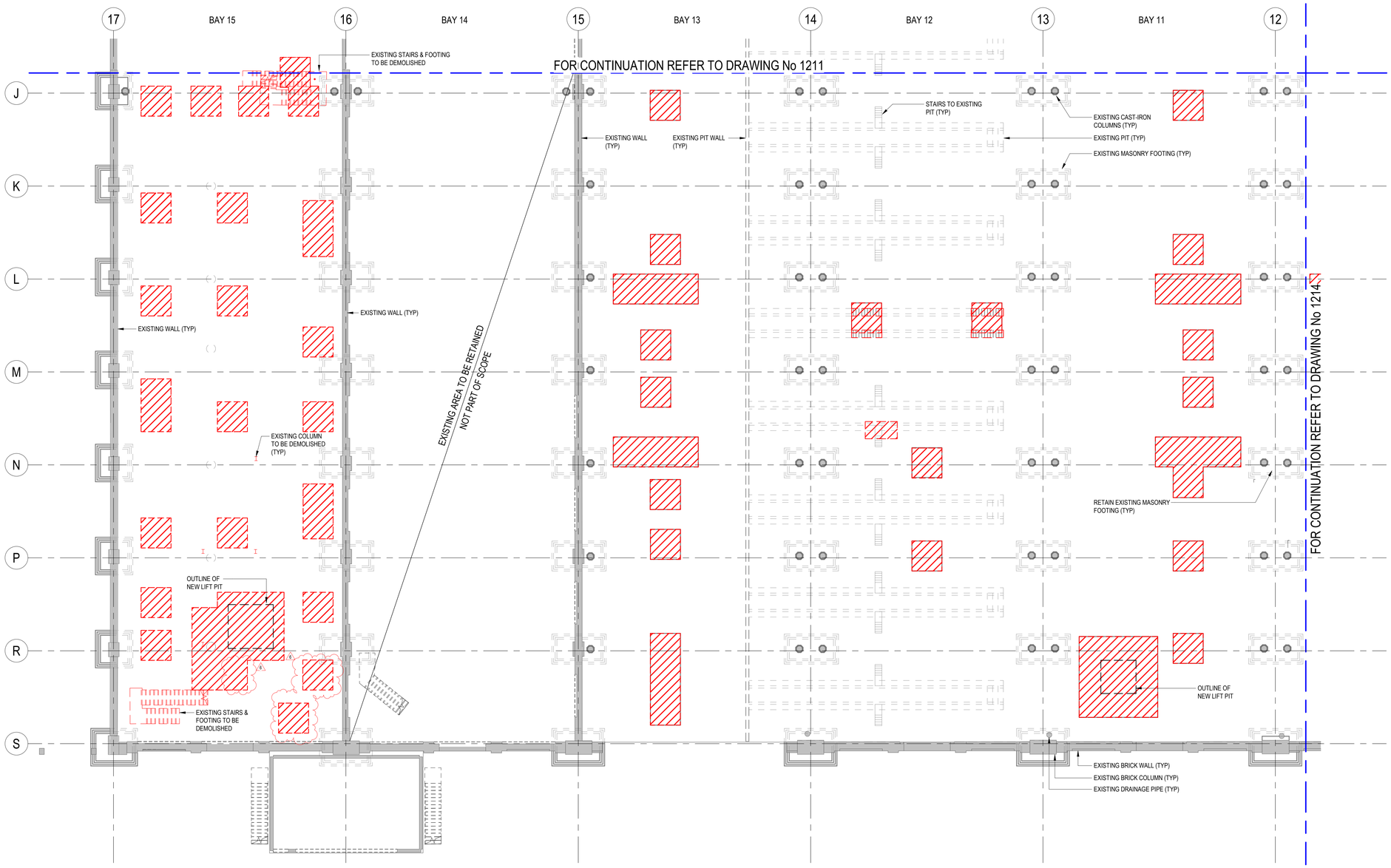
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rev 3

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ZONE B - GROUND FLOOR DEMOLITION PLAN

1 : 125

NOTES:

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NOTES

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LEGEND

EXISTING GROUND SLAB TO BE DEMOLISHED. THE EXTENT OF GROUND SLAB DEMOLITION AROUND DEEP EXCAVATION FOR LIFT PIT TO SUIT THE REQUIRED TEMPORARY BATTER SLOPE AND TO BE CONFIRMED BY GEOTECHNICAL ENGINEER. LOCATION SHOWN INDICATIVELY. DEMOLITION TO BE CENTERED AROUND NEW PILES OR LIFT PITS.

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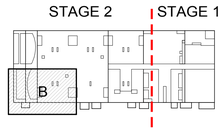
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notes

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C	01-06-18	ISSUED FOR TENDER	AP	JL
D	31-08-18	ISSUED FOR TENDER	EA	JL
E	31-10-18	ISSUED FOR TENDER	EA	JL
F	08-11-18	ISSUED FOR TENDER	EA	JL
G	01-03-19	ISSUED FOR TENDER	JC	JL
0	13-03-19	ISSUED FOR CONSTRUCTION	JC	JL
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structural consultant
ARCADIS
Level 16, 580 George St, Sydney NSW 2000
Tel. +61 (0)2 8907 9000

client
MIRVAC
Level 28, 200 George St
Sydney NSW 2000

principal architect
SISSONS ARCHITECTS
Studio 5, 81 Alexander St, Crows Nest, NSW 2065
Tel. 02 9460 8002

retail architect
BUCHAN
Level 7, 7 Kelly St, Ultimo, NSW 2007
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project
LOCOMOTIVE WORKSHOP - BUILDING 4
2 Locomotive St, Eveleigh NSW 2015

drawing title
DEMOLITION PLAN
GROUND LEVEL
ZONE B

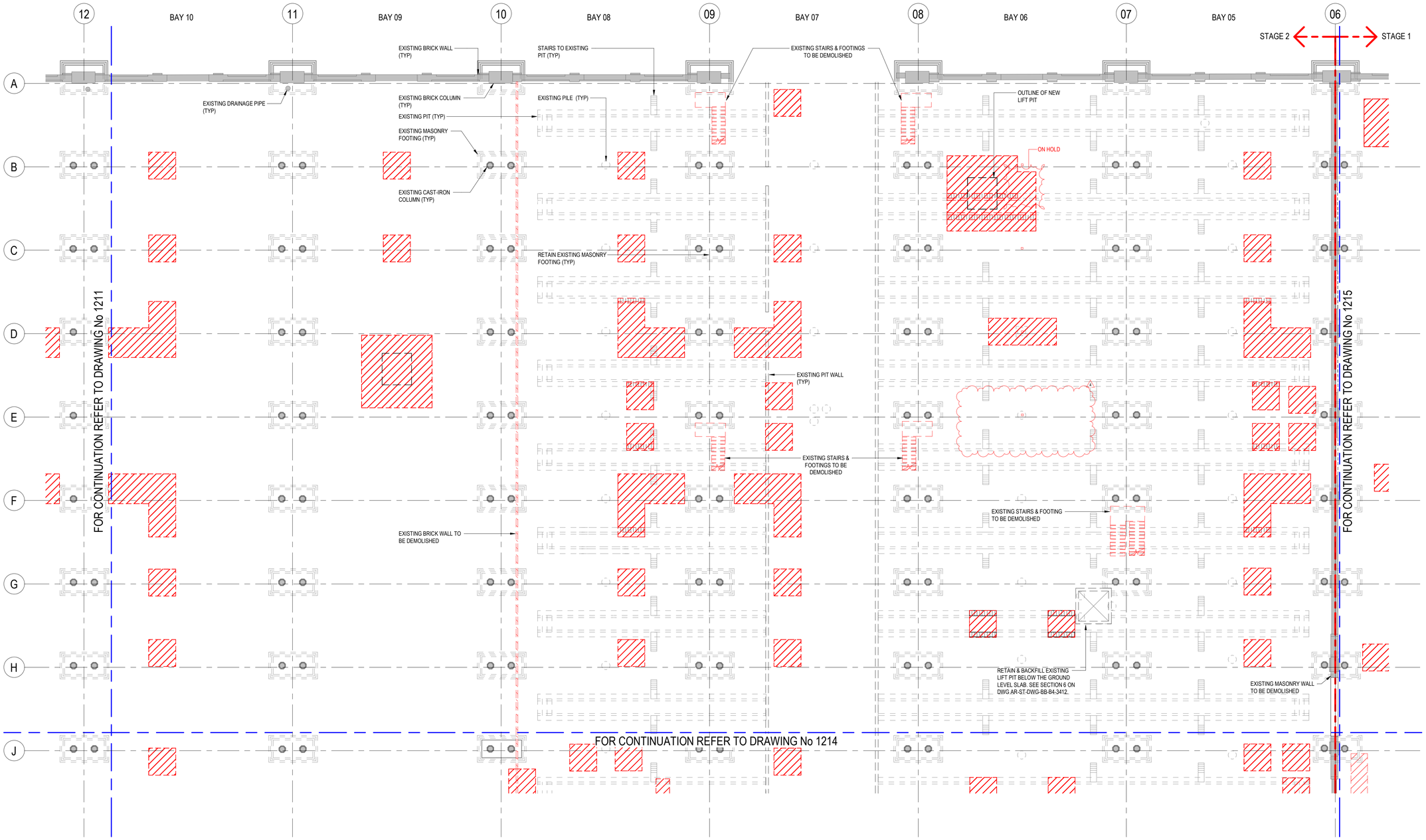
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project no.	scale	date
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drawing no. AR-ST-DWG-BB-B4-1212 | rev 6

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ZONE C - GROUND FLOOR DEMOLITION PLAN

1 : 125

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key plan



rev	date	description	by	chk
A	05-03-18	ISSUED FOR TENDER	KU	JL
B	13-04-18	ISSUED FOR TENDER	CL	JL
C	01-06-18	ISSUED FOR TENDER	AP	JL
D	20-06-18	ISSUED FOR TENDER	AP	JL
E	31-10-18	ISSUED FOR TENDER	EA	JL
F	23-11-18	ISSUED FOR TENDER	EA	JL
G	01-03-19	ISSUED FOR TENDER	JC	JL
0	13-03-19	ISSUED FOR CONSTRUCTION	JC	JL
1	17-04-19	ISSUED FOR CONSTRUCTION	MV	JL
2	17-07-19	ISSUED FOR CONSTRUCTION	MM	JL
3	26-07-19	ISSUED FOR CONSTRUCTION	MM	JL
4	23-08-19	ISSUED FOR CONSTRUCTION	MM	JL

structural consultant
ARCADIS
Level 16, 580 George St, Sydney NSW 2000
Tel. +61 (0)2 8907 9000

client
MIRVAC
Level 28, 200 George St
Sydney NSW 2000

principal architect
SISSONS ARCHITECTS
Studio 5, 81 Alexander St, Crows Nest, NSW 2065
Tel. 02 9460 8002

retail architect
BUCHAN
Level 7, 7 Kelly St, Ultimo, NSW 2007
Tel. 02 9566 1611

project
LOCOMOTIVE WORKSHOP - BUILDING 4
2 Locomotive St, Eveleigh NSW 2015

drawing title
DEMOLITION PLAN
GROUND LEVEL
ZONE C

status
ISSUED FOR CONSTRUCTION

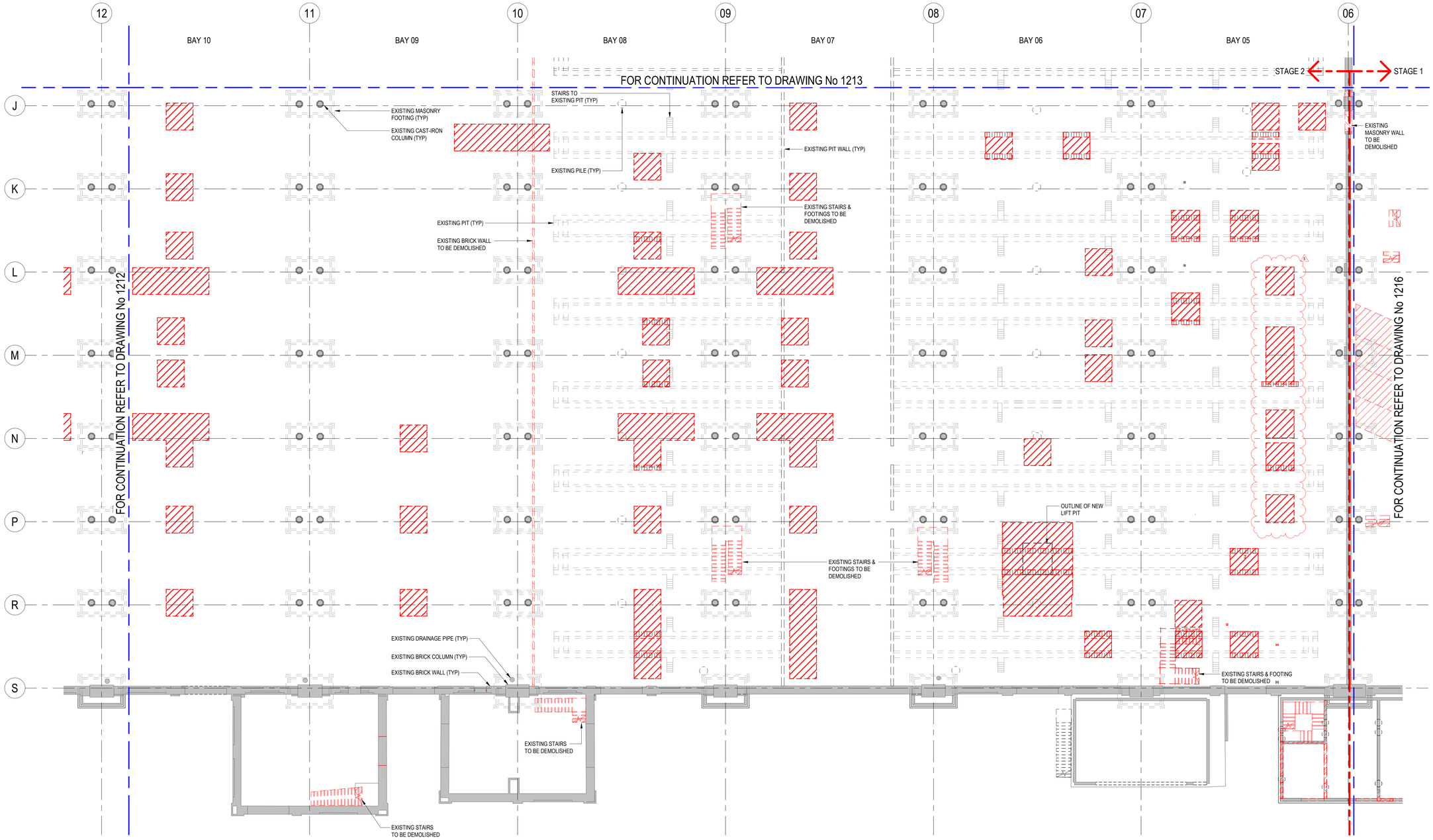
project no.	scale	date
10004164	As indicated @B1	23-08-19

drawing no. AR-ST-DWG-BB-B4-1213
rev 4

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original sheet size B1 = 1000 x 707mm

8/23/2019 3:20:19 PM



ZONE D - GROUND FLOOR DEMOLITION PLAN

1 : 125

NOTES:

ALL DIMENSIONS MUST BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION COMMENCING

North

6/11/2020 11:15:17 AM

NOTES

1. CONTRACTOR SHALL SURVEY UNDERGROUND SERVICES AND ENSURE THAT EXISTING UNDERGROUND SERVICES ARE NOT DAMAGED.
2. DEMOLITION METHODS AND SEQUENCE SHALL BE PROVIDED BY THE CONTRACTOR.
3. DEMOLISH STEEL COLUMNS WITHIN THE EXISTING TENANCY (NOT ALL ARE SHOWN ON PLAN-CONSULT WITH STRUCTURAL ENGINEER IF IN DOUBT).
4. RETAIN ALL EXISTING CAST-IRON COLUMNS, HERITAGE CRANE AND CRANE GIRDERS U.N.O.
5. DO NOT UNDERMINE EXISTING FOUNDATIONS U.N.O.- CONSULT WITH STRUCTURAL ENGINEER IF IN DOUBT.
6. DEMOLISH EXISTING COLUMN FOOTINGS AND LIFT PITS AS NOTED IN THE DRAWINGS.
7. REFER TO ARCHITECT DRAWINGS FOR SET-OUT OF NEW COLUMNS. THE SET-OUT OF NEW BORED PILES TO ALIGN WITH THE NEW COLUMNS.

LEGEND

EXISTING GROUND SLAB TO BE DEMOLISHED. THE EXTENT OF GROUND SLAB DEMOLITION AROUND DEEP EXCAVATION FOR LIFT PIT TO SUIT THE REQUIRED TEMPORARY BATTER SLOPE AND TO BE CONFIRMED BY GEOTECHNICAL ENGINEER. LOCATION SHOWN INDICATIVELY. DEMOLITION TO BE CENTERED AROUND NEW PILES OR LIFT PITS.

EXISTING SLAB/ASPHALT ON SITE TO BE DEMOLISHED AND BACKFILLED TO ALLOW NEW CONCRETE SLAB ON GRADE TO BE CONSTRUCTED.

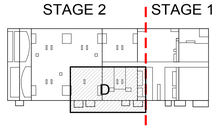
DEMOLISH EXISTING PIT RETAINING WALL TO ALLOW FOR PILE CAP INSTALLATION REINSTATE WITH 200 THICK RC WALL WITH VERTICAL STARTER BARS DRILLED TO EXISTING PIT BASE SLAB. SEE DETAIL ON AR-ST-DWG-BB-B4-3413.

notes

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key plan



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1	17-04-19	ISSUED FOR CONSTRUCTION	MV	JL
2	17-07-19	ISSUED FOR CONSTRUCTION	MM	JL
3	06-12-19	ISSUED FOR CONSTRUCTION	MM	JL
4	07-05-20	ISSUED FOR CONSTRUCTION	CL	JL
5	11-06-20	ISSUED FOR CONSTRUCTION	MM	JL

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project
LOCOMOTIVE WORKSHOP - BUILDING 4
2 Locomotive St, Eveleigh NSW 2015

drawing title
DEMOLITION PLAN
GROUND LEVEL
ZONE D

status
ISSUED FOR CONSTRUCTION

project no.	scale	date
10004164	As indicated @B1	11-06-20

drawing no. AR-ST-DWG-BB-B4-1214

rev 5

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SSDA SUBMISSION

Architect

SISSONS ARCHITECTS

Studio 5, 81 Alexander St, Crows Nest, NSW 2065
Tel. 02 9460 8002

NOTES LEGEND

1. Bay 14 lease expiry 2019 to 2023 (options).
2. Removal of existing roof sheeting for proposed Air Supply plant below.
3. Removal of existing roof sheeting for proposed Cooling Towers plant below.
4. Removal of existing roof sheeting for roof lights.
5. Removal of existing roof sheeting, structure to remain.
6. Refurbish/ upgrade roof as required with alsynite sheeting or similar.
7. Existing heritage timber doors to be retained internally in open position, new external door to opening.
8. Reinstate window where bricked in.
9. Minor repairs / maintenance as required.

LEGEND

- Visual Sight Line Zone - 1200max Height Allowed
- Heritage Interpretation Zone
- Site Boundary

Client: MIRVAC			Project: LOCOMOTIVE WORKSHOP - BAYS 5-15 2 Locomotive St, Eveleigh NSW 2015	Drawing Title: PROPOSED PLAN - GROUND FLOOR	
Scale: 1 : 250 @A1 (Half Scale @ A3)	Rev Date: 10/11/17	North		Project No.: 16-002	Drawing No.: SA-AR-DWG-BB-B4-0230 / Rev: M

A1



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SISSONS ARCHITECTS

Studio 5, 81 Alexander St, Crows Nest, NSW 2065
Tel. 02 9460 8002

NOTES LEGEND

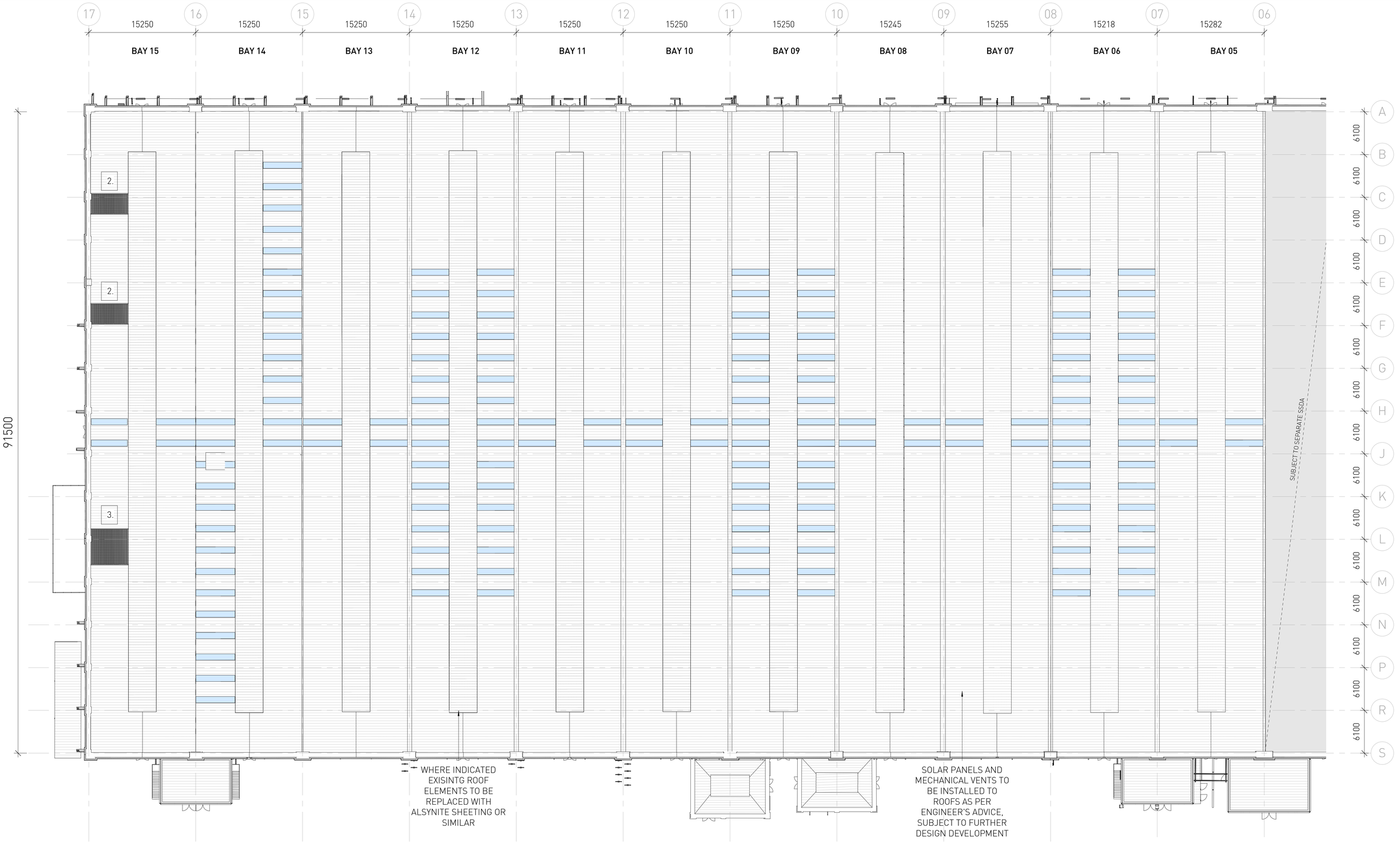
1. Bay 14 lease expiry 2019 to 2023 (options).
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4. Removal of existing roof sheeting for roof lights.
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7. Existing heritage timber doors to be retained internally in open position, new external door to opening.
8. Reinstate window where bricked in.
9. Minor repairs / maintenance as required.

Client	Project	Drawing Title
MIRVAC	LOCOMOTIVE WORKSHOP - BAYS 5-15 2 Locomotive St, Eveleigh NSW 2015	PROPOSED PLAN - SECOND FLOOR

Scale	Rev Date	North	Project No.	Drawing No.	Rev
1 : 250 @A1 (Half Scale @ A3)	02/11/17		16-002	SA-AR-DWG-BB-B4-0232	F

A1

2/11/2017 5:28:34 PM



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SISSONS ARCHITECTS

Studio 5, 81 Alexander St, Crows Nest, NSW 2065
Tel. 02 9460 8002

NOTES LEGEND

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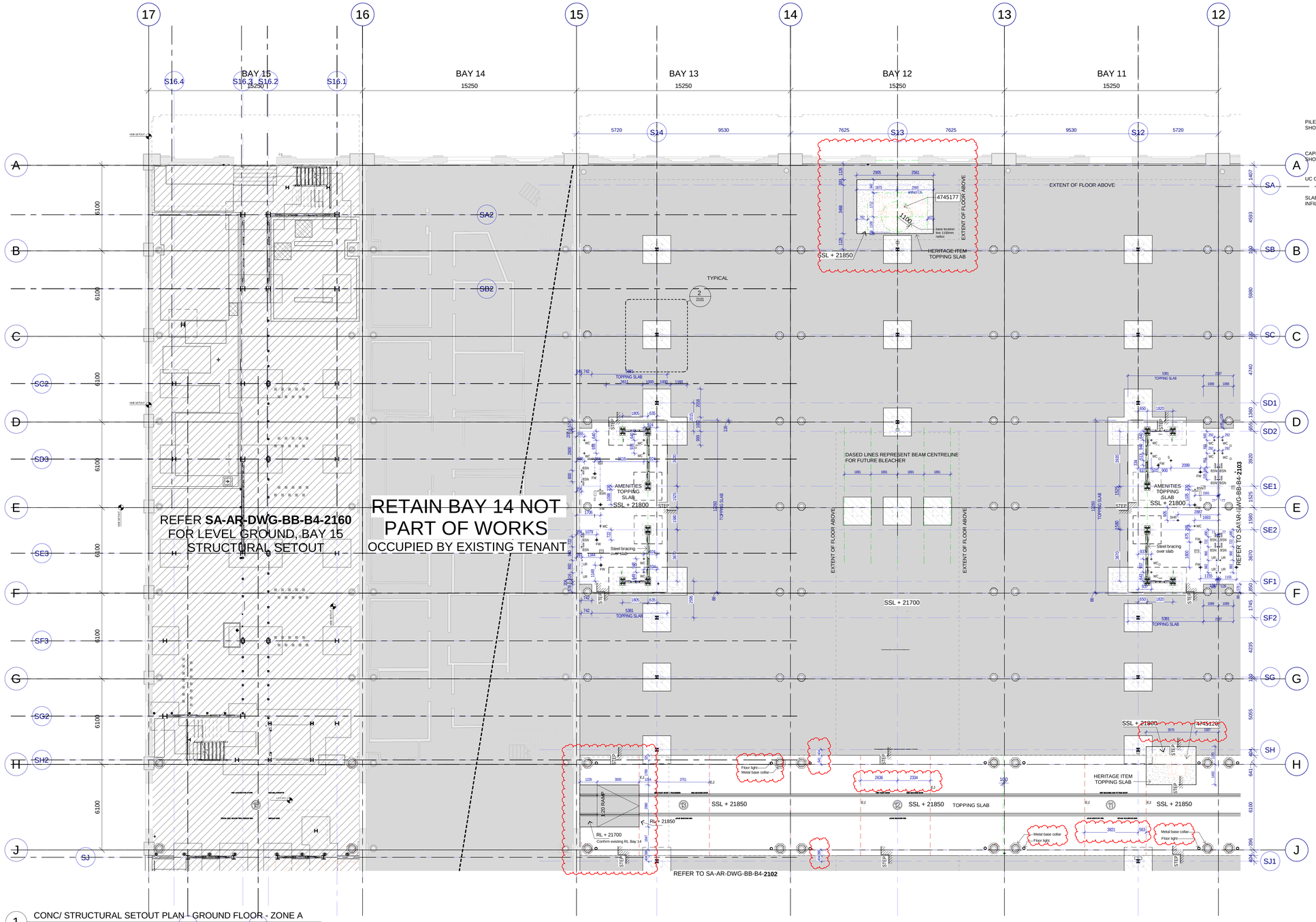
Client	Project	Drawing Title
MIRVAC	LOCOMOTIVE WORKSHOP - BAYS 5-15 2 Locomotive St, Eveleigh NSW 2015	PROPOSED PLAN - ROOF

Scale	Rev Date	North	Project No.	Drawing No.	Rev
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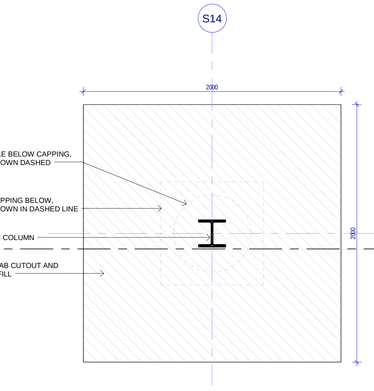
A1

16/10/2020 12:54:08 PM

North



1 CONC/ STRUCTURAL SETOUT PLAN - GROUND FLOOR - ZONE A
1 : 125



2 Plan Detail - Typical UC Column Placement
1 : 20

CO-ORDINATION NOTES - CONCRETE

1. Penetration & Structure
Refer to hydraulic engineer's drawing for setout of all floor wastes, sanitary and storm water drainage penetrations and all invert levels. Final size & location of penetrations in structure is subject to information, coordination & sign off by services Subcontractors.

2. Cast in plates
Cast in plates as per Structural Consultant requirements & to be co-ordinated with relevant Subcontractor.

3. Cast in conduits
All conduit sizes are nominal, to be confirmed by the relevant Subcontractor.

4. Wet area floor wastes
Shower outlets & floor outlets marked on plan are to have a 900mm dia, 30mm deep local depression feathered towards the outside

5. Amenities Slabs
Slabs for amenities on level 02 are to incorporate a nominal minimal slope of 1:200 towards the drainage outlet. Maintain the minimum required structural slab thickness at the lowest point, as indicated by the Structural Engineer.

GENERAL NOTES - CONCRETE

1. Drawing References
The Contractor must refer to other relevant documents including but not limited to the following:
1.1 General Arrangement drawings
1.2 Fire Compartmentation drawings
1.3 Concrete Setout drawings
1.4 Electrical Consultants drawings
1.5 Hydraulic Consultant drawings
1.6 Mechanical Consultants drawings
1.7 Structural Consultants drawings
1.8 Civil Consultants drawings
1.9 Fire Consultants drawings

2. Other References
Design Compliance: refer Structural Consultant specification
Material Selection: refer Architectural specification and Structural Consultant specification

3. Drawing rules, setout and dimensioning
3.1 The setout dimensions reflect Architectural intent. If a dimension is inconsistent with the structural sizing confirm before proceeding.
3.2 SRL's shown on plans which apply to multiple levels refer only to the lowest level. For other slab levels refer to the Architectural sections.

GRAPHICS LEGEND - CONCRETE

- Extent of Reinstated Floor Slab. RL to match existing
- Existing Foundations
- Precast Rebate, Near Side
- Existing Slab
- Fire Hydrant
- BL-E — Blockout for baluster fixing
- STEP — Step in slab
- FOLD — Fold in slab

ABBREVIATIONS

BOF	Bottom of Footing (Piling Cap or Ground Beam)	STC	Steel Column
CJ	Construction Joint	TOF	Top of Footing (Piling Cap or Ground Beam)
FS	Fire Stair	TOH	Top of Hob
HL	High Level	TOK	Top of Kerb
MJ	Movement Joint	TOW	Top of Wall
HR	Hanger Rod	WJ	Wet Joint in Precast Wall
HITP	Heritage Item Topping Slab	ExT	DENOTES EXISTING TIMBER COLUMN
		ExST	DENOTES EXISTING STEEL COLUMN

PENETRATION LEGEND - CONCRETE

B	Vanity Basin Waste Penetration	S	Kitchen Sink Penetration
CON	Condensate Pipe Penetration	SP	Sewer Pipe
DO	Drainage Outlet	SW	Stormwater Pipe
DP	Down Pipe	SWO	Stormwater Outlet
FH	Fire Hydrant	SWP	Stormwater Pitt
FHR	Fire Hose Reel Penetration	TD	Tundish
FW	Floor Waste Penetration	VP	Vent Pipe
HC	Hose Cock	WC	Toilet Penetration
OF	Overflow		
SHR	Shower Penetration		

DO — DP — Cast in pipe

- Communications Riser
- Electrical Riser
- Gas Flue
- Hydraulic Riser
- Hydraulic Zone
- Lobby Relief Riser
- Lobby Supply Riser
- Mechanical Riser
- Man Hole
- Refrigerant Riser
- Stair Pressurisation Riser

notes
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key plan



rev	date	description	by	chk
6	11.09.19	POD FLOOR LEVELS RECTIFIED, DIMENSIONS ADJUSTED	GY	RD
7	16.09.19	ISSUED FOR CONSTRUCTION APPROVAL	GY	RD
8	19.11.19	PLINTHS ADDED TO BASE OF STAIR, HYDRAULIC SETOUTS ADDED TO PODS, LIFT SETOUT UPDATED TO MATCH LIFT DRAWINGS, REINSTATED SLAB UPDATED AS PER STRUCTRAL FOOTING DESIGN	PC	RD
9	12.02.20	TOPPING SLAB SETOUT UPDATED, SHOWER FLOOR WASTE ADDED, SLAB TOPPING ADDED, SLAB TOPPING UNDER STAIRS REMOVED	PC	RD
10	26.02.20	HERITAGE ITEM SETOUT UPDATED	PC	RD
11	16.10.20	Concrete topping slab update GF, EJ locations shown	RD	

mirvac
Level 28, 200 George St,
Sydney, NSW 2000 Tel.+61 2 9080 8000

LOCOMOTIVE WORKSHOP
2 Locomotive St, Eveleigh NSW 2015

project architect
Mirvac Design
architects
planners
interior
designers
Level 28, 200 George St,
Sydney NSW, 2000
tel. 02 9090 8000
fax. 02 9080 8181
Mirvac Design Pty. Ltd
ABN 78 003 359 153

design architect
SISSONS
Suite 5.01,
53 Berry St,
North Sydney
NSW 2060
Tel. 02 8904 1853

retail architect
BUCHAN
Level 1, 7 Kelly St, Ultimo
NSW 2007
Tel. 02 9566 1611

drawing title
STRUCTURAL SETOUT PLAN - GROUND - ZONE A

status
PRELIMINARY

project no.	scale	date
16-002	As indicated @B1	10/31/17

drawing no. SA-AR-DWG-BB-B4-2101 rev 11

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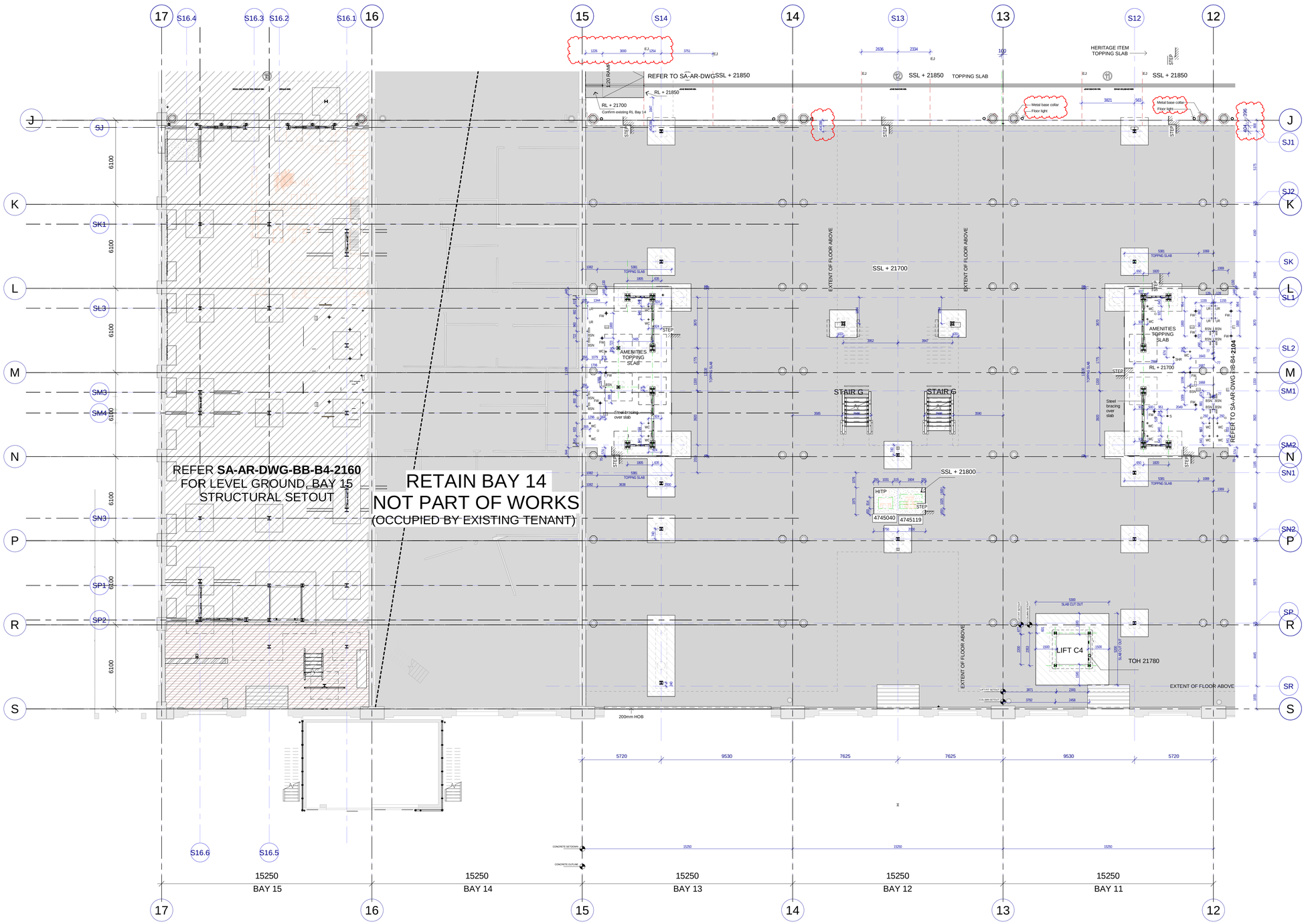
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North

1 CONC/ STRUCTURAL SETOUT PLAN - GROUND FLOOR - ZONE B

1 : 125



CO-ORDINATION NOTES - CONCRETE

1. Penetration & Structure
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- Precast Rebate, Near Side
- Existing Slab
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- BL-B Blockout for baluster fixing
- STEP Step in slab
- FOLD Fold in slab

ABBREVIATIONS

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FW	Floor Waste Penetration	VP	Vent Pipe
HC	Hose Cock	WC	Toilet Penetration
OF	Overflow		
SHR	Shower Penetration		

DO DP — Cast in pipe

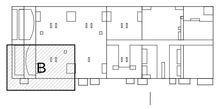
- Communications Riser
- Electrical Riser
- Gas Flue
- Hydraulic Riser
- Hydraulic Zone
- Lobby Relief Riser
- Lobby Supply Riser
- Mechanical Riser
- Man Hole
- Refrigerant Riser
- Stair Pressurisation Riser

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rev	date	description	by	chk
5	20.08.19	COLUMNS UPDATED TO SUIT TENANT FITOUT, LIFT LOCATION UPDATED, COLUMNS ADDED	PC	RD
6	22.08.19	COLUMN & LIFT SETOUTS UPDATED, STAIR SUPPORT COLUMNS ADDED	PC	RD
7	11.09.19	POD SLAB LEVEL RL SHOWN, STAIR SUPPORT COLUMN POSITION AMENDED	GY	RD
8	16.09.19	LIFT SHAFT FRAMING AND SET OUTS UPDATED	GY	RD
9	19.11.19	PLINTHS ADDED TO BASE OF STAIR, HYDRAULIC SETOUTS ADDED TO PODS, LIFT SETOUT UPDATED TO MATCH LIFT DRAWINGS, REINSTATED SLAB UPDATED AS PER STRUCTRAL FOOTING DESIGN	PC	RD
10	10.03.20	COLUMNS ROTATED, FLOOR WASTES ADDED, HERITAGE ITEM SETOUT ADDED	PC	RD
11	16.10.20	Concrete topping slab update GF, EJ locations shown	RD	

mirvac
Level 28, 200 George St, Sydney, NSW 2000 Tel.+61 2 9080 8000

LOCOMOTIVE WORKSHOP
2 Locomotive St, Eveleigh NSW 2015

project architect
Mirvac Design
Level 28, 200 George St.
Sydney NSW, 2000
tel. 02 9090 8000
fax. 02 9080 8181
architects
planners
interior
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Mirvac Design Pty. Ltd
ABN 78 003 359 153

design architect
SISSONS
Suite 5.01,
53 Berry St,
North Sydney
NSW 2060
Tel. 02 8904 1853

retail architect
BUCHAN
Level 1, 7 Kelly St, Ultimo
NSW 2007
Tel. 02 9566 1611

drawing title
STRUCTURAL SETOUT PLAN - GROUND - ZONE B

status
PRELIMINARY

project no.	scale	date
16-002	1 : 125 @B1	10/31/17

drawing no. SA-AR-DWG-BB-B4-2102 rev 11

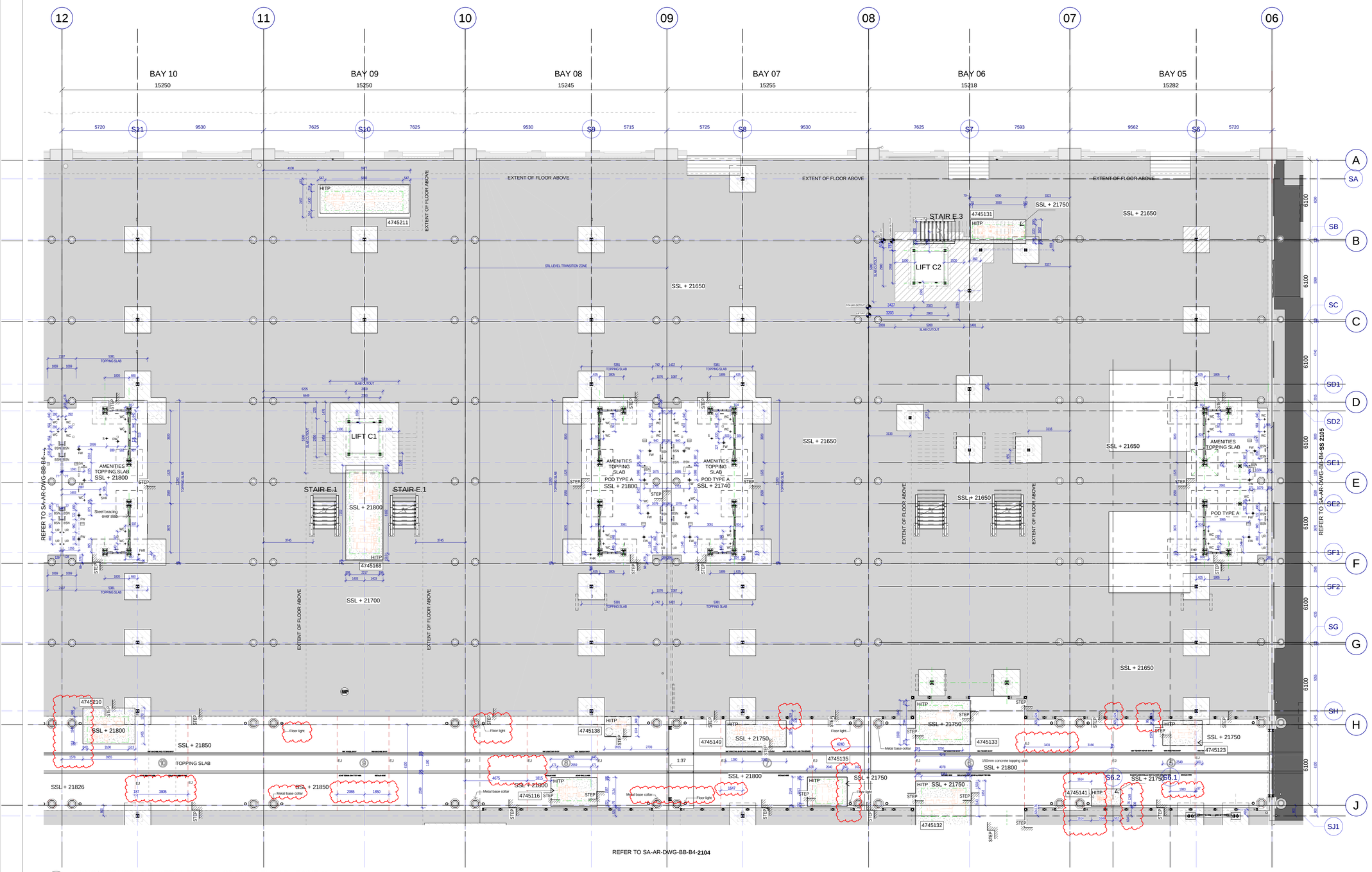
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North



VV CONC/ STRUCTURAL SETOUT PLAN - GROUND FLOOR - ZONE C

1 : 125

CO-ORDINATION NOTES - CONCRETE

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Material Selection: refer Architectural specification and Structural Consultant specification

3. Drawing rules, setout and dimensioning
3.1 The setout dimensions reflect Architectural intent. If a dimension is inconsistent with the structural sizing confirm before proceeding.
3.2 SRL's shown on plans which apply to multiple levels refer only to the lowest level. For other slab levels refer to the Architectural sections.

GRAPHICS LEGEND - CONCRETE

- Extent of Reinstated Floor Slab. RL to match existing
- Existing Foundations
- Precast Rebate, Near Side
- Existing Slab
- Fire Hydrant
- BL-B / CS — Blockout for baluster fixing
- STEP — Step in slab
- FOLD — Fold in slab

ABBREVIATIONS

BOF	Bottom of Footing (Piling Cap or Ground Beam)	STC	Steel Column
CJ	Construction Joint	TOF	Top of Footing (Piling Cap or Ground Beam)
FS	Fire Stair	TOH	Top of Hob
HL	High Level	TOK	Top of Kerb
MJ	Movement Joint	TOW	Top of Wall
HR	Hanger Rod	WJ	Wet Joint in Precast Wall
HITP	Heritage Item Topping Slab	ExT	DENOTES EXISTING TIMBER COLUMN
		ExST	DENOTES EXISTING STEEL COLUMN

PENETRATION LEGEND - CONCRETE

B	Vanity Basin Waste Penetration	S	Kitchen Sink Penetration
CON	Condensate Pipe Penetration	SP	Sewer Pipe
DO	Drainage Outlet	SW	Stormwater Pipe
DP	Down Pipe	SWO	Stormwater Outlet
FH	Fire Hydrant	SWP	Stormwater Pit
FHR	Fire Hose Reel Penetration	TD	Tundish
FW	Floor Waste Penetration	VP	Vent Pipe
HC	Hose Cock	WC	Toilet Penetration
OF	Overflow		
SHR	Shower Penetration		

DO / DP — Cast in pipe

- Communications Riser
- Electrical Riser
- Gas Flue
- Hydraulic Riser
- Hydraulic Zone
- Lobby Relief Riser
- Lobby Supply Riser
- Mechanical Riser
- Man Hole
- Refrigerant Riser
- Stair Pressurisation Riser

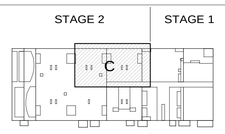
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key plan



rev	date	description	by	chk
6	22.08.19	LIFT LOCATION AMENDED (20mm), BRIDGE SUPPORT COLUMNS UPDATED & SETOUT ADDED, COLUMN ADDED	PC	RD
7	11.09.19	POD SLAB LEVELS RECTIFIED, LIFT SETOUT LINES RECTIFIED	GY	RD
8	16.09.19	LIFT SHAFT FRAMING AND SET OUTS UPDATED	GY	RD
9	19.11.19	PLINTHS ADDED TO BASE OF STAIR, HYDRAULIC SETOUTS ADDED TO PODS, LIFT SETOUT UPDATED TO MATCH LIFT DRAWINGS, REINSTATED SLAB UPDATED AS PER STRUCTRAL FOOTING DESIGN, STAIRS UPDATED, COLUMN LOCATIONS UPDATED	PC	RD
10	26.02.20	HERITAGE ITEM SETOUT ADDED, TOPPING SLAB UPDATED, SHOWER WASTE ADDED	PC	RD
11	16.10.20	Concrete topping slab update GF, EJ locations shown	RD	

mirvac
Level 28, 200 George St,
Sydney, NSW 2000 Tel.+61 2 9080 8000

LOCOMOTIVE WORKSHOP
2 Locomotive St, Eveleigh NSW 2015

project architect
Mirvac Design
architects
planners
interior
designers
Level 28, 200 George St.
Sydney NSW, 2000
tel. 02 9090 8000
fax. 02 9080 8181
Mirvac Design Pty. Ltd
ABN 78 003 359 153

design architect
SISSONS
Suite 5.01,
53 Berry St,
North Sydney
NSW 2060
Tel. 02 8904 1853

retail architect
BUCHAN
Level 1, 7 Kelly St, Ultimo
NSW 2007
Tel. 02 9566 1611

drawing title
STRUCTURAL SETOUT PLAN - GROUND - ZONE C

status
PRELIMINARY

project no.	scale	date
16-002	1 : 125 @B1	10/31/17

drawing no. SA-AR-DWG-BB-B4-2103 rev 11

B1
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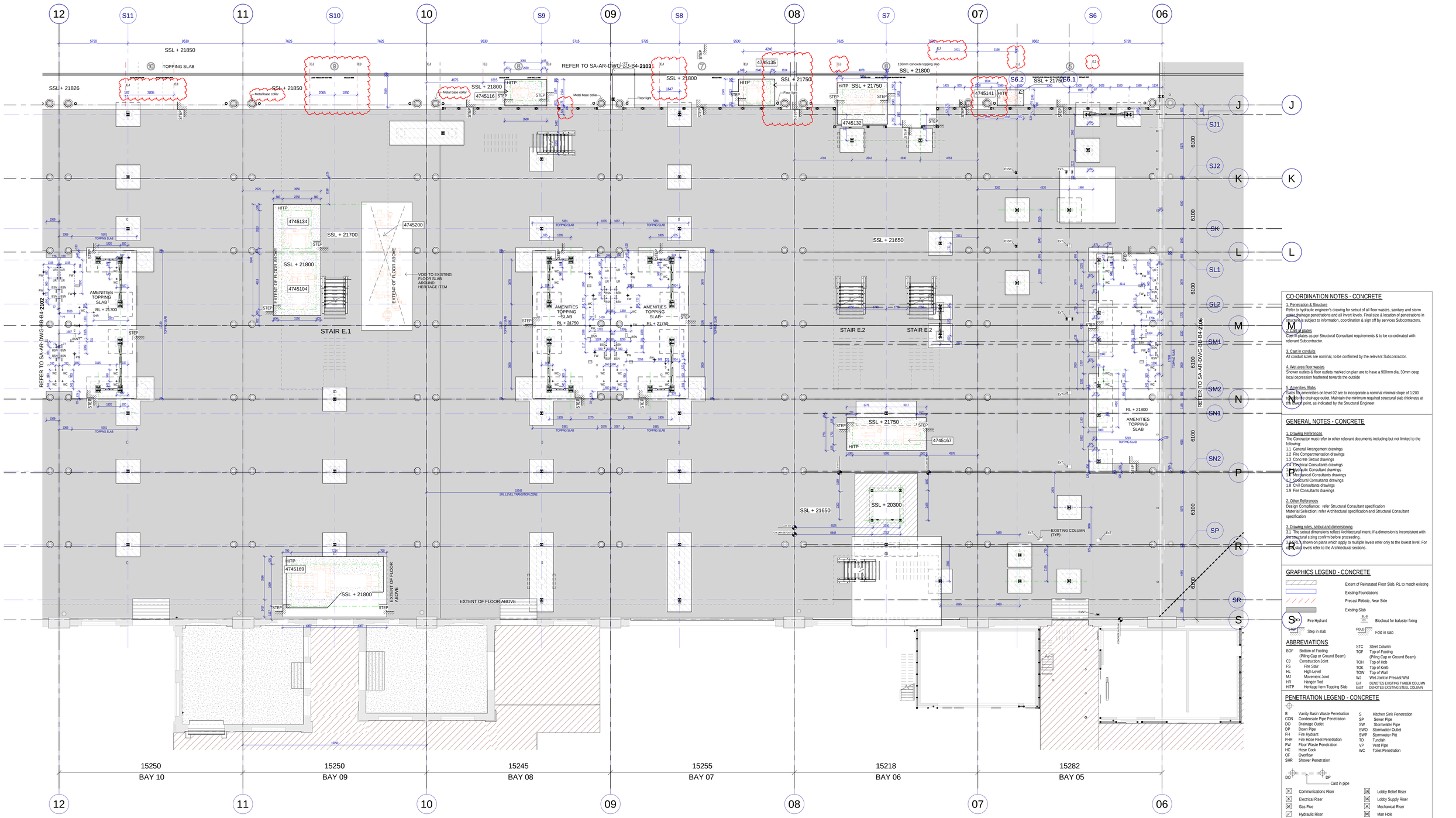
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North

1 CONC/ STRUCTURAL SETOUT PLAN - GROUND FLOOR - ZONE D

1 : 125



CO-ORDINATION NOTES - CONCRETE

1. Penetration & Structure
Refer to hydraulic engineer's drawing for setout of all floor wastes, sanitary and storm water drainage penetrations and all invert levels. Final size & location of penetrations in structural slabs subject to information, coordination & sign off by services Subcontractors.

2. Cast in plates
Cast in plates as per Structural Consultant requirements & to be co-ordinated with relevant Subcontractor.

3. Cast in conduits
All conduit sizes are nominal, to be confirmed by the relevant Subcontractor.

4. Wet area floor wastes
Shower outlets & floor outlets marked on plan are to have a 900mm dia, 30mm deep local depression feathered towards the outside

5. Amenities Slabs
Slabs to amenities on level 02 are to incorporate a nominal minimal slope of 1:200 towards the drainage outlet. Maintain the minimum required structural slab thickness at the lowest point, as indicated by the Structural Engineer.

GENERAL NOTES - CONCRETE

1. Drawing References
The Contractor must refer to other relevant documents including but not limited to the following:
1.1 General Arrangement drawings
1.2 Fire Compartmentation drawings
1.3 Concrete Setout drawings
1.4 Structural Consultants drawings
1.5 Hydraulic Consultant drawings
1.6 Mechanical Consultants drawings
1.7 Structural Consultants drawings
1.8 Civil Consultants drawings
1.9 Fire Consultants drawings

2. Other References
Design Compliance: refer Structural Consultant specification
Material Selection: refer Architectural specification and Structural Consultant specification

3. Drawing rules, setout and dimensioning
3.1 The setout dimensions reflect Architectural intent. If a dimension is inconsistent with the structural sizing confirm before proceeding.
3.2 SSL's shown on plans which apply to multiple levels refer only to the lowest level. For all slab levels refer to the Architectural sections.

GRAPHICS LEGEND - CONCRETE

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OF	Overflow		
SHR	Shower Penetration		

DO — DP — Cast in pipe

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- Electrical Riser
- Gas Flue
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- Hydraulic Zone
- Lobby Relief Riser
- Lobby Supply Riser
- Mechanical Riser
- Man Hole
- Refrigerant Riser
- Stair Pressurisation Riser

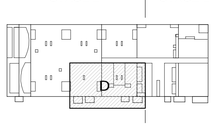
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key plan



rev	date	description	by	chk
7	10.03.20	COLUMNS ROTATED, FLOOR WASTES ADDED, HERITAGE ITEM SETOUT ADDED	PC	RD
8	13.05.20	CANTEEN AREA STRUCTURE UPDATED, ISSUE FOR SERVICE COORDINATION	HY	RD
9	03.06.20	HERITAGE ITEM SETOUT - ZONE D	HY	
10	12.06.20	BAY 5 STEEL SETOUT UPDATED	HY	
11	29.06.20	HERITAGE ITEM SETOUT UPDATED	HY	
12	13.07.20	BAY 5 CANTEEN AREA - SERVICES PENO. & LAYOUT UPDATED	HY	
13	03.08.20	BAY 5 CANTEEN AREA - COLUMN POSITIONS, TIMBER STRUCTURE AS PER SURVEY, SIZE OF PLATFORM AND MECH. RISERS PENO. UPDATED	HY	
14	16.10.20	Concrete topping slab update GF, EJ locations shown	RD	

mirvac
Level 28, 200 George St,
Sydney, NSW 2000 Tel.+61 2 9080 8000

LOCOMOTIVE WORKSHOP
2 Locomotive St, Eveleigh NSW 2015

project architect
Mirvac Design
Level 28, 200 George St.
Sydney NSW, 2000
tel. 02 9090 8000
fax. 02 9080 8181
architects
planners
interior
designers
Mirvac Design Pty. Ltd
ABN 78 003 359 153

design architect
SISSONS
Suite 5.01,
53 Berry St,
North Sydney
NSW 2060
Tel. 02 8904 1853

retail architect
BUCHAN
Level 1, 7 Kelly St, Ultimo
NSW 2007
Tel. 02 9566 1611

drawing title
STRUCTURAL SETOUT PLAN - GROUND - ZONE D

status
FOR CONSTRUCTION

project no.	scale	date
16-002	1 : 125 @B1	10/31/17

drawing no.
SA-AR-DWG-BB-B4-2104

rev
14

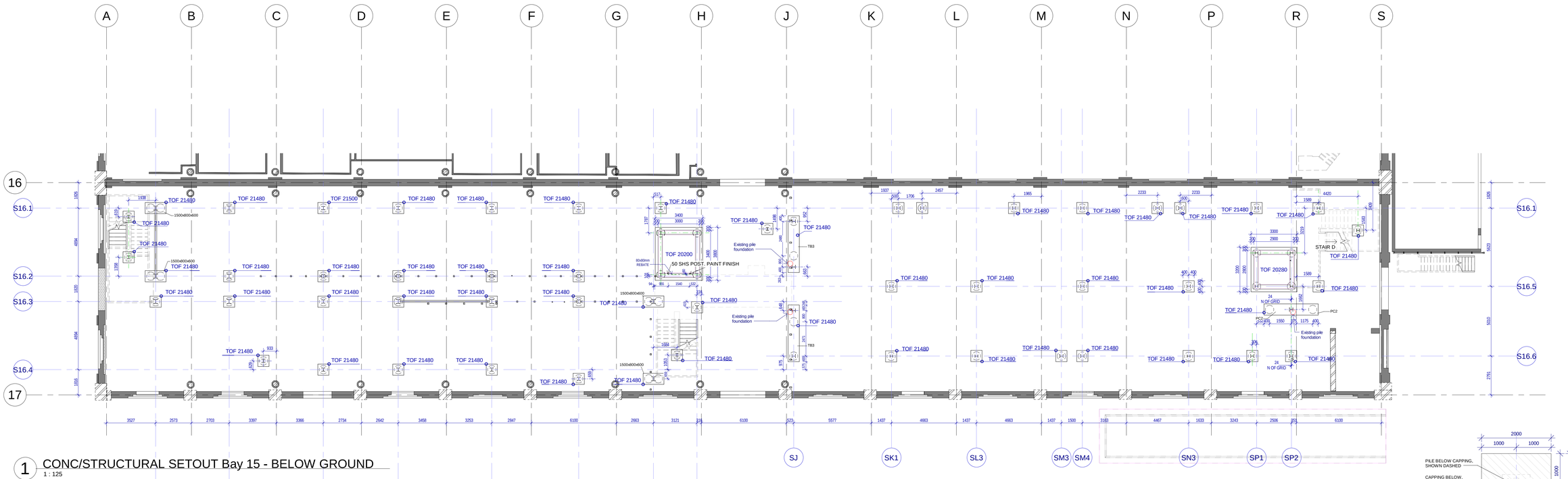
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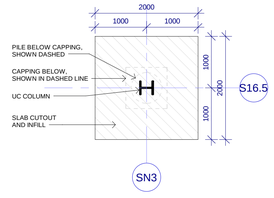
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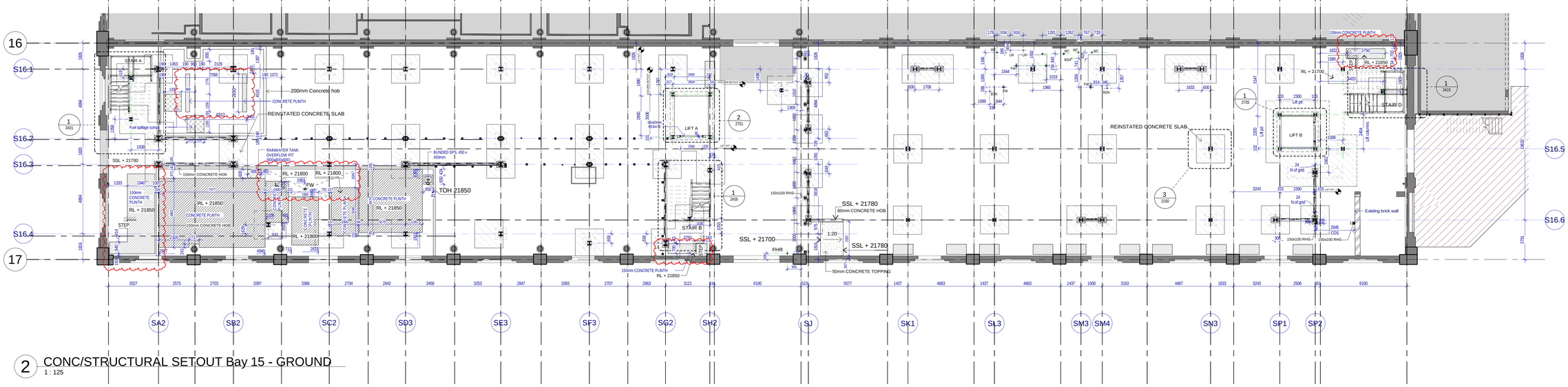
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1 CONC/STRUCTURAL SETOUT Bay 15 - BELOW GROUND
1 : 125



3 Typical Column/Footing placement
1 : 50



2 CONC/STRUCTURAL SETOUT Bay 15 - GROUND
1 : 125

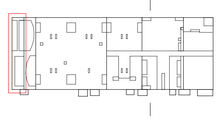
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key plan



rev	date	description	by	chk
1	23.03.20	Bay15 Stucture setout. Issue for construction	RD	RD
2	07.05.20	STAIR D - RELOCATED & LANDING WIDENED, ISSUE FOR CONSTRUCTION	HY	
3	05.06.20	BAY 15 STRUCTURE SETOUT AMENDMENTS	RD	
4	29.06.20	Bay 15 FH GLAZING ETOUT	RD	
5	30.07.20	BAY 15 FOUNDATIONS AMENDED, PLINTHS ADDED IN TANK ROOM	RD	
6	11.09.20	ISSUE FOR CONSTRUCTION - DIESEL TANK ROOM PLINTH ADDED, FW AND FALLS SHOWN IN RAINWATER TANK ROOM SHOWN,STANDING HERITAGE BEAM PLINTH ADDED	GY	

Mirvac
Level 28, 200 George St,
Sydney, NSW 2000 Tel.+61 2 9080 8000

LOCOMOTIVE WORKSHOP
2 Locomotive St, Eveleigh NSW 2015

project architect
Mirvac Design
architects planners interior designers
Level 28, 200 George St,
Sydney NSW, 2000
tel. 02 9090 8000
fax. 02 9080 8181
Mirvac Design Pty. Ltd
ABN 78 003 359 153

design architect
SISSONS
Suite 5.01,
53 Berry St,
North Sydney
NSW 2060
Tel. 02 8904 1853

retail architect
BUCHAN
Level 1, 7 Kelly St, Ultimo
NSW 2007
Tel. 02 9566 1611

drawing title
STRUCTURAL SETOUT PLAN BAY 15 - Footings and Ground Level

status
FOR CONSTRUCTION

project no.	scale	date
16-002	As indicated @B1	03/19/20

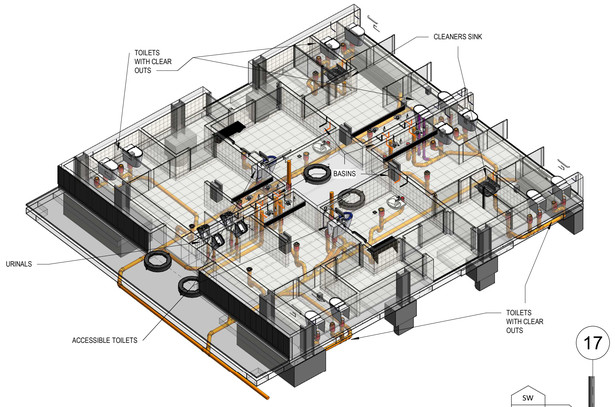
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rev
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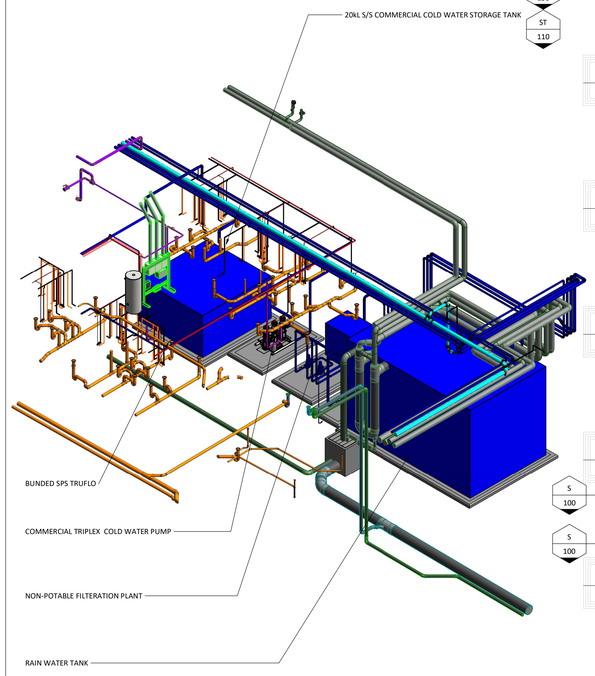
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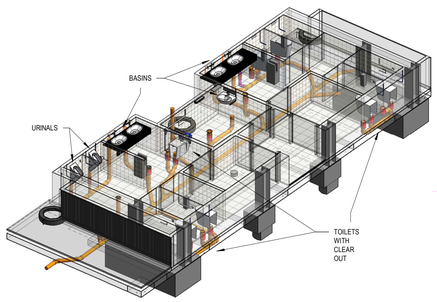
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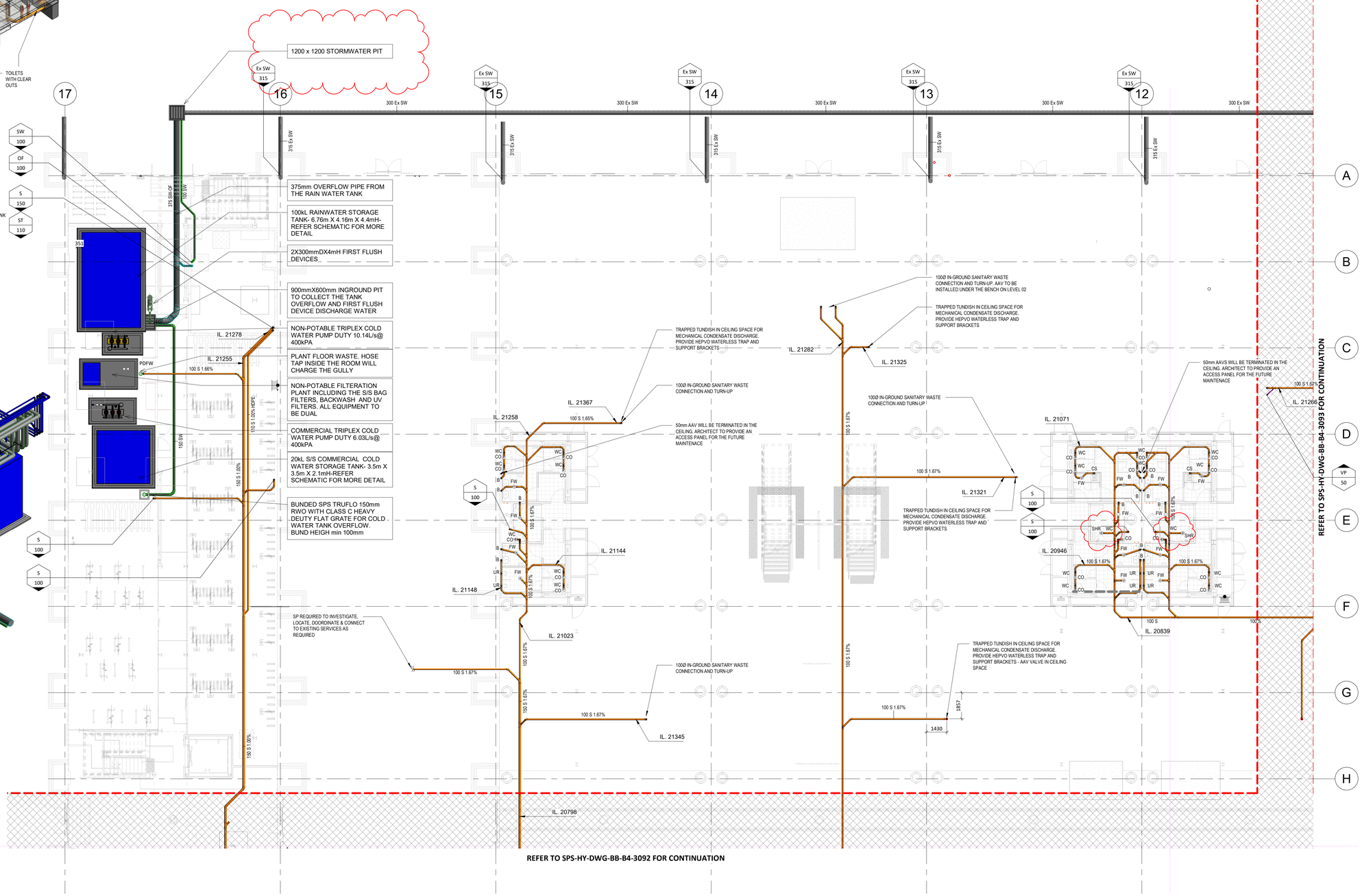


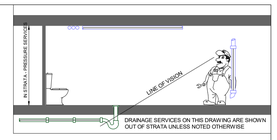
INGROUND DRAINAGE ZONE A 3D DETAIL 2



BAY 15 PLANT 3D DETAIL







INGROUND DRAINAGE ZONE A 3D DETAIL 1

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7	FOR CONSTRUCTION	ZUZ	SBA	03.08.20
6	FOR CONSTRUCTION	DM	SBA	06.05.20
5	QUANTIUM ADDITIONAL IN GROUND TUNDISH	SBA	SBA	14.02.20
4	FOR CONSTRUCTION APPROVAL	JHK	SBA	22.11.19
3	QUANTIUM LAYOUT UPDATED	DM	SBA	17.10.19
2	ADDITIONAL CLEANER SINK	DM	SBA	25.09.19
1	FOR CONSTRUCTION	DM	SBA	20.09.19
0	FOR CONSTRUCTION	DM	SBA	13.09.19

Client. mirvac
Address: Level 28, 200 George St Sydney NSW 2000

Retail Architect. BUCHAN
Address: Level 1, Kelly St Ultimo NSW 2007
Phone: 02 9566 1611

Principal Architect. SISSONS
Address: 5/8 Alexander St Crows Nest, NSW 2065
Phone: 02 9460 8002

WOOD & GRIEVE ENGINEERS NOW PART OF Stantec

ARCHITECT/CLIENT

PROJECT	TITLE
LOCOMOTIVE WORKSHOP 2 LOCOMOTIVE STREET, EVELEIGH NSW 2015	HYDRAULIC SERVICES - INGROUND FLOOR DRAINAGE SERVICES - ZONE A

SMART PLUMBING SOLUTIONS Pty Ltd

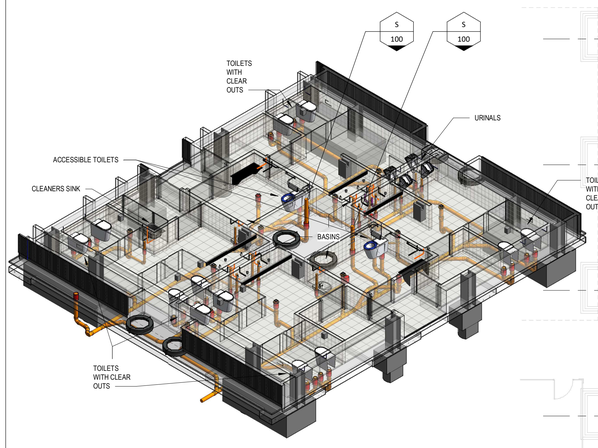
CONSTRUCTION

HYDRAULIC SERVICES

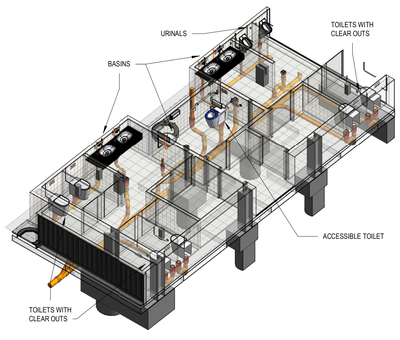
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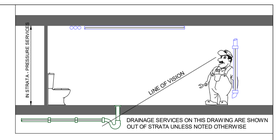
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INGROUND DRAINAGE ZONE B 3D DETAIL 2



INGROUND DRAINAGE ZONE B 3D DETAIL 1



REFER TO SPS-HY-DWG-BB-B4-3091 FOR CONTINUATION

REFER TO SPS-HY-DWG-BB-B4-3094 FOR CONTINUATION

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J K L M N P R S

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IL. 19880
IL. 21123
IL. 21212

VP 65 TERMINATE IN CEILING WITH AN AAV
VP 50
VP 100
TWVP 100
S 100
100

150 S 1.00%
150 S 2.1%
150 S 1.65%
100 S 1.67%
225 Ex S ES
225 ES
300 Ex SW eSTW
300 ES SW eSTW
300 Ex SW 0.50% eSTW
300 STW
110 TW 1.67%

PROVIDE WASTE SPIGOT FOR CONNECTION OF DISCHARGE FROM DISHWASHER TO SINK(TYPICAL IN ALL KITCHEN SINK JOINERIES)

100Ø IN-GROUND SANITARY WASTE CONNECTION AND TURN-UP

TRAPPED TUNDISH IN CEILING SPACE FOR MECHANICAL CONDENSATE DISCHARGE. PROVIDE HEPVO WATERLESS TRAP AND SUPPORT BRACKETS - AAV VALVE IN CEILING SPACE

KITCHEN WASTE PIPE IN JOINERY CONNECT TO EXISTING TURN UP

PROVIDE DRAINAGE TURN UP FOR SAFETRAY. SAFEWASTE WITH HEPVO WATERLESS TRAP AND SUPPORT BRACKETS

PROVIDE DRAINAGE TURN UP FOR SAFETRAY. SAFEWASTE WITH HEPVO WATERLESS TRAP AND SUPPORT BRACKETS - AAV TO BE INSTALLED IN CEILING

100Ø IN-GROUND SANITARY WASTE CONNECTION AND TURN-UP WITH GULLY

100Ø IN-GROUND SANITARY WASTE CONNECTION AND TURN-UP - AAV TO BE INSTALLED IN JOINERY IN HIGH LEVEL

50mm AAV WILL BE TERMINATED IN THE CEILING. ARCHITECT TO PROVIDE AN ACCESS PANEL FOR THE FUTURE MAINTENACE

WATERLESS TUNDISH WITH 100MM IN GROUND PIPE

100mm BT with overflow gully and IPMF low lvel vent. 20mm HT to be installed to charge the gully

150Ø SEWER BOUNDARY TRAP COMPLETED WITH LOW LEVEL VENT"IPMF" AND OVEFLOW GULLY. LOCATION OF THEM TBC

NEW 1200x1200mm STORMWATER PIT INCLUDED TWO OCEAN PROTECT 460 STORMFILTERS- INVERT LEVEL 18.900. WIER OVERFLOW BY OCEAN PROTECT

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3	QUANTIUM LAYOUT UPDATED	DM	SBA	17.10.19
2	ADDITIONAL CLEANER SINK	DM	SBA	25.09.19
1	FOR CONSTRUCTION	DM	SBA	20.09.19
0	FOR CONSTRUCTION	DM	SBA	13.09.19

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B

WOOD & GRIEVE ENGINEERS
NOW PART OF Stantec

ARCHITECT/CLIENT

LOCOMOTIVE WORKSHOP
2 LOCOMOTIVE STREET, EVELEIGH
NSW 2015

PROJECT

HYDRAULIC SERVICES - INGROUND FLOOR DRAINAGE SERVICES - ZONE B

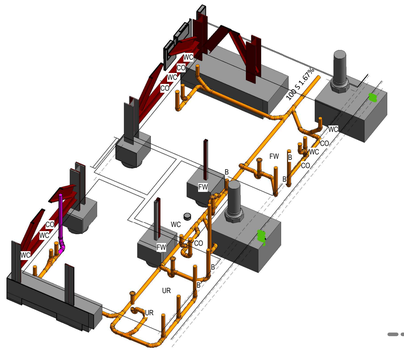
TITLE

SMART PLUMBING SOLUTIONS Pty Ltd

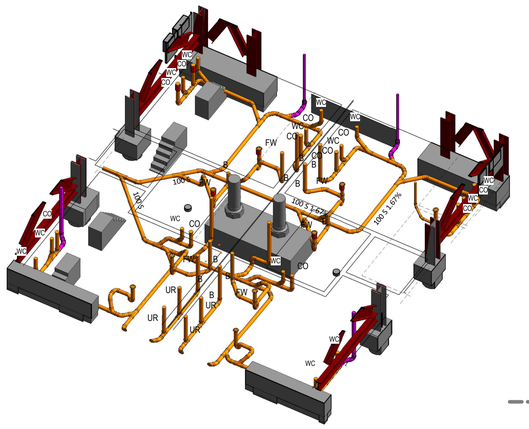
CONSTRUCTION

HYDRAULIC SERVICES

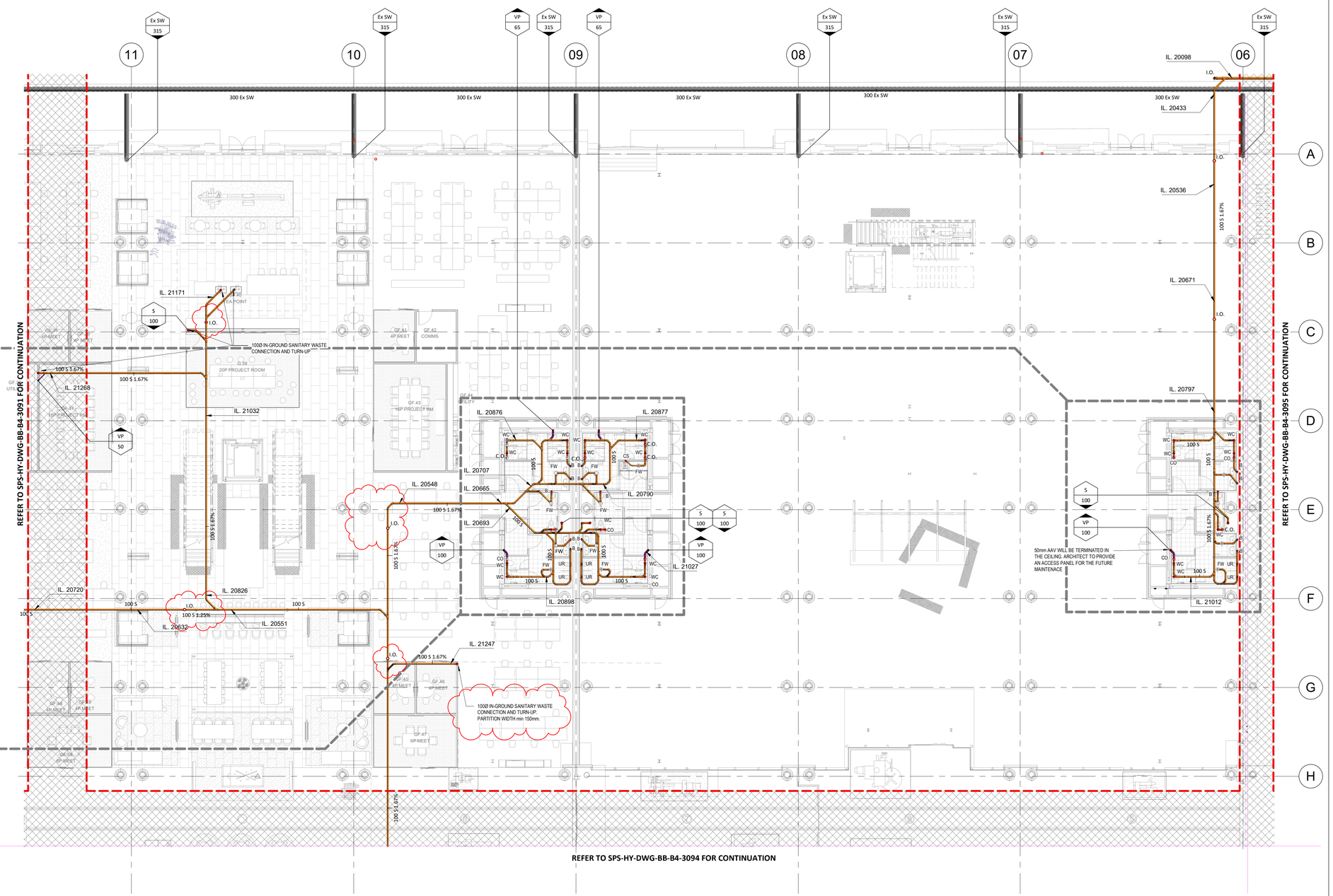
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SCALE @ B1	PROJECT No	DRAWING No REV

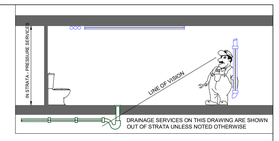


GROUND FLOOR ZONE C BATHROOM 2 DRAINAGE COORDINATION VIEW



GROUND FLOOR ZONE C BATHROOM 1 DRAINAGE COORDINATION VIEW





ALL IN-GROUND ROUTES TO AVOID, WHERE POSSIBLE. IMPACT TO HERITAGE SUBSTRUCTURE OR OBJECTS FOUND ON-SITE.

THIS DRAWING HAS BEEN DOCUMENTED IN COLOUR
THIS DRAWING IS REQUIRED TO BE PRINTED IN COLOUR
FAILURE TO DO SO MAY RESULT IN LOSS OF INFORMATION
BLACK & WHITE PRINTING MAY BE USED IF SPECIFIC BLACK & WHITE DOCUMENTS HAVE BEEN OBTAINED FROM WGE

REV	DESCRIPTION	DRAWN	APPD	DATE
7	FOR CONSTRUCTION APPROVAL	JHK	SBA	22.11.19
6	QUANTIUM LAYOUT UPDATED	DM	SBA	17.10.19
5	ADDITIONAL CLEANER SINK	DM	SBA	25.09.19
4	FOR CONSTRUCTION	DM	SBA	20.09.19
3	RE ISSUED FOR CONSTRUCTION	DM	SBA	13.09.19
2	RE ISSUED FOR CONSTRUCTION	DM	SBA	03.09.19
1	FOR CONSTRUCTION	DM	SBA	16.08.19
0	FOR CONSTRUCTION	DM	SBA	24.07.19
B	PROGRESS ISSUE	DM	SBA	19.07.19
A	PROGRESS ISSUE	DM	SBA	02.07.19

Client. mirvac
Address: Level 28, 200 George St Sydney NSW 2000

Retail Architect. BUCHAN
Address: Level 1, Kelly St Ultimo NSW 2007
Phone: 02 9566 1611

Principal Architect. SISSONS
Address: 5/8 Alexander St Crows Nest, NSW 2065
Phone: 02 9460 8002

C

WOOD & GRIEVE ENGINEERS NOW PART OF Stantec

ARCHITECT/CLIENT

PROJECT: LOCOMOTIVE WORKSHOP
2 LOCOMOTIVE STREET, EVELEIGH
NSW 2015

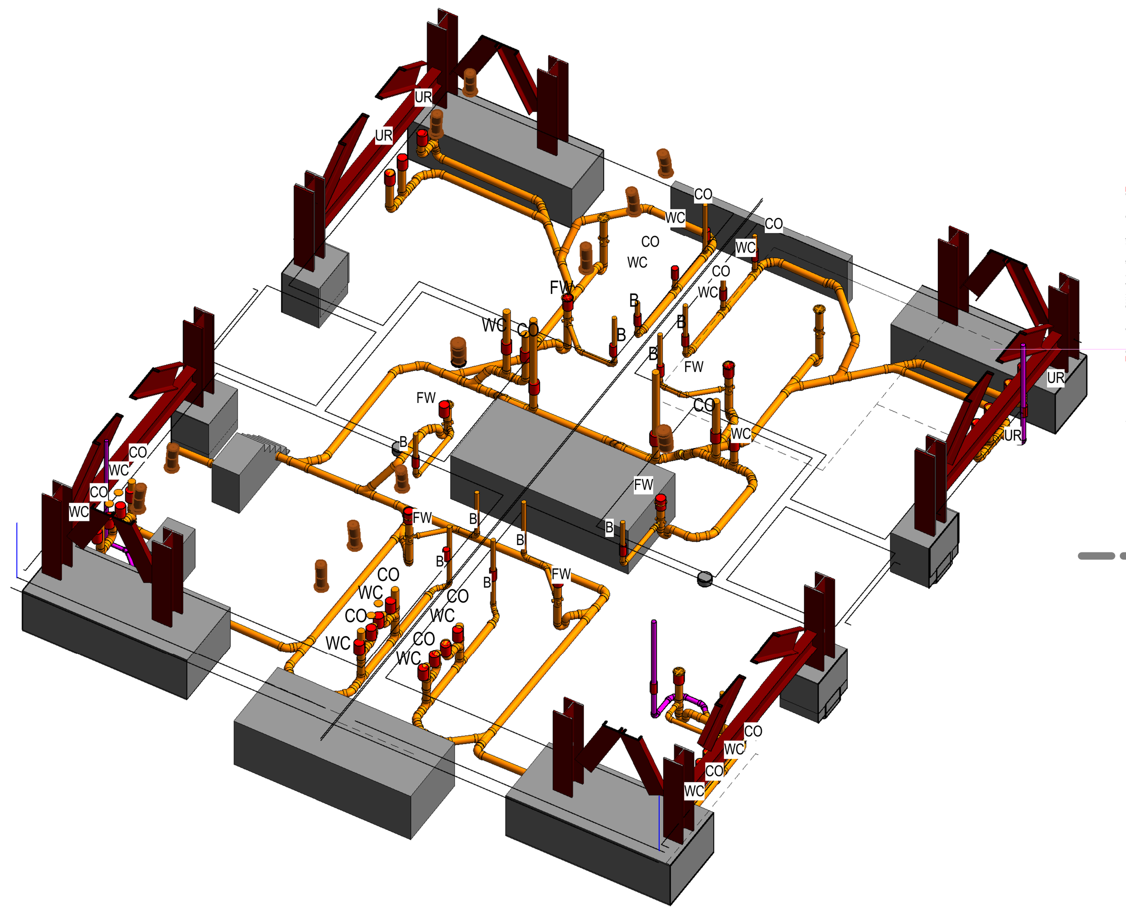
TITLE: HYDRAULIC SERVICES - INGROUND FLOOR DRAINAGE SERVICES - ZONE C

SMART PLUMBING SOLUTIONS Pty Ltd

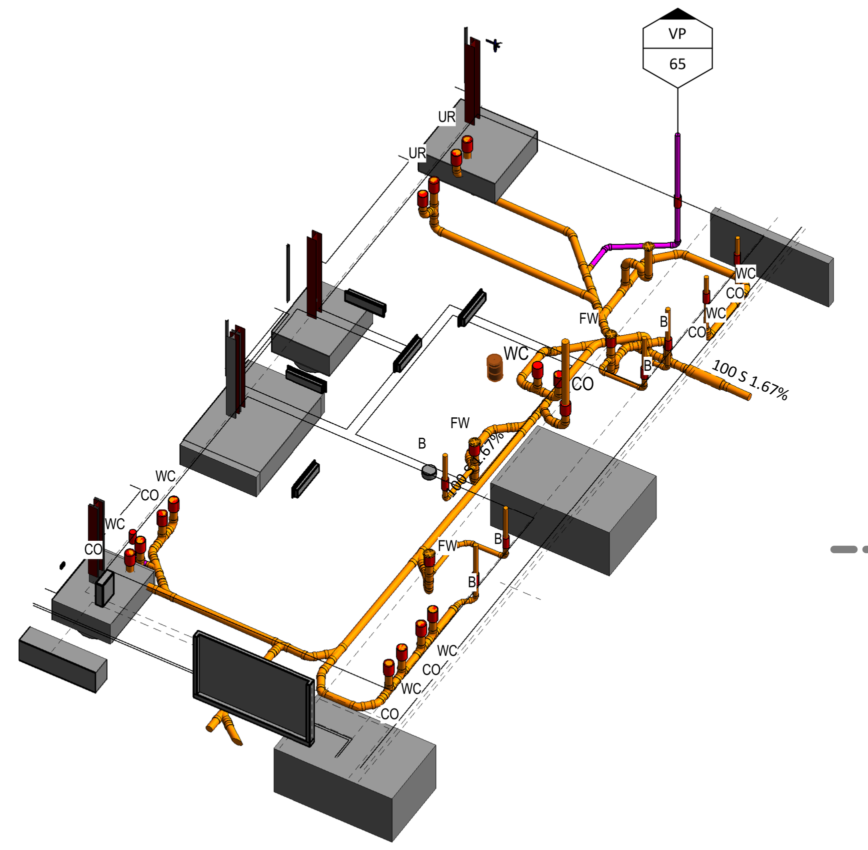
CONSTRUCTION

HYDRAULIC SERVICES

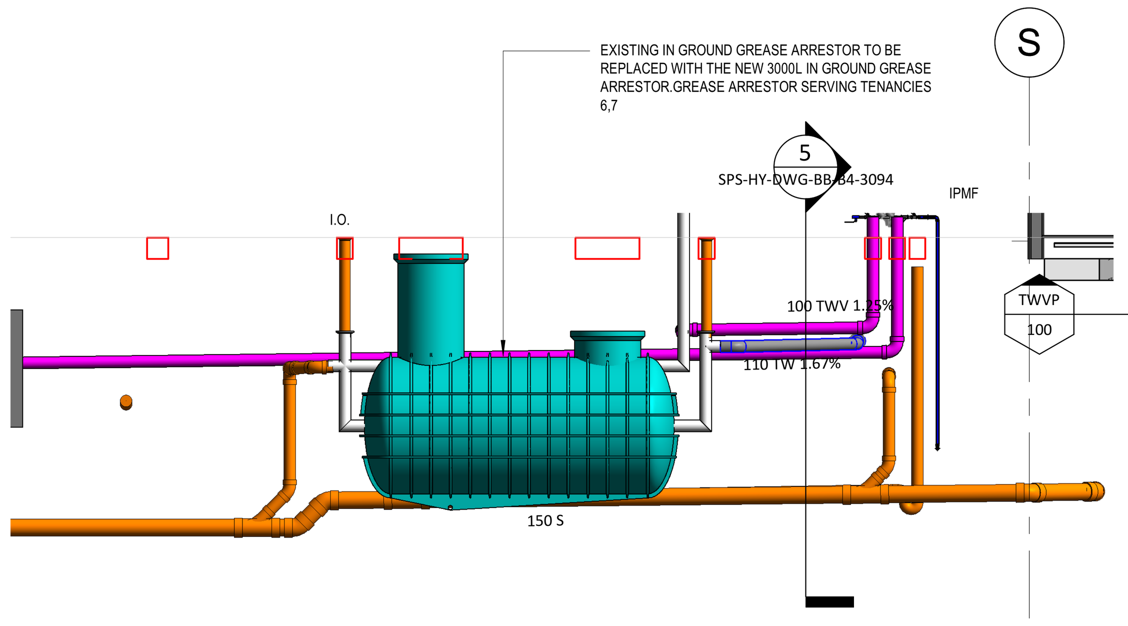
SCALE @ B1	PROJECT No	DRAWING No	REV
As indicated	42673	SPS-HY-DWG-BB-B4-3093	7



GROUND FLOOR ZONE D BATHROOM 1 COORDINATION VIEW

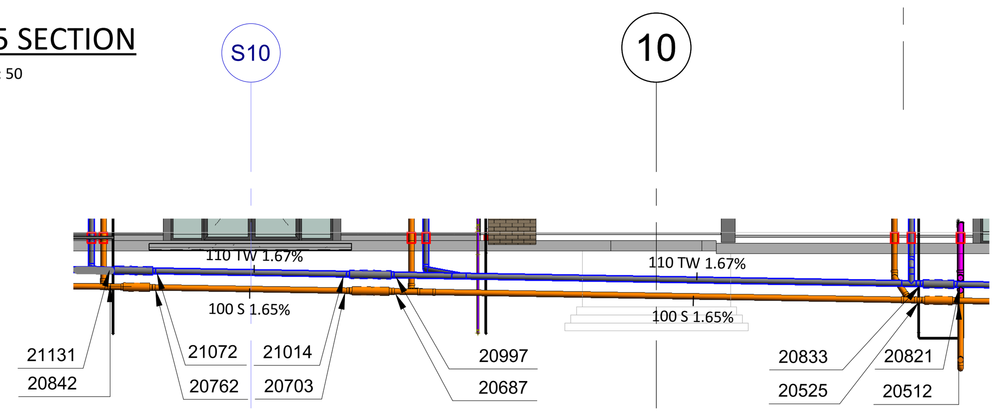


GROUND FLOOR ZONE D BATHROOM 2 COORDINATION VIEW



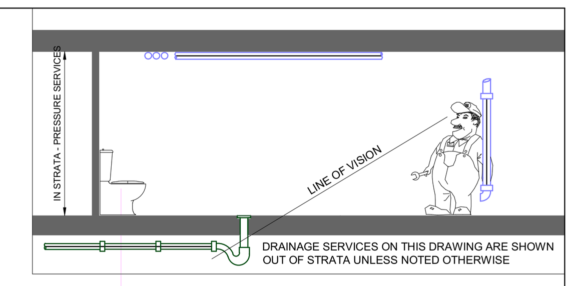
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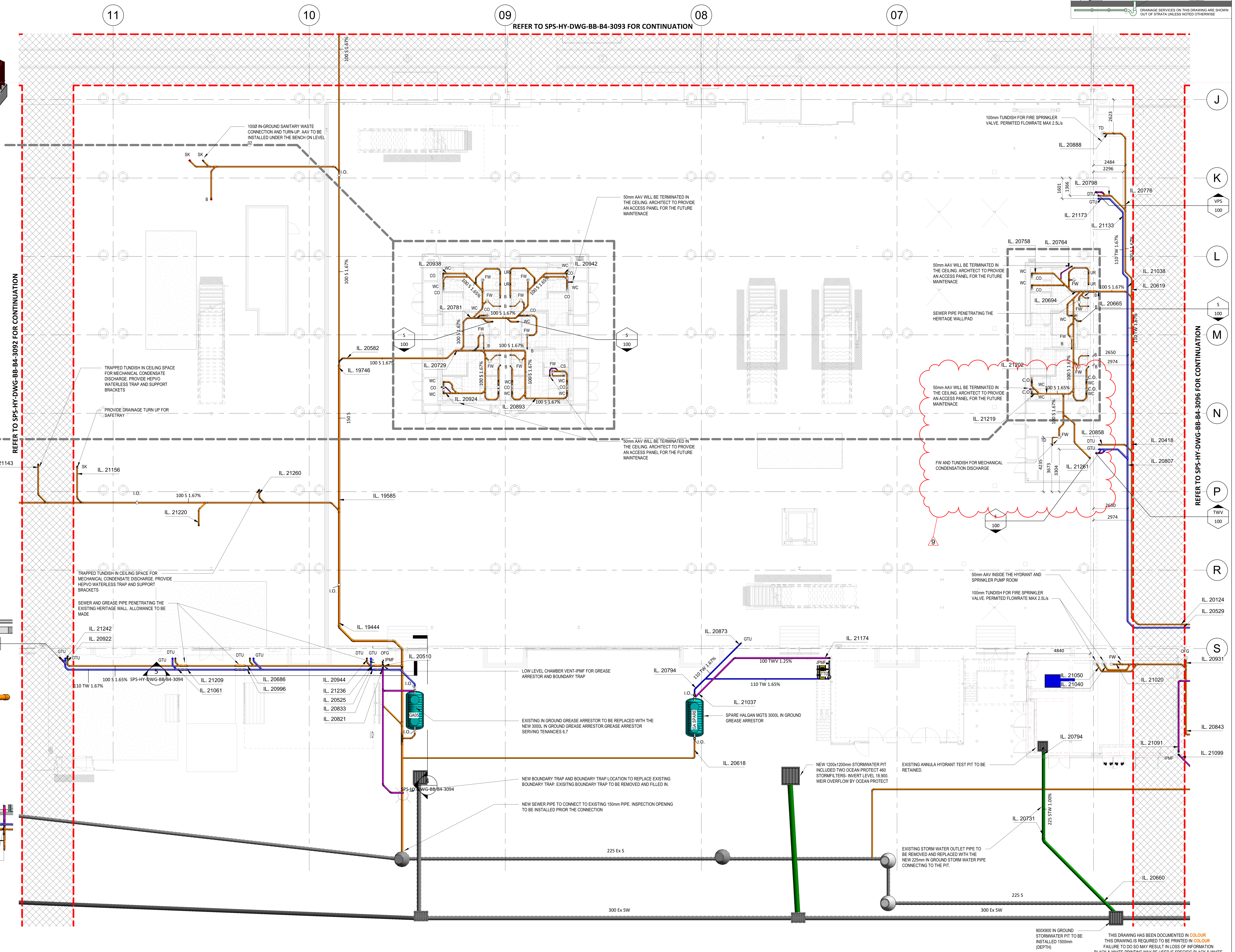
SCALE - 1 : 50



WALL PENETRATION SECTION VIEW

SCALE - 1 : 100





NOTES :

* STORMWATER SYSTEM YET TO BE CONFIRMED AND NOT PART OF THIS ISSUE.

THIS DRAWING HAS BEEN DOCUMENTED IN COLOUR
THIS DRAWING IS REQUIRED TO BE PRINTED IN COLOUR
FAILURE TO DO SO MAY RESULT IN LOSS OF INFORMATION
BLACK & WHITE PRINTING MAY BE USED IF SPECIFIC BLACK & WHITE DOCUMENTS HAVE BEEN OBTAINED FROM WGE

REV	DESCRIPTION	DRAWN	APP'D	DATE
10	FOR CONSTRUCTION	DM	SBA	15.07.20
9	ADDITIONAL FW AND TD FOR MECHANICAL	SBA	SBA	21.02.20
8	FOR CONSTRUCTION APPROVAL	JHK	SBA	22.11.19
7	QUANTIUM LAYOUT UPDATED	DM	SBA	17.10.19
6	ADDITIONAL CLEANER SINK	DM	SBA	25.09.19
5	FOR CONSTRUCTION	DM	SBA	20.09.19
4	RE ISSUED FOR CONSTRUCTION	DM	SBA	13.09.19
3	RE ISSUED FOR CONSTRUCTION	DM	SBA	03.09.19
2	FIRE SPRINKLER VALVE TUNDISH UPDATE	TP	SBA	02.09.19
1	FOR CONSTRUCTION	DM	SBA	16.08.19

Client.
mirvac
Address: Level 28, 200 George St Sydney NSW 2000

Retail Architect.
BUCHAN
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Principal Architect.
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Address: 5/8 Alexander St Crows Nest, NSW 2065
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WOOD & GRIEVE ENGINEERS
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ARCHITECT/CLIENT

PROJECT: LOCOMOTIVE WORKSHOP
2 LOCOMOTIVE STREET, EVELEIGH
NSW 2015

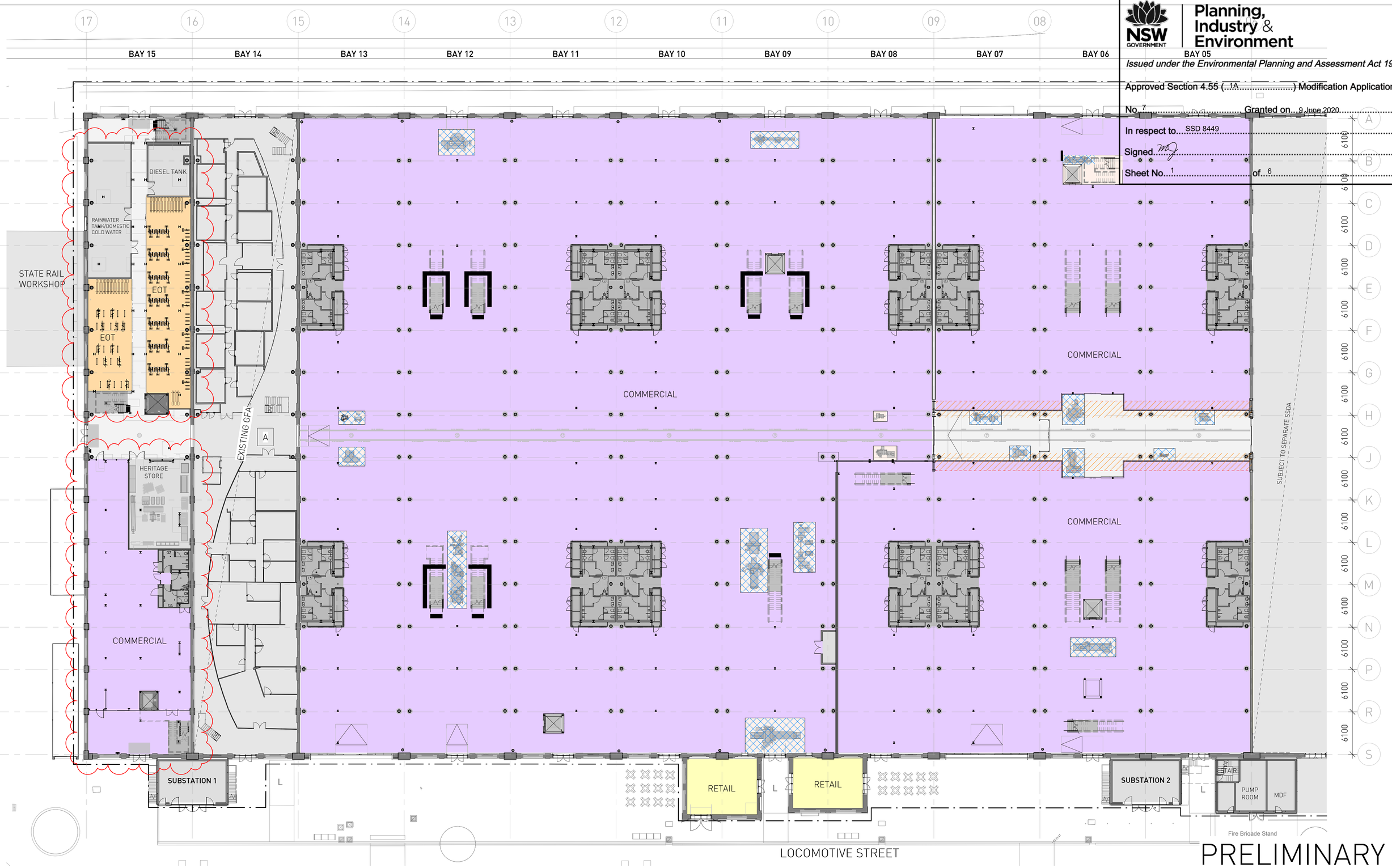
TITLE: HYDRAULIC SERVICES - INGROUND FLOOR DRAINAGE SERVICES - ZONE D

SMART PLUMBING SOLUTIONS Pty Ltd

CONSTRUCTION

HYDRAULIC SERVICES

SCALE @ B1	PROJECT No	DRAWING No	REV
As indicated	42673	SPS-HY-DWG-BB-B4-3094	10



NSW GOVERNMENT Planning, Industry & Environment

Issued under the Environmental Planning and Assessment Act 1979

Approved Section 4.55 (...1A.....) Modification Application

No. 7 Granted on.. 9 June 2020

In respect to... SSD 8449

Signed.....

Sheet No.. 1 of.. 6

6/04/2020 6:12:45 PM

PRELIMINARY

Architect

SISSONS ARCHITECTS

Suite 5.01, 53 Berry Street
North Sydney NSW 2060
Australia
Tel: +61 2 8904 1853
ABN: 31 621 375 129
www.sissonsarchitects.com

DRAWING NOTES

- A Bay 14 lease expiry 2019 to 2023 (options).
- B Removal of existing roof sheeting for proposed cooling tower plant below.
- C Removal of existing roof sheeting to create opening for proposed sky lights.
- D Removal of existing roof access systems.
- E Refurbishment and upgrade of existing metal roof sheeting
- F Removal of polycarbonate roof material.
- G Existing heritage timber doors to be retained internally in open position, new external door to opening.
- H Existing metal profile sheet cladding to be upgraded.
- J Remove external wall cladding to plant annexes prior to upgrade, retain blockwork behind.
- K Reinstate window where bricked in.
- L Proposed lift / travelator service pit.
- M Proposed skylight
- N Proposed roof access system

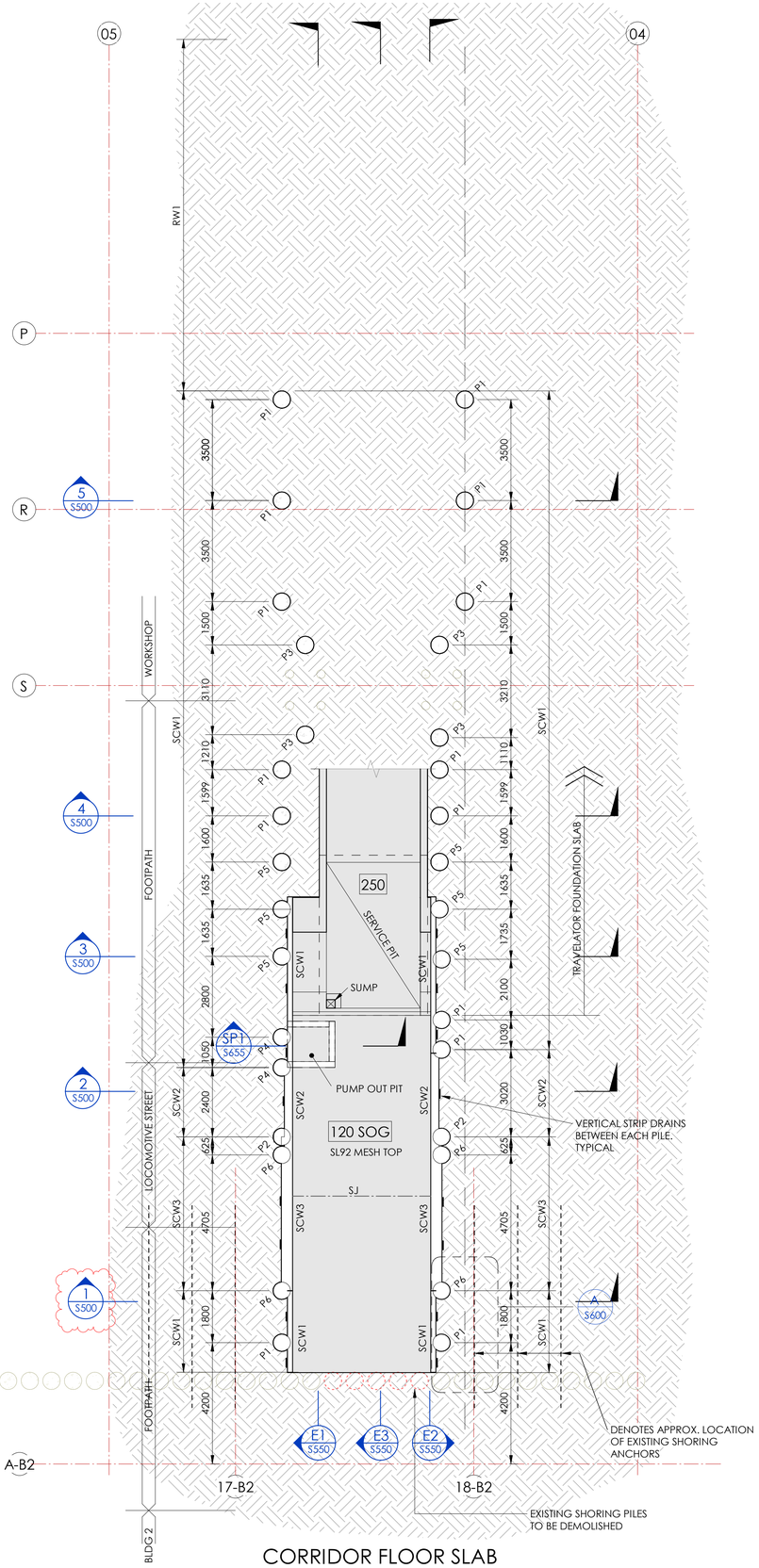
LEGEND

- Visual Sight Line Zone - 1200mm maximum height allowed
- Heritage Item
- Site Boundary

Client: MIRVAC			Project: LOCOMOTIVE WORKSHOP - BAYS 5-15 2 Locomotive St, Eveleigh NSW 2015	Drawing Title: PROPOSED PLAN - GROUND FLOOR	
Scale: 1 : 250 @A1 (Half Scale @ A3)	Rev Date: 01/02/20	North		Project No.: 16-002	Drawing No.: SA-AR-DWG-BB-B4-0230 / Rev: FF

A1

No	DATE	DESCRIPTION	BY
D	08.11.19	ISSUED FOR CC	RL
E	13.11.19	ISSUE FOR FINAL APPROVAL	RL
F	10.12.19	ISSUED FOR CONSTRUCTION	RL
G	13.01.20	REVISED AS CLOUDED	RL
H	15.01.20	REVISED AS CLOUDED	RL



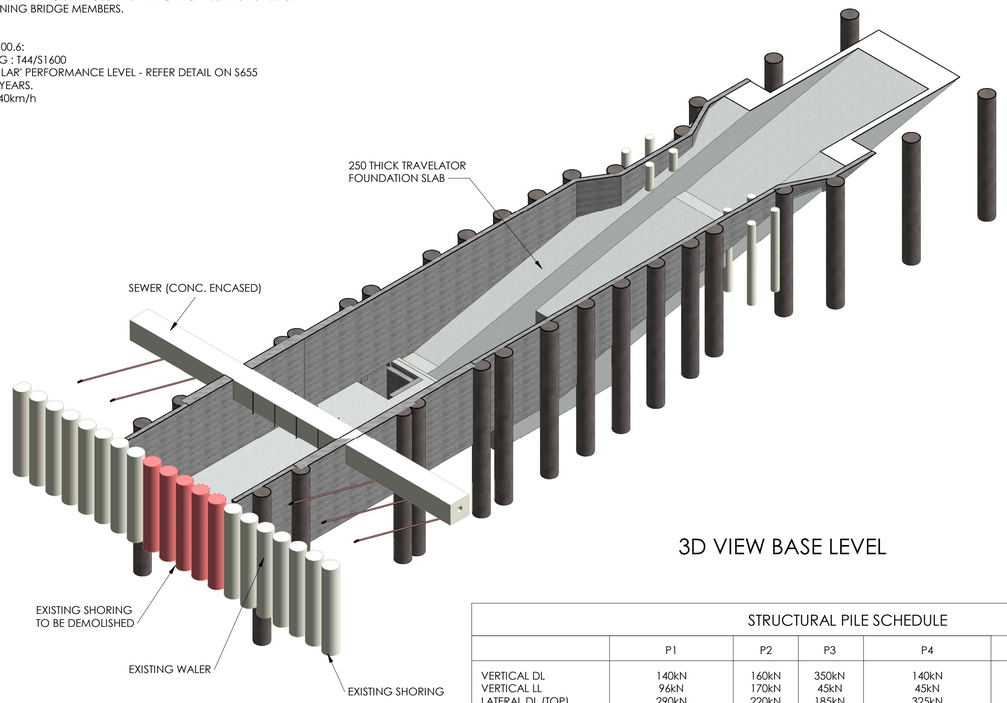
CORRIDOR FLOOR SLAB

SCALE 1 : 100

BRIDGE CONSTRUCTION SEQUENCE

1. EXPOSE LOCATION OF SERVICES VIA TRENCHING.
2. INSTALL PILES AS PER JN DOCUMENTION.
3. INSTALL CAPPING BEAM AS PER JN DOCUMENTION.
4. EXCAVATE TO TOP LEVEL OF SERVICES.
5. INSTALL B1 BEAMS.
6. INSTALL TEMPORARY SERVICE SUPPORTS TO B1 BEAMS.
7. EXCAVATE TO REMAINING SERVICES AND HANG FROM BEAMS AS PER 6.
8. INSTALL REMAINING BRIDGE MEMBERS.

BRIDGE NOTES:
DESIGN TO AS 5100.6:
TRAFFIC LOADING : T44/S1600
BARRIERS : 'REGULAR' PERFORMANCE LEVEL - REFER DETAIL ON S655
DESIGN LIFE : 10 YEARS.
TRAFFIC SPEED : 40km/h



3D VIEW BASE LEVEL

STRUCTURAL PILE SCHEDULE

	P1	P2	P3	P4	P5	P6 TEMP.	P6 PERM.
VERTICAL DL	140kN	160kN	350kN	140kN	140kN	0kN	200kN
VERTICAL LL	96kN	170kN	45kN	45kN	45kN	0kN	100kN
LATERAL DL (TOP)	290kN	220kN	185kN	325kN	265kN	260kN	280kN
LATERAL LL (TOP)	60kN	45kN	15kN	75kN	67kN	65kN	60kN
LATERAL DL (BTM)	145kN	220kN	185kN	210kN	160kN	175kN	210kN
LATERAL LL (BTM)	30kN	45kN	15kN	45kN	40kN	45N	40kN
BENDING DL	145 max. / -81min. kNm	325kNm	230kNm	335 max. / -72min. kNm	215 max. / -65min. kNm	170 max. / -145min. kNm	190 max. / -131min. kNm
BENDING LL	30 max. / -17 min. kNm	70kNm	20kNm	75 max. / -16 min. kNm	55 max. / -16 min. kNm	40 max. / -35 min. kNm	40 max. / -30 min. kNm
UNSUPPORTED LENGTH	4.6m	5.5m	5.4m	6.8m	5.9m	5.9m	5.9m
PROP LOAD DL						450kN	
PROP LOAD LL						110kN	

NOTE : ALL LOADS ARE WORKING LOADS, ULTIMATE LOADS NEED TO BE FACTORED ACCORDINGLY.
P3 LOAD CASE INTABLE IS THE PERMANENT SUPPORT CASE. THE TEMPORARY CASE WILL RESULT IN LOWER FORCES WITHIN THE PILES.
PERMANEMT LOAD CASES FOR P4 AND P5 TO ALLOW FOR 225/-120 kNm ULT MOMENT AND 350kN ULT VERTICAL LOAD.

ENSURE PILES P1,P2,P4 & P5 CONSIDER NO VERTICAL LOADS IN TEMPORARY CASE.

P6 PILE PROPS ARE ASSUMED TO BE 1400mm FROM UNDERSIDE OF CAPPING BEAM AND SIT ABOVE THE PERMANENT SLAB.

STRUCTURAL WALL SCHEDULE

TAG	WIDTH	TYPE	REO-HORIZ.	REO-VERT.
RW1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.
SCW1	180	SHOTCRETE	RL1018 MESH F.F.	
SCW2	285	SHOTCRETE	RL1018 MESH E.F. + N16-300 EXTRA F.F.	.
SCW3	390	SHOTCRETE	RL918 MESH R.F. + RL1118 & N16-200 HORIZ. EXTRA F.F.	.
W1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.

LEGEND : E.F. = EACH FACE
R.F. = REAR FACE
F.F = FRONT FACE

250mm THICK TRAVELATOR FOUNDATION SLAB NOTES

1. REFER TO ARCHITECTS DRAWINGS FOR ALL LEVELS, STEPS, SETDOWNS, FALLS ETC.
2. CONCRETE SLAB STRENGHT f'c=40MPa U.N.O.
3. ALL SLABS TO BE 250mm THICK U.N.O. POURED ON A VAPOUR BARRIER AND REINFORCED WITH N12-200 EACH WAY / EACH FACE.
4. WHERE ARCHITECTS DRAWINGS INDICATE FALLS IN SLAB, STRUCTURAL SIZES SHOWN ARE THE MINIMUM ALLOWABLE THICKNESS
5. REFER TO HYDRAULIC ENGINEERS DRAWINGS FOR PENETRATION SIZES AND LOCATIONS.

120mm THICK SLAB ON GROUND NOTES

1. REFER TO ARCHITECTS DRAWINGS FOR ALL LEVELS, STEPS, SETDOWNS, FALLS ETC.
2. CONCRETE SLAB STRENGHT = f'c=40 MPa U.N.O.
3. ALL INTERNAL SLABS TO BE 120mm THICK POURED ON A VAPOUR BARRIER NOMINAL SAND BLINDING ON WELL COMPACTED GROUND U.N.O.
4. ALL EXTERNAL SLABS TO BE 120mm THICK POURED ON WELL COMPACTED GROUND U.N.O.
5. WHERE ARCHITECTS DRAWINGS INDICATE FALLS IN SLAB, STRUCTURAL SIZES SHOWN ARE THE MINIMUM ALLOWABLE THICKNESS
6. ALL SLABS TO BE REINFORCED WITH SL92 FABRIC TOP THROUGHOUT U.N.O.
7. TR - DENOTES 3N12 (or 3-L11TM) 2000 LONG TIED TO UNDERSIDE OF TOP FABRIC.
8. PROVIDE VERTICAL ARTICULATION JOINTS IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE TO SUIT THE SITE AND TYPE OF CONSTRUCTION THIS FOOTING SYSTEM HAS BEEN DESIGNED FOR.

JN
Responsive Engineering

CLIENT
MAINLAND CIVIL

STATUS
CONSTRUCTION

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DISCIPLINE
STRUCTURAL DESIGN R18

DRAWING TITLE
CORRIDOR BASE SLAB OUTLINE PLAN

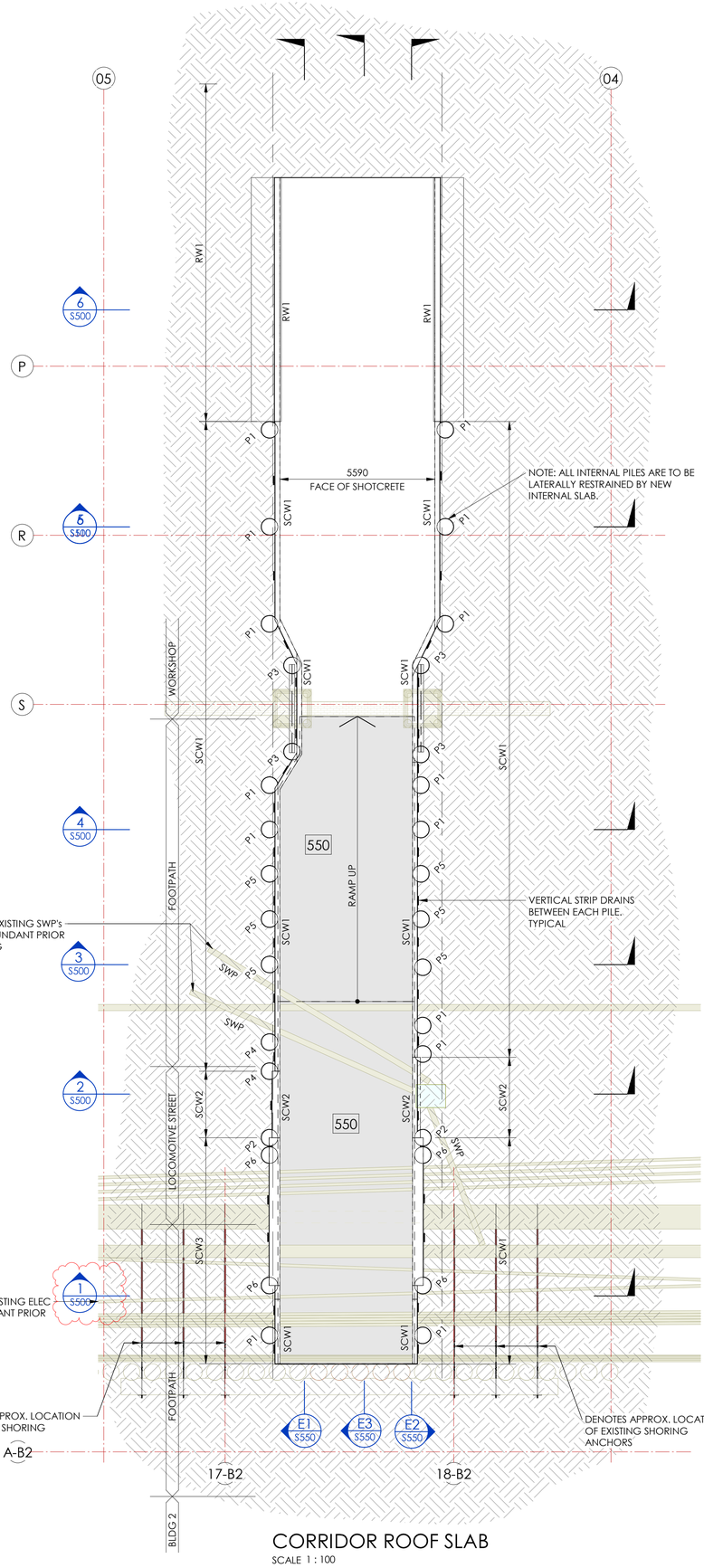
PROJECT
PROPOSED ATP TRAVELATOR STRUCTURE

ADDRESS
2 LOCOMOTIVE STREET EVELEIGH

PROJECT DETAILS
DESIGN C.G.
DRAWN R.L.
DATE SEPT 19
DRG SIZE A1
SCALE As indicated
PROJECT MGR M.M.
WWW.JN.COM.AU

19010921
S100 H

No	DATE	DESCRIPTION	BY
D	08.11.19	ISSUED FOR CC	RL
E	13.11.19	ISSUE FOR FINAL APPROVAL	RL
F	10.12.19	ISSUED FOR CONSTRUCTION	RL
G	13.01.20	REVISED AS CLOUDED	RL
H	15.01.20	REVISED AS CLOUDED	RL



CORRIDOR ROOF SLAB
SCALE 1 : 100

STRUCTURAL PILE SCHEDULE							
	P1	P2	P3	P4	P5	P6 TEMP.	P6 PERM.
VERTICAL DL	140kN	160kN	350kN	140kN	140kN	0kN	200kN
VERTICAL LL	96kN	170kN	45kN	45kN	45kN	0kN	100kN
LATERAL DL (TOP)	290kN	220kN	185kN	325kN	265kN	260kN	280kN
LATERAL LL (TOP)	60kN	45kN	15kN	75kN	67kN	65kN	60kN
LATERAL DL (BTM)	145kN	220kN	185kN	210kN	160kN	175kN	210kN
LATERAL LL (BTM)	30kN	45kN	15kN	45kN	40kN	45N	40kN
BENDING DL	145 max. / -81min. kNm	325kNm	230kNm	335 max. / -72min. kNm	215 max. / -65min. kNm	170 max. / -145min. kNm	190 max. / -131min. kNm
BENDING LL	30 max. / -17 min. kNm	70kNm	20kNm	75 max. / -16 min. kNm	55 max. / -16 min. kNm	40 max. / -35 min. kNm	40 max. / -30 min. kNm
UNSUPPORTED LENGTH	4.6m	5.5m	5.4m	6.8m	5.9m	5.9m	5.9m
PROP LOAD DL						450kN	
PROP LOAD LL						110kN	

NOTE : ALL LOADS ARE WORKING LOADS, ULTIMATE LOADS NEED TO BE FACTORED ACCORDINGLY.
P3 LOAD CASE INTABLE IS THE PERMANENT SUPPORT CASE. THE TEMPORARY CASE WILL RESULT IN LOWER FORCES WITHIN THE PILES.
PERMANEMT LOAD CASES FOR P4 AND P5 TO ALLOW FOR 225/-120 kNm ULT MOMENT AND 350kN ULT VERTICAL LOAD.

ENSURE PILES P1,P2,P4 & P5 CONSIDER NO VERTICAL LOADS IN TEMPORARY CASE.

P6 PILE PROPS ARE ASSUMED TO BE 1400mm FROM UNDERSIDE OF CAPPING BEAM AND SIT ABOVE THE PERMANENT SLAB.

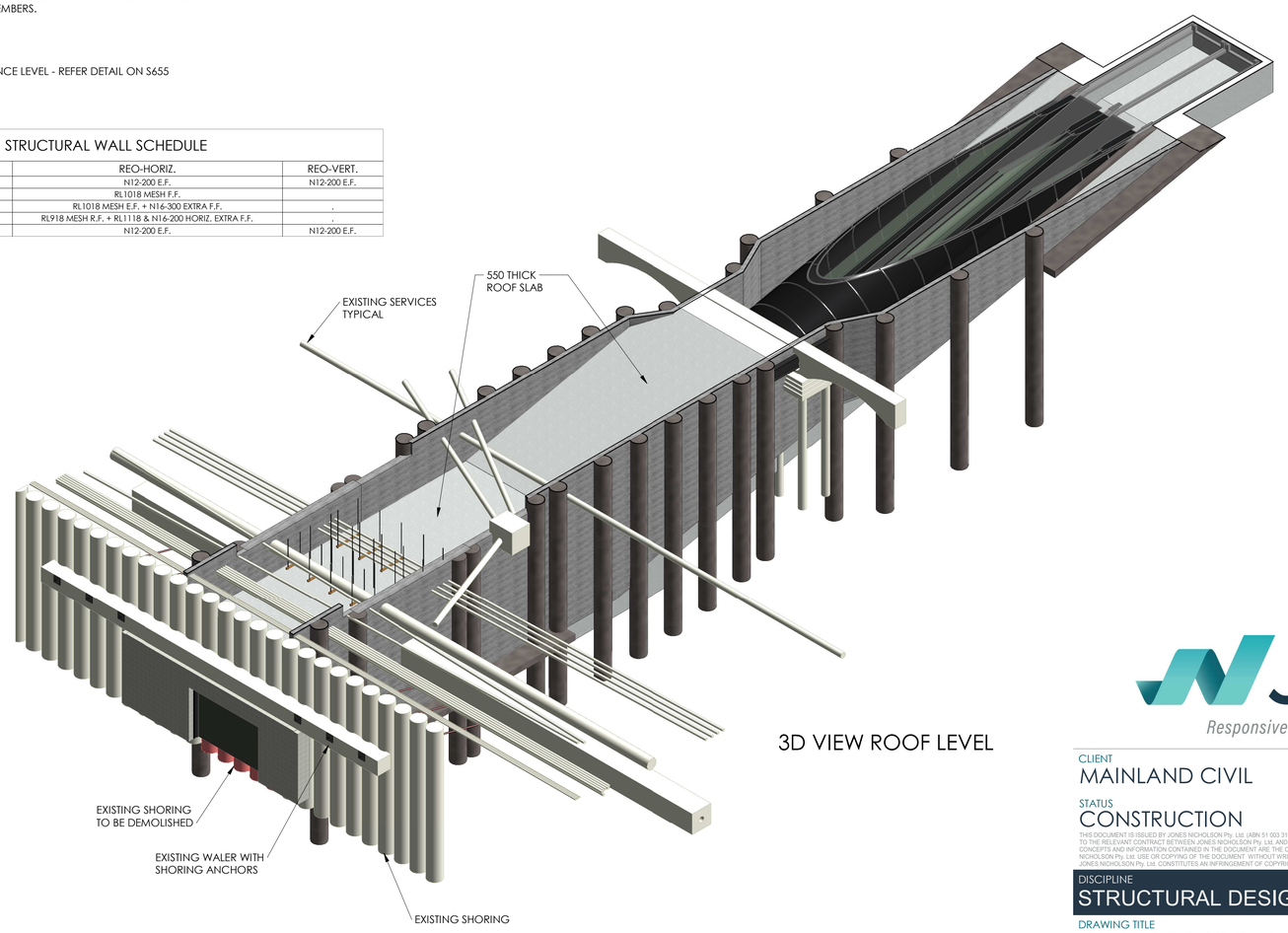
BRIDGE CONSTRUCTION SEQUENCE

1. EXPOSE LOCATION OF SERVICES VIA TRENCHING.
2. INSTALL PILES AS PER JN DOCUMENTION.
3. INSTALL CAPPING BEAM AS PER JN DOCUMENTION.
4. EXCAVATE TO TOP LEVEL OF SERVICES.
5. INSTALL B1 BEAMS.
6. INSTALL TEMPORARY SERVICE SUPPORTS TO B1 BEAMS.
7. EXCAVATE TO REMAINING SERVICES AND HANG FROM BEAMS AS PER 6.
8. INSTALL REMAINING BRIDGE MEMBERS.

BRIDGE NOTES:
DESIGN TO AS 5100.6:
TRAFFIC LOADING : T44/S1600
BARRIERS : 'REGULAR' PERFORMANCE LEVEL - REFER DETAIL ON S655
DESIGN LIFE : 10 YEARS.
TRAFFIC SPEED : 40km/h

STRUCTURAL WALL SCHEDULE				
TAG	WIDTH	TYPE	REO-HORIZ.	REO-VERT.
RW1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.
SCW1	180	SHOTCRETE	RL1018 MESH F.F.	
SCW2	285	SHOTCRETE	RL1018 MESH E.F. + N16-300 EXTRA F.F.	.
SCW3	390	SHOTCRETE	RL918 MESH R.F. + RL1118 & N16-200 HORIZ. EXTRA F.F.	.
W1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.

LEGEND : E.F. = EACH FACE
R.F. = REAR FACE
F.F = FRONT FACE



3D VIEW ROOF LEVEL

1. REFER TO ARCHITECTS DRAWINGS FOR ALL LEVELS, STEPS, SETDOWNS, FALLS ETC.
2. CONCRETE SLAB STRENGHT f'c=40MPa U.N.O.
3. ALL SLABS TO BE 550mm THICK U.N.O.
4. WHERE ARCHITECTS DRAWINGS INDICATE FALLS IN SLAB, STRUCTURAL SIZES SHOWN ARE THE MINIMUM ALLOWABLE THICKNESS
5. ALL ROOF SLABS TO BE WATERPROOFED TO ARCHITECTS DETAILS UNO.
6. REFER TO ARCHITECTURAL DRAWINGS FOR BALUSTRADE TYPES AND EXTENTS.
7. REFER TO MECHANICAL ENGINEERS DRAWINGS FOR PENETRATION SIZES AND LOCATIONS.

JN
Responsive Engineering

CLIENT
MAINLAND CIVIL

STATUS
CONSTRUCTION

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DISCIPLINE
STRUCTURAL DESIGN R1.0

DRAWING TITLE
CORRIDOR ROOF SLAB OUTLINE PLAN

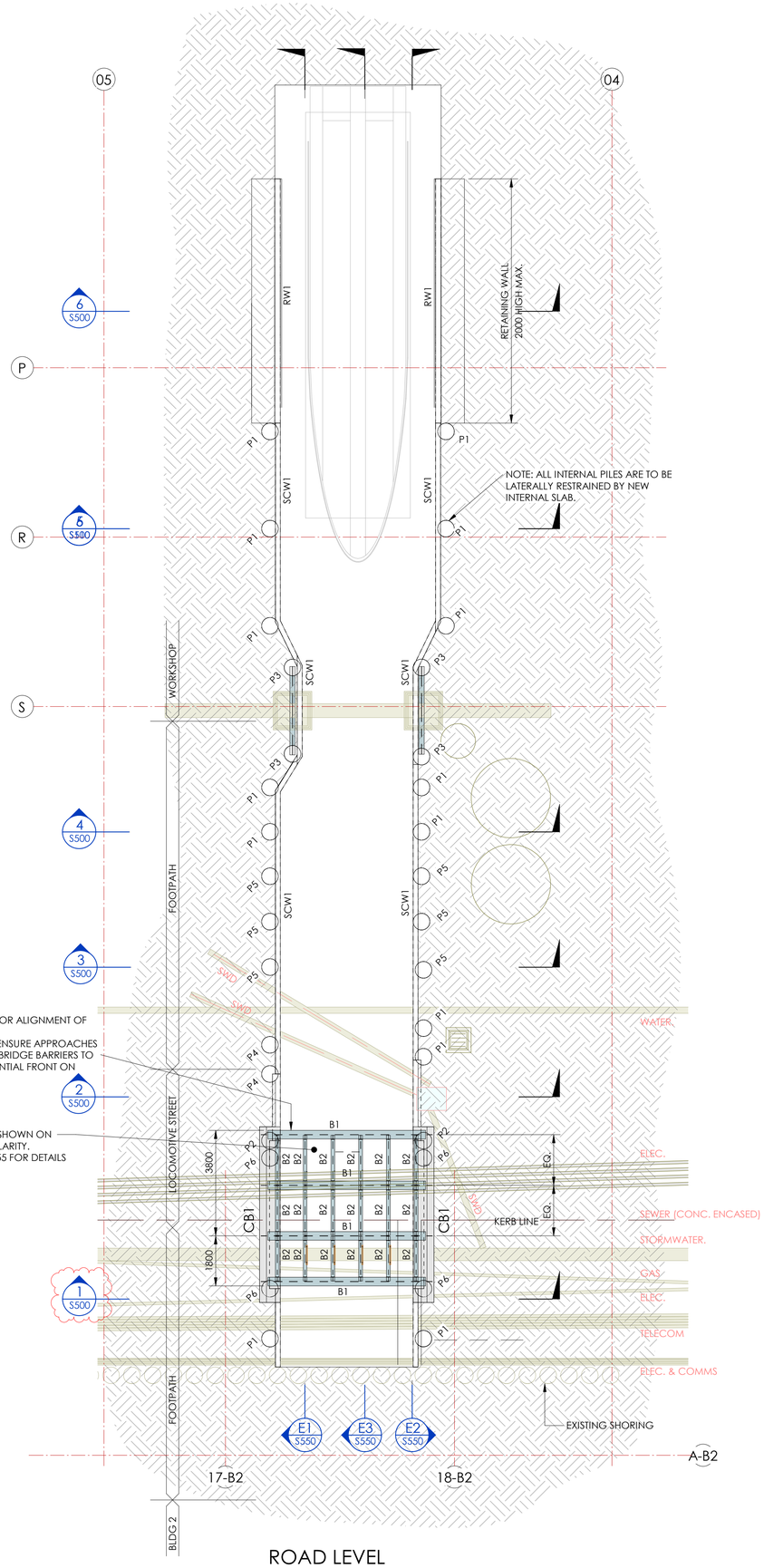
PROJECT
PROPOSED ATP TRAVELATOR STRUCTURE

ADDRESS
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PROJECT DETAILS
DESIGN C.G.
DRAWN R.L.
DATE SEPT 19
DRG SIZE A1
SCALE As indicated
PROJECT M.M.
MGR
WWW.JN.COM.AU

19010921
S200 H

No	DATE	DESCRIPTION	BY
D	08.11.19	ISSUED FOR CC	RL
E	13.11.19	ISSUE FOR FINAL APPROVAL	RL
F	10.12.19	ISSUED FOR CONSTRUCTION	RL
G	13.01.20	REVISED AS CLOUDED	RL
H	15.01.20	REVISED AS CLOUDED	RL



ROAD LEVEL
SCALE 1 : 100

BRIDGE CONSTRUCTION SEQUENCE

1. EXPOSE LOCATION OF SERVICES VIA TRENCHING.
2. INSTALL PILES AS PER JN DOCUMENTION.
3. INSTALL CAPPING BEAM AS PER JN DOCUMENTION.
4. EXCAVATE TO TOP LEVEL OF SERVICES.
5. INSTALL B1 BEAMS.
6. INSTALL TEMPORARY SERVICE SUPPORTS TO B1 BEAMS.
7. EXCAVATE TO REMAINING SERVICES AND HANG FROM BEAMS AS PER 6.
8. INSTALL REMAINING BRIDGE MEMBERS.

BRIDGE NOTES:
DESIGN TO AS 5100.6:
TRAFFIC LOADING : T44/S1600
BARRIERS : 'REGULAR' PERFORMANCE LEVEL - REFER DETAIL ON S655
DESIGN LIFE : 10 YEARS.
TRAFFIC SPEED : 40km/h

STRUCTURAL PILE SCHEDULE

	P1	P2	P3	P4	P5	P6 TEMP.	P6 PERM.
VERTICAL DL	140kN	160kN	350kN	140kN	140kN	0kN	200kN
VERTICAL LL	96kN	170kN	45kN	45kN	45kN	0kN	100kN
LATERAL DL (TOP)	290kN	220kN	185kN	325kN	265kN	260kN	280kN
LATERAL LL (TOP)	60kN	45kN	15kN	75kN	67kN	65kN	60kN
LATERAL DL (BTM)	145kN	220kN	185kN	210kN	160kN	175kN	210kN
LATERAL LL (BTM)	30kN	45kN	15kN	45kN	40kN	45N	40kN
BENDING DL	145 max. / -81min. kNm	325kNm	230kNm	335 max. / -72min. kNm	215 max. / -65min. kNm	170 max. / -145min. kNm	190 max. / -131min. kNm
BENDING LL	30 max. / -17 min. kNm	70kNm	20kNm	75 max. / -16 min. kNm	55 max. / -16 min. kNm	40 max. / -35 min. kNm	40 max. / -30 min. kNm
UNSUPPORTED LENGTH	4.6m	5.5m	5.4m	6.8m	5.9m	5.9m	5.9m
PROP LOAD DL						450kN	
PROP LOAD LL						110kN	

NOTE : ALL LOADS ARE WORKING LOADS, ULTIMATE LOADS NEED TO BE FACTORED ACCORDINGLY.
P3 LOAD CASE INTABLE IS THE PERMANENT SUPPORT CASE, THE TEMPORARY CASE WILL RESULT IN LOWER FORCES WITHIN THE PILES.
PERMANEMT LOAD CASES FOR P4 AND P5 TO ALLOW FOR 225/-120 kNm ULT MOMENT AND 350kN ULT VERTICAL LOAD.

ENSURE PILES P1,P2,P4 & P5 CONSIDER NO VERTICAL LOADS IN TEMPORARY CASE.

P6 PILE PROPS ARE ASSUMED TO BE 1400mm FROM UNDERSIDE OF CAPPING BEAM AND SIT ABOVE THE PERMANENT SLAB.

STRUCTURAL WALL SCHEDULE

TAG	WIDTH	TYPE	REO-HORIZ.	REO-VERT.
RW1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.
SCW1	180	SHOTCRETE	RL1018 MESH F.F.	
SCW2	285	SHOTCRETE	RL1018 MESH E.F. + N16-300 EXTRA F.F.	.
SCW3	390	SHOTCRETE	RL918 MESH R.F. + RL1118 & N16-200 HORIZ. EXTRA F.F.	.
W1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.

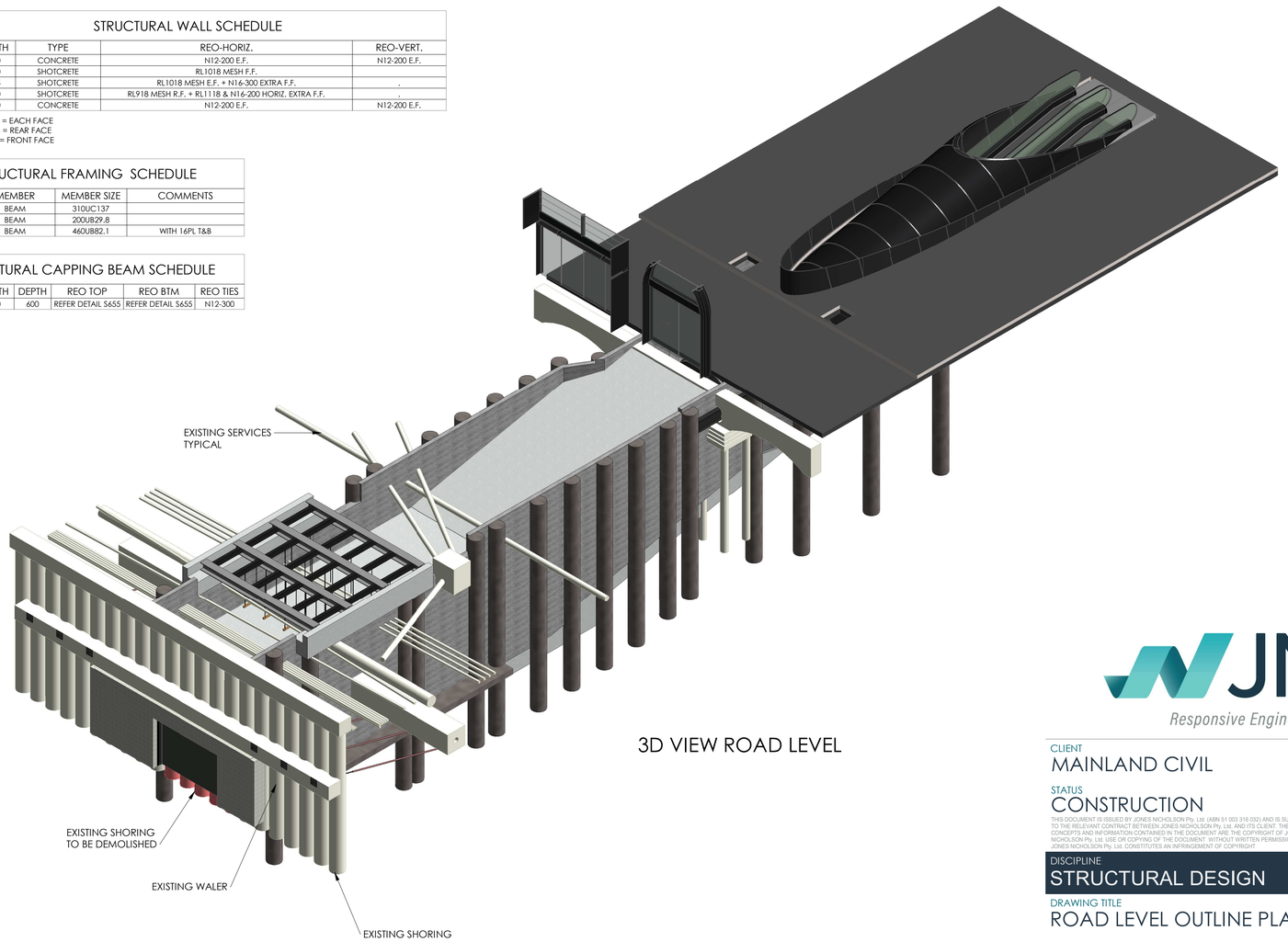
LEGEND : E.F. = EACH FACE
R.F. = REAR FACE
F.F = FRONT FACE

STRUCTURAL FRAMING SCHEDULE

TAG	MEMBER	MEMBER SIZE	COMMENTS
B1	BEAM	310UC137	
B2	BEAM	200UB29.8	
B3	BEAM	460UB82.1	WITH 16PL T&B

STRUCTURAL CAPPING BEAM SCHEDULE

TAG	WIDTH	DEPTH	REO TOP	REO BTM	REO TIES
CB1	750	600	REFER DETAIL S655	REFER DETAIL S655	N12-300



3D VIEW ROAD LEVEL

JN
Responsive Engineering

CLIENT
MAINLAND CIVIL

STATUS
CONSTRUCTION

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DISCIPLINE
STRUCTURAL DESIGN R18

DRAWING TITLE
ROAD LEVEL OUTLINE PLAN

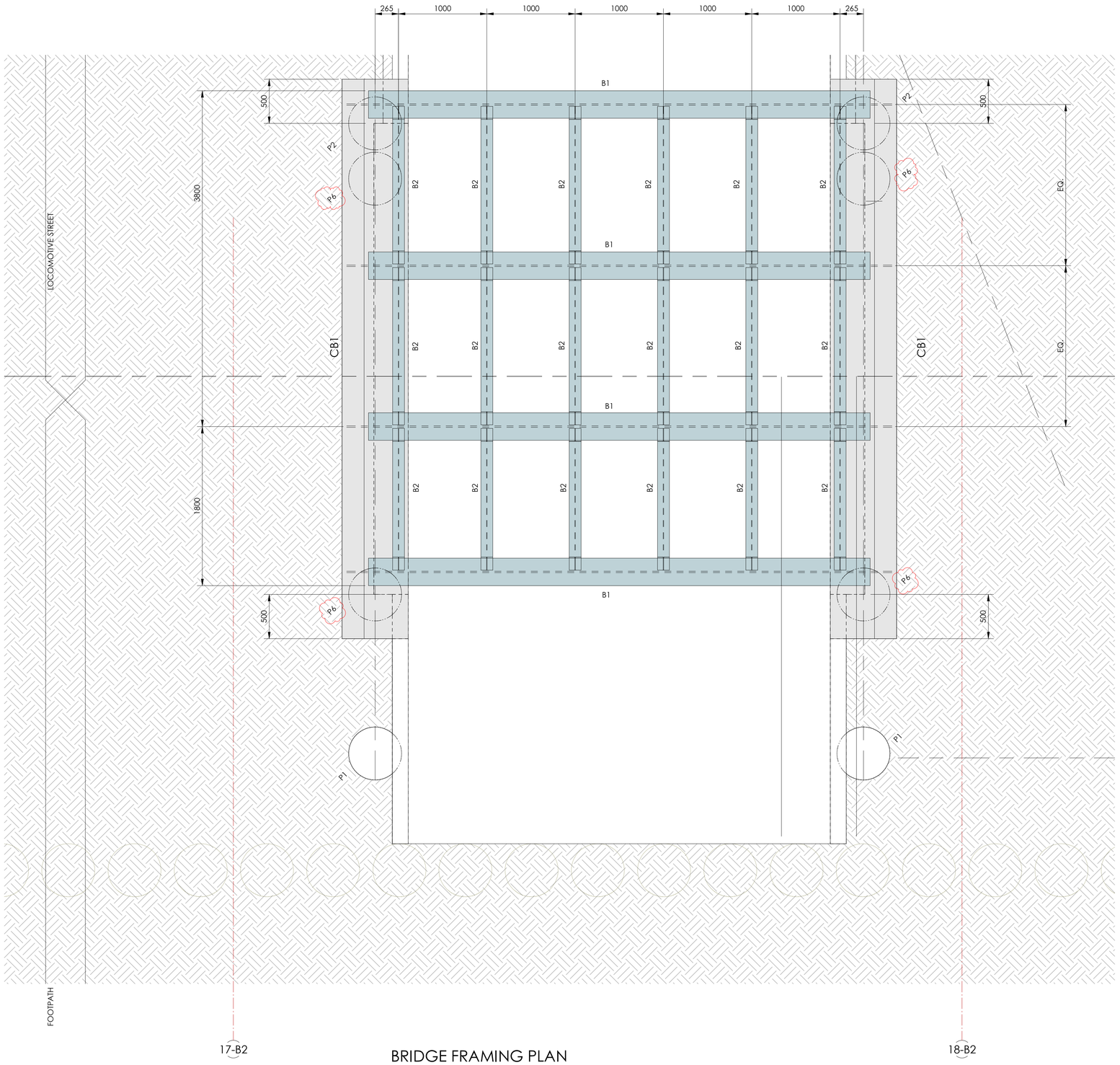
PROJECT
PROPOSED ATP TRAVELATOR STRUCTURE

ADDRESS
2 LOCOMOTIVE STREET EVELEIGH

PROJECT DETAILS
DESIGN C.G.
DRAWN R.L.
DATE SEPT 19
DRG SIZE A1
SCALE As indicated
PROJECT MGR M.M.
WWW.JN.COM.AU

19010921
S300 H

No	DATE	DESCRIPTION	BY
A	15.01.20	REVISED AS CLOUDED	RL



BRIDGE FRAMING PLAN

SCALE 1 : 25

STRUCTURAL FRAMING SCHEDULE

TAG	MEMBER	MEMBER SIZE	COMMENTS
B1	BEAM	310UC137	
B2	BEAM	200UB29.8	
B3	BEAM	460UB82.1	WITH 16PL T&B

STRUCTURAL CAPPING BEAM SCHEDULE

TAG	WIDTH	DEPTH	REO TOP	REO BTM	REO TIES
CB1	750	600	REFER DETAIL S655	REFER DETAIL S655	N12-300

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STATUS
PRELIMINARY

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DISCIPLINE
STRUCTURAL DESIGN R18

DRAWING TITLE
BRIDGE FRAMING PLAN

PROJECT
PROPOSED ATP TRAVELATOR STRUCTURE

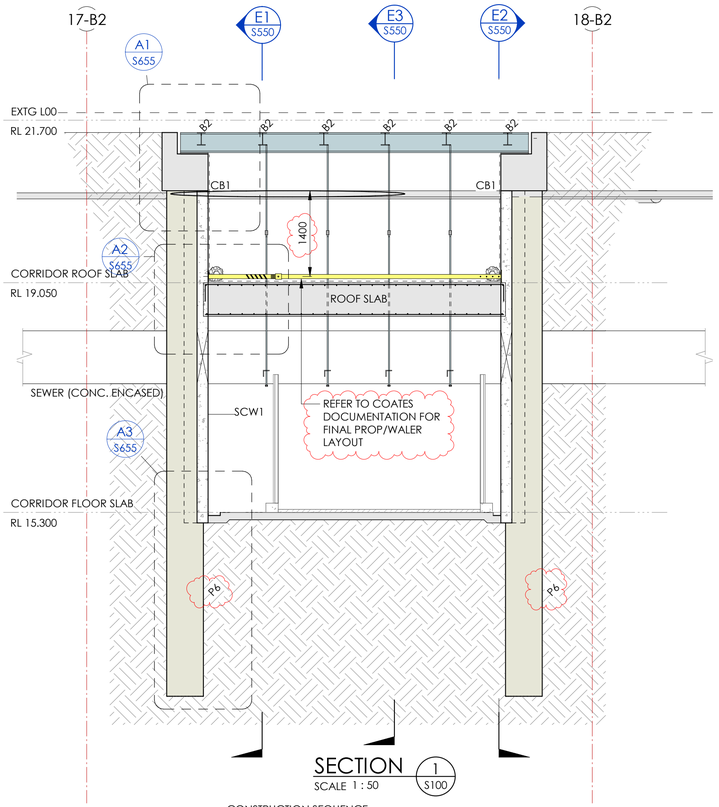
ADDRESS
2 LOCOMOTIVE STREET EVELEIGH

PROJECT DETAILS

DESIGN	C.G.
DRAWN	R.L.
DATE	SEPT 19
DRG SIZE	A1
SCALE	1 : 25
PROJECT MGR	M.M.
WWW.JN.COM.AU	

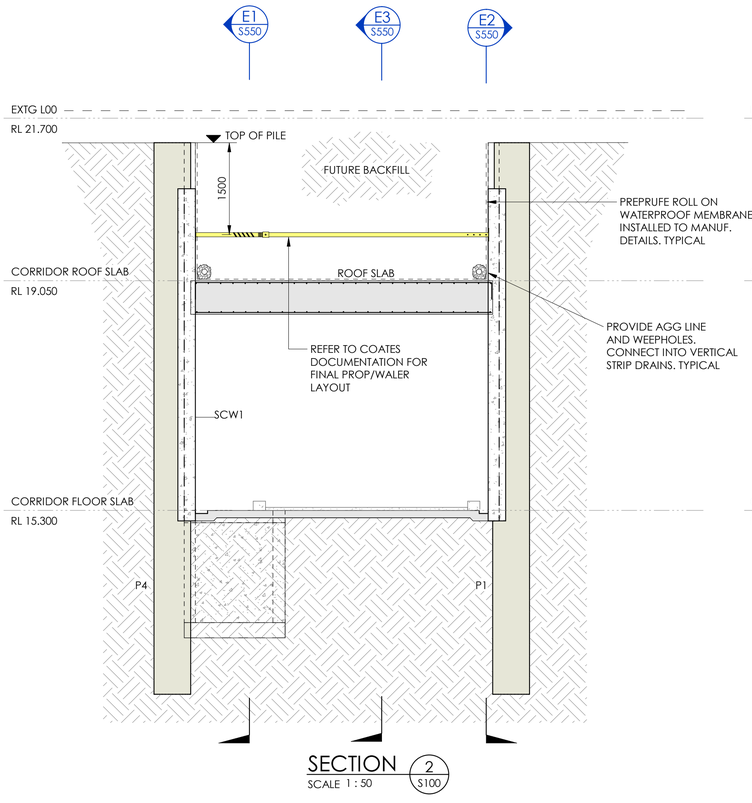
19010921
S400 A

No	DATE	DESCRIPTION	BY
B	11.10.19	REISSUED FOR TENDER	RL
C	08.11.19	ISSUED FOR CC	RL
D	13.11.19	ISSUE FOR FINAL APPROVAL	RL
E	10.12.19	ISSUED FOR CONSTRUCTION	RL
F	15.01.20	REVISED AS CLOUDED	RL

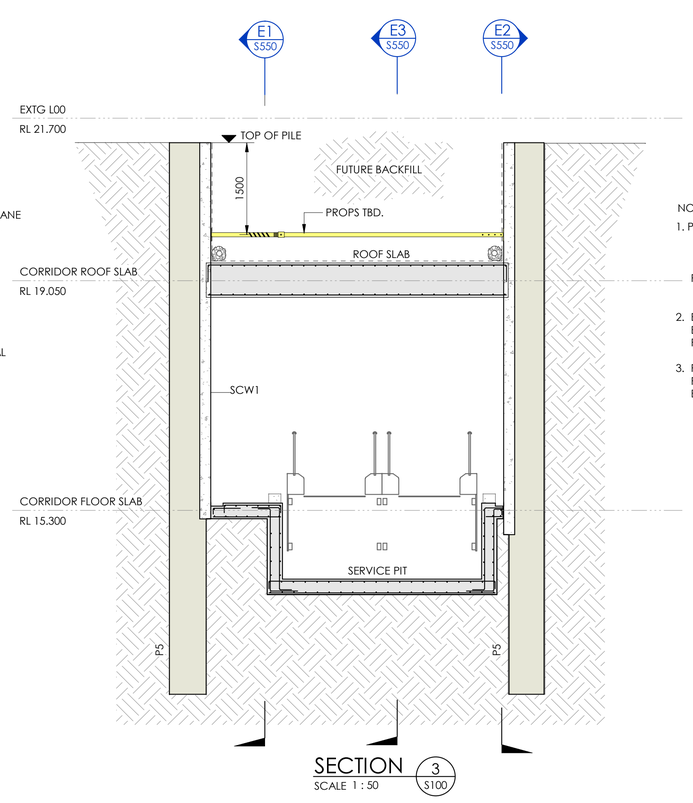


SECTION 1 S100
SCALE 1 : 50

CONSTRUCTION SEQUENCE
1. EXPOSE EXISTING SEWER PIPE.
2. HANG FROM NEW BRIDGE STRUCTURE AS SHOWN.
3. EXCAVATE AS REQUIRED.
4. ONCE BASE SLAB IS POURED, PROP SEWER FROM BELOW WITH 2x75kN SWL PROPS + 200UB18 SUPPORT. REMOVE TIES.
5. CAST IN ANCHOR PLATE TO NEW ROOF SLAB AS DETAILED.
6. RE-HANG SEWER & REMOVE PROPS.

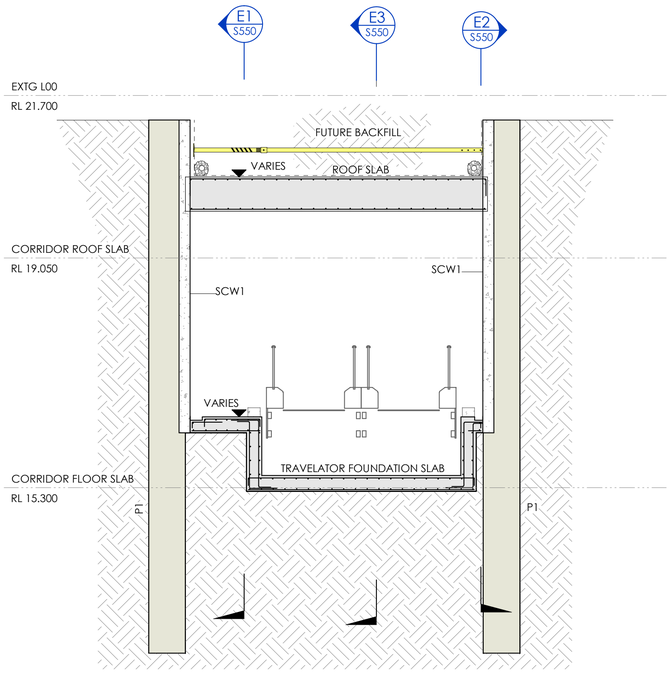


SECTION 2 S100
SCALE 1 : 50

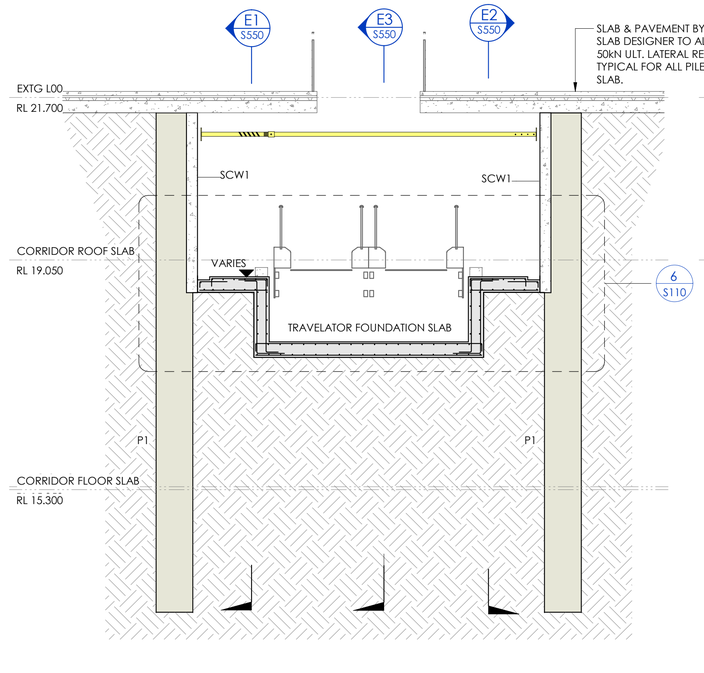


SECTION 3 S100
SCALE 1 : 50

NOTES:
1. PROP LOADS: 290 DL, 60kN LL SURCHARGE, 1kN/m VERTICAL — WORKING LOADS PER PILE, U.N.O.
   P4 PILE LOADS: 325kN DL, 75kN LL SURCHARGE
2. EACH PILE IS TO BE PROPPED IN THE TEMPORARY EXCAVATION SITUATION. PROPS MAY BE REMOVED ONCE PERMINATE CASE IS ACHIEVED.
3. PROP HEIGHTS MAY VARY TO AVOID RAMPED ROOF SLAB, SUBJECT TO REVIEW AND APPROVAL BY STRUCTURAL ENGINEER.

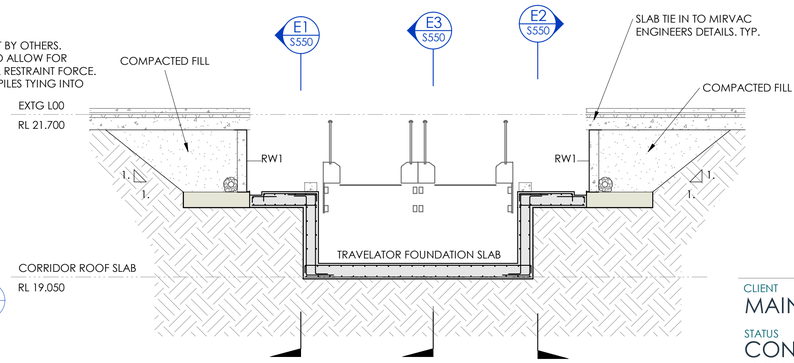


SECTION 4 S100
SCALE 1 : 50



SECTION 5 S100
SCALE 1 : 50

BACKFILL & PAVEMENT SPECIFICATIONS TO AT&L DESIGN DOCUMENTS



SECTION 6 S200
SCALE 1 : 50

STRUCTURAL FRAMING SCHEDULE

TAG	MEMBER	MEMBER SIZE	COMMENTS
B1	BEAM	310UC137	
B2	BEAM	200UB29.8	
B3	BEAM	460UB82.1	WITH 16PL T&B

STRUCTURAL WALL SCHEDULE

TAG	WIDTH	TYPE	REO-HORIZ.	REO-VERT.
RW1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.
SCW1	180	SHOTCRETE	RL1018 MESH F.F.	
SCW2	285	SHOTCRETE	RL1018 MESH E.F. + N16-300 EXTRA F.F.	-
SCW3	390	SHOTCRETE	RL918 MESH R.F. + RL1118 & N16-200 HORIZ. EXTRA F.F.	-
W1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.

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STATUS
CONSTRUCTION

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DISCIPLINE
STRUCTURAL DESIGN R18

DRAWING TITLE
CORRIDOR SECTIONS - SHEET 1

PROJECT
PROPOSED ATP TRAVELATOR STRUCTURE

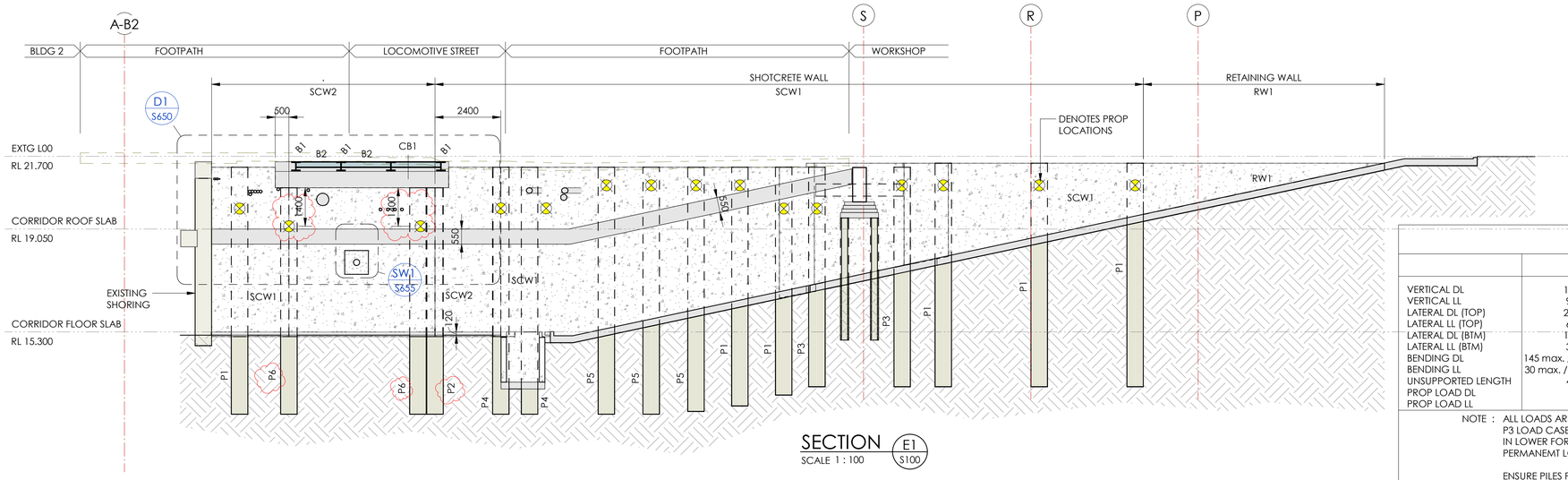
ADDRESS
2 LOCOMOTIVE STREET EVELEIGH

PROJECT DETAILS

DESIGN	C.G.	19010921
DRAWN	R.L.	
DATE	SEPT 19	
DRG SIZE	A1	
SCALE	1 : 50	S500 F
PROJECT MGR	M.M.	

WWW.JN.COM.AU

No	DATE	DESCRIPTION	BY
B	11.10.19	REISSUED FOR TENDER	RL
C	08.11.19	ISSUED FOR CC	RL
D	13.11.19	ISSUE FOR FINAL APPROVAL	RL
E	10.12.19	ISSUED FOR CONSTRUCTION	RL
F	15.01.20	REVISED AS CLOUDED	RL



SECTION E1
SCALE 1 : 100 S100

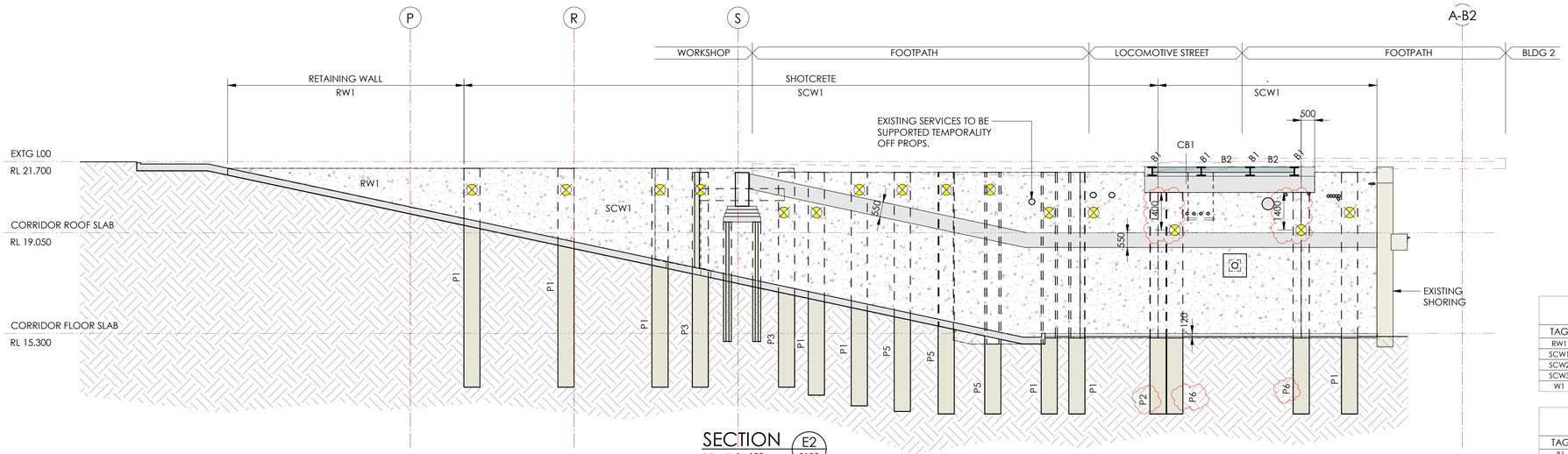
STRUCTURAL PILE SCHEDULE

	P1	P2	P3	P4	P5	P6 TEMP.	P6 PERM.
VERTICAL DL	140kN	160kN	350kN	140kN	140kN	0kN	200kN
VERTICAL LL	96kN	170kN	45kN	45kN	45kN	0kN	100kN
LATERAL DL (TOP)	290kN	220kN	185kN	325kN	265kN	260kN	280kN
LATERAL LL (TOP)	60kN	45kN	15kN	75kN	67kN	65kN	60kN
LATERAL DL (BTM)	145kN	220kN	185kN	210kN	160kN	175kN	210kN
LATERAL LL (BTM)	30kN	45kN	15kN	45kN	40kN	45N	40kN
BENDING DL	145 max. / -81min. kNm	325kNm	230kNm	335 max. / -72min. kNm	215 max. / -65min. kNm	170 max. / -145min. kNm	190 max. / -131min. kNm
BENDING LL	30 max. / -17 min. kNm	70kNm	20kNm	75 max. / -16 min. kNm	55 max. / -16 min. kNm	40 max. / -35 min. kNm	40 max. / -30 min. kNm
UNSUPPORTED LENGTH	4.6m	5.5m	5.4m	6.8m	5.9m	5.9m	5.9m
PROP LOAD DL						450kN	
PROP LOAD LL						110kN	

NOTE : ALL LOADS ARE WORKING LOADS, ULTIMATE LOADS NEED TO BE FACTORED ACCORDINGLY.
P3 LOAD CASE INTABLE IS THE PERMANENT SUPPORT CASE. THE TEMPORARY CASE WILL RESULT IN LOWER FORCES WITHIN THE PILES.
PERMANENMT LOAD CASES FOR P4 AND P5 TO ALLOW FOR 225/-120 kNm ULT MOMENT AND 350kN ULT VERTICAL LOAD.

ENSURE PILES P1,P2,P4 & P5 CONSIDER NO VERTICAL LOADS IN TEMPORARY CASE.

P6 PILE PROPS ARE ASSUMED TO BE 1400mm FROM UNDERSIDE OF CAPPING BEAM AND SIT ABOVE THE PERMANENT SLAB.



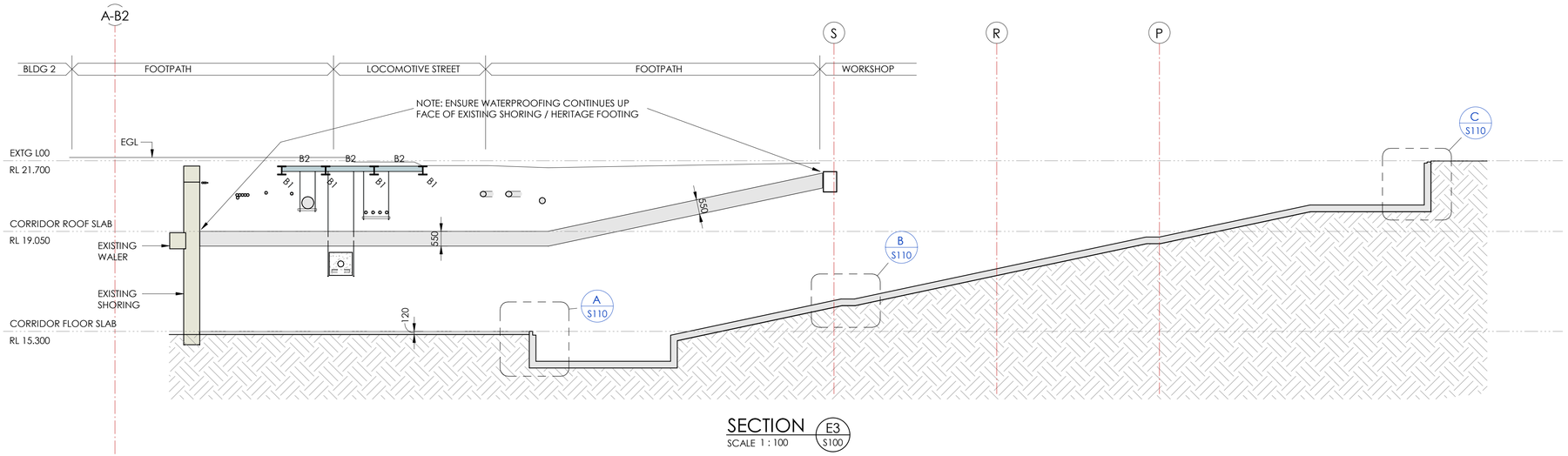
SECTION E2
SCALE 1 : 100 S100

STRUCTURAL WALL SCHEDULE

TAG	WIDTH	TYPE	REO-HORIZ.	REO-VERT.
RW1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.
SCW1	180	SHOTCRETE	RL1018 MESH F.F.	
SCW2	285	SHOTCRETE	RL1018 MESH E.F. + N16-300 EXTRA F.F.	.
SCW3	390	SHOTCRETE	RL918 MESH R.F. + RL1118 & N16-200 HORIZ. EXTRA F.F.	
W1	200	CONCRETE	N12-200 E.F.	N12-200 E.F.

STRUCTURAL FRAMING SCHEDULE

TAG	MEMBER	MEMBER SIZE	COMMENTS
B1	BEAM	310UC137	
B2	BEAM	200UB29.8	
B3	BEAM	460UB82.1	WITH 16PL T&B



SECTION E3
SCALE 1 : 100 S100

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CLIENT
MAINLAND CIVIL

STATUS
CONSTRUCTION

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DISCIPLINE
STRUCTURAL DESIGN R18

DRAWING TITLE
CORRIDOR ELEVATIONS

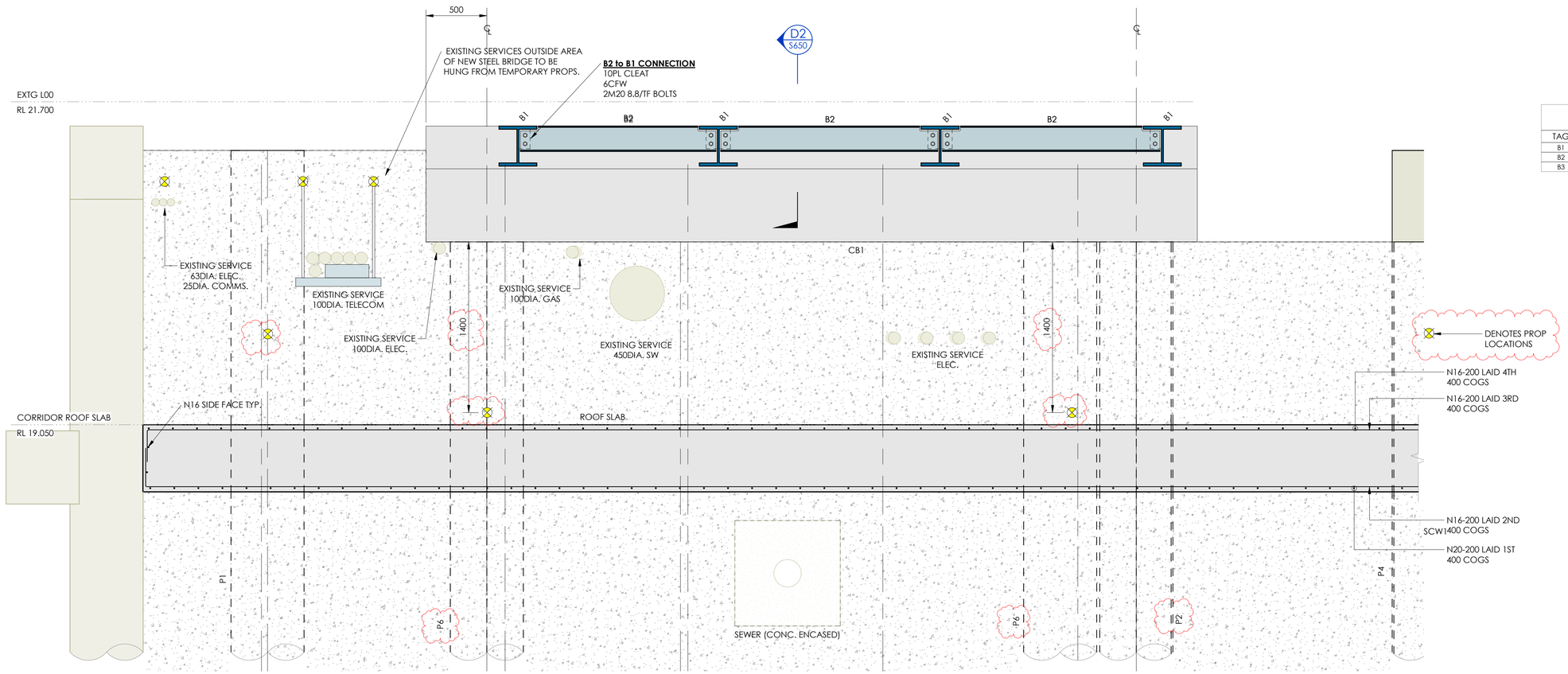
PROJECT
PROPOSED ATP TRAVELATOR STRUCTURE

ADDRESS
2 LOCOMOTIVE STREET EVELEIGH

PROJECT DETAILS
DESIGN C.G.
DRAWN R.L.
DATE SEPT 19
DRG SIZE A1
SCALE As indicated
PROJECT MGR M.M.
WWW.JN.COM.AU

19010921
S550 F

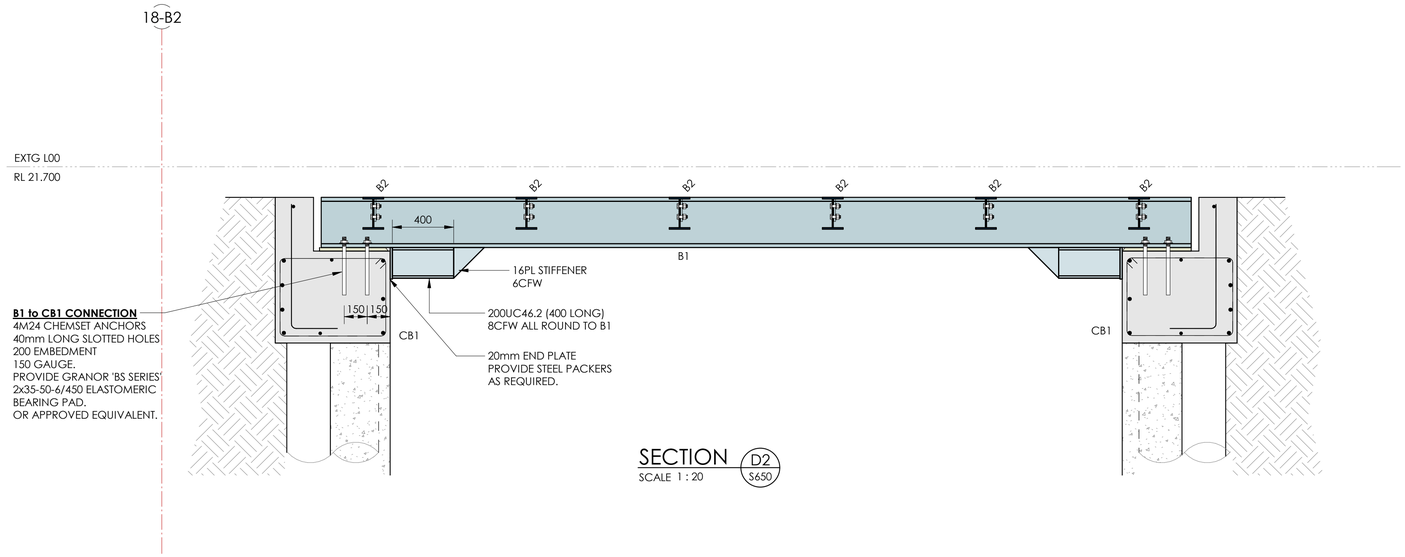
No	DATE	DESCRIPTION	BY
B	11.10.19	REISSUED FOR TENDER	RL
C	08.11.19	ISSUED FOR CC	RL
D	13.11.19	ISSUE FOR FINAL APPROVAL	RL
E	10.12.19	ISSUED FOR CONSTRUCTION	RL
F	15.01.20	REVISED AS CLOUDED	RL



STRUCTURAL FRAMING SCHEDULE

TAG	MEMBER	MEMBER SIZE	COMMENTS
B1	BEAM	310UC137	
B2	BEAM	200UB29.8	
B3	BEAM	460UB82.1	WITH 16PL T&B

DETAIL
SCALE 1 : 20 (D1 / S550)



SECTION
SCALE 1 : 20 (D2 / S650)

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DISCIPLINE
STRUCTURAL DESIGN R18

DRAWING TITLE
SECTIONS & DETAILS - SHEET 1

PROJECT
PROPOSED ATP TRAVELATOR STRUCTURE

ADDRESS
2 LOCOMOTIVE STREET EVELEIGH

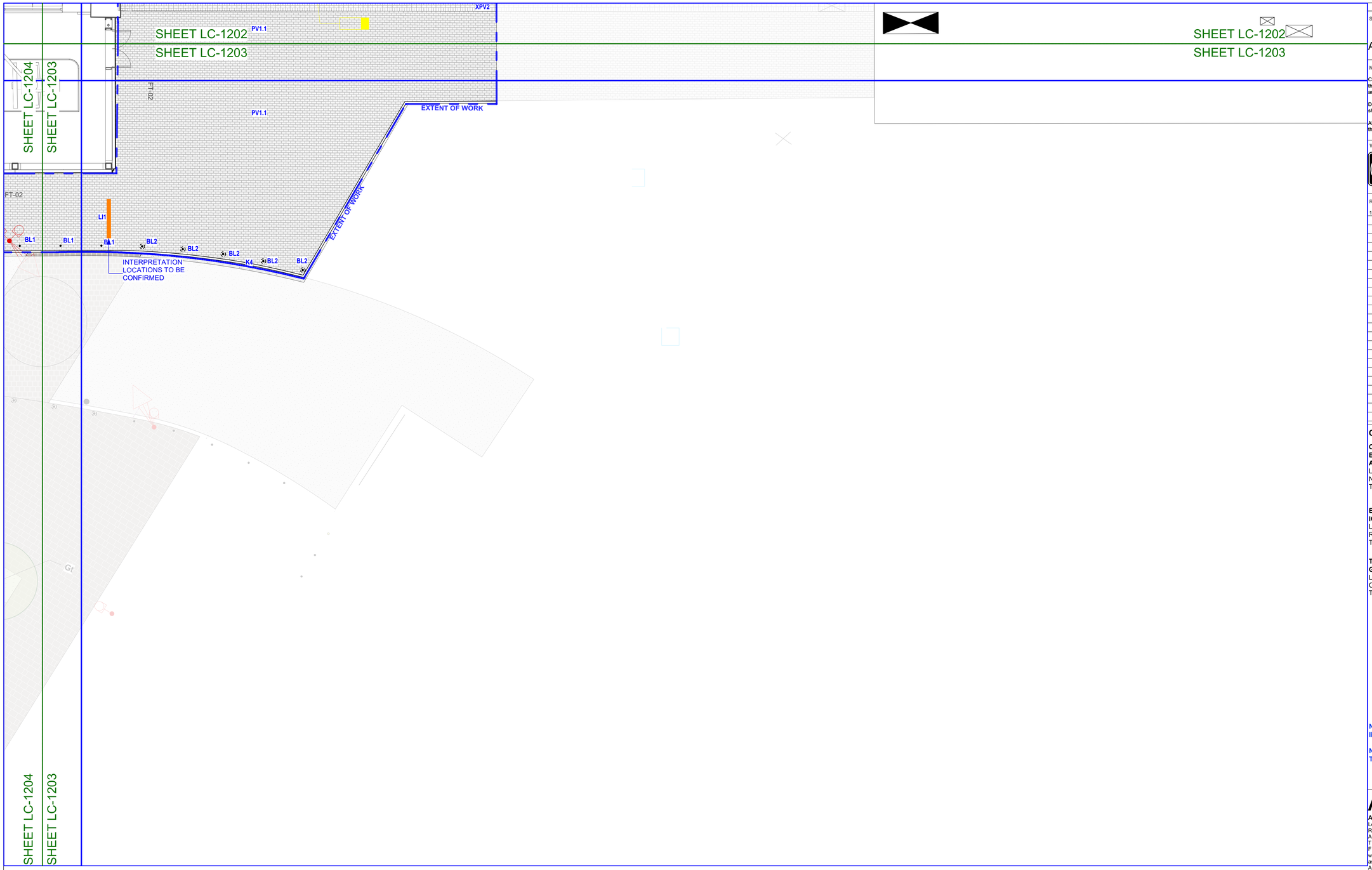
PROJECT DETAILS

DESIGN	C.G.
DRAWN	R.L.
DATE	SEPT 19
DRG SIZE	A1
SCALE	1 : 20
PROJECT MGR	M.M.

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19010921

S650 F



NOTE: REFER TO ELECTRICAL ENGINEER'S DOCUMENTATION FOR SETOUT OF LIGHT POLES

STATUS

AFC

NOTES

Check all dimensions and site conditions prior to commencement of any work, the purchasing or ordering of any materials, fitting, plant services or equipment and the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the landscape architect for clarification.

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WARNING

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Services shown on this drawing are approximate only. The exact location is to be confirmed on site by contractor prior to commencement of work.

REV	DATE	AMENDMENTS
1	03/09/2020	APPROVED FOR CONSTRUCTION

CONSULTANTS

CIVIL, HYDRAULIC ENGINEER
AT&L
Level 7, 153 Walker Street,
North Sydney, NSW 2060
T (+61) 2 9439 1777

ACCESSIBILITY
Morris Goding Accessibility Consulting
106/56, Bowman Street
Pyrmont NSW 2009
T (+61) 2 9692 9322

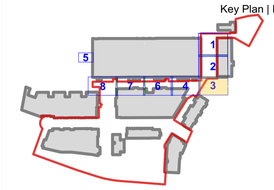
ELECTRICAL ENGINEER
IGS
Level 7, 2 – 14 Kings Cross,
Rd, Potts Point 2011
T (+61) 2 8488 4600

ARCHITECT
FJMT
Level 5, 70 King Street,
Sydney NSW 2000
T (+61) 2 9251 7077

TRAFFIC ENGINEER
GTA
Level 6, 15 Help Street,
Chatswood, NSW 2067
T (+61) 2 8448 1800

STRUCTURAL ENGINEER
ARUP
Level 10, 201 Kent Street,
Sydney, NSW 2000
T (+61) 2 9320 9320

Key Plan | NTS



NOTE: NEW PAVING TO FINISH FLUSH WHERE INTERFACE WITH EXISTING

NOTE: LOCATION OF ALL UNDERGROUND SERVICES TO BE CONFIRMED ON SITE

ASPECT Studios™

ASPECT Studios Pty Ltd
Level 1,78-80 George St
Redfern NSW 2016
Australia
T 02 9699 7182
F 02 9699 7192
www.aspect.net.au
aspectsydney@aspect.net.au
ABN 11 120 219 561

CLIENT

MIRVAC
200 GEORGE STREET
Sydney
NSW 2000

PROJECT

AUSTRALIAN TECHNOLOGY PARK
EVELEIGH
NSW 2015

DRAWING

Materials and Finishes
Locomotive Sheds
Locomotive Street East

DRAWN	CHECKED	SCALE @ A1
LT	NB | DH	1:100

DRAWING NO. AS-LS-DWG-BB-LC-1203

REVISION 1



STATUS

AFC

NOTES

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REV	DATE	AMENDMENTS
1	03/09/2020	APPROVED FOR CONSTRUCTION

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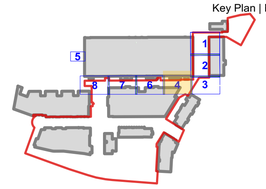
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T (+61) 2 8488 4600

ARCHITECT
FJMT
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Sydney NSW 2000
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TRAFFIC ENGINEER
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Level 6, 15 Help Street,
Chatswood, NSW 2067
T (+61) 2 8448 1800

STRUCTURAL ENGINEER
ARUP
Level 10, 201 Kent Street,
Sydney, NSW 2000
T (+61) 2 9320 9320

Key Plan | NTS



NOTE: NEW PAVING TO FINISH FLUSH WHERE INTERFACE WITH EXISTING

NOTE: LOCATION OF ALL UNDERGROUND SERVICES TO BE CONFIRMED ON SITE

NOTE: REFER TO ELECTRICAL ENGINEER'S DOCUMENTATION FOR SETOUT OF LIGHT POLES

ASPECT Studios™
ASPECT Studios Pty Ltd
Level 1,78-80 George St
Redfern NSW 2016
Australia
T 02 9699 7182
F 02 9699 7192
www.aspect.net.au
aspectsydney@aspect.net.au
ABN 11 120 219 561

CLIENT

MIRVAC
200 GEORGE STREET
Sydney
NSW 2000

PROJECT

AUSTRALIAN TECHNOLOGY PARK
EVELEIGH
NSW 2015

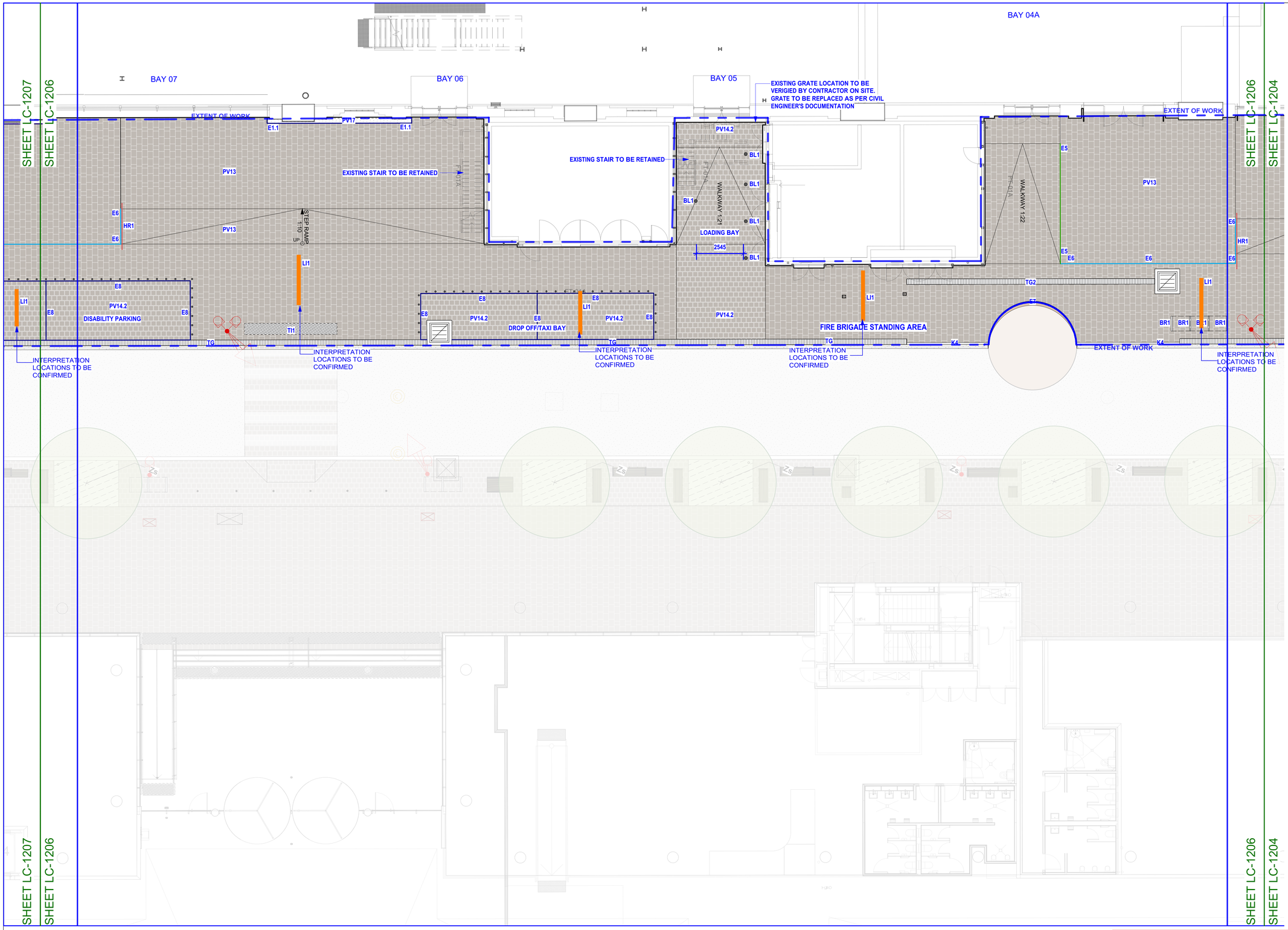
DRAWING

Materials and Finishes
Locomotive Sheds
Locomotive Street | Bay 01-04

DRAWN	CHECKED	SCALE @ A1
LT	NB | DH	1:100

DRAWING NO. AS-LS-DWG-BB-LC-1204

REVISION 1



NOTE: REFER TO ELECTRICAL ENGINEER'S DOCUMENTATION FOR SETOUT OF LIGHT POLES

STATUS

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CONSULTANTS

CIVIL, HYDRAULIC ENGINEER
AT&L
Level 7, 153 Walker Street,
North Sydney, NSW 2060
T (+61) 2 9439 1777

ACCESSIBILITY
Morris Goding Accessibility Consulting
106/56, Bowman Street
Pyrmont NSW 2009
T (+61) 2 9692 9322

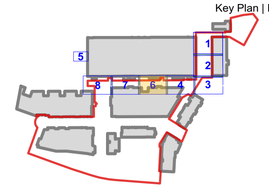
ELECTRICAL ENGINEER
IGS
Level 7, 2 – 14 Kings Cross, Rd, Potts Point 2011
T (+61) 2 8488 4600

ARCHITECT
FJMT
Level 5, 70 King Street,
Sydney NSW 2000
T (+61) 2 9251 7077

TRAFFIC ENGINEER
GTA
Level 6, 15 Help Street,
Chatswood, NSW 2067
T (+61) 2 8448 1800

STRUCTURAL ENGINEER
ARUP
Level 10, 201 Kent Street,
Sydney, NSW 2000
T (+61) 2 9320 9320

Key Plan | NTS



NOTE: NEW PAVING TO FINISH FLUSH WHERE INTERFACE WITH EXISTING

NOTE: LOCATION OF ALL UNDERGROUND SERVICES TO BE CONFIRMED ON SITE

ASPECT Studios™
ASPECT Studios Pty Ltd
Level 1,78-80 George St
Redfern NSW 2016
Australia
T 02 9699 7182
F 02 9699 7192
www.aspect.net.au
aspectsydney@aspect.net.au
ABN 11 120 219 561

CLIENT

MIRVAC
200 GEORGE STREET
Sydney
NSW 2000

PROJECT

AUSTRALIAN TECHNOLOGY PARK
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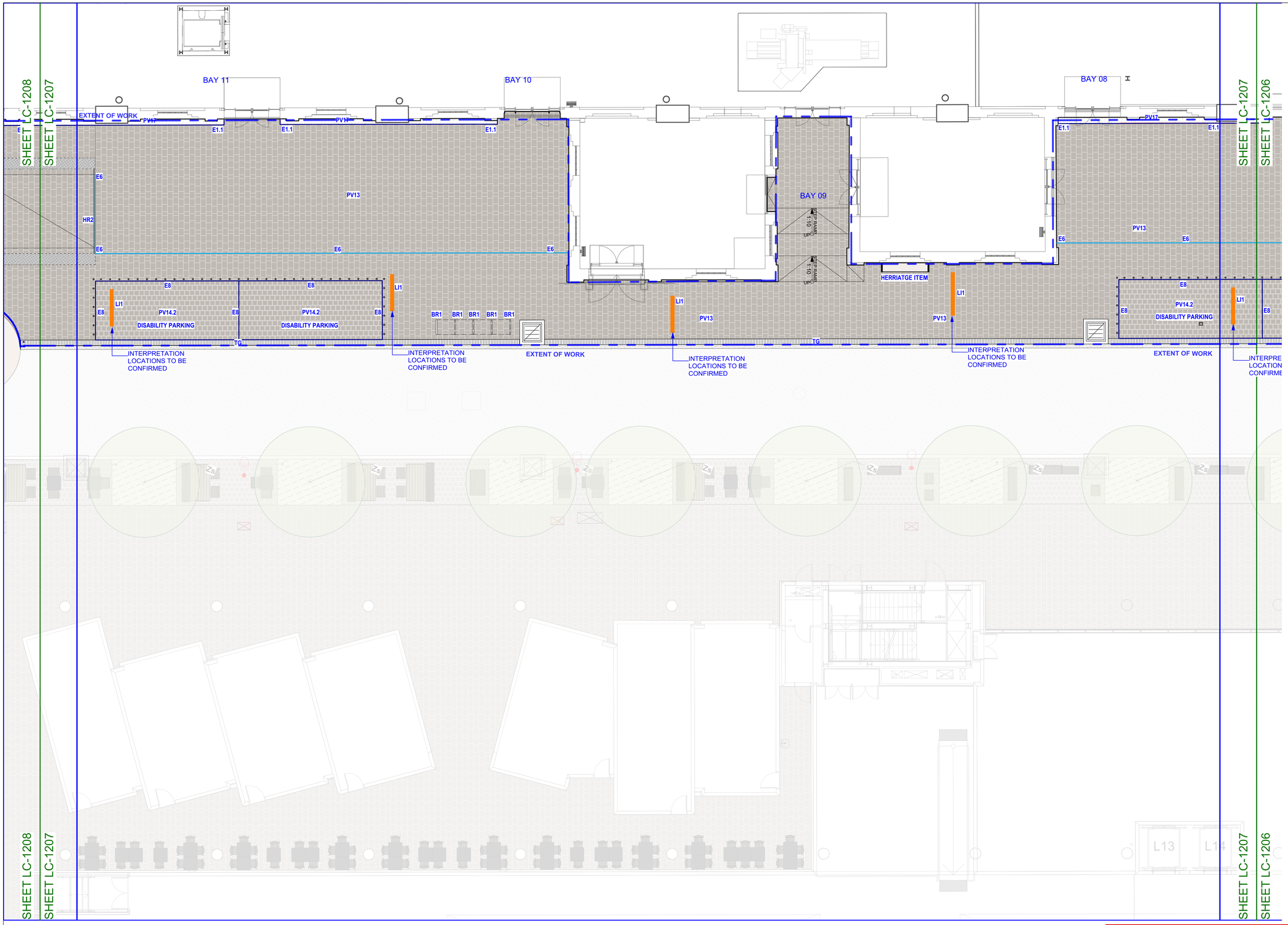
DRAWING

Materials and Finishes
Locomotive Sheds
Locomotive Street | Bay 04A-07

DRAWN	CHECKED	SCALE @ A1
LT	NB | DH	1:100

DRAWING NO. AS-LS-DWG-BB-LC-1206

REVISION 1



NOTE: REFER TO ELECTRICAL ENGINEER'S DOCUMENTATION FOR SETOUT OF LIGHT POLES

STATUS

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CIVIL, HYDRAULIC ENGINEER
AT&L
Level 7, 153 Walker Street,
North Sydney, NSW 2060
T (+61) 2 9439 1777

ACCESSIBILITY
Morris Goding Accessibility Consulting
106/56, Bowman Street
Pyrmont NSW 2009
T (+61) 2 9692 9322

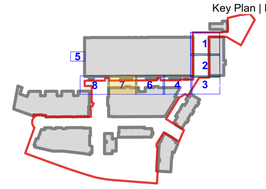
ELECTRICAL ENGINEER
IGS
Level 7, 2 – 14 Kings Cross, Rd, Potts Point 2011
T (+61) 2 8488 4600

ARCHITECT
FJMT
Level 5, 70 King Street,
Sydney NSW 2000
T (+61) 2 9251 7077

TRAFFIC ENGINEER
GTA
Level 6, 15 Help Street,
Chatswood, NSW 2067
T (+61) 2 8448 1800

STRUCTURAL ENGINEER
ARUP
Level 10, 201 Kent Street,
Sydney, NSW 2000
T (+61) 2 9320 9320

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Redfern NSW 2016
Australia
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F 02 9699 7192
www.aspect.net.au
aspectsydney@aspect.net.au
ABN 11 120 219 561

CLIENT

MIRVAC
200 GEORGE STREET
Sydney
NSW 2000

PROJECT

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EVELEIGH
NSW 2015

DRAWING

Materials and Finishes
Locomotive Sheds
Locomotive Street | Bay 08-11

DRAWN	CHECKED	SCALE @ A1
LT	NB | DH	1:100

DRAWING NO. AS-LS-DWG-BB-LC-1207

REVISION 1

SHEET LC-1209

SHEET LC-1208

BAY 15

BAY 14

BAY 13

BAY 12

FHR

EXISTING STAIR TO BE RETAINED

FT-01A

INTERPRETATION LOCATIONS TO BE CONFIRMED

WALKWAY 127

EXISTING STAIR TO BE RETAINED

LINEMARKING TO ROUNDABOUT REFER TO CIVIL ENGINEER'S DOCUMENTATION

PV13

PV12

K4

LI1

E8

PV14.2

LOADING BAY

E1.1

PV17

E5

E6

HR2

RAMP 1:14

UP

TI1

E7

G

EXTENT OF WORK

100M WIDE FLUSH CONCRETE EDGE TO MATCH EDGE INSTALLED EASTERN END OF LOCOMOTIVE STREET

INTERPRETATION LOCATIONS TO BE CONFIRMED

INTERPRETATION LOCATIONS TO BE CONFIRMED

Zs

AF

Hp

SHEET LC-1208

SHEET LC-1207

NOTE: REFER TO ELECTRICAL ENGINEER'S DOCUMENTATION FOR SETOUT OF LIGHT POLES

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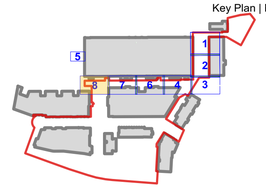
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IGS
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ARCHITECT
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Sydney
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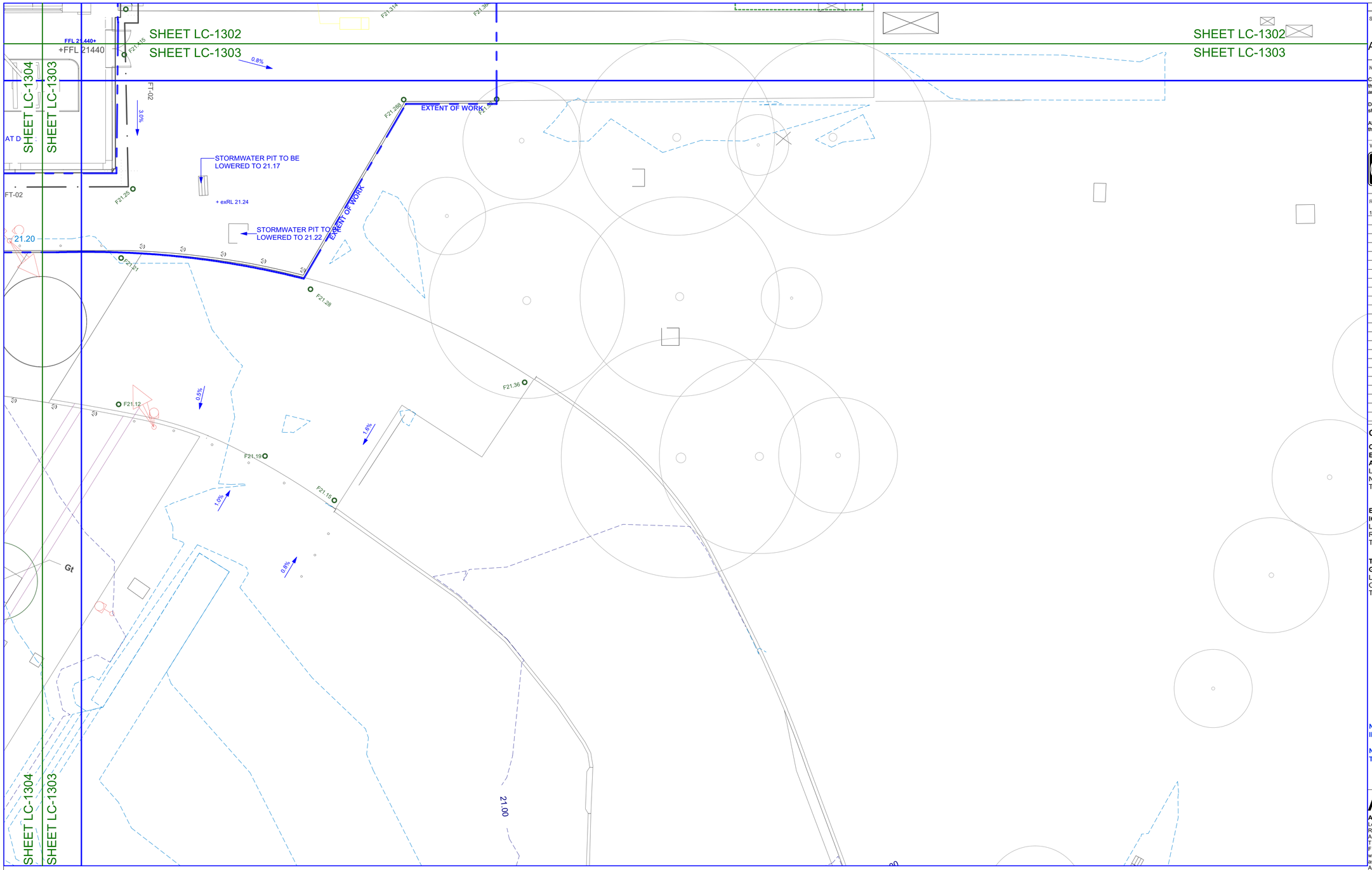
DRAWING

Materials and Finishes
Locomotive Sheds
Locomotive Street | Bay 12-15

DRAWN	CHECKED	SCALE @ A1
LT	NB | DH	1:100

DRAWING NO. AS-LS-DWG-BB-LC-1208

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CIVIL, HYDRAULIC ENGINEER
AT&L
Level 7, 153 Walker Street,
North Sydney, NSW 2060
T (+61) 2 9439 1777

ACCESSIBILITY
Morris Goding Accessibility Consulting
106/56, Bowman Street
Pyrmont NSW 2009
T (+61) 2 9692 9322

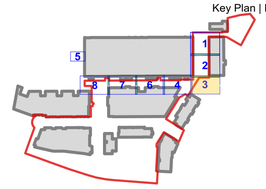
ELECTRICAL ENGINEER
IGS
Level 7, 2 – 14 Kings Cross, Rd, Potts Point 2011
T (+61) 2 8488 4600

ARCHITECT
FJMT
Level 5, 70 King Street,
Sydney NSW 2000
T (+61) 2 9251 7077

TRAFFIC ENGINEER
GTA
Level 6, 15 Help Street,
Chatswood, NSW 2067
T (+61) 2 8448 1800

STRUCTURAL ENGINEER
ARUP
Level 10, 201 Kent Street,
Sydney, NSW 2000
T (+61) 2 9320 9320

Key Plan | NTS



NOTE: NEW PAVING TO FINISH FLUSH WHERE INTERFACE WITH EXISTING

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ASPECT Studios Pty Ltd
Level 1,78-80 George St
Redfern NSW 2016
Australia
T 02 9699 7182
F 02 9699 7192
www.aspect.net.au
aspectsydney@aspect.net.au
ABN 11 120 219 561

CLIENT

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Sydney
NSW 2000

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EVELEIGH
NSW 2015

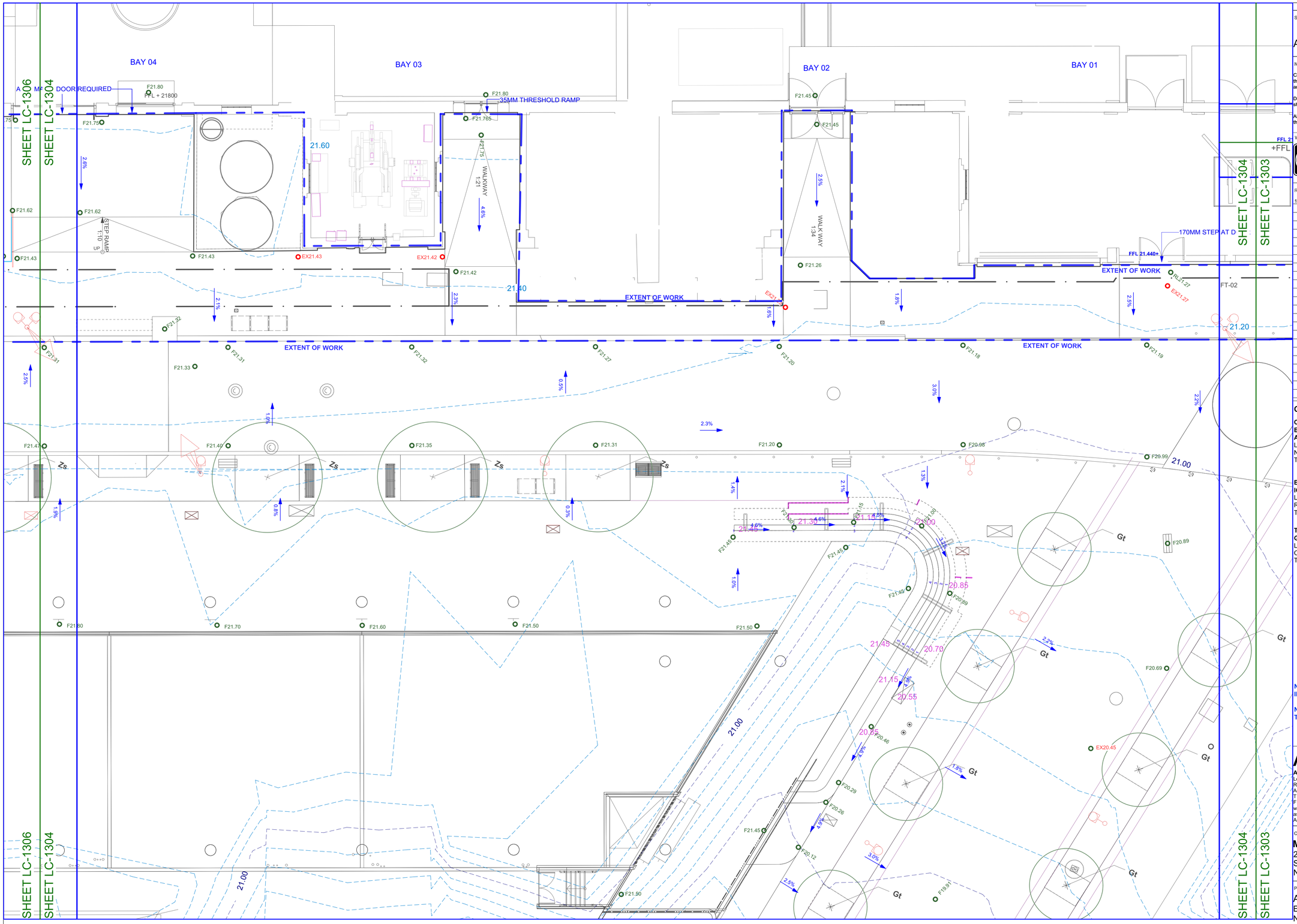
DRAWING

Levels and Grading
Locomotive Sheds
Locomotive Street East

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LT	NB | DH	1:100

DRAWING NO. AS-LS-DWG-BB-LC-1303

REVISION 1



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AT&L
Level 7, 153 Walker Street,
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Pyrmont NSW 2009
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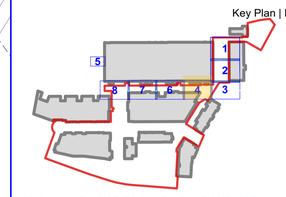
ELECTRICAL ENGINEER
IGS
Level 7, 2 – 14 Kings Cross, Rd, Potts Point 2011
T (+61) 2 8488 4600

ARCHITECT
FJMT
Level 5, 70 King Street,
Sydney NSW 2000
T (+61) 2 9251 7077

TRAFFIC ENGINEER
GTA
Level 6, 15 Help Street,
Chatswood, NSW 2067
T (+61) 2 8448 1800

STRUCTURAL ENGINEER
ARUP
Level 10, 201 Kent Street,
Sydney, NSW 2000
T (+61) 2 9320 9320

Key Plan | NTS



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ASPECT Studios Pty Ltd
Level 1,78-80 George St
Redfern NSW 2016
Australia
T 02 9699 7182
F 02 9699 7192
www.aspect.net.au
aspectsydney@aspect.net.au
ABN 11 120 219 561

CLIENT

MIRVAC
200 GEORGE STREET
Sydney
NSW 2000

PROJECT

AUSTRALIAN TECHNOLOGY PARK
EVELEIGH
NSW 2015

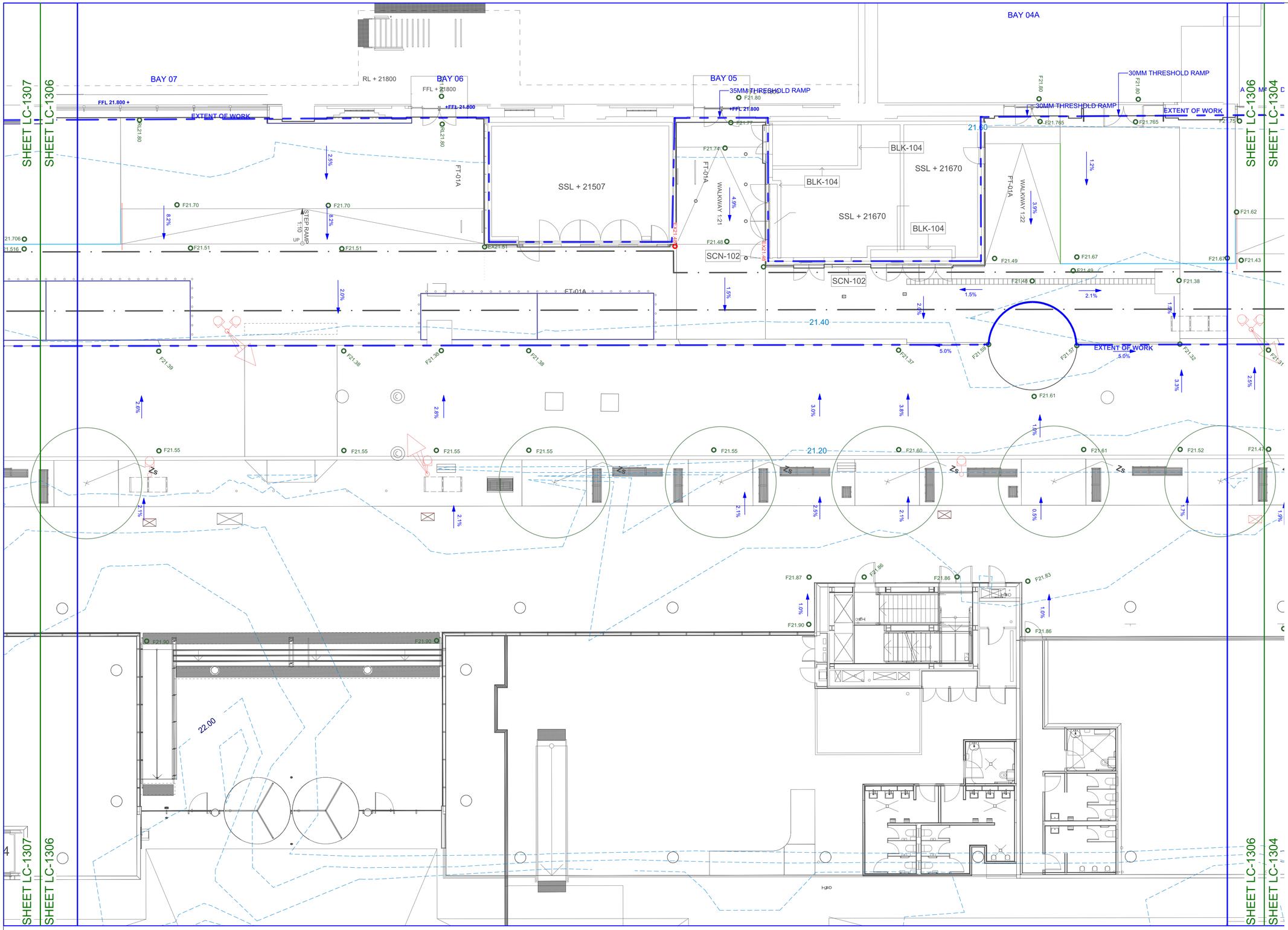
DRAWING

Levels and Grading
Locomotive Sheds
Locomotive Street | Bay 01-04

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LT	NB | DH	1:100

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AT&L
Level 7, 153 Walker Street,
North Sydney, NSW 2060
T (+61) 2 9439 1777

ACCESSIBILITY
Morris Goding Accessibility Consulting
106/56, Bowman Street
Pyrmont NSW 2009
T (+61) 2 9692 9322

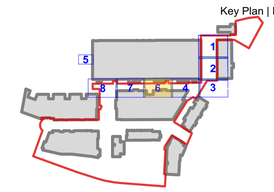
ELECTRICAL ENGINEER
IGS
Level 7, 2 – 14 Kings Cross, Rd, Potts Point 2011
T (+61) 2 8488 4600

ARCHITECT
FJMT
Level 5, 70 King Street,
Sydney NSW 2000
T (+61) 2 9251 7077

TRAFFIC ENGINEER
GTA
Level 6, 15 Help Street,
Chatswood, NSW 2067
T (+61) 2 8448 1800

STRUCTURAL ENGINEER
ARUP
Level 10, 201 Kent Street,
Sydney, NSW 2000
T (+61) 2 9320 9320

Key Plan | NTS



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ASPECT Studios Pty Ltd
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Redfern NSW 2016
Australia
T 02 9699 7182
F 02 9699 7192
www.aspect.net.au
aspectsydney@aspect.net.au
ABN 11 120 219 561

CLIENT

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200 GEORGE STREET
Sydney
NSW 2000

PROJECT

AUSTRALIAN TECHNOLOGY PARK
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NSW 2015

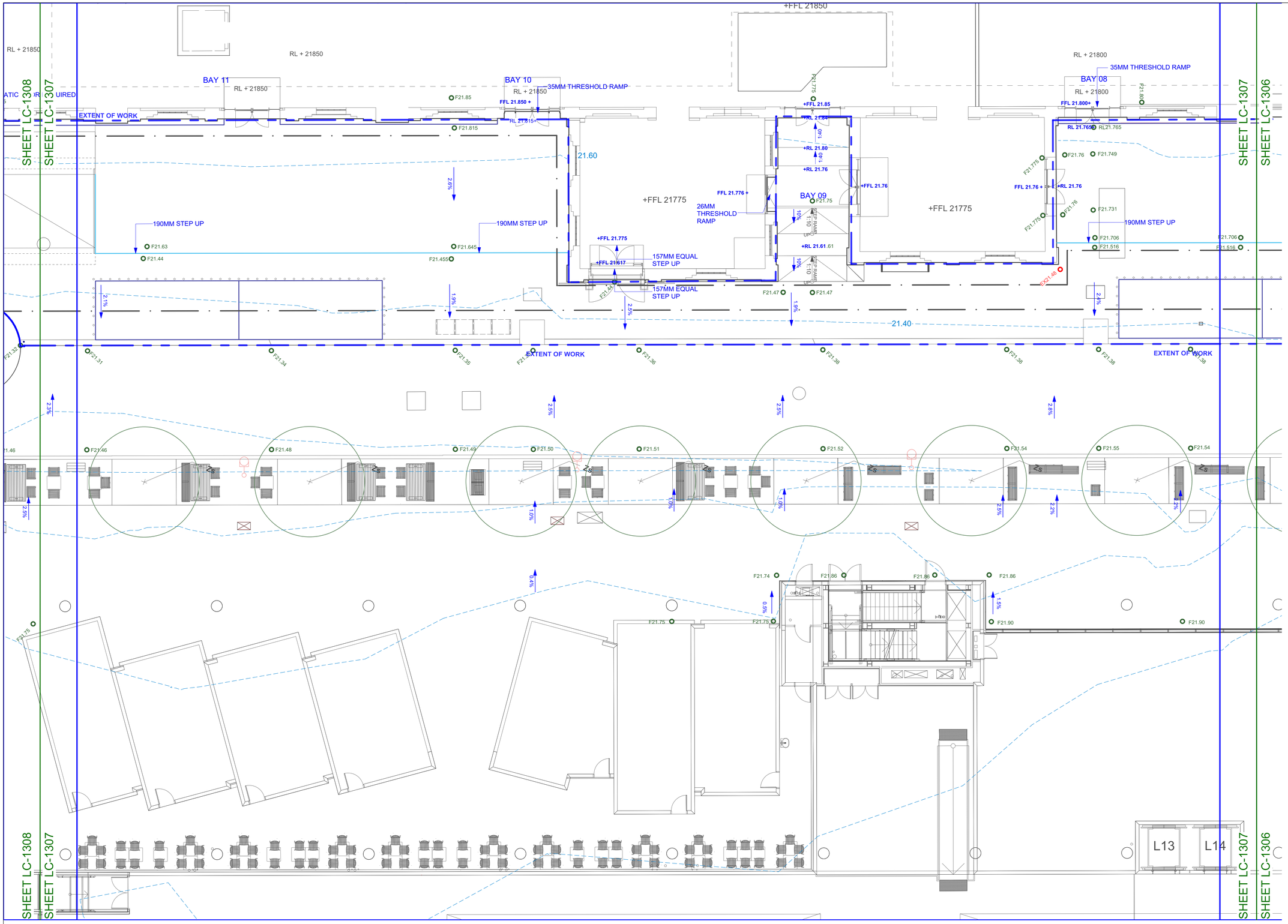
DRAWING

Levels and Grading
Locomotive Sheds
Locomotive Street | Bay 04A-07

DRAWN	CHECKED	SCALE @ A1
LT	NB | DH	1:100

DRAWING NO. AS-LS-DWG-BB-LC-1306

REVISION 1



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AT&L
Level 7, 153 Walker Street,
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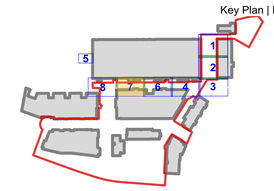
ELECTRICAL ENGINEER
IGS
Level 7, 2 – 14 Kings Cross,
Rd, Potts Point 2011
T (+61) 2 8488 4600

ARCHITECT
FJMT
Level 5, 70 King Street,
Sydney NSW 2000
T (+61) 2 9251 7077

TRAFFIC ENGINEER
GTA
Level 6, 15 Help Street,
Chatswood, NSW 2067
T (+61) 2 8448 1800

STRUCTURAL ENGINEER
ARUP
Level 10, 201 Kent Street,
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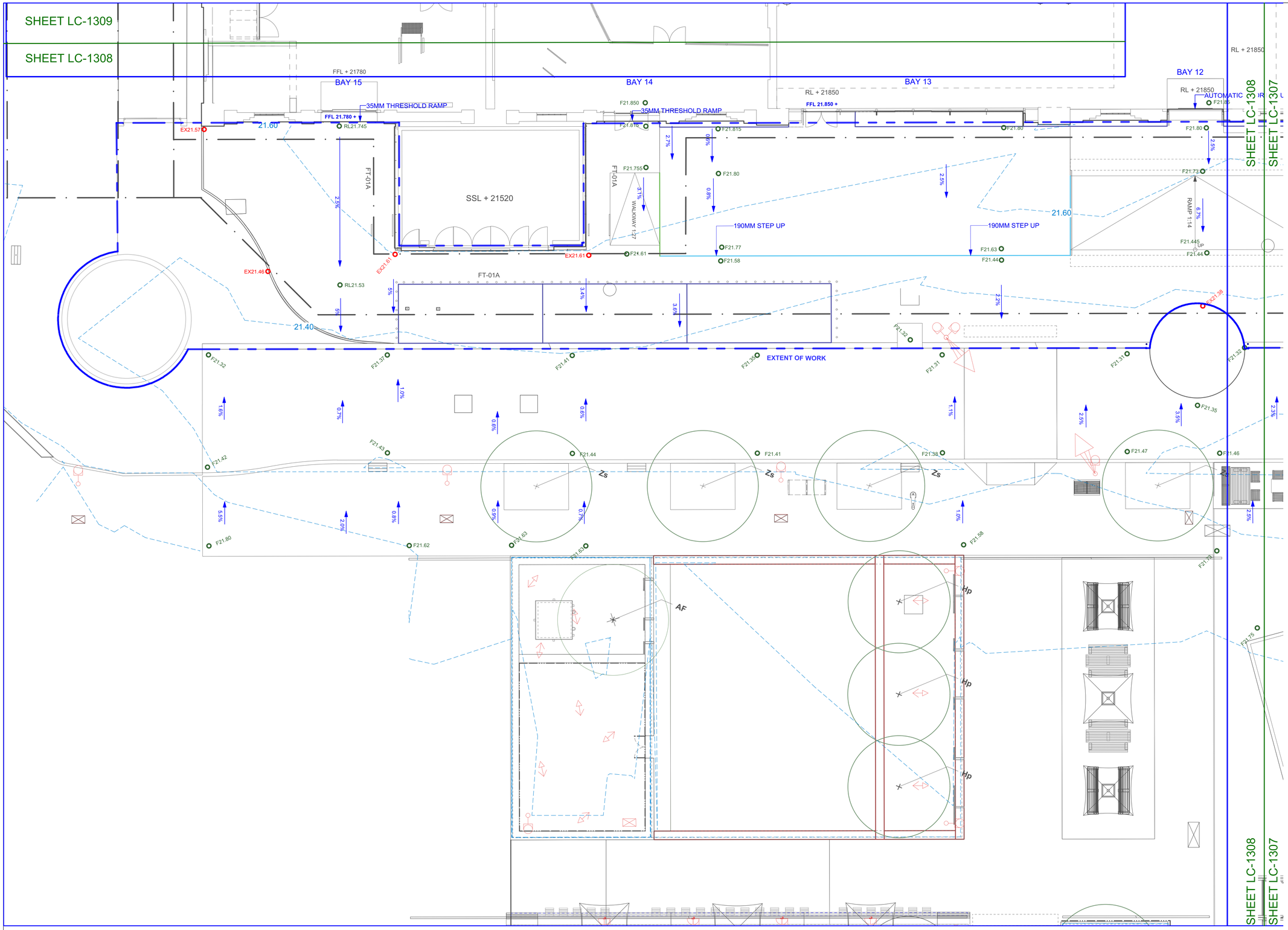
DRAWING

Levels and Grading
Locomotive Sheds
Locomotive Street | Bay 08-11

DRAWN	CHECKED	SCALE @ A1
LT	NB | DH	1:100

DRAWING NO. AS-LS-DWG-BB-LC-1307

REVISION 1



STATUS

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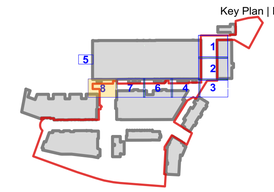
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Rd, Potts Point 2011
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ARCHITECT
FJMT
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GTA
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Sydney
NSW 2000

PROJECT

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EVELEIGH
NSW 2015

DRAWING

Levels and Grading
Locomotive Sheds
Locomotive Street | Bay 12-15

DRAWN	CHECKED	SCALE @ A1
LT	NB | DH	1:100

DRAWING NO. AS-LS-DWG-BB-LC-1308

REVISION 1

Appendix D Procedures

Site Surface Maintenance		EMP01
Responsibility:	Site Manager	
Frequency:	Continuous	
Objective:	To prevent potential exposure to environmental impact present in the sub-surface	

Procedure

The site surface shall be maintained, to prevent contact with impacted sub-surface soils. This shall include assurance that:

- Excavations shall not be undertaken;
- Stabilised DGB/crushed deco granite capping arrangement surrounding heritage display items, asphaltic hardstand and gravel capping material (>100 mm) located in the northern walkway portion of the site shall not be breached; and
- Concrete hardstand shall not be breached;

unless undertaken in accordance with the specific requirements of the LTEMP (**EMP02** and **EMP03**).

Regular inspection (six monthly) of the capping arrangement shall be undertaken by maintenance personnel as directed by the Site Manager to identify any obvious signs of breaches/ deterioration of the physical barrier (concrete pavement/heritage capping arrangement).

Should any of the above be noted during inspections, reinstatement of the surface condition will be required via implementation of **EMP03**. Further reference should be made to **EMP09** regarding contingency actions in the event of an incident/unintended breach of the surface resulting in exposure of impacted material to site workers/occupants.

A register of the completion of visual inspections and documentation associated with works completed subsequent to inspections identifying the need for reinstatement will be maintained by the Site Manager. External reporting of the register by the Site Manager is considered not necessary, however, the register will be made available to environmental/planning officers upon request in the event of a Site inspection.

The register of inspections will include (but not be limited to) the following:

- Time and date of the inspection and/or incident;
- Details of any visual indications of capping layer breaches or deteriorations observed;
- Details regarding the cause (suspected or known) of the breach/deteriorations;
- Details and documentation associated with works undertaken in the reinstatement of surface condition in accordance with **EMP03**; and
- Details of any systems or procedures implemented to prevent similar breaches or deteriorations in the future.

In the event that the pavements are unintentionally breached during site activities, reinstatement in accordance with **EMP03** will be required to rectify the site management system.

Excavation Works	EMP02
Responsibility:	Site Manager
Frequency:	As required for excavations beneath the physical barrier
Objective:	To minimise exposure of contractors and site personnel to impacted sub-surface soils during future excavation works beneath the site.

Procedure

Fill material impacted with asbestos, PAHs, TRH and heavy metals has been retained beneath the site detailed in **Appendix A**.

Given the heterogeneity of fill materials, historical industrial land use activities, and extensive observations of rubble and other building-material related inclusions on historical borehole logs, potential remains for asbestos impacts to occur within fill material as unexpected finds. As such, an unexpected finds protocol/procedure is required to manage any such unexpected finds (refer **to EMP14**).

Measures are required to be put in place to eliminate potential exposure to workers to impacted fill where their work requires that the physical barrier (concrete slab) is breached.

Potential exposure may occur in the event of a breach of the physical barrier consequent of the presence of contaminated soils via dermal contact, ingestion or inhalation.

Access to the subsurface material at the site will be controlled by way of a Works Permit provided by the Site Manager to the on site workers, including site employees, subcontractors and infrastructure maintenance personnel (Water, gas, telecommunications *etc.* providers in addition to building and landscape maintenance personnel). Issue of a Works Permit will be dependent upon preparation of an appropriate Safe Work Method Statement (SWMS) including Job Safety Analysis in addition to any other appropriate documents which may be appropriate for the proposed works.

The SWMS to be submitted to the Site Manager shall include as a minimum:

- Contractors undertaking ground disturbance works on the site shall be notified prior to the commencement of any site works of the occurrence of PAH, TRH, heavy metal and asbestos impacted fill in selected areas of subsurface fill material beneath the site.
- Excavation/disturbance works shall only commence where appropriate precautions are taken, such as use of the correct PPE, as outlined below.
- Implementation of dust, noise and sediment control procedures as outlined in **EMP04** to **EMP07** inclusive during all site excavation works.
- The area of the excavation/disturbance shall be barricaded to prevent access of unprotected site personnel and contractors.

All workers likely to be in contact with contaminated soil beneath the marker layer are required to meet the applicable personal protective equipment (PPE) requirements as outlined below, and must have undertaken Occupational Health and Induction Training as defined in Part 8.2 of the *Work Health and Safety Regulation 2017* (or as updated). Any person required to directly contact soils shall be required to wear the following PPE:

- Overboots; and
- Gloves.

Should asbestos impacts be encountered, or excavation works are advanced in the vicinity of areas where asbestos is identified as retained at the site, then PPE requirements as outlined in **EMP14** are required to be implemented.

Excavated materials are to be separated during excavation works as applicable, into either concrete capping or alternative material, fill materials or natural soils. They are then to be stockpiled separately in a manner that minimises the potential for contamination of materials other than the impacted material at the site. In addition, impacted soils are to be placed either on an impermeable surface, such as builder's plastic, or within a skip or similar container during works to address the potential for impacts to areas surrounding the excavation.

At the completion of excavation/disturbance works, **EMP03** shall be implemented for the reinstatement of disturbed areas. Where materials (soil) disturbed during excavation works cannot be returned to the excavation, this material shall be disposed of off-site in accordance with the requirements of NSW EPA *Waste Classification Guidelines Part 1*: *Classifying Waste* (2014) or as updated by NSW EPA.

It is noted that implementation of the guideline requirements will include the completion of a waste classification assessment prior to off-site disposal of the material to a suitably licensed waste facility. Copies of all documentation, including the classification report, transport and waste facility dockets will be retained by the site manager.

A qualified contaminated land consultant (Environmental Consultant) or alternatively the appointed Site Auditor, should undertake inspections at the commencement, during and following the completion of the works to confirm the following:

- The work has not resulted in any potential adverse human health or environmental impact; and
- The site capping system has been appropriately reinstated.

Reinstatement of Excavation Works	EMP03
Responsibility:	Site Manager
Frequency:	As required for future excavations within the site boundary
Objective:	To prevent exposure of site users to impacted sub-surface soils following the completion of future excavation works within impacted areas of the site.

Procedure

Following implementation of **EMP02 Excavation Works**, or where unintended breaches of the capping has occurred, site reinstatement works shall be undertaken in accordance with the following procedures.

Works associated with penetrations or intrusions of the permanent capping arrangement must ensure that reinstatement includes installation of a vapour proof seal (possibly including a membrane) such that potential vapour migration through a preferential pathway is minimized.

In all instances where impacted material is returned to excavated areas, this shall be completed directly from the storage container or impermeable surface in a manner which minimises the potential for contamination of the ground surface beyond the excavation footprint.

Any soil removed from the excavation shall be reinstated in the same stratigraphic sequence which it was removed in, or suitably clean materials be imported and used as backfill. In addition, the capping arrangement shall be re-instated to equivalent or greater thickness than the existing capping arrangement, where breaches occur.

The contractor will be responsible for installing a clean capping layer as discussed in **Section 2.2** and for supplying survey drawings as required to document the completion of installation of this layer during works.

The Environmental Consultant or appointed Site Auditor will complete inspections during site activities to verify the completion capping layer installation during backfilling.

It is also noted that, in addition to site contamination management requirements, the Site Manager may require implementation of procedures to ensure the suitable compaction of backfilled areas.

Stormwater and Sediment		EMP04
Responsibility:	Site Manager	
Frequency:	Continuously during any future Ground Disturbance works within the Site	
Objective:	To minimise sediment migration during Site maintenance, utility installation/maintenance works and / or future development works	

Procedure

Sediment controls are required to prevent the generation and consequent migration of sediment from works areas and stockpiles that may potentially be formed by future ground disturbance works (e.g. installation of new/additional, underground utilities).

The following controls shall be implemented:

- During excavation works, all care must be taken to minimise the areas of concrete hardstand (physical barrier) disturbance which will result in exposed soil;
- Stockpiles will be placed on dedicated plastic-lined parts of the site to prevent contamination of exposed surface soils or spread of stockpiled material across remaining areas of the site;
- Stockpiles will be covered if left for more than 24 hours;
- Re- instatement of physical barrier in any resulting bare areas on the site as soon as practically possible;
- During excavation works, installation of sediment controls at down-gradient extent of the works area and in the vicinity of any on-site drainage structures (drains, pits, etc.), in accordance with Department of Housing '*Managing Urban Stormwater Soils and Construction'*. Appropriate inspection and maintenance of sediment controls will be completed for the duration of works; and
- Re-surfacing of reinstated excavations must be undertaken as soon as practically possible in accordance with the requirements as described in **EMP03 Reinstatement of Excavation Works**.

Dust	EMP05
Responsibility:	Site Manager
Frequency:	Continuously during any future excavation works
Objective:	To minimise dust emissions from site maintenance, utility installation/maintenance works and / or future development works

Procedure

The impacted soil underlying the site has been covered with a permanent physical barrier comprising concrete hardstand to form a complete and permanent barrier between general site users and the impacted soil. As such, any dusts which may be generated from the final finished ground levels at the site during normal site use will not be associated with contaminated material underlying the site.

During any future ground disturbance works which may include exposure of potentially impacted material, dust emissions require to be minimised to the extent that no dust emissions are visible at the works area boundaries. Controls for each potential dust generating activity that will occur during the site development shall be implemented:

- During ground disturbance works, all care must be taken to minimise the areas of exposed soil;
- Where visible dust is observed during excavation works, a fine water spray will be utilised to control the dust;
- Dust/shade cloth will be installed on all temporary construction fencing at the extent of the works area to minimise the potential for transport of dust beyond the works area boundaries; and
- Dust controls must be implemented around subsequent stockpiled soils. Any dust controls will require regular inspection and maintenance to ensure effective operation until stockpiled material is returned to the excavations or removed from site.

Re-surfacing of reinstated excavations must be undertaken as soon as practically possible.

<u>Stockpiling</u>

In the event that stockpiling of excavated material is necessary during works, the following should be implemented:

- Minimisation of stockpile heights and batters to reduce exposed faces;
- Minimising stockpiles with high proportion of fines at the stockpile surface;
- If left for more than 24 hours, the stockpile is required to be covered (**EMP04**); and
- Consideration of regular dampening stockpiles with a fine water spray or covering with appropriate geotextile material during unfavourable weather conditions.

<u>Trucks</u>

Where excavated material is subject to off-site disposal, all loads will be covered on the completion of loading and prior to vehicle movement off-site. Truck movements will be kept to a minimum and trucks will be required to use sealed (paved) surfaces whenever possible to minimise dust generation.

Ambient Air Monitoring		EMP06
Responsibility:	Site Manager	
Frequency:	Once every 6 months for a period of one year (2 monitoring events, one completed in July 2020)	
Objective:	To ensure that the remedial strategy remains effective	

Procedure

The impacted soil underlying the site has been covered with a permanent physical barrier comprising concrete hardstand to form a complete and permanent barrier between general site users and the impacted soil. To substantiate previous investigation findings and support conclusions that there is no risk to current and future site users, additional limited ambient air monitoring events are required to be completed as part of this LTEMP.

The objectives of the ambient air characterisation activities required are to:

- Confirm that changes to the site condition during development activities have not resulted in increases to VOC concentrations in ambient air within the building when compared to the existing data set;
- Demonstrate that vapour intrusion does not present a health risk to site occupants under the new site conditions; and
- Confirm the remedial strategy (which comprises a cap/cover remedial strategy) has maintained appropriate migration attenuation characteristics.

The site manager is required to engage the appointed contaminated land consultant and/or the Site Auditor to collect ambient air analytical data in accordance with NSW EPA made or endorsed guidelines via sampling and analysis during 'worst case' conditions (minimum air exchange rates within the building) to confirm the effectiveness of the capping/soil vapour migration attenuation arrangements. Alternatively, air sampling may be undertaken targeting any potential preferential pathways from cracks in the concrete (if present) with an enclosed sampling arrangement (i.e. a bucket or similar enclosure).

Ambient air samples are to be collected from a minimum of five locations in proximity to sample locations where VOCs have previously been detected within the site. Samples are to be collected overnight and/or when air conditioning is not operational, such that 'worst case' conditions are sampled. Samples are required to be submitted for VOC analysis at a NATA accredited laboratory.

Following the second round of air monitoring to be complete in late 2020 to early 2021, a factual letter report is required to be prepared by the appointed contaminated land consultant and/or the Site Auditor in accordance with EPA made or endorsed guidelines documenting the results of the ambient air monitoring with consideration to the existing data set and NSW EPA endorsed criteria demonstrating that there is no ongoing health risk with regard to VOCs contaminant ambient air concentrations.

The Responsible Person shall maintain records of the ambient air characterisation activities and reports. Should the characterisation activities identify ambient air contaminant concentrations as differing from that documented in this LTEMP such that there is a reduction in air quality associated with soil vapour intrusion into the building, then the Responsible Person and appointed contaminated land consultant is required to notify the appointed Site Auditor and contingency measures (**EMP 09**) will require to be applied.

Training		EMP07
Responsibility:	Site Manager	
Frequency:	As required	
Objective:	Suitably trained personnel will be available to implement the requirements of the LTEMP	

Procedure

The Site Manager, or nominated responsible party, shall ensure that any personnel engaged in the implementation of nominated tasks for which the Site Manager is responsible within the LTEMP have been provided with adequate training to manage the Site Contamination and Hazardous Materials conditions which may be encountered during site ground disturbance activities.

The Site Manager shall maintain records of personnel engaged in the nominated tasks and their relevant training/qualifications for the period of three years in accordance with **EMP11**.

In the event of future maintenance and/or construction works which will require implementation of **EMP01** and subsequent environmental management procedures, the Site Manager will ensure that all site workers (including employees, contractors and subcontractors) are familiar with the relevant aspects of this LTEMP and its requirements.

Works involving contractors and subcontractors will be managed in accordance with **EMP08**.

Contractor / Subcontractor Management		EMP08
Responsibility:	Site Manager	
Frequency:	As required	
Objective:	Ensure that all persons who may be exposed to contaminated material are suitably aware of conditions and requirements of this LTEMP	

Procedure

Where future maintenance and/or construction works resulting in ground disturbance as may be required at the site, will include excavation/disturbance of impacted soils, the Site Manager is required to ensure that Contractors and Sub-contractors are advised of potential safety and environmental issues on site during site-specific induction training. This induction will include the occupational health and safety responsibilities, requirements and controls for all (sub)contractors working on site. In addition, all site workers, including contractors and subcontractors will be made aware that they are required to implement the provisions of this LTEMP.

All subcontractor activities will be monitored by the Site Manager, or a nominated representative to ensure compliance with the requirements of this LTEMP.

They shall be solely responsible for the health and safety of their employees and shall comply with all applicable laws and regulations. All contractors and subcontractors are responsible for:

1. Providing their own personal protective equipment;
2. Training their employees in accordance with applicable laws;
3. Providing medical surveillance and obtaining medical approvals for their employees;
4. Ensuring their employees are advised of and meet the minimum requirements of this LTEMP and any other additional measures required by their site activities; and
5. Designating their own site safety officer.

All contractors/subcontractors must sign an acceptance form prior to commencing work on site.

Part 6.5 of the *Work Health and Safety Regulation 2017* required that an employer of employees undertaking construction work must ensure that the employees have completed induction training as specified by the Regulation. In addition, the Principal Contractor (if required) must not allow any person to carry out construction work unless he/she is satisfied that the person has undergone OHS induction training, including:

- General occupational health and safety training for construction work;
- Work activity based health and safety training (job specific training); and
- Site specific health and safety induction training.

The Site Manager shall require all contractors completing such works to maintain, for each person carrying out construction/maintenance works, for a period of three years:

- A copy of relevant statements of OHS induction training, or a statement indicating that the Principal Contractor is satisfied that the relevant OHS induction training has been undertaken; and
- A brief description of the site specific training undertaken by the person.

Contingency Plan		EMP09
Responsibility:	Site Manager	
Frequency:	As required	
Objective:	Ensure that in the event of unplanned exposure of impacted materials all appropriate measures are implemented to minimise the risk to on-site personnel and the environment.	

Procedure

In the event that site operations or conditions result in a significant accidental or unintentional breach of the physical barrier (concrete slab floor) without the prior preparation of specific works/management procedures and implementation of appropriate exposure minimisation measures, the following shall be implemented:

- Isolation of the affected area via the placement of temporary barriers or other appropriate measures (i.e. plastic sheeting, clean sand, etc.) to prevent exposure to site personnel;
- Implementation of **EMP02** and **EMP04** to **EMP05** inclusive, with respect to personnel and site management; and
- Implementation of **EMP03** and other relevant provisions of the LTEMP as soon as practicable to reinstate the integrity of the capping/cover layer.

In addition, in accordance with SSD8517 (Bays 1-4A) and SSD 8449 (Bays 5-15) consent condition A11, the Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the applicant becomes aware of an incident. Subsequent notification must be given, and reports submitted in accordance with the requirements set out in Appendix 1 of the consent conditions.

Following implementation of these procedures for rectification of the site, consideration shall be given to the requirements of **EMP07** and **EMP10** to **EMP13** inclusive, in relation to documentation and renewal of the LTEMP to minimise the potential for future exposure of impacted material. The incident shall be documented within the activity register as outlined in **EMP01**.

Where considered appropriate by the Site Manager, appointed contaminated land consultant and/or the Site Auditor, validation of the impacted area will be completed following a breach of the capping layer to demonstrate that contamination of areas within the site beyond the excavation has not resulted in conditions with unacceptable risks to site users or the environment. This may include inspections, and or soil sampling within the site and subsequent analysis of samples for identified contaminants of concern at the site.

Following reinstatement of the capping/cover (physical barrier) layer following a significant accidental or unintentional breach, a formal review of the incident will be undertaken by the Site Manager with specialist assistance as appropriate (construction, occupational hygienist, site contamination consultant, *etc.*). The review will be tasked with identifying the cause of the incident and providing recommendations on alternative procedures or systems to be implemented at the site and/or within the LTEMP to prevent/minimise the likelihood of the incident reoccurring. Dependent upon the review outcome, amendment to the LTEMP as outlined in **EMP13** may be appropriate.

Non-Compliances with LTEMP		EMP10
Responsibility:	Site Manager	
Frequency:	As required	
Objective:	To ensure the LTEMP is implemented as intended.	

Procedure

Non-compliances with the intent and procedures of the LTEMP may occur during the implementation of the LTEMP. Such non-compliances may include events such as failure to maintain the integrity of permanently paved areas.

Where a non-compliance is identified by a responsible organisation, they shall inform the affected organisations and DPIE via compliance@planning.nsw.gov.au of the non-compliance in writing within seven days after the site manager becomes aware of, or identifies any non-compliances. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the non-compliance. Where a non-compliance with the LTEMP is identified by another organisation (in the activities of an alternate organisation), then they shall have the responsibility of informing the non-complying party in writing of the non-compliance. The non-complying party will be required to rectify the non-conformity as soon as possible, as per the requirements of the relevant procedure(s) where non-compliance has occurred.

Detail of the action taken to rectify the non-compliance shall be provided to each of the affected organisations in writing. Where a non-compliance cannot be rectified, then the LTEMP will require to be reviewed as per the requirements of **EMP13** LTEMP Review.

Record Keeping		EMP11
Responsibility:	Site Manager	
Frequency:	As required	
Objective:	Records of the implementation of the LTEMP require to be retained.	

Procedure

The Site Manager shall be responsible for the maintenance of all documents relating to the implementation of the LTEMP. This shall include any additional assessment undertaken, registers for the maintenance of the LTEMP (site inspection forms, works approval checklists, revised plans, *etc.*) and any relevant correspondence between the Auditor, the Site Manager, Contractors and/or any other party.

All records shall be retained by the Site Manager throughout the time of implementation of the LTEMP. In the event that the role of Site Manager is transferred from one organisation to another, control of all relevant (historical and current) documents will be transferred for safe keeping to the current Site Manager.

Audit of LTEMP Implementation		EMP12
Responsibility:	Site Manager	
Frequency:	Once every 24 months	
Objective:	The implementation of the LTEMP requires to be audited in accordance with EPA guidance publications to identify areas of non-compliance or partial compliance with relevant legislation/regulations and/or the requirements of this plan.	

Procedure

An environmental audit shall be undertaken every two years from commencement of the LTEMP to ensure ongoing compliance with the LTEMP. The audit shall be undertaken by an appropriately qualified contractor/consultant in general compliance with the DEC '*Compliance Audit Handbook*' (DEC, Feb 2006) and identify areas of non-compliance or partial compliance with the requirements of:

- Relevant legislation / regulations; and
- This plan.

The findings of the audit should be documented and form the basis of the management review process (**EMP13: LTEMP Review**).

Specific tasks that will be undertaken as part of the audit include:

- Review of records generated by the Site Manager, and their respective contractors to ensure they meet the intended scope of the LTEMP;
- Review of records generated by infrastructure maintenance contractors in relation to services underlying the site, to ensure that their activities have met the intended scope of the LTEMP; and
- Periodic review and inspection of the standard of surface cover on the site.

Where a non-compliance is detected during the audit process, then the non-compliance shall be informed as per the requirements of **EMP10: Non-Compliances with LTEMP**.

The Site Manager is required to maintain records of the audit review.

LTEMP Review		EMP13
Responsibility:	Site Manager Site Owner	
Frequency:	Once every 24 months or when otherwise required	
Objective:	The LTEMP requires review to ensure its continued appropriateness to be used on the site	

Procedure

A review of the LTEMP shall be undertaken biennially by an appropriately qualified contractor/consultant in conjunction with the Site Manager. This review shall consider:

- The results of the LTEMP Audit as outlined in **EMP12**;
- Any non-compliances with the LTEMP that have been unable to be resolved;
- Practicalities and efficiencies of management measures and whether there are more effective ways to improve environmental compliance;
- Any changes in state or national environmental protection legislation or guidelines that impact any part of the LTEMP; or
- Any proposed changes in land-use of the site or adjoining sites which may impact upon exposure pathways.

In the event that Mirvac cease to be recognised as the Site Manager, a complete review of the LTEMP document and compliance measures will be necessary to identify suitable replacement LTEMP compliance mechanisms.

In addition, where a review identifies items which are required to be modified, or added to the LTEMP, then a revision of the LTEMP shall be prepared by a suitably qualified person and endorsed by an appointed NSW EPA Accredited Site Auditor.

Asbestos (as an Unexpected Find or in Previously Identified Locations)		EMP14
Responsibility:	Site Manager	
Frequency:	As required	
Objective:	Provide documented procedures to manage asbestos impacts	

Procedure

In the event asbestos (or suspected asbestos containing material) is encountered as an unexpected find during excavation activities, all site works should be suspended, the area barricaded off and the Site Manager notified.

The Site Manager, or nominated responsible party, shall ensure adequate training is provided and Works Permits and associated SWMS as required under procedure **EMP02** are updated to be to address *Safe Work Australia 2020* and *Work Health and Safety Regulation 2017* requirements.

Should ground penetrations be advanced in areas where asbestos has been previously identified as retained within fill, in addition to the standard construction PPE in procedure **EMP02,** any person required to directly contact soils which contain asbestos shall be required to wear the following PPE:

- P2 (or higher) class half face respirator; and
- Disposable coveralls made from materials which provide adequate protection against fibre penetration;

Where works result in disturbance of potentially asbestos impacted materials, periodic air monitoring for asbestos fibres will be conducted by an Asbestos Consultant/Hygienist on two representative workers or plant during intrusive works to confirm no unacceptable risks are posed to site workers. Monitoring will be conducted in accordance with *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition (NOHSC: 3003 [2005]) and SWA (2020). Detection limits above 0.01 fibres/mL will require work to cease and a review of control measures in that area.

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0	1 x Electronic Copy	Nathan McCoy (Mirvac Projects Pty Ltd) Tom Onus (Ramboll Pty Ltd)	26/02/2021

Document Status

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
A	Thomas Frisken	Joanne Rosner	Joanne Rosner	For Review	21/01/2021
0	Thomas Frisken	Joanne Rosner	Joanne Rosner		26/02/2021



www.jbsg.com.au

APPENDIX C
CORRESPONDENCE

Level 28, 200 George Street
Sydney NSW 2000
Australia

T +61 2 9080 8000
www.mirvac.com

17 June 2020

Attention: Tom Onus
Ramboll Environ Australia
Level 3, 100 Pacific Highway (PO Box 560)
North Sydney NSW 2060

Dear Tom,

In my capacity as Project Director of Mirvac Projects Pty Ltd, I acknowledge the requirements of the LTEMP for the Locomotive Workshops (Lot 4000), and as a representative of the land owner, accept the responsibility of the implementation of the LTEMP.

The LTEMP will be handed over to Mirvac Asset Management with the final Operations and Maintenance Manuals.

Mirvac Asset Management will manage the ongoing requirements of the LTEMP utilizing a site specific Work Place Risk Management Plan and Risk and Opportunity Register. This register will be based on the final version of the LTEMP and be revised on a regular basis to ensure any obligations under the LTEMP are up to date and meet the ongoing development changes to the site.

Workers will be inducted into the site via the Mirvac Rapid Induct system and works in the Public Domain will be undertaken in accordance with the requirements of the LTEMP.

Should there be any queries or concerns in relation to the above, please don't hesitate to contact the undersigned on 0414 501 028

Yours Sincerely,

Will Walker
Project Director
Mirvac Projects Pty Ltd

M: 0414 501 028
E: william.walker@mirvac.com

Mirvac Limited
ABN 92 003 280 699

Mirvac Funds Limited
ABN 70 002 561 640
AFSL 233121

Mirvac Funds Management Limited
ABN 78 067 417 663
AFSL 220718

Responsible Entity for Mirvac Property Trust
ARSN 086 780 645

Mirvac Wholesale Funds Management Limited
ABN 36 076 204 727

Mirvac Real Estate Pty Ltd
ABN 65 003 342 452

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From: Joanna Graham on behalf of EPA HIEH NSW Auditors Mailbox
To: Tom Onus
Cc: Joanna Graham
Subject: RE: Audit of notified site (TO-055)
Date: Wednesday, 10 June 2020 2:05:48 PM

Dear Tom,

Thank you for your email. I have discussed your request with one of the Operations team leaders and can confirm that the EPA has no objections with you progressively signing off on stages of the Locomotive Workshop as they are completed and demonstrated to be suitable for the proposed use.

Kind Regards,
Jo

Jo Graham
Senior Audit Officer – Contaminated Land Advice and Audit
Environmental Solutions, NSW Environment Protection Authority
+61 2 9995 5609
joanna.graham@epa.nsw.gov.au www.epa.nsw.gov.au @EPA_NSW
Report pollution and environmental incidents 131 555 (NSW only) or +61 2 9995 5555

Please note that I work Monday-Thursday

From: Tom Onus [mailto:tonus@ramboll.com]
Sent: Friday, 5 June 2020 1:12 PM
To: EPA HIEH NSW Auditors Mailbox <nswauditors@epa.nsw.gov.au>
Cc: Geoff Fletcher <GFLETCHER@ramboll.com>; EPA HIEH NSW Auditors Mailbox <nswauditors@epa.nsw.gov.au>
Subject: RE: Audit of notified site (TO-055)

Hi Jo,

I am nearing completion of the second stage of an audit of the Locomotive Workshop (Lot 4000, DP1194309), comprising Stage 1B (part of Bays 1-4A).
the site has been notified to EPA and is currently classified as "Regulation Under CLM Act Not Required". In my opinion, Stage 1B is suitable for the proposed use.

We will be progressively auditing quite a few stages of development within the Locomotive Workshop over the coming months. Rather than seeking approval for each stage, can you please confirm that the EPA has no objections to me progressively signing off on stages of the Locomotive Workshop as they are completed and demonstrated to be suitable for the proposed use.

Kind regards
Tom Onus
D 02 9954 8133
M 0408 665 517
tonus@ramboll.com
Ramboll Australia Pty Ltd.
ACN 095 437 442
ABN 49 095 437 442

Ramboll Australia Pty Ltd
Level 3, 100 Pacific Highway
PO Box 560
North Sydney NSW 2060

T +61 2 9954 8100

www.ramboll.com