15 January 2021

Andrew Whiteman
Aliro Trusco 1 Pty Ltd
L53, GPT 1 Farrer Pl, Sydney, 2000
Via email: awhiteman@aliro.com.au

UST Environmental Assessment - 13 Endeavour Road, Caringbah NSW

Dear Andrew,

1. Introduction

JBS&G Australia Pty Ltd was engaged by Aliro Trusco 1 Pty Ltd (Aliro, the client) to conduct an environmental assessment of a former underground petroleum storage system (UPSS) at a property located at 13 Endeavour Road, Caringbah, NSW (the site). The site is legally identified as Lot 2 Deposited Plan (DP) 714965 and occupies and area of 12.5 hectares (ha). The site location and layout are shown on **Figure 1** and **Figure 2**, respectively.

Previous investigations identified a single diesel underground storage tank (UST) located adjoining the central part of the site's north western boundary (**Figure 2**). Plans detailing the location and configuration of the UST and associated infrastructure are provided in **Attachment 2**.

Review of available records indicate the UST was decommissioned (foam filled) in 2003 and targeted soil and groundwater investigations have not identified the presence gross or widespread contamination in proximity of the UST, as summarised in **Section 3** below.

The following letter provides a summary of previous investigations and outlines the known contamination status of UPSS at the site.

2. UST Inspection

A detailed inspection of the UST area was conducted by a trained and experienced JBS&G Environmental Consultant on 7 January 2021. Photographs of the UST area are provided in **Attachment 3**. The UST was identified to remain *in-situ* with evidence of white foam filling within the internal tank void, consistent with observations made during previous investigations and reported method of decommissioning (**Section 3**).

3. Environmental Investigations

The following sections provide a summary of the information and site characterisation data relevant to potential contamination associated with the UPSS infrastructure at the site as presented within key assessment reports.

3.1 Targeted Soil Contamination Assessment (NA 2012)

Noel Arnold and Associates (NA 2012[1]) were engaged to prepare a targeted soil contamination assessment to identify if significant contamination was present in soils immediately surrounding the abandoned UST (the location of which is shown on **Figure 2**).

The scope of works included drilling of four boreholes (SB01 to SB04) to a maximum of 4 m bgs on each side of the UST location, soil sampling and analysis for lead, total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, xylene (BTEX) and polycyclic aromatic hydrocarbons (PAH), and submission of a dangerous good search from Workcover NSW (now SafeWork NSW).

NA (2012) noted soil comprised sandy silt topsoil from 0.1 to 0.4 m bgs, overlying sandy fill material with clay and gravel to the depth of 1.7 m bgs and underlain by grey silty sand (estuarine sediments) containing strong sulfuric odour. All samples reported concentration below the adopted EPA (1994) criteria in force at the time.

Dangerous Goods Search documentation provided by Workcover NSW on 16 February 2012 did not identify the presence of any petroleum infrastructure on site. Notwithstanding, NA (2012) indicated that a visual inspection of the tank found white foam protruding from the fill point, consistent with the reported methodology for decommissioning (referenced by a decommissioning certificate not cited by JBS&G). This is consistent with observations made by JBS&G in January 2021 (**Section 2**).

NA (2012) included a tank integrity report which was prepared by OPEC Systems Pty Ltd (OPE 2003) presumably prior to decommissioning of the tank. The integrity assessment report identified serious ruptures in the UST lining and evidence of water ingress.

NA (2012) recommended that should the tank be removed, it be done so in accordance with relevant EPA made or endorsed regulations/Australian Standards and should areas of potential soil or groundwater contamination be identified, a suitably qualified environmental consultant be contacted, and appropriate investigations undertaken.

3.2 AECOM 2019

AECOM were engaged to prepare a combined Stage 1 and 2 Environmental Site Assessment (ESA) of the site. The objectives of the combined ESA were to obtain and review available historical and current information of site, identify and address the data gaps and uncertainties for potential contamination of the site.

AECOM (2019[2]) noted that previous records indicated the UST was decommissioned in 2003 as confirmed by a UPSS decommissioning certificate, noting the certificate was not made available to JBS&G for review. The investigation included the installation of a single groundwater monitoring well (MW2) downgradient of the UST and subsequent soil and groundwater sampling and analysis for relevant contaminates of potential concern (COPC) including heavy metals, total recoverable hydrocarbons (TRH), BTEX, PAHs and phenols.

All soil and groundwater concentrations were reported below the laboratory limit of reporting (LOR) or adopted site assessment criteria.

---

1 *Targeted Soil Contamination Assessment, Toyota Motor Corporation Australia Ltd, Corner Captain Cook Drive and Gannons Road Caringbah NSW.* Noel Arnold and Associates dated February 2012 (NA 2012)

2 *Toyota Caringbah, Phase 1 & 2 Environmental Site Assessment 2019 – 13 Endeavour Road, Caringbah, NSW*. AECOM Australia Pty Ltd dated 28 October 2019 (AECOM 2019)

3.3 Due Diligence Assessment (JBS&G 2020a)

JBS&G (2020a[3]) conducted a due diligence contamination assessment to address a range of data gaps to evaluate the potential for contamination at the site.

The investigation comprised a review of site environmental information, a detailed site inspection and a program of sampling/analysis which included the sampling of groundwater monitoring well MW2 (downgradient of the UST). All concentrations contaminants of potential concern (COPC) in groundwater, including TRH/BTEX and volatile organic compounds (VOCs) were reported below the laboratory LOR. At the time of inspection, a UST fill point was observed encased in concrete and the tank area was noted to comprise vegetated garden beds with mulch and small established trees.

3.4 Remedial Action Plan JBS&G (2020b)

A Remedial Action Plan (RAP, JBS&G 2020b[4]) has been prepared to guide the removal of UPSS and address isolated petroleum hydrocarbon impacts should they be identified during the excavation and removal of UST. The RAP outlines relevant regulatory requirements with reference to EPA made or endorsed guidelines such that the ensuing excavation and residual soils can be validated to ensure that the site is suitable for the proposed commercial/industrial land use, consistent with *State Environmental Planning Policy 55 – Remediation of Land* (SEPP 55), as discussed in **Section 4**.

4. UST Environmental Status - Discussion

Previous investigation reports indicated the UST was decommissioned in 2003 and abandoned *in-situ* via foam filling, and that investigation of soil and groundwater in vicinity of the decommissioned UST have been completed, which is considered to be generally appropriate from an environmental perspective. It is noted SafeWork NSW and EPA guidance recommends removal of disused UPSS in preference to leaving tanks *in-situ*. The UST is proposed to be removed to facilitate redevelopment of the site.

Review of intrusive investigations completed to date (**Section 3**) indicated that no gross or widespread contamination has been identified in close proximity to the UST. All soil/fill samples collected in proximity the UST and groundwater samples collected downgradient of the UST which were submitted for laboratory analysis reported concentrations of COPC below the adopted criteria for commercial/industrial land use (pursuant to NEPC 2013[5]).

As outlined in the RAP (JBS&G 2020b), all removal works are required to be undertaken in accordance with relevant Australian standards, regulations and codes of practice including Section 4 of Australian Standard (AS) 4976: *The removal and disposal of underground petroleum storage tanks* (AS 2008b), and AS 1940: *Storage and handling of flammable and combustible liquids* (AS 2004b).

In accordance with the with *UPSS Technical Note: Site Validation Reporting* (DECCW 2010), and requirements of NEPC (2013) a program of sampling and analysis has been developed, as outlined in JBS&G (2020b) to validate residual soils.

Should hydrocarbon contamination be identified during removal of UPSS infrastructure, it is anticipated to be localised and limited in extent. The RAP (JBS&G 2020b) outlines an appropriate management framework to ensure residual contamination (if identified) is remediated/managed in

---

3 *L02 Toyota Caringbah Due Diligence Assessment.* JBS&G Australia Pty Ltd. Document reference 58037/127800 (Revision 1). Dated 25 February 2020 (JBS&G 2020a)

4 *Remedial Action Plan, 13 Endeavour Road, Caringbah NSW.* JBS&G Australia Pty Ltd. Doc: 58037/132495 dated 17 September 2020 (JBS&G 2020)

5 *National Environment Protection (Assessment of Site Contamination) Measure, Amendment No 1 (2013).* National Environment Protection Council (NEPC 2013)

accordance with relevant EPA made or endorsed guidelines such that the site is suitable for its proposed commercial/industrial land use.

JBS&G consider that should residual contamination exist, it can be readily managed using common industry practices as outlined in the RAP (JBS&G 2020b) and in accordance with the Sutherland Shire Development Control Plan 2015 (SSDCP 2015) during the redevelopment/remediation phase.

5. Conclusions

Based on the environmental assessment review and subject to the limitations in **Attachment 1**, the following conclusions are made.

- Review of previous investigations and visual observations made during the investigation outlined herein indicate the UST was decommissioned and foam filled (abandoned *in-situ*) in 2003;
- Subsequent targeted soil and groundwater investigations in proximity of the UST have not identified the presence of gross or widespread contamination to soil/fill or groundwater;
- The UST will be excavated and removed to facilitate the redevelopment of the site;
- Should isolated petroleum hydrocarbon impact to soil/fill be identified during the excavation/removal of the UST, contamination is anticipated to be localised and limited in extent;
- A RAP (JBS&G 2020) has been prepared to validate the excavation and removal of the UST in accordance with relevant regulatory requirements and Australian Standards. It is anticipated remedial works are able to be managed in accordance with the SSDCP 2015 and SEPP 55 provisions to ensure the site can be made suitable for its proposed commercial/industrial land use (pursuant to NEPC 2013); and
- Based on the assessment outlined herein, existing UPPS infrastructure at the site is not considered to pose an immediate contamination risk at the site, nor require immediate removal (as part of the planning proposal stage). JBS&G consider that the removal of UPSS and the management of any isolated contamination (should it be identified) can be addressed during a future Development Application (DA) phase.

Should you require clarification, please contact the undersigned on 02 8245 0300 or by email ckauffman@jbsg.com.au

Yours sincerely:

Chris Kauffman
Environmental Consultant
JBS&G Australia Pty Ltd

Reviewed/Approved by:

Matthew Bennett, CEnvP(SC)
Senior Principal
JBS&G Australia Pty Ltd

Attachments:
Figures

1) Limitations
2) UPSS Detailed Plans
3) Photographs

Figures

Legend

Approximate Site Boundary

JBS&G

Job No: 58037	
Client: Aliro	
Version: L03 Rev 0	Date 14/01/2021
Drawn By: JA	Checked By: CK

Scale 1:40,000

0 500 1,000

metres

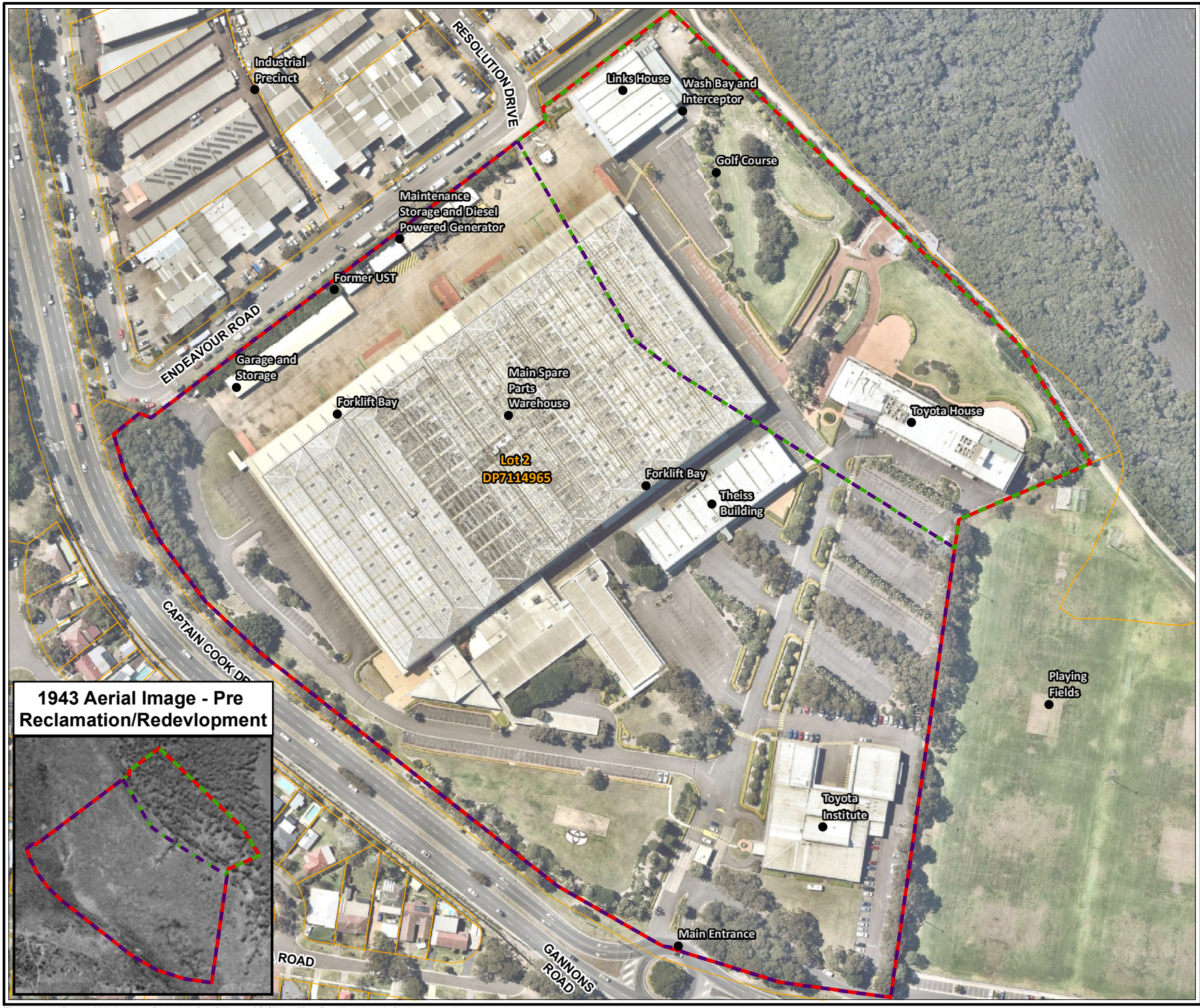
Coord. Sys. GDA 1994 MGA Zone 56

13 Endeavour Road, Caringbah NSW

SITE LOCATION

FIGURE 1

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Aliro\58037 - Caringbah Due Dilligence\GIS\Maps\R02 Rev A\58037_01_SiteLocation.mxd
Reference: Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA: www.nearmap.com - 20191022



1943 Aerial Image - Pre Reclamation/Redevlopment

Legend

- Approximate Site Boundary
- Cadastre (NSW LPI, 2019)
- Southern Portion of the Site: Reclaimed Alluvial Deposits
- Northern Portion of the Site: Reclaimed Tidal Mangrove Swamp
- Site Features

JBS&G

Job No: 58037	
Client: Aliro	
Version: L03 Rev 0	Date 14/01/2021
Drawn By: JA	Checked By: CK
Scale 1:2,500	

0 25 50
metres

Coord. Sys. GDA 1994 MGA Zone 56

13 Endeavour Road, Caringbah NSW

SITE LAYOUT

FIGURE 2

File Name: N:\Projects\Aliro\58037 - Caringbah Due Dilligence\GIS\Maps\R02 Rev A\58037_02_SiteLayout.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 22/10/2019) and NSW DFSI 1943 Imagery

Attachment 1 - Limitations

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

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

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

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

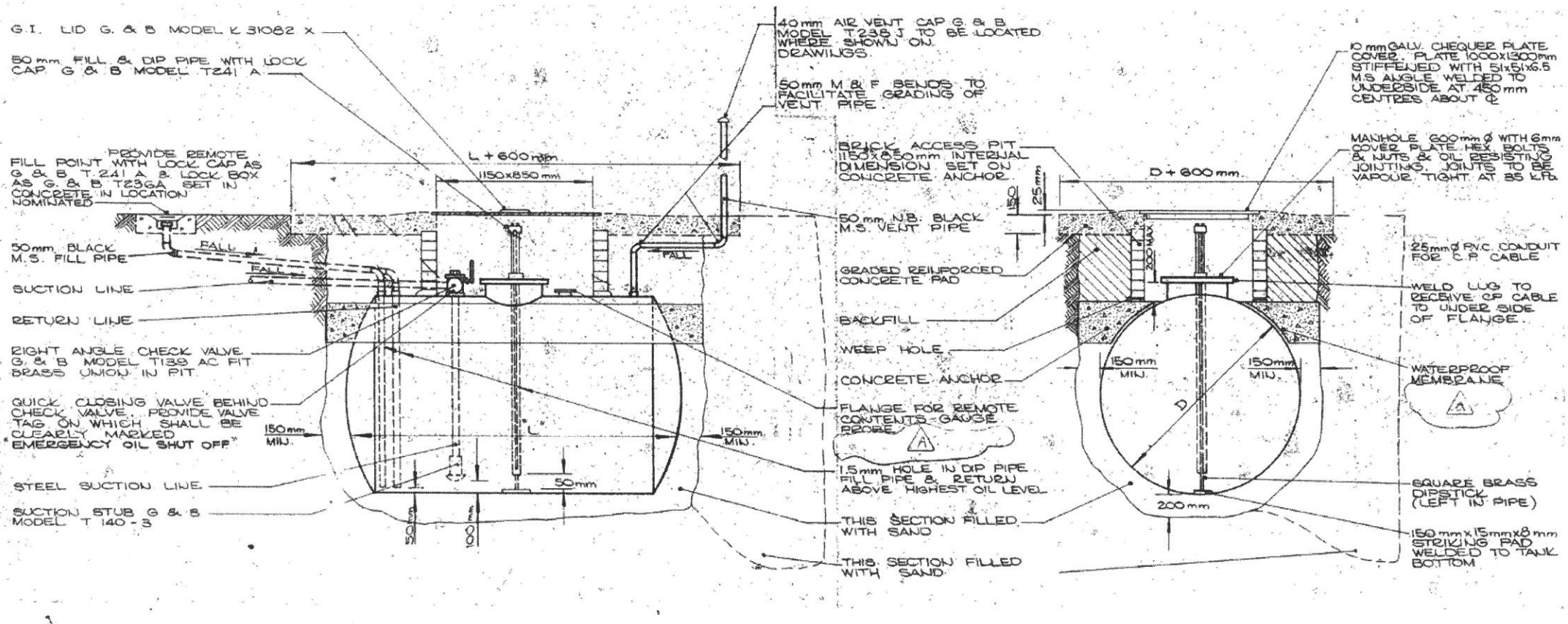
Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information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

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

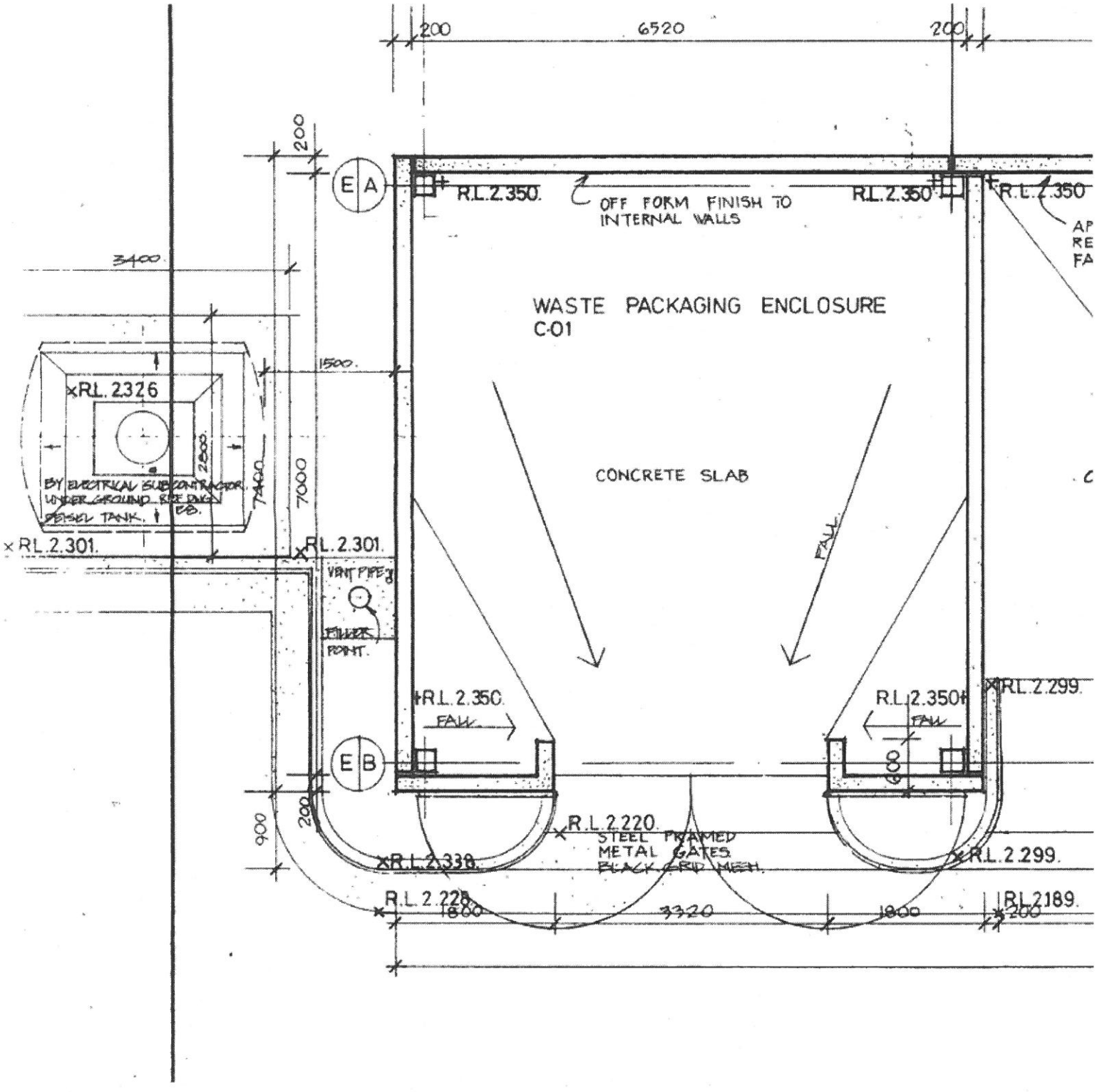
This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the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

Attachment 2 – UPSS Detailed Plans

ENERGY BUILDING



BULK FUEL TANK DETAILS


200
6520
200
200
E A
R.L.2.350.
OFF FORM FINISH TO INTERNAL WALLS
R.L.2.350.
R.L.2.350
AP
RE
FA
3400
WASTE PACKAGING ENCLOSURE
C-01
1500.
RL. 2326
2800.
7400
7000
BY ELECTRICAL SUBCONTRACTOR UNDER GROUND SEE DWG E8. DIESEL TANK.
RL.2.301.
RL.2.301.
VENT PIPE
FILLER POINT.
CONCRETE SLAB
FALL
FALL
R.L.2.350.
FALL
R.L.2.350
FALL
RL.2.299.
E B
900
290
R.L.2.220
STEEL FRAMED METAL GATES BLACK GRID MESH.
RL.2.338.
RL.2.299.
R.L.2.225
1800
3320
1800
RL.2189.
200

Attachment 3 – Photographs

Photograph 1: UST plate uncovered following removal of overlying fill.

Photograph 2: Internal void of the UST with evidence of foam filling.