Land & Groundwater Consulting Pty Ltd
ABN 65 162 117 928

President Private Hospital

Detailed Environmental Site Investigation Report

369-381 President Avenue
Kirrawee, NSW

3 July 2020

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LAND & GROUNDWATER CONSULTING PTY LTD

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Executive Summary

Background

Land & Groundwater Consulting Pty Ltd (LG) has been engaged by President Private Hospital Pty. Limited to undertake a Detailed Environmental Site Investigation (DESI) at the site known as 369-381 President Avenue, Kirrawee, NSW.

LG understands that President Private Hospital Pty. Limited wishes to develop the site and assess its environmental condition prior to development. It is understood that development of the site will comprise the demolition and alteration of existing structures and addition of new structures with 2 basement levels.

The sampling plan included the assessment of 21 locations across the site. Samples collected were analysed for a combination of total recoverable hydrocarbons (TRHs); benzene, toluene, ethylbenzene and xylene (BTEX); polycyclic aromatic hydrocarbons (PAHs); organochlorine pesticides (OCPs); organophosphate pesticides (OPPs); polychlorinated biphenyl (PCBs); metals (arsenic, cadmium, copper, chromium, lead, nickel, mercury and zinc) and asbestos identification.

Conclusions

Based on the findings of this DESI the following conclusions are provided:

- Prior to the current layout the site appeared to have comprised mainly crown land between 1860's and 1910's and agricultural garden markets between 1910's and 1950's. Residential structures are likely to have occupied the site since sometime between 1910's and 1960's. The main hospital structures are likely to have been constructed between 1970's and 1980's. Therefore, it is estimated that the site has been in its current hospital configurations for nearly 50 years. No significant changes were observed on the site during this period;

- Laboratory analytical results indicated that the fill materials and natural soils sampled from within the footprint of the proposed development area and analysed did not contain concentrations of TRHs, BTEX, PAHs, OCPs, OPPs, PCBs, heavy metals and asbestos that were greater than the HIL A and EIL A land use criteria (Residential A), at the time tested.

- Asbestos fibres were detected above the HIL D in the following samples:

  - Chrysotile cement sheet fragments (approx. 5x3x2mm) in soil sample BH3/0.1-0.3, collected within the fill material at Borehole 3; and

- Chrysotile cement sheet fragments (approx. 12x10x4mm) in soil sample BH13/0.1-0.3, collected within the fill material at Borehole 13.

Therefore, these can be referred as asbestos containing materials (ACMs).

- Based on the above findings the site subject to this DESI is likely to be suitable for the proposed land use, consistent with an SP1 Special Activities (Health Services Facility) zoning, provided the asbestos impacted soils identified are remediated in-situ or classified, removed and disposed offsite to a licensed facility, and the remaining excavation/voids are validated, accordingly.

Recommendations

Based on the conclusions above the following recommendations are provided:

- Remediation and validation works be undertaken, in order to safely remove asbestos hotspots and demonstrate that the remaining excavations and excavated soils meet NSW EPA requirements for the proposed land use.

1. Introduction

2.1 Background

Land & Groundwater Consulting Pty Ltd (LG) has been engaged by President Private Hospital Pty. Limited to undertake a Detailed Environmental Site Investigation (DESI) at the property identified as Lot 1 in Deposited Plan (DP) 841502, Lots 23 and 24A in DP 26995, and Lots 53 and 54 in DP 29493, located at 369-381 President Avenue, Kirrawee, NSW (the site). The site has a total area of approximately 9,519 m^2 (0.95 ha). The site location plan is shown in **Figure 1** attached.

LG understands that a development application (DA) has been submitted to NSW Department of Planning, Industry, and Environment (DPIE) comprising the demolition and alteration of existing structures and addition of new structures with 2 basement levels.

The Section 10.7 Certificate for the site obtained from Sutherland Shire Council (Council) indicates that the site is zoned SP1 Special Activities (Health Services Facility). A copy of the certificate is presented in **Appendix A**.

The DESI was undertaken with respect to the staged investigation approach outlined in *State Environmental Planning Policy No. 55 - Remediation of Land* (SEPP 55 - Ref 1) and the National Environment Protection Council (NEPC) *National Environment Protection (Assessment of Site Contamination) Measure 1999* (amended 2013) (NEPC, 2013 - Ref 2).

This report was prepared in general accordance the NSW Office of Environment and Heritage (OEH) *"Guidelines for Consultants Reporting on Contaminated Sites"* (2011).

2.2 Objectives

The specific objectives of the DESI were to:

- Provide an assessment of potential soil contamination resulting from onsite or offsite sources, during past or present activities;
- Assess the site suitability for Commercial/Industrial land use; and
- Assess the need for further investigations and/or remedial action, if any.

2.3 Scope of Works

The following works were undertaken to meet the objective described above:

- Completed searches and review of historical information relating to the site from the following sources:
  - Current certificate of title;
  - Historical certificate of title;
  - Local Council records, including current planning and/or zoning certificates, previous land uses;
  - NSW OEH administered environment management and contaminated land registers;
  - Heritage Council of NSW online database of items of heritage significance;
  - Available historical aerial photographs;
  - Registered groundwater bore database for groundwater bores in the vicinity of the site; and
  - Available geological and hydrogeological information.
- Prepared a sampling and analytical plan outlining the sampling and assessment strategy for the DESI;
- Conducted dial before you dig search to assess for the presence of underground services and pipework;
- Undertook soil field investigations which included the following works:
  - Given that the site covers an area of approximately 9,519 m^2 (0.95 ha), a total of 21 soil sampling locations were investigated in accordance with the Minimum Sampling Points Required for Site Characterisation, published under the NSW EPA (1995) *"Sampling Design Guidelines"*. These were placed in a triangular grid pattern across the site with allowance for structural obstacles (e.g. existing buildings);

- Sampling of 21 boreholes systematically located across the site, using drilling machine (19 boreholes) and hand auger (3 boreholes);
- Collection of representative samples of fill materials (i.e. 0.0 to 0.3 m bgs) and natural soils (i.e. 0.5 m bgs) at each borehole location and/or at changes in lithology or where visual and/or olfactory indicators of contamination were observed;
- Completion of detailed environmental logging of each borehole for evidence of contamination (e.g. by reference to staining, odour, presence of materials of anthropogenic materials), fill materials and soil properties;
- Submission of 10 samples (including 1 replicate) of fill materials to a National Association of Testing Authorities (NATA) accredited laboratory for variable analysis for the following suite of analytes:
    - Total Recoverable Hydrocarbons (TRHs);
    - Benzene, Toluene, Ethylbenzene and Xylene (BTEX);
    - Polycyclic Aromatic Hydrocarbons (PAHs);
    - Organochlorine Pesticides (OCPs);
    - Organophosphate Pesticides (OPPs);
    - Polychlorinated Biphenyls (PCBs);
    - Heavy metals (arsenic, cadmium, copper, chromium, lead, nickel, mercury and zinc); and
    - Asbestos identification.
- Submission of 6 samples of fill materials to a NATA accredited laboratory for variable analysis for the following suite of analytes:
    - TRHs;
    - BTEX;
    - PAHs;
    - Heavy metals (arsenic, cadmium, copper, chromium, lead, nickel, mercury and zinc); and

    - Asbestos identification.

- Submission of 6 samples of fill materials to a NATA accredited laboratory for variable analysis for the following suite of analytes:
    - TRHs;
    - BTEX;
    - Heavy metals (arsenic, cadmium, copper, chromium, lead, nickel, mercury and zinc); and
    - Asbestos identification.

- Prepared and submitted this DESI report including the following:
    - Desk study findings and findings of the subsurface investigation including, an outline of fieldwork undertaken, site conditions encountered, field observations, environmental and borehole logs.
    - A conceptual site model, data quality objectives, investigation methodologies and analytical laboratory results.
    - A general evaluation of the feasibility of the proposed development based on the potential environmental constraints identified.
    - Recommendations of the management options and/or remediation actions required to address the contamination impacts identified (if any).

2. Site Conditions and Local Environment

2.1 Site Identification

The site is located in Kirrawee, NSW, approximately 28 km southwest of the Sydney central business district (CBD). The site layout is presented in **Figure 2**. Details relating to the site are presented in **Table 1**.

Table 1 – Site Identification

Site Details	Description
Address	369-381 President Avenue, Kirrawee, NSW, 2232
Lot/DP	Lot 1 in DP 841502, Lots 53 and 54 in DP 29493, Lots 23 and 24A in DP 26995
Local Government Area	Sutherland Shire Council
Parish and County	Parish of Sutherland, County of Cumberland
Site Area	Approximately 9,519 m^2
Registered Owner	President Private Hospital Pty. Limited
Zoning	SP1 Special Activities (Health Services Facility)
Current Land Use	Private hospital

2.2 Site Description

A site inspection was completed by LG on 9 June 2020 and the observations are detailed in **Table 2**. **Figure 2** shows an approximate layout of the site.

Table 2 – Site Description

Category	Observation
Weather Condition	Sunny, approximately 20^0C
Current Use	The site (Lot 1 in DP 841502, Lots 23 and 24A in DP 26995, and Lots 53 and 54 in DP 29493) comprised of a semi-L shaped block covering a total area of approximately 9,519 m^2 and was bound by Bidurgal Avenue to the north, Hotham Road to the east, a surface water easement and President Avenue to the south and residential properties to the west.

Site Features	At the time of inspection, the following site features were observed and noted: ▪ The site could be accessed through three (3) street fronts, including President Avenue to the south west, Hotham Road to the north east and to the south east. ▪ The surface topography was sloping down from north to south; ▪ The site was occupied in the southern and western portions by private hospital structures and the north eastern and eastern portions by residential dwellings. ▪ Three separate car parking areas were observed in the south western, south eastern and northern portion of the site. ▪ No signs of oil spill or stains were noted on floor surfaces; ▪ There were no active pipelines; ▪ There were no above ground tanks (ASTs) or visible evidence of underground storage tanks (USTs) or systems which should cause air emissions such as laboratories, incinerators, surface impoundment and land treatment areas; and ▪ Asbestos containing materials were not observed on the surfaces across the site during the inspection.
Surface Covering	The site surface can be summarised as follows: ▪ Approx. 40% was covered with asphalt. ▪ Approx. 30% of the site was covered with grass. ▪ Approx. 30% was covered with concrete and pavement.

2.3 Surrounding Land Use

The surrounding land use is summarised as follows:

- The northern side of the site is bound by Bidurgal Avenue;
- The site is bound to the east by Hotham Road;
- The site is bound to the south by a surface water easement and President Avenue; and
- The western side of the site is bound residential properties beyond.

2.4 Topography

The ground surface at the site slopes from north to south. The ground surface varies in elevations from approximately 67.5 m (Australian Height Datum) AHD in the vicinity of the southern boundary of the site to approximately 75.5 m AHD in the vicinity of the northern boundary of the site, respectively.

2.5 Geology and Hydrogeology

Geological information obtained from the Sydney 1:100,000 Geological Series Sheet 9130 Edition 1, dated 1983, by the Geological Survey of New South Wales, Department of Mineral Resources, indicates the site is located within an area underlain by Hawkesbury Sandstone, denoted as Rh. The Hawkesbury Sandstone is described as "Medium to coarse-grained quartz sandstone, very minor shale and laminate lenses".

Groundwater quality in the regional is known to be generally less than 700 µS/cm and on this basis could be suitable for domestic, agricultural and irrigation uses.

Hydrogeological conditions at the site are likely to be defined by shallow and deeper aquifer systems. The shallow system is likely to be a transient perched aquifer that develops after heavy rainfall and lies on the soil-bedrock contact. The shallow aquifer is thought to exist at a depth of 2 to 2.5 m bgs and is possibly the consequence of the infiltration of rainfall through the subsurface. It is likely that the shallow aquifer is discontinuous and will be favourable in higher permeability areas, such as the area of fill and easements (such as the stormwater easement). The groundwater in this system is unlikely to pose an off-site migration risk due to its transient nature and the most likely contaminant source being from intermittent spills/leaks from near-surface infrastructure.

The deeper system is likely to be a semi-confined aquifer located within the rock fractures and defects within the Hawkesbury Sandstone bedrock. The deeper aquifer is inferred to be located at a depth of 5 to 6 m bgs and would correspond to the regional system present at the site and local area. This system would also correspond to the system that would present the highest off-site migration risk, if any, due to its permanent nature.

2.6 Acid Sulfate Soils

A review of the acid sulfate soil (ASS) risk maps prepared by Department of Land and Water Conservation (1997)[1] for Port Hacking indicates the site is located in an area designated as "No Known Occurrence". Therefore, acid sulfate soils are not known or expected to occur in these areas. This map defines that land management activities are not likely to be affected by acid sulfate soil materials.

No indicators of acid sulfate soils were observed during the site inspection completed on 9 June 2020.

2.7 Registered Bore Search

A review of groundwater bore records available on the NSW Office of Water[2] (NOW) online database was undertaken on 7 June 2020. The search was limited to registered bores located within a radius of approximately 500 m of the site.

The search did not identify the presence of 1 registered bore (GW018433) within a radius of approximately 500 m of the site. A map showing bore search area and drilling logs are included in **Appendix B**.

2.8 Potentially Sensitive Receptors

Identified sensitive receptors of contamination potentially sourced from the site are as follows:

- Shallow groundwater present in the fill materials (if any) and sandy natural soils that may be present on the site and deeper groundwater present in the underlying sandstone bedrock;
- Surrounding industrial and/or commercial land uses and residential dwellings, which include access to soils for construction, gardening or potentially growing vegetables;

[1] Department of Land and Water Conservation, (1997), 1:25,000 Acid Sulfate Soil Risk Map (Series 9129N4, Edition 2).

[2] http://allwaterdata.water.nsw.gov.au/water.stm

- Parks, recreational open space including the parks and playing fields within the vicinity of the site;
- Fauna and flora reserves in the area within the vicinity of the site;
- Onsite workers: Persons who frequently work at or visit the site who may potentially be exposed to contaminated soils and water, particularly in unsealed areas of the site;
- Sub-surface maintenance workers: Persons, such as workers or visitors to the site or surrounding properties who have access to soils or groundwater; and
- Surface water bodies: The nearest surface water body is Denys Creek located approximately 293 m south of the site.

3. Review of Historical Records

3.1 Historical Information Sources

The sources from which historical site information has been obtained are summarised in **Table 3**.

Table 3 – Historical and Background Information Search

Source	Location of Source	Years / Date	Comments
Current and Historical Titles	NSW Land and Property Information Division	Titles searched 7 June 2020	Current and Historical Title Documents are included in **Appendix C.**
Aerial Photographs	NSW Land and Property Information Division	Register searched 7 June 2020 Years 1930, 1955, 1961, 1970, 1978, 1984, 2001, 2014 and 2018	Aerial photographs extracts included in **Appendix D**.
Heritage Significance	http://www.environment.nsw.gov.au/heritage	Register searched 7 June 2020	All relevant notices detailed in **Section 3.4** of this report.
Contaminated Land Register	http://www.epa.nsw.gov.au/prclmapp/searchregister.aspx	Register searched 7 June 2020	All relevant notices detailed in **Section 3.5** of this report.
Planning Certificate	Section 10.7 Certificate at Sutherland Shire Council	Register searched 28 June 2020	All relevant notices detailed in **Section 3.6** of this report.

3.2 Certificate of Title

A historical land titles search was conducted through NSW Land and Property Information Division. Copies of relevant documents resulting from this search are presented in **Appendix C**. The site comprises the historical titles summarised in **Tables 4 to 8**.

Table 4 – Summary of Owners for Lot 1 in DP 841502

Date of Acquisition	Registered Proprietor	Reference to Title at Acquisition and Sale
31/12/1862	Thomas Holt by Crown Grant	Vol 3796 Fol 136
18/02/1943	Thomas Samuel Holt	Vol 5364 Fol 125
20/04/1956	Thomas Allison Holt	Vol 5364 Fol 125
04/02/1955	Arthur John Whitford (Blacksmith)	Vol 6924 Fol 7
20/09/1957	Joseph Horace King (Poultry Farmer)	Vol 7361 Fol 82
23/02/1962	Joseph Horace King (Poultry Farmer)	Vol 8343 Fol 169
21/04/1972	President Pty. Limited.	Vol 11819 Fol 42
15/05/1975	President Pty. Limited.	Vol 12777 Fol 159
09/09/2018	President Private Hospital Pty. Limited	Fol 1/841502 Ed 6

Table 5 – Summary of Owners for Lot 23 in DP 26995

Date of Acquisition	Registered Proprietor	Reference to Title at Acquisition and Sale
31/12/1862	Thomas Holt by Crown Grant	Vol 3796 Fol 136
18/02/1943	Thomas Samuel Holt	Vol 5364 Fol 125
20/04/1956	Thomas Allison Holt	Vol 5364 Fol 125
21/11/1965	Joseph Horace King (Poultry Farmer)	Vol 9293 Fol 232
25/05/1995	President Private Hospital Pty Ltd	Fol 23/26995 Ed 2

Table 6 – Summary of Owners for Lot 24A in DP 26995

Date of Acquisition	Registered Proprietor	Reference to Title at Acquisition and Sale
31/12/1862	Thomas Holt by Crown Grant	Vol 3796 Fol 136
18/02/1943	Thomas Samuel Holt	Vol 5364 Fol 125
20/04/1956	Thomas Allison Holt	Vol 5364 Fol 125
23/02/1962	Joseph Horace King (Poultry Farmer)	Vol 8343 Fol 169
30/12/1975	Chinita King (Widow), John Harvey (Gracier), William Reginal King (Retired)	Vol 12951 Fol 72
25/05/1995	President Private Hospital Pty Ltd	Fol 24A/26995 Ed 1

Table 7 – Summary of Owners for 53 in DP 29493

Date of Acquisition	Registered Proprietor	Reference to Title at Acquisition and Sale
31/12/1862	Thomas Holt by Crown Grant	Vol 3796 Fol 136
18/02/1943	Thomas Samuel Holt	Vol 5364 Fol 125
20/04/1956	Thomas Allison Holt	Vol 5364 Fol 125
15/12/1959	Baden Powell Hawkins (Clerk) and Joy Devey Hawkins (His Wife)	Vol 7782 Fol 237
11/08/1967	Joy Devey Hawkins	Vol 7782 Fol 237
24/05/2016	President Private Hospital Pty Limited	Fol 53/29493 Ed 2

Table 8 – Summary of Owners for 54 in DP 29493

Date of Acquisition	Registered Proprietor	Reference to Title at Acquisition and Sale
31/12/1862	Thomas Holt by Crown Grant	Vol 3796 Fol 136
18/02/1943	Thomas Samuel Holt	Vol 5364 Fol 125
20/04/1956	Thomas Allison Holt	Vol 5364 Fol 125
15/12/1959	Baden Powell Hawkins (Clerk) and Joy Devey Hawkins (His Wife)	Vol 7816 Fol 182
11/08/1967	Joy Devey Hawkins	Vol 7816 Fol 182
13/06/1989	President Pty. Limited	Fol 54/29493 Ed 1

3.3 Historical Aerial Photographs

Aerial photographs of the site for the years 1930, 1955, 1961, 1970, 1978, 1984, 2001, 2014 and 2018 were sourced from NSW Land and Property Information Division. An interpretation of the photographs is provided in **Table 9** below. Aerial photograph extract images are presented in **Appendix D**.

Table 9 – Summary of Historical Aerial Photographs

Aerial Photograph	Description of Site and Surrounding Area
1930 Black and white	The 1930 photograph indicates that the site appeared to be already used potentially as market garden land occupied by a main residential building at the eastern portion of the site, farm sheds in the northern and central portion of the site. A surface water channel was observed running along the south western portion of the site. Surrounding Land Use: Agricultural parcels were appeared to the east, south and west of the site. Residential structures of note were present to the north, east and west of the site. Several main roads were observed, including what is now President Avenue and Hotham Road.
1955 Black and white	No significant changes were observed since the 1930 photograph. Surrounding Land Use: Several new residential developments were observed on the lands to the east and south of the site since the 1978 photograph.

1961 Black and white	The 1961 photograph shows new lot subdivisions and that new residential buildings were constructed within the north western and south western portion of the site. No other significant changes were observed since the 1955 photograph. Surrounding Land Use: Several main roads were observed around the local area, including what are now Bidurgal Avenue and Corella Road. The agricultural parcels to the north and west in the 1930 and 1955 photographs appeared to have been sub divided, developed and occupied by new residential buildings. The properties to the east and south appeared to be further developed since the 1955 photograph.
1970 Black and white	The 1970 photograph shows further new lot subdivisions and that new residential buildings were constructed within the north eastern portion of the site. The shed in the central portion of the site appeared to be in demolition process since the 1961 photograph. Surrounding Land Use: The agricultural parcels to the north west appeared to have been further sub divided, developed and occupied by new residential buildings since the 1961 photograph.
1978 Black and white	A new hospital building and car parking area appeared to have been constructed within the southern portion of the site since the 1970 photograph. Surrounding Land Use: No significant changes were observed since the 1970 photograph.
1984 Colour	The hospital building appeared to have been extended to the west within the north western portion of the site since the 1978 photograph. Surrounding Land Use: No significant changes were observed since the 1978 photograph.
1984 Colour	The hospital building appeared to have been extended to the north west within the north western portion of the site since the 1978 photograph. Surrounding Land Use: No significant changes were observed since the 1978 photograph.
2001 Colour	The hospital building appeared to have been extended further to the west within the western portion of the site since the 1984 photograph. Surrounding Land Use: No significant changes were observed since the 1984 photograph.
2014 Colour	No significant changes were observed since the 2001 photograph. Surrounding Land Use: No significant changes were observed since the 2001 photograph.
2018 Colour	No significant changes were observed since the 2014 photograph. Surrounding Land Use: No significant changes were observed since the 2014 photograph.

3.4 Heritage Significance

Information relating to the site was accessed online at the Heritage Council of NSW webpage on 7 June 2020. The site is not listed as being of significance.

3.5 Contaminated Land Record

Search of the NSW EPA's public register under the Protection of the Environment Operations Act 1997 (POEO Act) was under taken (**Appendix E**). The search for the site identified there were:

- No prevention, clean-up or prohibition notices; and
- No transfer, variation, suspension, surrender or revocation of an environmental protection licence, with the exception of Environmental Protection Licence (EPL) 6880 for the generation and storage of Group A, hazardous and industrial wastes. EPL 6880 is **no longer in force** and was discontinued in November 2009.

A search was also conducted through the EPA's public contaminated land register (**Appendix E**). The search did not identify any current or previous records of notices by the EPA, or notification to the EPA under Section 60 of the Contaminated Land Management Act 1997 (CLM Act.), in relation to the site or immediately surrounding land.

3.6 Planning Certificate

A Section 10.7 Certificate for the site was obtained from Council on 28 June 2020. The certificate is presented in **Appendix A**. The Section 10.7 Certificate No. ePC:20/3018, which is applicable to Lot 1 in DP 841502, indicate that there are no matters arising under Section 59(2) of the *Contaminated Land Management Act 1997* (Act), as follows:

- The land **is NOT** significantly contaminated land (or part of the land) within the meaning of the Act at the date when the certificates were issued.
- The land **is NOT** the subject to a management order within the meaning of the Act at the date when the certificates were issued.
- The land **is NOT** the subject of an approval voluntary management proposal within the meaning of the Act at the date when the certificates were issued.
- The land **is NOT** the subject of an ongoing maintenance order within the meaning of the Act at the date when the certificates were issued.
- The land **is NOT** the subject of a site audit statement within the meaning of the Act at the date when the certificates were issued.

4. Sampling and Analysis Methodology

4.1 Sampling Plan

The rationale to the sampling plan adopted for the DESI was to:

- The site covers an area of approximately 9,519 m^2 (0.95 ha). Therefore, a total of 28 soil sampling locations were investigated in accordance with the Minimum Sampling Points Required for Site Characterisation, published under the NSW EPA (1995) *"Sampling Design Guidelines"*. These were located in a triangular grid pattern across the site with allowance for structural obstacles (e.g. existing residential building and sheds/stables). Soil sampling location are shown in **Figure 3**;
- Provide adequate coverage of the potential soil contamination (including hydrocarbons, pesticides, heavy metals and asbestos) with respect to past and present potentially contaminating activities at the site;
- Ensure that an appropriate depth was achieved for effective characterisation of vertical extent of fill materials and natural soils; and
- Ensure that minimal disturbance of soil samples was achieved which may have caused loss of volatile compounds.

4.2 Soil Investigation Methodology

The soil investigation program, conducted on 9 June 2020, was undertaken by field personnel that are trained and experienced in collecting environmental samples. The soil sampling methods used in the assessment program followed the procedures set out below and were conducted with reference to the relevant guidelines endorsed by NSW EPA. The sampling methodology adopted for the soil investigations conducted is detailed in **Table 10**.

Table 10 – Soil Investigation Methodology

Protocol	Description
Service Location	A dial before you dig search was conducted to determine the presence of services at the site.
Drilling	A Dando Terrier rig with push tube and auguring capabilities, operated by BG Drilling Pty Ltd was used to drill through the fill materials and natural soils at 18 locations (BH1-BH17 and BH20) and hand auger at 3 locations (BH18, BH19 and BH21) with limited access, to a maximum depth of 1.0 m bgs, targeting a depth of at least 0.5 m below natural

Protocol	Description
	soils. A push tube was used to drill through the fill materials and natural soils to sample with minimal disturbance at 18 locations (BH1-BH17 and BH20). Hand auger samples were collected from the auger with minimal disturbance at 3 locations(BH18, BH19 and BH21).
Field Logging	Logging of the boreholes was conducted in general accordance with the Unified Soil Classification System. The soil cores obtained from gouge auger methods were logged and the following information was recorded in the field: soil type, colour, grain size, grading, inclusions, moisture conditions, staining and observation of any anthropogenic material (i.e., odours, waste materials). Descriptions were recorded on LG's standard electronic field logs for uniformity in descriptions, presentation and to aid in any future interpretations.
Sampling Intervals	Samples were generally collected from each borehole from the surface between 0.0 – 0.3 m, at 0.5 m bgs, or at changes in stratigraphy, until a nominated depth of 1.0 m bgs was achieved.
Soil Sampling	Samples of the fill materials and natural soils, obtained in disposable polyethelene push tube liners, were collected from the centre of the push tube liner by hand protected by a nitrile glove. New nitrile gloves were used for the collection of each sample. Soil samples were collected in 125 mL jars supplied by the laboratory.
Sample Labelling, Storage and Transport	All samples were clearly labelled with unique sample identification numbers consisting of the date, sample location, depth of sample and sampler's initials. All samples were kept chilled in an ice-filled esky prior to dispatch and during transport to the NATA registered laboratory under chain-of-custody procedures. By prior arrangement with the laboratories, samples were analysed as soon as practicable after receipt.
Borehole Reinstatement	After the drilling and soil sampling activities, the remainder of the soil cuttings were backfilled into each respective borehole in reverse order (i.e. final materials removed were the first to be re-instated into borehole).
Decontamination	Single-use polyethylene push tubes were used when each borehole was advanced and a clean pair of disposable gloves was worn to collect each sample. During drilling, the push tube cutting shoe and the solid flight augers and the coring equipment were re-used. The cutting shoe was decontaminated by hand between each borehole location by scrubbing with an aqueous solution of Decon 90 followed by a rinse in potable water. The hand augers was sprayed with an aqueous solution of Decon 90 followed by a rinse in potable water.

4.3 Analytical Plan

The following sample analysis schedule was adopted for the DESI:

- Submission of 10 samples (including 1 replicate sample) of fill materials to a NATA accredited laboratory for variable analysis for the following suite of analytes:
  - TPHs;
  - BTEX;
  - PAHs;
  - OCPs;
  - OPPs;
  - PCBs;
  - Heavy metals (arsenic, cadmium, copper, chromium, lead, nickel, mercury and zinc); and
  - Asbestos identification.
- Submission of 6 samples of fill materials to a NATA accredited laboratory for variable analysis for the following suite of analytes:
  - TRHs;
  - BTEX;
  - PAHs;
  - Heavy metals (arsenic, cadmium, copper, chromium, lead, nickel, mercury and zinc); and
  - Asbestos identification.
- Submission of 6 samples of natural soils to a NATA accredited laboratory for variable analysis for the following suite of analytes:
  - TRHs;
  - BTEX;

- Heavy metals (arsenic, cadmium, copper, chromium, lead, nickel, mercury and zinc); and
- Asbestos identification.

All samples were submitted to SGS Laboratory (SGS) located at Alexandria, Sydney. SGS is a NATA registered laboratory for the analysis required.

5. Site Assessment Criteria

5.1 Soil Assessment Guidelines

The current assessment criteria used in NSW to assess soil and groundwater quality are based on the following guidelines:

- NEPM (2013) Schedule B(1) *Guideline on Investigation Levels for Soil and Groundwater, National Environment Protection (Assessment of Site Contamination) Measure 1999 – Amendment 2013*, National Environment Protection Council (NEPC), May 2013;
- NSW DECC (2009) *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997*;
- NSW EPA (1995) *Sampling Design Guidelines*; and
- NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3rd Edition)*.

Application of these guidelines to this DESI report is briefly described below.

5.2 Soil Assessment Criteria

The guidelines to evaluate soil analytical results currently applied in NSW, as listed above, presents a range of Health-Based Soil Investigation Levels (HILs), Provisional Phytotoxicity-Based Investigation Levels (PILs), Ecological Investigation Levels (EILs), sensitive land use thresholds and expected background concentration ranges for urban redevelopment sites in NSW. Application of these guidelines are briefly described below.

HILs

The HILs described by NEPC (2013) guidelines are based on the *Australian exposure factor guidance* (enHealth 2012). HILs are scientifically based, generic assessment criteria designed to be used in the first stage (Tier 1 or 'screening') of an assessment of potential risks to human health from chronic exposure to contaminants. They are intentionally conservative and are based on a reasonable worst-case scenario for four generic land use settings:

- HIL A - residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake, (no poultry), also includes children's day care centres, preschools and primary schools;

- HIL B - residential with minimal opportunities for soil access includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats;
- HIL C - public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. It does not include undeveloped public open space (such as urban bushland and reserves) which should be subject to a site-specific assessment where appropriate; and
- HIL D - commercial/industrial such as shops, offices, factories and industrial sites.

SILs specifically for the lower volatility aliphatic and aromatic petroleum hydrocarbon components are also provided in NEPC (2013) for the various land use scenarios described above.

The NSW EPA endorsed contaminated site assessment process also stipulates that the impact of contaminants on ground and surface water, potential degradation of building structures and affects of chemical mixtures need to be considered.

PILs & EILs

The PILs (NSW DEC, 2006) and EILs (NEPC, 2013) have been devised for the protection of plant health, and are designed to be applied as single number criteria indicative of environmental effect. The PILs have been developed for application to sandy loam soils with a pH of 6 to 8. As such, their use has significant limitations since phytotoxicity depends on soil and species parameters in ways that are not fully understood and they are intended for use as a screening guide only. The NSW EPA decision process for assessing urban redevelopment sites stipulates that the PILs need to be considered on sites used for either residential purposes, or land uses including parks, recreational open space and secondary schools. PILs are not required to be adopted on land used for commercial/industrial purposes.

5.2.1 Adopted Soil Assessment Criteria

Given that the site is intended to be used for residential purposes, and in accordance with the decision process for assessment of urban redevelopment sites (EPA 2017), concentrations of contaminants in soils across the site were compared against the published investigation levels sourced from the following:

- NEPM (2013) Health-based Investigation Levels for Commercial/Industrial land use (HIL-D);
- NEPM (2013) Health-based Screening Levels (HSLs) for soil vapour intrusion in sandy soils for Commercial/Industrial land use (HSL-D); and
- NEPM (2013) Ecological Screening/Investigation Levels for Commercial/Industrial land use (ESL/EIL).

5.3 Aesthetic Criteria

Consistent with NSW EPA (2017), aesthetic issues were required to be considered for commercial land use scenarios. Also, the 2013 NEPM 'Schedule B(1) Guideline on the Investigation Levels for Soil and Groundwater' advises that:

'There are no numeric Aesthetic Guidelines but the fundamental principle is that the soils should not be discoloured, malodorous (including when dug over or wet) nor of abnormal consistency. The natural state of the soil should be considered.'

Discoloured soils are not considered by the NSW EPA as a quality of the environment that needs to be protected on a residential site. Given these NEPM and NSW EPA requirements, the aesthetic criteria of relevance to the site in its present condition are considered to be:

- No malodorous materials exposed at ground surface;
- No malodorous gases emanating from the ground; and
- No floating product to remain on groundwater at the site.

5.4 Structural Guidelines

The 2013 NEPM *'Schedule B(1) Guideline on the Investigation Levels for Soil and Groundwater'* advises that:

'For some substances such as phenol and sulphates, their impact on structures (effect on PVC piping and cement, respectively) may override the health and environmental considerations. Guidelines for protection of structures in the built environment should be set for a small number of contaminants where there is a concern. A structural guideline of 2000 mg/kg is set for sulphate in soil'

The available information indicates there should be a low risk of significant structural issues for the site as a result of possible contaminants in the ground.

6. Results

6.1 Sub-Surface Conditions

Description and classification of soils encountered during site investigation are summarised below:

- **Fill**: Fill consisting of sandy CLAY and silty SAND, light to dark grey/brown, well graded, loose, moist, encountered at depths ranging from 0.2 m to 0.3 m; and
- **Sandy Clay**: Light to dark orange, non-plastic to moderate plasticity, stiff, moist, encountered at depths ranging from 0.3 m to 1.0 m.

6.2 Soil Analytical Results

On 9 June 2020, a total of 21 samples (BH1/0.1-0.3, BH2/0.1-0.3, BH3/0.1-0.3, BH4/0.1-0.3, BH5/0.1-0.3, BH6/0.1-0.3, BH7/0.1-0.3, BH8/0.1-0.3, BH9/0.1-0.3, BH10/0.1-0.3, BH11/0.1-0.3, BH12/0.1-0.3, BH13/0.1-0.3, BH14/0.1-0.3, BH15/0.1-0.3, BH16/0.1-0.3, BH17/0.1-0.3, BH18/0.1-0.3, BH19/0.1-0.3, BH20/0.1-0.3, and BH21/0.1-0.3) were collected from across the site and submitted for laboratory analysis. Borehole and soil sample locations are shown in **Figure 3**, and soil analytical results are summarised in **Table A** attached.

Chain of Custody (COC) documentation and certified laboratory reports are included in **Appendix F**.

The laboratory analytical results indicated that:

- Concentrations of petroleum hydrocarbons (TRH and BTEX) were either below the below the Estimated Quantitation Limit (EQL), HIL D and EIL D criteria in the soil samples analysed.
- Concentrations of heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc) were below the HIL D and EIL D criteria in all soil samples analysed.
- Concentrations of OCPs, OPPs and PCBs were either below the below laboratory EQL, HIL D and EIL D criteria in all soil samples analysed.
- Asbestos containing materials were detected above the HIL D in the following samples:
  - Chrysotile cement sheet fragments (approx. 5x3x2mm) in soil sample BH3/0.1-0.3, collected within the fill material at Borehole 3; and

- Chrysotile cement sheet fragments (approx. 12x10x4mm) in soil sample BH13/0.1-0.3, collected within the fill material at Borehole 13.

The above samples can be referred as ACMs.

7. Conclusions and Recommendations

7.1 Conclusions

Based on the findings of this DESI the following conclusions are provided:

- Prior to the current layout the site appeared to have comprised mainly crown land between 1860's and 1910's and agricultural garden markets between 1910's and 1950's. Residential structures are likely to have occupied the site since sometime between 1910's and 1960's. The main hospital structures are likely to have been constructed between 1970's and 1980's. Therefore, it is estimated that the site has been in its current hospital configurations for nearly 50 years. No significant changes were observed on the site during this period;

- Laboratory analytical results indicated that the fill materials and natural soils sampled from within the footprint of the proposed development area and analysed did not contain concentrations of TRHs, BTEX, PAHs, OCPs, OPPs, PCBs, heavy metals and asbestos that were greater than the HIL A and EIL A land use criteria (Residential A), at the time tested.

- Asbestos fibres were detected above the HIL D in the following samples:

  - Chrysotile cement sheet fragments (approx. 5x3x2mm) in soil sample BH3/0.1-0.3, collected within the fill material at Borehole 3; and

  - Chrysotile cement sheet fragments (approx. 12x10x4mm) in soil sample BH13/0.1-0.3, collected within the fill material at Borehole 13.

  Therefore, these can be referred as asbestos containing materials (ACMs).

- Based on the above findings the site subject to this DESI is likely to be suitable for the proposed land use, consistent with an SP1 Special Activities (Health Services Facility) zoning, provided the asbestos impacted soils identified are remediated in-situ or classified, removed and disposed offsite to a licensed facility, and the remaining excavation/voids are validated, accordingly.

7.2 Recommendations

Based on the conclusions above the following recommendations are provided:

- Remediation and validation works be undertaken, in order to safely remove asbestos hotspots and demonstrate that the remaining excavations and excavated soils meet NSW EPA requirements for the proposed land use.

These conclusions and recommendations are made within the limitations of the work, which has been undertaken. A statement of these limitations is included in **Section 9** of this report.

8. References

Australian and New Zealand Environment Conservation Council and National Health and Medical Research Centre (ANZECC & NHMRC) 1992. *Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites* January 1992.

Australian and New Zealand Environment Conservation Council and Agriculture Resource Management Council of Australia and New Zealand (ANZECC/ARMCANZ) 2000. *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, October 2000.

Department of Mineral Resources (DMR). 1980. A Guide to the Sydney Basin. *Ed* Chris Herbert and Robin Helby.

Department of Mineral Resources (DMR). 1991. *Sydney 1:100,000 Geological Series Sheet 9130*. DMR, Geological Survey of NSW.

Heritage Council of NSW http://www.environment.nsw.gov.au/heritage. Accessed 7 June 2020.

Land and Property Information NSW (LPI) (2001) *Sydney 1:100 000 Topographic Sheet 9130*, 2001.

Land and Property Management Authority (LPMA) Spatial Information Exchange (SIX) https://six.lands.nsw.gov.au. Accessed 7 June 2020.

List of Contaminated Sites Notified by NSW EPA http://www.epa.nsw.gov.au/prclmapp/searchregister.aspx. Accessed 7 June 2020.

NEPC, 2013. *National Environment Protection (Assessment of Site Contamination) Measure(NEPM) – Schedule B*. National Environment Protection Council.

NSW DECC, 2009. *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act*. NSW Department of Environment and Climate Change.

NSW EPA, 1995. *Contaminated Sites: Sampling Design Guidelines*. NSW Environment Protection Authority.

NSW EPA, 2017. *Guidelines for the NSW Site Auditor Scheme (3rd Edition)*.

NSW OEH, 2011. *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*. NSW Office of Environment and Heritage.

9. Limitation Statement

This DESI report has been prepared for the sole purpose of providing further assessment of the condition of soil at the site in accordance with generally accepted consulting practice. No other warranty or guarantee, expressed or implied is made as to the advice indicated in this report.

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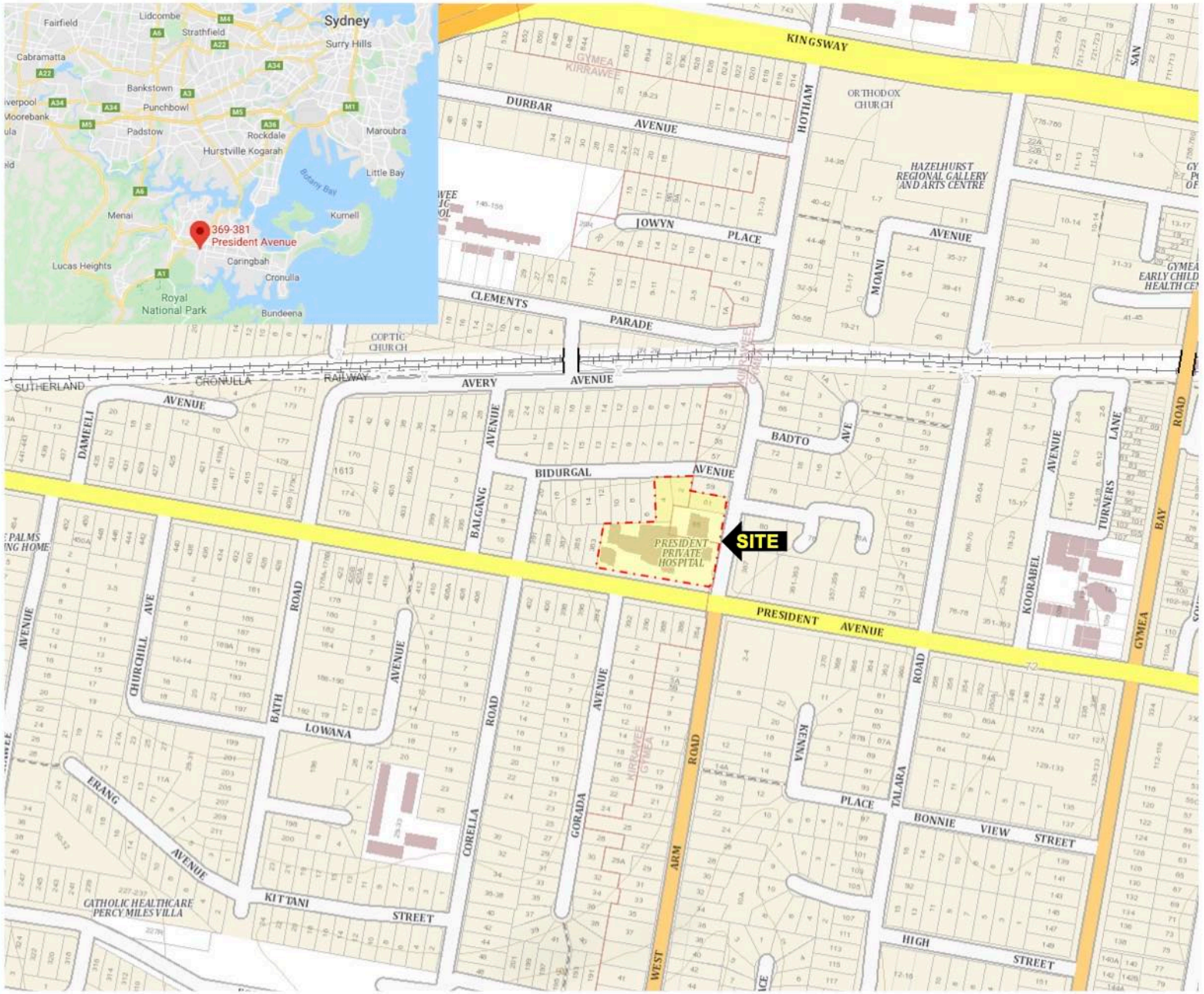
Figures



SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Images courtesy of Google Maps & SIX Maps

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Site Location Plan**

FIGURE: **1**

A4

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Site Layout**

FIGURE: **2** A4

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

- Site Boundary
- BH1 Borehole Location
- PAC1 Asbestos Containing Material (ACM) Location

Photograph courtesy of SSC Maps & NSW Land and Property Information

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Soil Sampling Locations**

FIGURE: **3** A4

Tables

Table A - Soil Analytical Results

Laboratory ID							SE207286.001	SE207286.002	SE207286.003	SE207286.004	SE207286.022	SE207286.005	SE207286.006	SE207286.007	SE207286.008	SE207286.009	SE207286.010	SE207286.011	SE207286.012	SE207286.013	SE207286.014	SE207286.015	SE207286.016	SE207286.017
Sample ID							BH1/0.1-0.3	BH2/0.1-0.3	BH3/0.1-0.3	BH4/0.1-0.3	QC1	BH5/0.1-0.3	BH6/0.1-0.3	BH7/0.1-0.3	BH8/0.1-0.3	BH9/0.1-0.3	BH10/0.1-0.3	BH11/0.1-0.3	BH12/0.1-0.3	BH13/0.1-0.3	BH14/0.1-0.3	BH15/0.1-0.3	BH16/0.1-0.3	BH17/0.1-0.3
Depth (m)							0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	Duplicate of BH4/0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3
Soil Type							Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay		Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Silty Sand
Date Sampled							9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20	9/6/20
Compounds	Unit	EQL	General Solid Waste: Contaminant Threshold Without Leaching (TCLP) CT1 (mg/kg)	General Solid Waste: Leachable Concentration TCLP1 (mg/L)	General Solid Waste: Specific Contaminant Concentration SCC1 (mg/kg)	NEPM 2013: Commercial and Industrial HIL D [1]	NEPM 2013: Commercial and Industrial EIL [2]																	
TRHs																								
TRH C6-C9	mg/kg	20	N/A	N/A	650	-	-	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	-	-	-	-	-	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH C6-C10 less BTEX (F1)	mg/kg	25	-	-	-	260 [3]	215	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH C10-C14	mg/kg	20	-	-	-	-	-	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	-	-	-	-	-	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	-	-	-	-	-	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	-	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	-	-	-	-	-	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH >C10-C16 less Naphthalene (F2)	mg/kg	25	-	-	-	-	170	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	-	-	-	-	1700	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	-	-	-	-	3300	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120
TRH >C10-C36	mg/kg	110	N/A	N/A	10,000	-	-	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110
TRH >C10-C40	mg/kg	210	-	-	-	-	-	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
BTEX																								
Benzene	mg/kg	0.1	10	0.5	18	3 [3]	75	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	600	30	1,080	-	165	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	288	-	-	-	135	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (m & p)	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Xylene (o)	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene Total	mg/kg	0.3	1,000	50	1800	230 [3]	180	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
PAHs																								
Naphthalene	mg/kg	0.1	-	-	-	-	370	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	0.8	0.04	10	-	0.7	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs (as BaP TEQ)-assume results <LOR=0	TEQ	0.2	-	-	-	40	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs (as BaP TEQ)-assume results <LOR=LOR	TEQ (mg/kg)	0.3	-	-	-	40	-	NA	NA	NA	<0.3	<0.3	<0.3	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs (as BaP TEQ)-assume results <LOR=LOR/2	TEQ (mg/kg)	0.2	-	-	-	40	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
PAHs (Sum of total)	mg/kg	1	N/A	N/A	200	4,000	-	NA	NA	NA	<0.8	<0.8	<0.8	NA	NA	NA	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
OCPs																								
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	80	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	-	-	-	50	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	-	-	-	45	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.1	-	-	-	45	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	-	-	-	2000	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Beta Endosulfan	mg/kg	0.1	-	-	-	2000	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	-	-	-	2000	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Gamma Chlordane	mg/kg	0.1	-	-	-	530	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	-	-	-	530	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
p,p'-DDT	mg/kg	0.2	-	-	-			NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
p,p'-DDE	mg/kg	0.1	-	-	-	3600	640	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
p,p'-DDD	mg/kg	0.1	-	-	-			NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.2	-	-	-			NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
o,p'-DDE	mg/kg	0.1	-	-	-	3600	640	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
o,p'-DDD	mg/kg	0.1	-	-	-			NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Endrin	mg/kg	0.1	-	-	-	100	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	-	-	-	2500	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	-	-	-	-	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	-	-	-	100	-	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	<0.1	<0.1	NA	<0.1	<0.1	<0.1
OPPs																								
Dichlorvos	mg/kg	0.5	-	-	-	-	-	NA	NA	NA	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	<0.5	<0.5	NA	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	-	-	-	-	-	NA	NA	NA	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	<0.5	<0.5	NA	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	-	-	-	-	-	NA	NA	NA	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	<0.5	<0.5	NA	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	-	-	-	2000	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	-	-	-	-	-	NA	NA	NA	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	<0.5	<0.5	NA	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
PCBs																								
Arochlor 1016	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	-	-	-	-	-	NA	NA	NA	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	N/A	N/A	<50	7	-	NA	NA	NA	<1	<1	<1	NA	NA	NA	NA	NA	<1	<1	NA	<1	<1	<1
Metals																								
Arsenic	mg/kg	3	100	5	500	3000	160	1	2	6	3	2	5	4	2	2	3	3	2	2	10	4	4	3	4
Cadmium	mg/kg	0.3	20	1	100	900	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	mg/kg	0.3	-	-	-	3600	530	5.2	6.9	11	12	11	10	12	12	31	8.8	6.9	12	10	7.8	26	14	13	21
Copper	mg/kg	0.5	-	-	-	240000	400	3.8	38	10	7.4	0.7	12	12	3.3	3.7	6.7	9.9	<0.5	<0.5	35	7.8	2	5.7	3.4
Lead	mg/kg	1	100	5	1,500	1500	1800	25	20	40	17	4	36	20	75	8	18	55	13	6	22	25	11	48	22
Mercury	mg/kg	0.01	4	0.2	50	730	-	<0.05	<0.05	0.07	0.07	<0.05	0.06	0.05	<0.05	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	mg/kg	0.5	40	2	1,050	6000	600	1.7	66	4.8	3.6	0.7	5.7	15	5.4	6.6	3.2	1.7	0.6	0.8	1.5	3.4	1	2.5	1.5
Zinc	mg/kg	0.5	-	-	-	400000	1400	19	45	80	31	17	86	44	42	20	43	140	12	18	140	97	13	37	55
Asbestos																								
Asbestos Detected - Fibre Identification in soil	No unit	0.01	No Detected	-	-	No Detected	-	No	No	Yes	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No
Estimated Fibres - Fibre Identification in soil	%w/w	0.01	-	-	-	0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	>0.01	<0.01	<0.01	<0.01	<0.01

NOTES:
All concentrations are in mg/kg
(1) - Table 1A(1), HIL Column 3 - Health Based Investigation Levels for Commercial/Industrial for Soil Access - NEHF D (NEPC, 2013)
(2) - Table 1A(3), HSL D Column 3 (Sand 0 m to <1 m) - Soil HSLs for Vapour Intrusion for Commercial/Industrial - NEHF D (NEPC, 2013)
(3) - Tables 1B(1), 1B(2), 1B(3), 1B(4), 1B(5) and 1B(6), EILs and ESLs - Commercial/Industrial (NEPC, 2013)
EQL - laboratory Estimated Quantitation Limit
"-" indicates that the criteria is not applicable for these analytes
< Value = Concentration less than laboratory EQL
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Table A - Soil Analytical Results

Laboratory ID							SE207286.018	SE207286.019	SE207286.020	SE207286.021
Sample ID							BH18/0.1-0.3	BH19/0.1-0.3	BH20/0.1-0.3	BH21/0.1-0.3
Depth (m)							0.1-0.3	0.1-0.3	0.1-0.3	0.1-0.3
Soil Type							Fill: Silty Sand	Fill: Sandy Clay	Fill: Sandy Clay	Fill: Sandy Clay
Date Sampled							9/6/20	9/6/20	9/6/20	9/6/20
			General Solid Waste			NEPM 2013				
Compounds	Unit	EQL	Contaminant Threshold Without Leaching (TCLP) CT1 (mg/kg)	Leachable Concentration TCLP1 (mg/L)	Specific Contaminant Concentration SCC1 (mg/kg)	Commercial and Industrial HIL D [1]	Commercial and Industrial EIL [2]				
TRHs										
TRH C6-C9	mg/kg	20	N/A	N/A	650	-	-	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	-	-	-	-	-	<25	<25	<25	<25
TRH C6-C10 less BTEX (F1)	mg/kg	25	-	-	-	260 [3]	215	<25	<25	<25	<25
TRH C10-C14	mg/kg	20	-	-	-	-	-	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	-	-	-	-	-	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	-	-	-	-	-	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	-	-	-	-	-	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	-	-	-	-	-	<25	<25	<25	<25
TRH >C10-C16 less Naphthalene (F2)	mg/kg	25	-	-	-	-	170	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	-	-	-	-	1700	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	-	-	-	-	3300	<120	<120	<120	<120
TRH >C10-C36	mg/kg	110	N/A	N/A	10,000	-	-	<110	<110	<110	<110
TRH >C10-C40	mg/kg	210	-	-	-	-	-	<210	<210	<210	<210
BTEX										
Benzene	mg/kg	0.1	10	0.5	18	3 [3]	75	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	600	30	1,080	-	165	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	288	-	-	-	135	<0.1	<0.1	<0.1	<0.1
Xylene (m & p)	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2
Xylene (o)	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Xylene Total	mg/kg	0.3	1,000	50	1800	230 [3]	180	<0.3	<0.3	<0.3	<0.3
PAHs										
Naphthalene	mg/kg	0.1	-	-	-	-	370	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	0.8	0.04	10	-	0.7	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs (as BaP TEQ)-assume results <LOR=0	TEQ	0.2	-	-	-	40	-	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs (as BaP TEQ)-assume results <LOR=LOR	TEQ (mg/kg)	0.3	-	-	-	40	-	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs (as BaP TEQ)-assume results <LOR=LOR/2	TEQ (mg/kg)	0.2	-	-	-	40	-	<0.2	<0.2	<0.2	<0.2
PAHs (Sum of total)	mg/kg	1	N/A	N/A	200	4,000	-	<0.8	<0.8	<0.8	<0.8
OCPs										
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	80	-	NA	<0.1	NA	NA
Lindane	mg/kg	0.1	-	-	-	-	-	NA	<0.1	NA	NA
Heptachlor	mg/kg	0.1	-	-	-	50	-	NA	<0.1	NA	NA
Aldrin	mg/kg	0.1	-	-	-	45	-	NA	<0.1	NA	NA
Dieldrin	mg/kg	0.1	-	-	-	45	-	NA	<0.1	NA	NA
Alpha BHC	mg/kg	0.1	-	-	-	-	-	NA	<0.1	NA	NA
Beta BHC	mg/kg	0.1	-	-	-	-	-	NA	<0.1	NA	NA
Delta BHC	mg/kg	0.1	-	-	-	-	-	NA	<0.1	NA	NA
Heptachlor epoxide	mg/kg	0.1	-	-	-	-	-	NA	<0.1	NA	NA
Alpha Endosulfan	mg/kg	0.2	-	-	-	2000	-	NA	<0.2	NA	NA
Beta Endosulfan	mg/kg	0.1	-	-	-	2000	-	NA	<0.1	NA	NA
Endosulfan sulphate	mg/kg	0.1	-	-	-	2000	-	NA	<0.1	NA	NA
Gamma Chlordane	mg/kg	0.1	-	-	-	530	-	NA	<0.1	NA	NA
Alpha Chlordane	mg/kg	0.1	-	-	-	530	-	NA	<0.1	NA	NA
trans-Nonachlor	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
p,p'-DDT	mg/kg	0.2	-	-	-			NA	<0.2	NA	NA
o,p'-DDE	mg/kg	0.1	-	-	-	3600	640	NA	<0.1	NA	NA
p,p'-DDD	mg/kg	0.1	-	-	-			NA	<0.1	NA	NA
o,p'-DDT	mg/kg	0.2	-	-	-			NA	<0.2	NA	NA
o,p'-DDE	mg/kg	0.1	-	-	-	3600	640	NA	<0.1	NA	NA
o,p'-DDD	mg/kg	0.1	-	-	-			NA	<0.1	NA	NA
Endrin	mg/kg	0.1	-	-	-	100	-	NA	<0.1	NA	NA
Endrin Aldehyde	mg/kg	0.1	-	-	-	-	-	NA	<0.1	NA	NA
Methoxychlor	mg/kg	0.1	-	-	-	2500	-	NA	<0.1	NA	NA
Endrin Ketone	mg/kg	0.1	-	-	-	-	-	NA	<0.1	NA	NA
Isodrin	mg/kg	0.1	-	-	-	-	-	NA	<0.1	NA	NA
Mirex	mg/kg	0.1	-	-	-	100	-	NA	<0.1	NA	NA
OPPs										
Dichlorvos	mg/kg	0.5	-	-	-	-	-	NA	<0.5	NA	NA
Dimethoate	mg/kg	0.5	-	-	-	-	-	NA	<0.5	NA	NA
Diazinon (Dimpylate)	mg/kg	0.5	-	-	-	-	-	NA	<0.5	NA	NA
Fenitrothion	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Malathion	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	-	-	-	2000	-	NA	<0.2	NA	NA
Parathion-ethyl (Parathion)	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Bromophos Ethyl	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Methidathion	mg/kg	0.5	-	-	-	-	-	NA	<0.5	NA	NA
Ethion	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Azinphos-methyl (Guthion)	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
PCBs										
Arochlor 1016	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Arochlor 1221	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Arochlor 1232	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Arochlor 1242	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Arochlor 1248	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Arochlor 1254	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Arochlor 1260	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Arochlor 1262	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Arochlor 1268	mg/kg	0.2	-	-	-	-	-	NA	<0.2	NA	NA
Total PCBs (Arochlors)	mg/kg	1	N/A	N/A	<50	7	-	NA	<1	NA	NA
Metals										
Arsenic	mg/kg	3	100	5	500	3000	160	2	1	3	1
Cadmium	mg/kg	0.3	20	1	100	900	-	<0.3	<0.3	<0.3	<0.3
Chromium	mg/kg	0.3	-	-	-	3600	530	19	9.4	10	4.5
Copper	mg/kg	0.5	-	-	-	240000	400	3.2	1.3	5.2	5.4
Lead	mg/kg	1	100	5	1,500	1500	1800	12	4	22	33
Mercury	mg/kg	0.01	4	0.2	50	730	-	<0.05	<0.05	0.05	<0.05
Nickel	mg/kg	0.5	40	2	1,050	6000	600	0.9	0.6	1.3	1.8
Zinc	mg/kg	0.5	-	-	-	400000	1400	47	23	200	24
Asbestos										
Asbestos Detected - Fibre Identification in soil	No unit	0.01	No Detected	-	-	No Detected	-	No	No	No	No
Estimated Fibres - Fibre Identification in soil	%w/w	0.01	-	-	-	0.01	-	<0.01	<0.01	<0.01	<0.01

NOTES:
All concentrations are in mg/kg
(1) - Table 1A(1), HIL Column 3 - Health Based Investigation Levels for Commercial/Industrial for Soil Access - NEHF D (NEPC, 2013)
(2) - Table 1A(3), HSL D Column 3 (Sand 0 m to <1 m) - Soil HSLs for Vapour Intrusion for Commercial/Industrial - NEHF D (NEPC, 2013)
(3) - Tables 1B(1), 1B(2), 1B(3), 1B(4), 1B(5) and 1B(6), EILs and ESLs - Commercial/Industrial (NEPC, 2013)
EQL - laboratory Estimated Quantitation Limit
"-" indicates that the criteria is not applicable for these analytes
< Value = Concentration less than laboratory EQL
40

Appendix A – Section 10.7 Certificate

Applicant:

Land & Groundwater Consulting Pty Ltd
13/80-84 Illawarra Road
MARRICKVILLE NSW 2204

Planning Certificate – Section 10.7 (2) Certificate Environmental Planning and Assessment Act, 1979

Certificate no:	ePC:20/3018	Delivery option:	
Certificate date:	28/06/2020	Your reference:	369-381 President Avenue, Kirrawee

Property:

Lot 1 DP 841502
369-381 President Avenue KIRRAWEE NSW 2232

Zone:

* Sutherland Shire Local Environmental Plan 2015

Zone SP1 Special Activities (Health Services Facility)

Notes:

(a) The information in this certificate only relates to the real property Identifier associated with the property and not to any licence or permissive occupancy that may be attached to and included in the property details contained in the description of the land.

(b) The Environmental Planning and Assessment Act 1979 will be referred to in this Certificate as 'the Act'.

Disclaimer:

(a) This certificate contains information provided to Council by third parties and is as current as the latest information available to Council at the time of production of this document. Council does not warrant the accuracy of the information contained within the information provided by third parties and has not independently verified the information. It is strongly recommended that you contact the relevant third parties to confirm the accuracy of the information.

INFORMATION PURSUANT TO SECTION 10.7(2), ENVIRONMENTAL PLANNING & ASSESSMENTACT, 1979

1. Names of relevant instruments and DCPs

1. The name of each environmental planning instrument that applies to the carrying out of development on the land:

* Sutherland Shire Local Environmental Plan 2015

* Sydney Regional Environmental Plan No.09 (Extractive Industry (No.2) 1995) (deemed SEPP).

* SEPP (Building Sustainability Index: BASIX) 2004

* SEPP (Exempt and Complying Development Codes) 2008

* SEPP (Affordable Rental Housing) 2009

* SEPP (Educational Establishments & Child Care Facilities) 2017

* SEPP (Infrastructure) 2007

* SEPP (Mining, Petroleum & Extractive Industries) 2007

* SEPP (Housing for Seniors or People with a Disability) 2004

* SEPP No.19 - Bushland in Urban Areas

* SEPP No.21 - Caravan Parks

* SEPP No.33 - Hazardous and Offensive Development

* SEPP No.50 - Canal Estate Development

* SEPP No.55 - Remediation of Land

* SEPP No.64 - Advertising and Signage

* SEPP No.65 - Design Quality of Residential Apartment Development

* SEPP No.70 - Affordable Housing (Revised Schemes)

* SEPP (State and Regional Development) 2011

* SEPP (State Significant Precincts) 2005

* SEPP (Vegetation in Non-Rural Areas) 2017

* SEPP (Concurrences and Consents) 2018

* SEPP (Primary Production and Rural Development) 2019

2. The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved):

The following Draft State Environmental Planning Policies apply: Amendments to SEPP (Infrastructure) 2007, SEPP (Mining, Petroleum Production and Extractive Industries) 2007, SEPP (Housing for Seniors or People with a Disability) 2004, SEPP (State Significant Precincts) 2005, SEPP (Exempt and Complying Development Codes) 2008, and new draft policies - SEPP Environment, SEPP Short-term Rental Accommodation and SEPP Remediation of Land.

3. The name of each development control plan that applies to the carrying out of development on the land:

Sutherland Shire Development Control Plan 2015

Note: In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or a draft environmental planning instrument.

2. Zoning and land use under relevant LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) in any zone (however described).

(a) The name and number of the zone:

Sutherland Shire Local Environmental Plan 2015
Zone SP1 Special Activities

(b) Permitted without consent:

Nil

(c) Permitted with consent:

Aquaculture; Roads

The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose

(d) Prohibited:

Any other development not specified in item (b) or (c).

(e) Minimum land dimensions fixed for the erection of a dwelling-house on the land:

Under Sutherland Shire Local Environmental Plan 2015 there are no relevant development standards for the erection of a dwelling house due to site dimensions.

(f) Does the land include or comprise critical habitat?

No

(g) Is the land in a conservation area?

No

(h) Is an item of environmental heritage situated on the land?

There is no item of environmental heritage situated on the property.

2A. Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

To the extent that the land is within any zone (however described) under:

(a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (**the 2006 SEPP**),* or

(b) a Precinct Plan (within the meaning of the 2006 SEPP), or

(c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the Act,

the particulars referred to in clause 2 (a)-(h) in relation to that land (with a reference to "the instrument" in any of those paragraphs being read as a reference to Part 3 of the 2006 SEPP, or the Precinct Plan or proposed Precinct Plan, as the case requires).

Note: Sutherland Shire Council does not currently have any land in the Growth Centres that has been zoned by a Precinct Plan in the Appendices to this SEPP, proposed to be zoned in a draft Precinct Plan (that has been publicly exhibited or formally consulted on) or has been zoned under Part 3 of the Growth Centres SEPP.

3. Complying Development

(1) The extent to which the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

(2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

(3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

Housing Code

Complying development may be carried out on the land under this Code.

(Note: this code applies only to land within, or proposed to be within, the following zones R1, R2, R3, R4 or RU5. Check the zoning on the front of this certificate.)

Housing Alterations Code
Complying development may be carried out on the land under the Housing Internal Alterations Code.

Commercial and Industrial Alterations Code
Complying development may be carried out on the land under the Commercial and Industrial Alterations Code.

Commercial and Industrial (New Buildings and Additions) Code
Complying development may be carried out on the land under the Commercial and Industrial (New Buildings and Additions) Code.

(Note: this code applies only to land within, or proposed to be within, the following zones B1, B2, B3, B4, B5, B6, B7, B8, IN1, IN2, IN3, IN4 or SP3. Check the zoning on the front of this certificate.)

Container Recycling Facilities Code
Complying development may be carried out on the land under the Container Recycling Facilities Code.

Subdivisions Code
Complying development may be carried out on the land under the Subdivisions Code.

Rural Housing Code
Complying development may be carried out on the land under the Rural Housing Code.

(Note: this code applies only to land within, or proposed to be within, the following zones RU1, RU2, RU3, RU4, RU6 or R5. Check the zoning on the front of this certificate.)

Low Rise Housing Diversity Code
Complying development may be carried out on the land under the Low Rise Housing Diversity Code.

(Note: All land in the Sutherland Shire is deferred from this code until the 1st of July 2020.)

Green Field Housing Code
Complying development under the Greenfield Housing Code may be carried out on the land.

(Note: This code applies to land within the Greenfield Housing Code Area as mapped in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

General Development Code
Complying development may be carried out on the land under the General Development Code.

Demolition Code
Complying development may be carried out on the land under the Demolition Code.

Fire Safety Code
Complying development may be carried out on the land under the Fire Safety Code.

Inland Code
Complying development may be carried out on the land under this Code.

(Note: This code only applies to local government areas specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. At this time it does not apply to the Sutherland Shire.)

4B. Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

In relation to a coastal council—whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal

protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

There are no properties subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services.

Note. “Existing coastal protection works” are works to reduce the impact of coastal hazards on land (such as seawalls, revetments, groynes and beach nourishment) that existed before the commencement of section 553B of the Local Government Act 1993.

5. Mine Subsidence

Is the land proclaimed to be a mine subsidence district within the meaning of the *Coal Mine Subsidence Compensation Act 2017*?

No

6. Road Widening and Road Realignment

(a) Is the land affected by a road widening or road realignment under Division 2 of Part 3 of the *Roads Act 1993*?

No

(b) Is the land affected by any road widening or road realignment under any environmental planning instrument?

No

(c) Is the land affected by any road widening or road realignment under any resolution of the Council?

No

7. Council and other public authority policies on hazard risk restrictions

(a) Is the land affected by a policy adopted by the council that restricts the development of the land because of the likelihood of landslip, bushfire, tidal inundation, subsidence, acid sulfate or any other risk?

No

(b) Is the land affected by a policy adopted by any other public authority that restricts the development of the land because of the likelihood of landslip, bushfire, tidal inundation, subsidence, acid sulphate or any other risk?

No

7A. Flood related development controls information

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

The land has been identified as potentially flood prone based on Council's initial assessment of major flooding. Council has by resolution (PLN01009) adopted a policy to restrict the development of flood prone land in accordance with NSW State Government Flood Prone Land Policy. Further investigation will be required and possibly a flood study, to determine the level of flood risk on this land. Draft Sutherland Shire Development Control Plan 2015 contains flood risk management controls.

(2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.

The land has been identified as potentially flood prone based on Council's initial assessment of major flooding. Council has by resolution (PLN01009) adopted a policy to restrict the development of flood prone land in accordance with NSW State Government Flood Prone Land Policy. Further investigation will be required and possibly a flood study, to determine the level of flood risk on this land. Draft Sutherland Shire Development Control Plan 2015 contains flood risk management controls.

(3) Words and expressions in this clause have the same meanings as in the Instrument set out in the Schedule to the Standard Instrument (Local Environmental Plans) Order 2006.

8. Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act?

No

9. Contribution Plans

Council has adopted the following Contribution Plans that apply to the land:

* The 2016 Section 7.12 Development Contributions Plan applies to this property (Effective 01/01/17).

9A. Biodiversity certified land

If the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*, a statement to that effect.

Note. Biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.

No

10. Biodiversity stewardship sites

If the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016*, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Chief Executive of the Office of Environment and Heritage).

Note. Biodiversity stewardship agreements include biobanking agreements under Part7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardship agreements under Part 5 of the *Biodiversity Conservation Act 2016*.

No

10A. Native vegetation clearing set asides

If the land contains a set aside area under section 60ZC of the Local Land Services Act 2013, a statement to that effect (but only if the council has been notified of the existence of the set aside area by Local Land Services or it is registered in the public register under that section).

No

11. Bush fire prone land

Is the land bush fire prone?

No

12. Property Vegetation Plans

Has Council been notified that a property vegetation plan under the *Native Vegetation Act 2003* applies to the land?

No

13. Orders Under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land (but only if Council has been notified of the order).

No.

14. Directions under Part 3A

Is there a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act that does not have effect?

No

15. Site compatibility certificates and conditions for seniors housing

Is there a current site compatibility certificate (seniors housing) under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004, of which the council is aware, in respect of proposed development on the land? If there is a certificate, the period for which the certificate is current. Are there any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land?

No

16. Site compatibility certificates for infrastructure, schools or TAFE establishments

Is there a valid site compatibility certificate (of which the council is aware), issued under clause 19 of State Environmental Planning Policy (Infrastructure) 2007 in respect of proposed development on the land?

No

17. Site compatibility certificates and conditions for affordable rental housing

Is there a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land? If so this statement sets out the period for which the certificate is current and any conditions pursuant to cl17(1) or cl38(1) of SEPP (Affordable Rental Housing) 2009.

No

18. Paper subdivision information

Is the land subject to any development plan adopted by a relevant authority or that is proposed to be subject to a consent ballot? If so, this statement sets out the date of any subdivision order that applies to the land.
Note: Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

No

19. Site verification certificates

Is there a current site verification certificate, of which the council is aware, in respect of the land?
If so, this statement includes:
(a) the matter certified by the certificate, and
(b) the date on which the certificate ceases to be current (if any), and
(c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure.
Note. A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land—see Division 3 of Part 4AA of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

No

20. Loose-fill asbestos insulation

Is the land to which the certificate relates identified on the Loose-Fill Asbestos Insulation Register maintained by the Secretary of NSW Fair Trading?

No

21. Affected building notices and building product rectification orders

Are there any affected building notices of which the council is aware that is in force in respect of the land.

No

If so, this statement includes:

(a) whether there is any building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with, and
(b) whether any notice of intention to make a building product rectification order of which the council is aware has been given in respect of the land and is outstanding.
Note: affected building notice has the same meaning as in Part 4 of the Building Products (Safety) Act 2017.

building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

Note: The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

(a) Is the land significantly contaminated land within the meaning of that Act?
No

(b) Is the land subject to a management order within the meaning of that Act?
No

(c) Is the land the subject of an approved voluntary management proposal within the meaning of that Act?
No

(d) Is the land subject to an ongoing maintenance order within the meaning of that Act?
No

(e) Is the land subject of a site audit statement within the meaning of that Act?
No

Any Other Prescribed Matter

Note: Section 26 of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009 provides that a planning certificate must include advice about any exemption under section 23 or authorisation under section 24 of that Act if the Council is provided with a copy of the exemption or authorisation by the Co-ordinator General under the Act.
No

Additional Information

Council holds additional information relating to this property for provision in accordance with Section 10.7(5) of the Environmental

Planning and Assessment Act, 1979.

For further information please telephone [02] 9710 0333.

Yours faithfully

Mark Carlon
Manager Strategic Planning

Appendix B – Registered Groundwater Bore Search

GEORGES RIVER BASIN

bookmark this page

All data times are Eastern Standard Time

State Overview
State Overview

Rivers and Streams
favourites search
download sites
find a site
Real Time Data ...

Daily River Reports
Daily River Repo...

Dams
favourites search
download sites
find a site
Real Time Data ...

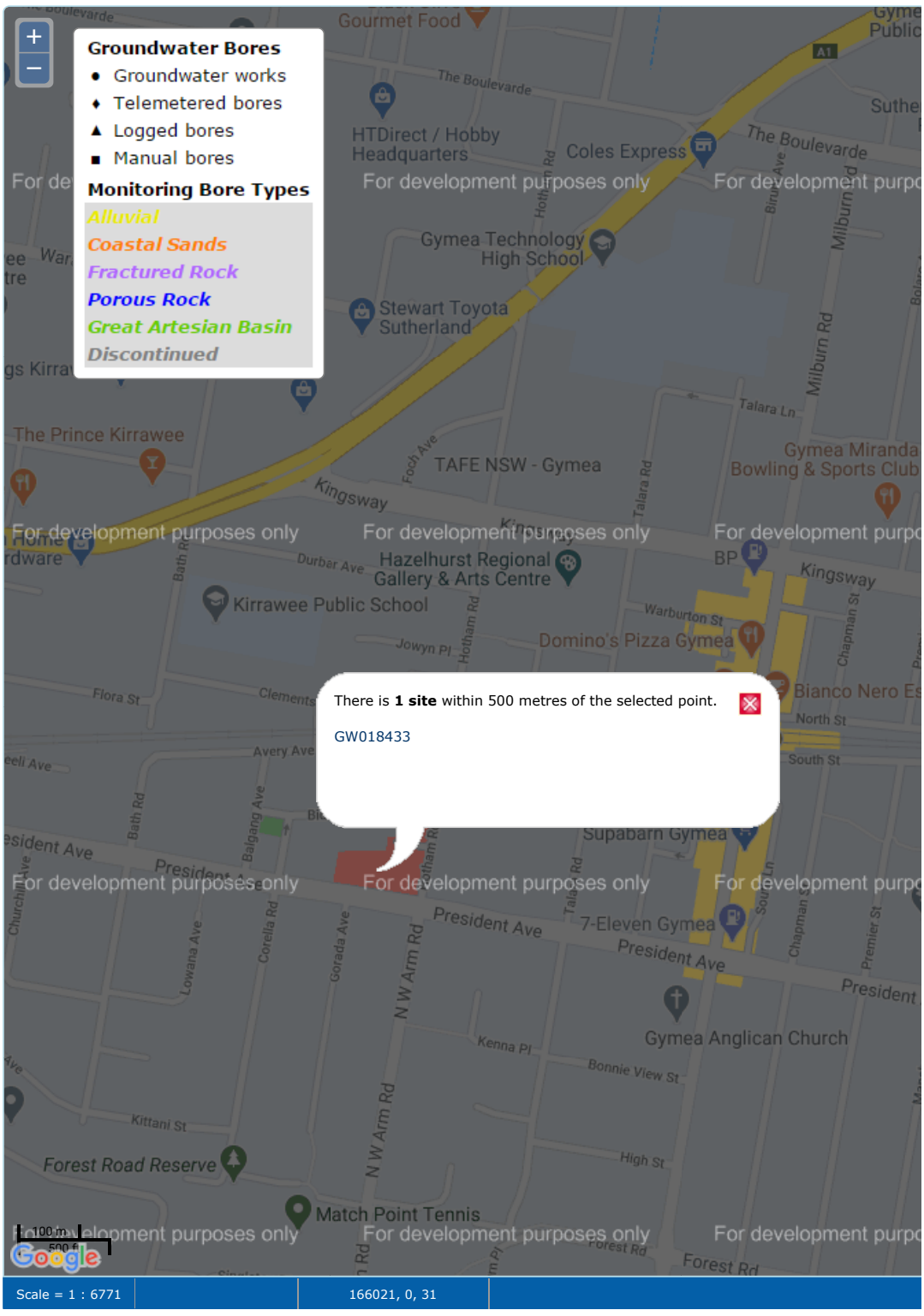
Groundwater (Telemetered data)
favourites search
download sites
find a site
Real Time Data ...

All Groundwater Site details
search
download sites
find a site
search by licence

Search
Enter keywords (site name or numb
search

All Groundwater...
North Coast R...
Hunter Region

Map



WaterNSW
Work Summary

GW018433

Licence:
Licence Status:

Authorised Purpose(s):
Intended Purpose(s): WASTE DISPOSAL

Work Type: Bore open thru rock
Work Status: Test Hole
Construct.Method: Cable Tool
Owner Type: Private

Commenced Date:
Completion Date: 01/11/1960
Final Depth: 198.10 m
Drilled Depth: 198.10 m

Contractor Name: (None)
Driller:
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	SUTHERLAN	99999
Licensed:			

Region: 10 - Sydney South Coast
River Basin: 214 - WOLLONGONG COAST
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: (Unknown)
Northing: 6232359.000
Easting: 323115.000
Latitude: 34°02'04.3"S
Longitude: 151°05'02.2"E

GS Map: -
MGA Zone: 56
Coordinate Source: GD.,PR. MAP

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	2.13	2.13	Rubble	Gravel	
2.13	3.65	1.52	Shale	Shale	
3.65	32.00	28.35	Sandstone	Sandstone	
32.00	44.19	12.19	Sandstone Clay Bands	Sandstone	
44.19	106.68	62.49	Sandstone	Sandstone	
106.68	107.28	0.60	Shale	Shale	
107.28	121.00	13.72	Sandstone	Sandstone	
121.00	128.01	7.01	Shale	Shale	
128.01	131.06	3.05	Sandstone	Sandstone	
131.06	137.16	6.10	Shale	Shale	
137.16	184.40	47.24	Sandstone	Sandstone	
184.40	198.12	13.72	Sandstone Clayey	Sandstone	

Remarks

30/01/1976: SITED GYMEA HOTEL GYMEA

***** End of GW018433 *****

Appendix C – Certificates of Title

Provided by CITEC Confirm

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1/841502

SEARCH DATE	TIME	EDITION NO	DATE
7/6/2020	4:02 PM	6	9/9/2018

NO CERTIFICATE OF TITLE HAS ISSUED FOR THE CURRENT EDITION OF THIS FOLIO.
CONTROL OF THE RIGHT TO DEAL IS HELD BY NATIONAL AUSTRALIA BANK LIMITED.

LAND

LOT 1 IN DEPOSITED PLAN 841502
AT KIRRAWEE
LOCAL GOVERNMENT AREA SUTHERLAND SHIRE
PARISH OF SUTHERLAND COUNTY OF CUMBERLAND
TITLE DIAGRAM DP841502

FIRST SCHEDULE

PRESIDENT PRIVATE HOSPITAL PTY. LIMITED

SECOND SCHEDULE (6 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A190749 LAND EXCLUDES MINERALS AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
3 A585257 LAND EXCLUDES MINERALS AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 G348146 EASEMENT FOR DRAINAGE 3.66 WIDE AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
5 G359151 EASEMENT FOR DRAINAGE 3.66 WIDE AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
6 AA843370 MORTGAGE TO NATIONAL AUSTRALIA BANK LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Provided on 07/06/2020 04:02 PM by CITEC Confirm

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register.

CITEC Confirm hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with section 96B(2) of the Real Property Act, 1900.

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NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 23/26995

SEARCH DATE	TIME	EDITION NO	DATE
7/6/2020	4:02 PM	2	25/5/1995

LAND

LOT 23 IN DEPOSITED PLAN 26995
AT KIRRAWEE
LOCAL GOVERNMENT AREA SUTHERLAND SHIRE
PARISH OF SUTHERLAND COUNTY OF CUMBERLAND
TITLE DIAGRAM DP26995

FIRST SCHEDULE

PRESIDENT PRIVATE HOSPITAL PTY LTD (T O255836)

SECOND SCHEDULE (2 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A190749 LAND EXCLUDES MINERALS

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Provided on 07/06/2020 04:02 PM by CITEC Confirm

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register.

CITEC Confirm hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with section 96B(2) of the Real Property Act, 1900.

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Provided by CITEC Confirm

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 24A/26995

SEARCH DATE	TIME	EDITION NO	DATE
7/6/2020	4:02 PM	1	25/5/1995

LAND

LOT 24A IN DEPOSITED PLAN 26995
AT KIRRAWEE
LOCAL GOVERNMENT AREA SUTHERLAND SHIRE
PARISH OF SUTHERLAND COUNTY OF CUMBERLAND
TITLE DIAGRAM DP26995

FIRST SCHEDULE

PRESIDENT PRIVATE HOSPITAL PTY LTD (T O255833)

SECOND SCHEDULE (2 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A190749 LAND EXCLUDES MINERALS

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Provided on 07/06/2020 04:02 PM by CITEC Confirm

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register.

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Provided by CITEC Confirm

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 53/29493

SEARCH DATE	TIME	EDITION NO	DATE
7/6/2020	4:02 PM	2	24/5/2016

LAND

LOT 53 IN DEPOSITED PLAN 29493
LOCAL GOVERNMENT AREA SUTHERLAND SHIRE
PARISH OF SUTHERLAND COUNTY OF CUMBERLAND
TITLE DIAGRAM DP29493

FIRST SCHEDULE

PRESIDENT PRIVATE HOSPITAL PTY LIMITED (T 8785605)

SECOND SCHEDULE (3 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A190749 LAND EXCLUDES MINERALS
3 AK453257 THIS EDITION ISSUED PURSUANT TO S.111 REAL PROPERTY ACT, 1900

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Provided on 07/06/2020 04:02 PM by CITEC Confirm

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register.

CITEC Confirm hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with section 96B(2) of the Real Property Act, 1900.

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NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 54/29493

SEARCH DATE	TIME	EDITION NO	DATE
7/6/2020	4:02 PM	1	13/6/1989

LAND

LOT 54 IN DEPOSITED PLAN 29493
LOCAL GOVERNMENT AREA SUTHERLAND SHIRE
PARISH OF SUTHERLAND COUNTY OF CUMBERLAND
TITLE DIAGRAM DP29493

FIRST SCHEDULE

PRESIDENT PTY. LIMITED (T Y423016)

SECOND SCHEDULE (3 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A190749 LAND EXCLUDES MINERALS
3 H344316 COVENANT

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Provided on 07/06/2020 04:02 PM by CITEC Confirm

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register.

CITEC Confirm hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with section 96B(2) of the Real Property Act, 1900.

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12777159

NEW SOUTH WALES

[redacted]ICATE OF TITLE

[redacted] PROPERTY ACT, 1900

Vol. 12777 Fol. 159

Appln. No. 184

Prior Title Vol.11819 Fol. 42

Edition issued 15-5-1975

(Page 1) Vol. 12777 Fol. 159

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

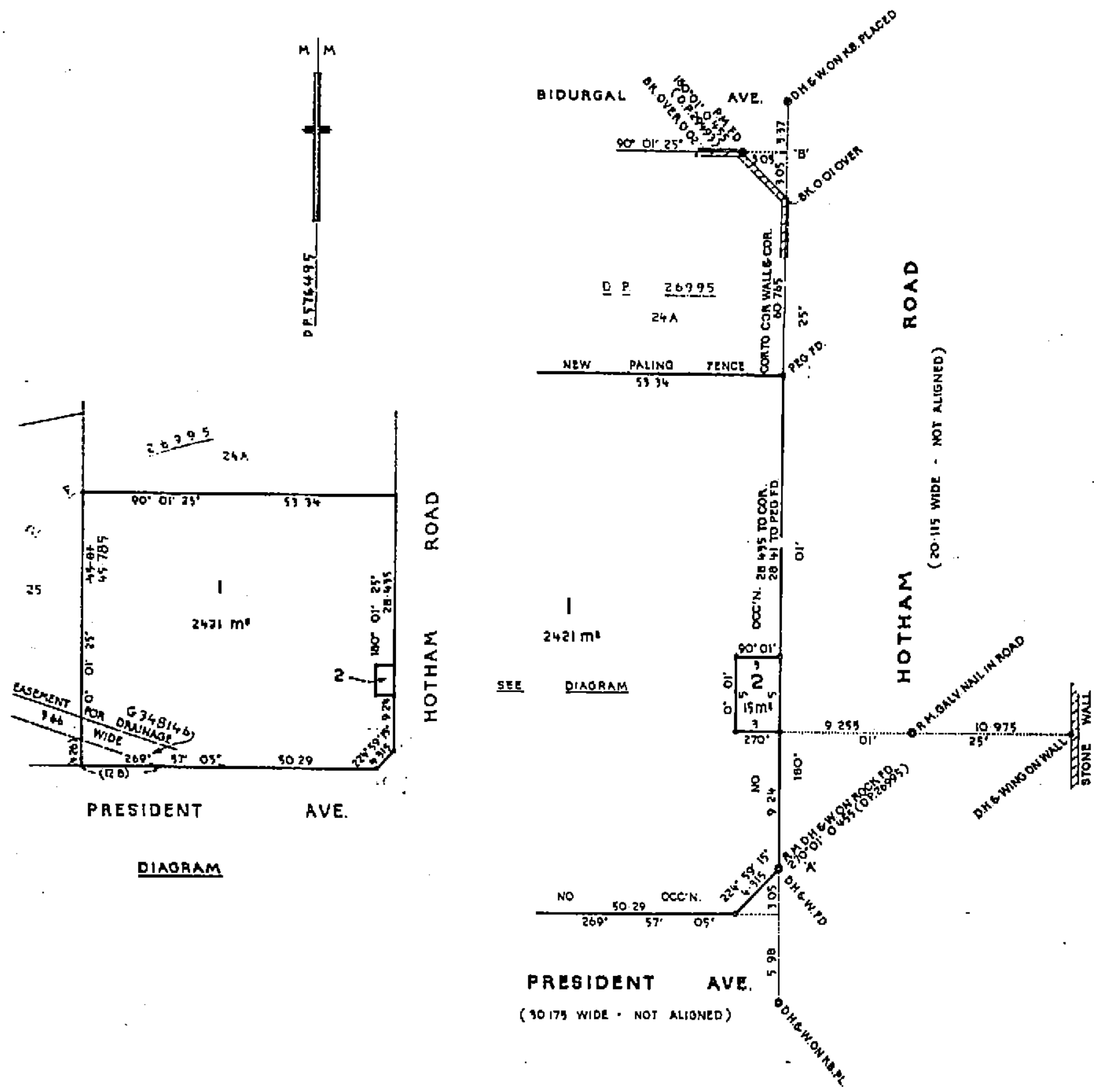
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 576495 at Kirrawee in the Shire of Sutherland Parish of Sutherland and County of Cumberland being part of Portions 106 and 107 granted separately to Thomas Holt on 31-12-1862. EXCEPTING THEREOUT all mines, beds, seams and veins of coal, iron and other metals and minerals excepted by Transfer No.A190749.

FIRST SCHEDULE

PRESIDENT PTY. LIMITED.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. Easement for Drainage created by Transfer No.G348146 affecting the part of the land above described shown as Easement for drainage 3.66 wide in the plan hereon.
3. ~~Mortgage No.N824765 to Australia and New Zealand Banking Group Limited. Entered 9-5-1974.~~ Discharged P363…
4. ~~Mortgage No.P78406 to Michael Roach of Cronulla, Company Director. Entered 26-11-1974.~~ Discharged P363…

Vol. 12777 Fol. 159

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General

CANCELLED

SEE CHEC FOLIO

P.363681 P/M — 82 P/M — 83 M

CT. 24/91

P436520 M

Q830434 N M 5 M 6 M

T555140 D — A I

T656202 P

V954135 M

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
~~Mortgage~~	~~P 363683~~	~~———~~	~~to A.G.C. (Advances) Limited~~	~~8-8-1975~~		Discharged	Q830434	
~~Mortgage~~	~~P436520~~	~~———~~	~~to Michael Roach of Gronulla, Company Director~~	~~7-10-1975~~		Discharged	Q830435	
~~Mortgage~~	~~Q830436~~	~~———~~	~~to Australian International Finance Corporation Limited~~	~~29-8-1978~~		Discharged	T555140	
~~T555141 Mortgage to CBFC Limited. Registered 1-6-1983~~						Discharged	V954135	
T656202 P			Mortgage to Commonwealth Trading Bank of Australia. Registered 29-7-1983					

M

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

NEW SOUTH WALES

PROPERTY ACT, 1900

Appln. No.184

Prior Title Vol.8343 Fol.169

Vol. 11819 Fol. 42

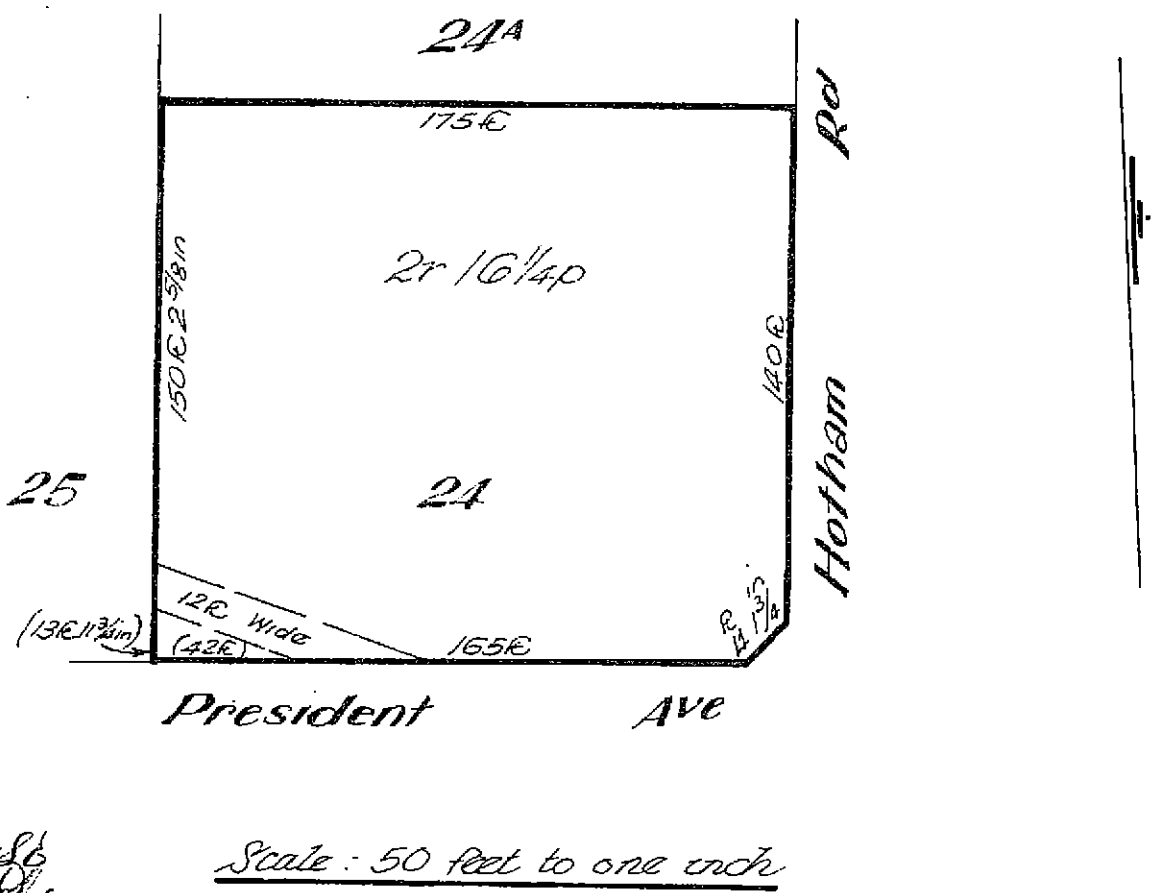
Edition issued 21-4-1972

M653133 [redacted]

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND



M653133 [redacted]

Scale: 50 feet to one inch

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 24 in Deposited Plan 26995 at Kirrawee in the Shire of Sutherland Parish of Sutherland and County of Cumberland being part of Portions 106 and 107 granted separately to Thomas Holt on31-12-1862. EXCEPTING THEREOUT all mines, beds, seams and veins of coal, iron and other metals and minerals excepted by Transfer No.A190749.

FIRST SCHEDULE

PRESIDENT PTY. LIMITED.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. Easement for Drainage created by Transfer No.G348146 affecting the part of the land above described shown as 12 ft. wide in the plan hereon.

Registrar General

Vol. 11819 Fol. 42

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
[illegible] No dealings to be registered without [illegible] This deed is cancelled as to the whole. New Certificates of Title have issued on 26-5-1975 for lots in Deposited Plan No. 576495 as follows:- Lots 1-2 Vol. 12777 Fol. 159-160 respectively.					
[signature] REGISTRAR GENERAL					

N824765
P78406
DP576495

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
~~Mortgage~~	~~M653134~~	~~14-3-1972~~	~~to Rex Wilson Orford of Mosman, Retired and Muriel Orford, his wife.~~	~~2-5-1972~~	[signature]	Discharged	[illegible]	[signature]
~~Mortgage~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~18-5-1972~~	[signature]	Discharged	M844937	[signature]
Mortgage	N824765	25-1-1974	to Australia and New Zealand Banking Group Limited.	9-5-1974	[signature]			
Mortgage	P78406	5-11-1974	to Michael Roach of Cronulla, Company Director	26-11-1974	[signature]			

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

203

Primary Application No. 184.
Reference to Last Title
Vol. 7361 Fol. 82.

New South Wales

25763 5.61—1 K 1103

[CERTIFICATE OF TITLE]

8343 - 169

REGISTER BOOK
VOL. 8343 FOL. 169
Issued on Order No. H975456.

JOSEPH HORACE KING of Gymea, Poultry Farmer is now the proprietor of an Estate in Fee Simple, subject nevertheless to the reservations and conditions if any contained in the Grant hereinafter referred to and also subject to such encumbrances liens and interests as are notified hereon in That piece of land in the Shire of Sutherland, Parish of Sutherland, and County of Cumberland being Lots 22, 23 and 24A, Lots ~~24 to 27~~ inclusive and Lot 34 in Deposited Plan No. 26995 and Lots 37 to 40 inclusive, Lots 48, 49, 52, 55, 57, 62, 63 and Lots A, B, C, D and E in Deposited Plan No. 29493 and being part of Portions 106 and 107 separately granted to Thomas Holt on 31st December, 1862.

EXCEPTING THEREOUT all mines beds seams and veins of coal, iron and other metals and minerals excepted and reserved by Transfers Nos. A190749, A585257 and G96638 as regards parts.

In witness whereof I have hereunto signed my name and affixed my Seal, this Twenty-third day of February 1962.

Signed in the presence of

Registrar General.

NOTIFICATION REFERRED TO

Easements for Drainage created by Transfers Nos. G348145 and G359151 affecting the parts of Lots 39 and 62 respectively, in Deposited Plan No. 29493 above described, shown as drainage easement 12 feet wide in the said Deposited Plan.

Registrar General.

Easement for Drainage created by Transfer No. G348146 affecting the part of Lots 24, 25 and 26 in Deposited Plan No. 26995 above described, shown as site of proposed drainage easement 12 feet wide in the said Deposited Plan.

Registrar General.

Easement for Drainage created by Transfers Nos. G348146 and G359151affecting parts of Lot 27 in Deposited Plan No. 26995 above described shown as site of proposed drainage easement 12 feet wide in the said Deposited Plan.

Registrar General.

Caveat No. H193153 as regards Lot 49 Deposited Plan No. 29493 above described. Entered 12.5.1959.

Registrar General.

Caveat No. H193154 as regards Lot 48 Deposited Plan No. 29493 above described. Entered 12-5-1959.

Registrar General.

Caveat No. H301037 as regards Lot 57 in Deposited Plan No. 29493 above described. Entered 29-9-1959.

Registrar General.

Caveat No. H656432 as regards Lot 62 Deposited Plan No. 29493 above described. Entered 12-10-1960.

Registrar General.

Caveat No. H785779 as regards Lot 52 Deposited Plan No. 29493 above described. Entered 8-[illegible]-1961.

Registrar General.

CAVEAT No. H193153 has been withdrawn.
See H924585 Entered 10th April 1962.

REGISTRAR GENERAL.

No. H924586. TRANSFER dated 18th October 1961
to Ian James Frierson and Patricia Margaret Frierson as joint tenants of lot 49 D.P. 29493
of the land within described.

Entered 10th April 1962.
As to land in this transfer this deed is cancelled and new certificate issued Vol. 9159 Fol. 102

REGISTRAR GENERAL.

CAVEAT No. H301037 has been withdrawn.
See J.198[illegible] Entered 11th May 1962.

REGISTRAR GENERAL.

Persons are cautioned against altering or adding to this Certificate or any notification thereon.

30/- J19806

No. J19806 TRANSFER dated 26th March 1962 to Colin Peter OBORN and Yvonne Daphine OBORN as joint tenants of Lot 57 in D.P. 29493 of the land within described.
Subject to Covenant
Entered 11th May 1962. As to land in this transfer this deed is cancelled and new certificate issued Vol. 9193 Fol. 138
REGISTRAR GENERAL

30/- J295069

No. J295069 TRANSFER dated 20 March 1963 to John Milime Cook and Ernastine Olga Cook as joint Tenants of Lot 52 in DP 29493 of the land within described.
Entered 19th April 1963. As to land in this transfer this deed is cancelled and new Certificate issued Vol. ____ Fol. ____
REGISTRAR GENERAL

Plt X J55830

No. J55830 Caveat Produced 15th May 1962 and entered 23rd June as regards Lot 2 D.P. 26995
Registrar General

W/I J295068

CAVEAT No. H775779 has been withdrawn. See J295068 Entered 19th April 1963.
REGISTRAR GENERAL

30/- 998101

No. H998101 TRANSFER dated 14th February 1962 to Robert Ernest Chaplin of and Pamela Chaplin of Lot 22 in D.P. 26995 as joint tenants of the land within described.
Entered 19th June 1962. As to land in this transfer this deed is cancelled and new certificate issued Vol. 9215 Fol. 107
REGISTRAR GENERAL

W/I

CAVEAT No. H656432 has been withdrawn. See J337447 Entered 19th June 1963.
REGISTRAR GENERAL.

30/-

No. J337448 TRANSFER dated 26th April 1963 to Frederick John Meyer and Maureen June McAnulty as Joint Tenants of Lot 62 in D.P. 29493 of the land within described.
Entered 19th June 1963. As to land in this transfer this deed is cancelled and new certificate issued Vol. 9453 Fol. 59
REGISTRAR GENERAL

Plt X J150763

No. J150763 Caveat. Produced 7th September, 1962 and Entered 2nd October, 1962 as regards Lot. 55 in D.P. 29493.
Registrar General.

W/I J135058

CAVEAT No. J55830 has been withdrawn. See J135058 Entered 22nd October 1962.
REGISTRAR GENERAL

W/I 57184

CAVEAT No. J150763 has been withdrawn. See J357184 Entered 8th July 1963.
REGISTRAR GENERAL.

No. J135059 TRANSFER dated 17th August 1962 to Kenneth George James of Lot 23 D.P. 26995. of the land within described.
Entered 22nd October 1962. As to land in this transfer this deed is cancelled and new certificate issued Vol. 9293 Fol. 222
REGISTRAR GENERAL

50/-

No. J357185 TRANSFER dated 17th May 1963 to Horace Maxwell Jones and Pamela Jones as joint tenants of Lot 55 in DP No 29493 of the land within described.
Entered 8th July 1963. As to land in this transfer this deed is cancelled and new certificate issued Vol. 9471 Fol. 242
REGISTRAR GENERAL

J55830 Plt x lot 23. DP. 26995.
J52784 plt lot 57 and J19806
J135058 NX (J55830) lot 23 DP 26995
J150763 Plt X lot 55 DP
J295068 WX Plt lot 52 R
J337447 WX (H656432) R
— 48 Lot 62 DP 29493
— 49 N/C
J357184 WX Plt lot 55 DP 29493 R
J493924 W/X R lot 48 DP 29493 R

WX Pte
T483924

8343-169

CAVEAT No. H193154 has been withdrawn.
See T483924 Entered 2nd December 1963.

REGISTRAR GENERAL.

30/- (Lot 48)

No. T483925 TRANSFER dated 11th October 1963
to Clive John Gouge of Mascot, Clerk and Lyela Elizabeth Gouge his wife, as Joint Tenants
of Lots in D.P. No. 29493
of the land within described.

Entered 2nd December 1963
As to land in this transfer this deed is cancelled and new Certificate issued
Vol. 7582 Fol. 213

REGISTRAR GENERAL

The residue of land in this folio comprises
Lots 24A, 34 ~ DP26995, 37, 38, 40, 63, A, B, C,
D & E ~ DP ~~29493~~ 29493.

REGISTRAR GENERAL

Chinita King of Gymea, Widow, John Harvey of Walgett, Grazier and William Reginald King of Townsville, Retired as joint tenants are now the registered proprietor of the land within described. being the residue.
See Section 93 Application No. P462464
Entered 10th November 1975
~~As to land in this application this deed is cancelled and new Certificate issued~~
Vol. ____ Fol. ____

REGISTRAR GENERAL

1/3/-
(Lot 24A)
(Residue)

No. 588770 TRANSFER dated 21st December 1964
to Alan Lively of Lot 39 on Deposited Plan No. 29493
of the land within described.

Entered 10th March 1965.
As to land in this transfer this deed is cancelled and new Certificate issued
Vol. 9945 Fol. 233.

REGISTRAR GENERAL

As to the residue Lot 24A in D.P. 26995, Lot 34 in D.P. 26995, and Lots 37, 38, 40, 63, A, B, C, D & E in D.P. 29493 this Deed is cancelled and New Certificate of Title issued.
Vol. 12951. Fols 72 to 82. dated 30-12-1975.
Vide P462464.

REGISTRAR GENERAL

No. M653132 TRANSFER dated 14th March 1972.
to President Pty. Limited of Lot 27 in D.P. 26995.
of the land within described

Entered 21st April 1972.
As to land in this transfer this deed is cancelled and new certificate issued
Vol. 11819 Fol. 45.

REGISTRAR GENERAL

No. M653133 TRANSFER dated 14th March 1972.
to President Pty. Limited of Lots 24, 25 and 26 in D.P. 26995.
of the land within described

Entered 21st April 1972.
As to land in this transfer this deed is cancelled and new certificate issued
Vol. 11819 Fol. 42, 43, 44

REGISTRAR GENERAL

Total Area included in Certificate.

All lengths shown hereon are in

Scale to one inch.

(C.)

Primary Appn. No. 184
Reference to last Titles
Vol. 4949 Folo. 245 and 246
" 6924 Fol. 7

New South Wales.

St 9195

[CERTIFICATE OF TITLE.]

REGISTER BOOK,
VOL. 7361 FOL. 82

Iseued on Order No. G790104

CANCELLED W

JOSEPH HORACE KING of Gymea, Poultry Farmer, is now the proprietor of an Estate in Fee Simple, subject nevertheless to the reservations and conditione if any contained in the Grants hereinafter referred to and also subject to such encumbrances, liens and interests as are notified hereon in That piece of land at Kirrawee in the Shire of Sutherland, Parish of Sutherland and County of Cumberland, being Lots 2 to 9 inclusive, Lots 17 to 20 inclusive, Lots 22, 23 and 24A, Lots 24 to 29 inclusive, Lots 31 to 36 inclusive and Lot X in Deposited Plan No. 26995 and being part of Portions 106 and 107 separately granted to Thomas Holt on 31st December 1862.

EXCEPTING THEREOUT all mines beds seams and veins of coal iron and other metals and minerale excepted and reserved by Transfers No. A190749 as regards the land formerly comprised in Certificate of Title Volume 4949 Folio 246, No. A585257 as regards the land formerly comprised in Certificate of Title Volume 4949 Folio 245 and No. G96638 as regards the land formerly comprised in Certificate of Title Volume 6924 Folio 7.

In witness whereof I have hereunto signed my name and affixed my Seal, this Twentieth day of September 1957

Signed in the presence of G. W. Moss

J. Wells
Regietrar General

NOTIFICATION REFERRED TO

Easements for drainage affecting part of Lot X above described created by Tranefer No. G348145, part of Lots 24 to 27 inclusive above described created by Transfer No. G348146 and part of Lots 27, 28, 29, 31 and X above described created by Transfer No. G359151.

J. Wells
Registrar General
No. G556501 Caveat as regards Lot 2 above described. Entered 22nd August 1956.

J. Wells
Registrar General
No. G581261 Caveat as regarde Lot 3 above described Entered 3rd October 1956.

J. Wells
Registrar General
No. G579085 Caveat as regards Lot 5 above described Entered 19th October 1956.

J. Wells
Registrar General
No. G598696 Caveat as regarde Lot 31 above described Entered 5th November 1956.

J. Wells
Registrar General
No. G617831 Caveat as regards Lot 33 above described. Entered 13th December 1956.

J. Wells
Registrar General
No. G637849 Caveat as regards Lot 20 above described Entered 16th January 1957.

J. Wells
Regietrar General
No. G637850 Caveat as regards Lot 28 above described. Entered 30th January 1957.

J. Wells
Registrar General
No. G735357 Caveat as regards Lot 4 above described Entered 23rd July 1957.

J. Wells
Registrar General

No. G728013 TRANSFER dated 7th May 1957.
to Benjamin Broadhurst of Lot 29 DP 26995 of the land within described.
Entered 18th November 1957.
As to part in this transfer this deed is cancelled and new certificate issued Vol. 7398 Fol. 137
J. Wells
REGISTRAR GENERAL.

CAVEAT No. G637849 has been withdrawn.
See G739602 Entered 18th November 1957.
J. Wells
REGISTRAR GENERAL.

As to The Residue
this Deed is cancelled and new Certificate of Title issued
Vol. 8343 Fol. 169
Vide G1975454
Registrar General.

202

Primary Appn. No. 184

Reference to Last Title

Vol. 5364 Fol. 125

New South Wales.

[CERTIFICATE OF TITLE.]

REGISTER BOOK.

VOL. 6924 FOL. 7

BB Issued on Transfer No. G96638

CANCELLED R

ARTHUR JOHN WHITFORD, of Sutherland, Blacksmith, is now the proprietor of an Estate in Fee Simple, subject nevertheless to the reservations and conditions, if any, contained in the Grant hereinafter referred to, and also subject to such encumbrances, liens, and interests as are notified hereon, in That piece of land situated in the Shire of Sutherland Parish of Sutherland, and County of Cumberland shown in the plan hereon and therein edged red being part of Lot 9 of Section 12 in Deposited Plan No. 801 and being also part of Portion 106 granted to Thomas Holt on 31st December 1862.

EXCEPTING THEREOUT all mines beds seams and veins of coal iron and other metals and minerals excepted and reserved by Transfer No. G96638.

In witness whereof I have hereunto signed my name and affixed my Seal, this Fourth day of February, 1955

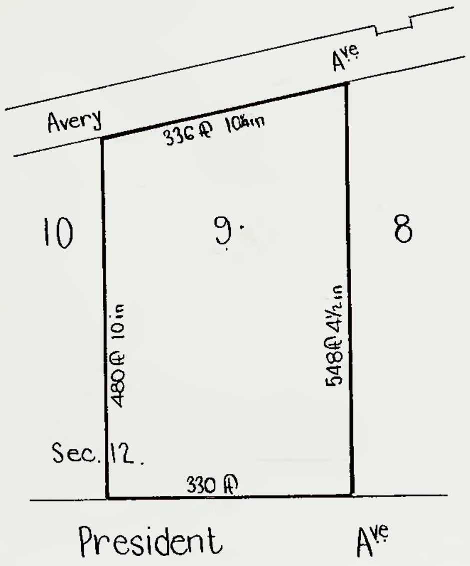
Signed in the presence of G. W. Moss }

T. Wells

REGISTRAR GENERAL NEW SOUTH WALES

Registrar-General.

Persons are cautioned against altering or adding to this Certificate or any notification thereon.



G96638

R.N. 28

AREA: 3ac. 3rd. 24 per.

SCALE: 200 feet to one inch.

NOTIFICATION REFERRED T

No. G198620 MORTGAGE dated 10th November 1954
from the said Joseph Horace King
to BANK OF NEW SOUTH WALES
Produced 25th November 1954 and entered 11th February 1955
at 12 o'clock in the noon.

T. Wells

REGISTRAR GENERAL.

REGISTRAR GENERAL NEW SOUTH WALES

No. G198619 TRANSFER dated 22nd November 1954
from the said Arthur John Whitford to Joseph Horace King of Sutherland Poultry Farmer
of the land within described
Produced 25th November 1954 and entered 11th February 1955
at 12 o'clock in the noon.

T. Wells

REGISTRAR GENERAL.

REGISTRAR GENERAL NEW SOUTH WALES

No G 556501 Caveat Produced 14th August 1956
Entered 22nd August 1956 as regards Lot 2 DP 26995

T. Wells
Registrar General

REGISTRAR GENERAL NEW SOUTH WALES

G581261 Caveat Produced 25th September 1956
and Entered 3rd October 1956
as regards Lot 3 D.P. 26995

T. Wells
Registrar General

REGISTRAR GENERAL NEW SOUTH WALES

G579085 Caveat Produced 20th September 1956
and Entered 19th October 1956
as regards Lot 5 D.P. 26995

T. Wells
Registrar General

REGISTRAR GENERAL NEW SOUTH WALES

G198619 20 R.

C.T. 414 6.7.55 J. H. King Holtham Rd Gymea

T/G. G348145 part (plan)

G370385 D.P.

G556501 P.C.X. lot 2 R

G573603 D/m

G581261 lot 3 R

G579085 lot 5 R

(C.)

New South Wales.

Application Nos. 184 and 521 (as to parts)

Reference to last certificate

Vol. 3796 Fol. 136

[CERTIFICATE OF TITLE.]

ORDER NO. D159068

REGISTER BOOK,

VOL. 5364 FOL. 125

CANCELLED M

53M1512G

THE HONOURABLE THOMAS HOLT, by virtue of Certificate of Title Volume 3796 Folio 136. now surrendered is now the proprietor of an Estate in Fee Simple subject nevertheless to the reservations and conditions if any contained in the Grants hereinafter referred to and also subject to such encumbrances liens and interests as are notified hereon in Those pieces of land situated in the Shire of Sutherland Parish of Sutherland and County of Cumberland containing Six hundred and twenty two acres one rood thirty nine and one half perches or thereabouts being Lot 5 of Section 1, Lots 2, 3 and 6 of Section 3, Lots 1, 2, 5 and 8 of Section 4, Lot 8 of Section 6, Lots 1 to 5 inclusive of Section 7, Lots 5, 6 and 7 of Section 8, Lots 3 to 7 inclusive of Section 9, Lots 1 and 1A of Section 11, Lots 3 and 4 and the part of Lot 9 south east of railway of Section 12, Lot 11 of Section 14, Lot 9 of Section 15, Lots 1 and 2 of Section 16, Lots 2, 3, 6 and 7 of Section 18, Lots 1 to 4 inclusive and Lots 6, 7 and 8 of Section 25, Lots 1 and 8 of Section 26 and Lots 4 and 5 of Section 29 in Deposited Plan No. 801, Lots 9 to 16 inclusive in Deposited Plan No. 6783, Lots 8, 9 and 10, Lots 13 to 18 inclusive, Lots 31, 33, 35, 37, 38, 39, 41, 45 and 46, Lots 50 to 54 inclusive, Lots 57 to 63 inclusive and residue of Lot 42 in Deposited Plan No. 8111, Lots 1, 4, 11 and 12 in Deposited Plan No. 8440, Lots 22, 24 and 25 in Deposited Plan No. 8485, Lots 1 to 6 inclusive in Deposited Plan No. 9087, Lots 1 to 13 inclusive and Lots 15 to 29 inclusive in Deposited Plan No. 9723, Lots 1 to 16 inclusive in Deposited Plan No. 9762, Lots 1 to 9 inclusive, Lots 13 to 17 inclusive and Lots 19 to 22 inclusive in Deposited Plan No. 10537, being parts of 81 acres 2 roods (Portion 25 of Parish), 40 acres (Portion 92 of Parish) 66 acres 2 roods (Portion 95 of Parish), 66 acres 2 roods (Portion 96 of Parish), 64 acres 2 roods 4 perches (Portion 97 of Parish), 61 acres 3 roods 33 perches (Portion 98 of Parish), 57 acres 30 perches (Portion 99 of Parish), 57 acres 35 perches (Portion 100 of Parish), 61 acres (Portion 104 of Parish), 62 acres 35 perches (Portion 105 of Parish), 62 acres 3 roods 11 perches (Portion 106 of Parish), 67 acres 2 roods 14 perches (Portion 107 of Parish) 55 acres 1 rood 27 perches (Portion 111 of Parish), 40 acres (Portion 112 of Parish), 55 acres 2 roods (Portion 113 of Parish), 40acres (Portion 114 of Parish), 40 acres (Portion 116 of Parish), and 40 acres (Portion 118 of Parish) originally granted to Thomas Holt by 18 several Crown Grants dated the 31st day of December 1862, also parts of 50 acres (Portion 82 of Parish) and 50 acres (Portion 81 of Parish) originally granted to Thomas Holt by two several Crown Grants dated the 31st day of December 1863. Volume 7 Folios 34 and 35 respectively, also parts of 40 acres (Portion 143 of Parish) originally granted to Thomas Holt by Crown Grant dated the 8th day of August 1874, Volume 196 Folio 138, also parts of 40 acres (Portion 142 of Parish), 80 acres (Portion 144 of Parish) and 170 acres (Portion 141 of Parish) originally granted to Thomas Holt by three several Crown Grants dated the 1st day of December 1874, Volume 202 Folios 60, 61 and 62 respectively, also parts of 65 acres 3 roods (Portion 127 of Parish), 9 acres (Portion 133 of Parish), 34 acres (Portion 131 of Parish) and 40 acres (Portion 132 of Parish) originally granted to Thomas Holt by four several Crown Grants dated the 25th day of March 1875, Volume 221 Folio 12 and Volume 224 Folios 161, 162 and 163 respectively, also parts of 15 acres originally granted to Thomas Holt by Crown Grant dated the 19th day of February 1884. Volume 687 Folio 221 and parts of 32 acres originally granted to Perpetual Trustee Company Limited by Crown Grant dated the 31st day of March 1914, Volume 2458 Folio 215.

IN WITNESS whereof I have hereunto signed my name and affixed my Seal, this Eighteenth day of February 1943.

Signed in the presence of W.P. Friend

Registrar General.

NOTIFICATION REFERRED TO

Amongst the reservations and conditions contained in the Grants above referred to are reservations in the Grant of 32 acres of minerals.

Registrar General.

No. 50990 Lease dated the 1st day of September 1881 from Thomas Holt to The Holt Sutherland Estate Land Company Limited of part of the land above described. Produced and entered the 7th day of September 1881 at 3 o'clock in the afternoon.

Registrar General.

No. 86303 Lease dated the 28th day of July 1884 from Thomas Holt to The Holt Sutherland Estate Land Company Limited of part of the land above described. Produced and entered the 5th day of November 1884 at a quarter past 2 o'clock in the afternoon.

Registrar General.

No. 559924 Caveat dated the 13th day of April 1910 by the Registrar General as regards part of the land within described. Produced the 13th day of April 1910 and entered the 1st day of May 191

(C.)

New South Wales.

[CERTIFICATE OF TITLE.]

REGISTER BOOK,

VOL. 5364 FOL. 125

THOMAS SAMUEL HOLT of Burwood Gentleman is now the registered proprietor of an estate for life and THOMAS ALLISON HOLT of Sydney ~~Naturalist~~ Pastoralist is registered as proprietor of an estate in remainder expectant upon the termination of the life estate of THOMAS SAMUEL HOLT, ~~in the residue of the land within described~~ in the minerals comprised in this Certificate of Title — See Section 94 Application No. G421994 — Entered 27th August 1956.

J. Wells

REGISTRAR GENERAL

No. G501869 TRANSFER dated 20th April 1956 from the said THOMAS SAMUEL HOLT to the said THOMAS ALLISON HOLT of his estate for life ~~in the residue of the land within described~~ in the minerals comprised in this Certificate of Title. Produced 15th May 1956 and entered 27th August 1956 at 12 o'clock noon.

J. Wells

REGISTRAR GENERAL.

Not on Pcht.

No. H109603 Resumption of Land for Public Road Notice in the Government Gazette dated 5th December 1958 Fol. 3758 whereby and by operation of the Public Roads Act of 1902 the road shown in the plan catalogued R.24929.1603 in the Department of Lands and being the minerals remaining under parts of Lot A in plan with F257779, part of Lot D in F463095, part of Lots A + B in plan with F585189, part of Lots B1 and C1 in plan with G151838, part of Lot D in MPS.(RP) 64932, part of Lots C, D & E, MPS.(RP) 84840, part of Lots 6, 7, 8, 9 & 13. DP. 9762 & part of Lots 3, 4 & 5 in DP. 23470. was declared to be a Public Road.
Entered 14th November 1960.

J. Watson
Registrar General.

× Land at Leniliquia
? R 24496 1603

N.O.P.

No. P307011 Resumption of land for Public Road. Notice in Government Gazette dated 9th May, 1975. Folio 1824 whereby and by operation of the Public Roads Act, 1902 the road shown in the plan catalogued R 34 755, 1603 in the Department of Lands and shown as firm lines and notation 250 m2 7.62 m wide ~~var~~ width on the plan hereon was declared to be a Public Road. Resumption & Dedication are limited to the surface and a depth of 20 metres below the surface.
Registered 22nd July, 1975.

J. Watson

REGISTRAR GENERAL

NOP

Wrong ref. G937574 H (P?) H109603 N/Rspt. Pt resumed for Road Purps. Vide Gz 9-5-75 Fol 1824 P307011 N/A PART Dept 144.

203

Primary Application No. 184.
Reference to Last Title
Vol. 7361 Fol. 82.

New South Wales

25763 5.61—1 K 1103

[CERTIFICATE OF TITLE]

8343 - 169

REGISTER BOOK
VOL. 8343 FOL. 169
Issued on Order No. H975456.

JOSEPH HORACE KING of Gymea, Poultry Farmer is now the proprietor of an Estate in Fee Simple, subject nevertheless to the reservations and conditions if any contained in the Grant hereinafter referred to and also subject to such encumbrances liens and interests as are notified hereon in That piece of land in the Shire of Sutherland, Parish of Sutherland, and County of Cumberland being Lots 22, 23 and 24A, Lots ~~24 to 27~~ inclusive and Lot 34 in Deposited Plan No. 26995 and Lots 37 to 40 inclusive, Lots 48, 49, 52, 55, 57, 62, 63 and Lots A, B, C, D and E in Deposited Plan No. 29493 and being part of Portions 106 and 107 separately granted to Thomas Holt on 31st December, 1862.

EXCEPTING THEREOUT all mines beds seams and veins of coal, iron and other metals and minerals excepted and reserved by Transfers Nos. A190749, A585257 and G96638 as regards parts.

In witness whereof I have hereunto signed my name and affixed my Seal, this Twenty-third day of February 1962.

Signed in the presence of

Registrar General.

NOTIFICATION REFERRED TO

Easements for Drainage created by Transfers Nos. G348145 and G359151 affecting the parts of Lots 39 and 62 respectively, in Deposited Plan No. 29493 above described, shown as drainage easement 12 feet wide in the said Deposited Plan.

Registrar General.

Easement for Drainage created by Transfer No. G348146 affecting the part of Lots 24, 25 and 26 in Deposited Plan No. 26995 above described, shown as site of proposed drainage easement 12 feet wide in the said Deposited Plan.

Registrar General.

Easement for Drainage created by Transfers Nos. G348146 and G359151affecting parts of Lot 27 in Deposited Plan No. 26995 above described shown as site of proposed drainage easement 12 feet wide in the said Deposited Plan.

Registrar General.

Caveat No. H193153 as regards Lot 49 Deposited Plan No. 29493 above described. Entered 12.5.1959.

Registrar General.

Caveat No. H193154 as regards Lot 48 Deposited Plan No. 29493 above described. Entered 12-5-1959.

Registrar General.

Caveat No. H301037 as regards Lot 57 in Deposited Plan No. 29493 above described. Entered 29-9-1959.

Registrar General.

Caveat No. H656432 as regards Lot 62 Deposited Plan No. 29493 above described. Entered 12-10-1960.

Registrar General.

Caveat No. H785779 as regards Lot 52 Deposited Plan No. 29493 above described. Entered 8-[illegible]-1961.

Registrar General.

CAVEAT No. H193153 has been withdrawn.
See H924585 Entered 10th April 1962.

REGISTRAR GENERAL.

No. H924586. TRANSFER dated 18th October 1961
to Ian James Frierson and Patricia Margaret Frierson as joint tenants of lot 49 D.P. 29493
of the land within described.

Entered 10th April 1962.
As to land in this transfer this deed is cancelled and new certificate issued Vol. 9159 Fol. 102

REGISTRAR GENERAL.

CAVEAT No. H301037 has been withdrawn.
See J.198[illegible] Entered 11th May 1962.

REGISTRAR GENERAL.

Persons are cautioned against altering or adding to this Certificate or any notification thereon.

30/- J19806

No. J19806 TRANSFER dated 26th March 1962 to Colin Peter Oborn and Yvonne Daphine Oborn as joint tenants of Lot 57 in D.P. 29493 of the land within described.

Subject to Covenant

Entered 11th May 1962.
As to land in this transfer this deed is cancelled and new certificate issued Vol. 9193 Fol. 138

J. Watson
REGISTRAR GENERAL

30/- J295069

No. J295069 TRANSFER dated 20 March 1963 to John Milone Cook and Ernastine Olga Cook as joint tenants of lot 52 in DP 29493 of the land within described.

Entered 19th April 1963
As to land in this transfer this deed is cancelled and new Certificate issued Vol. ___ Fol. ___

J. Watson
REGISTRAR GENERAL

Pt X J55830

No. J55830 Caveat Produced 15th May, 1962 and entered 23rd June as regards Lot 2 D.P. 26995

J. Watson
Registrar General

W J295068

CAVEAT No. H775779 has been withdrawn.
See J295068 Entered 19 April 1963.

J. Watson
REGISTRAR GENERAL

30/- 99810

No. H998101 TRANSFER dated 14th February 1962 to Robert Ernest Chaplin of and Pamela Chaplin of lot 22 in D.P. 26995 as joint tenants of the land within described.

Entered 19th June 1962.
As to land in this transfer this deed is cancelled and new certificate issued Vol. 9215 Fol. 107

J. Watson
REGISTRAR GENERAL

WX

CAVEAT No. H656432 has been withdrawn.
See J337447 Entered 19th June 1963.

REGISTRAR GENERAL.

Pt X J150763

No. J150763 Caveat. Produced 7th September, 1962 and Entered 2nd October, 1962 as regards Lot. 55 in D.P. 29493.

J. Watson
Registrar General.

30/-

No. J337448 TRANSFER dated 26th April 1963 to Frederick John Meyer and Maureen June McAnulty as Joint Tenants of Lot 62 in D.P. 29493 of the land within described.

Entered 19th June 1963.
As to land in this transfer this deed is cancelled and new certificate issued Vol. 9453 Fol. 59

J. Watson
REGISTRAR GENERAL

NX J135058

CAVEAT No. J55830 has been withdrawn.
See J135058 Entered 22nd October 1962.

J. Watson
REGISTRAR GENERAL

W J357184

CAVEAT No. ~~H785779~~ J150763 has been withdrawn.
See J357184 Entered 8th July 1963.

J. Watson
REGISTRAR GENERAL.

50/-

No. J135059 TRANSFER dated 17th August 1962 to Kenneth George James of Lot 23 D.P. 26995. of the land within described.

Entered 22nd October 1962
As to land in this transfer this deed is cancelled and new certificate issued Vol. 9293 Fol. 222

J. Watson
REGISTRAR GENERAL

No. J357185 TRANSFER dated 17th May 1963. to Horace Maxwell Jones and Pamela Jones as joint tenants of Lot 55 in DP no 29493 of the land within described.

Entered 8th July 1963.
As to land in this transfer this deed is cancelled and new certificate issued Vol. 9471 Fol. 242

J. Watson
REGISTRAR GENERAL

J55830 Pt x lot 23. DP. 26995.
J52784 Pt lot 57 % on J19806
J135058 NX (J55830) lot 23 DP 26995
J150763 Pt x lot 55 DP
J295068 WX Pt lot 52 R
J337447 WX (H656432) R
— 48 Lot 62 DP. 29493
— 49 N/C
J357184 WX lot 55 DP 29493 R
J493924 W/X R lot 28 DP 29493

WX Pte
T483924

8343-169

CAVEAT No. H193154 has been withdrawn.
See T483924 Entered 2nd December 1963.

REGISTRAR GENERAL.

30/- (Lot 48)

No. T483925 TRANSFER dated 11th October 1963
to Clive John Gouge of Mascot, Clerk and Lyela Elizabeth Gouge his wife, as Joint Tenants
of Lots in D.P. No. 29493
of the land within described.

Entered 2nd December 1963
As to land in this transfer this deed is cancelled and new Certificate issued
Vol. 7582 Fol. 213

REGISTRAR GENERAL

The residue of land in this folio comprises
Lots 24A, 34 ~ DP26995, 37, 38, 40, 63, A, B, C,
D & E ~ DP ~~29493~~ 29493.

REGISTRAR GENERAL

Chinita King of Gymea, Widow, John Harvey of Walgett, Grazier and William Reginald King of Townsville, Retired as joint tenants are now the registered proprietor of the land within described. being the residue.
See Section 93 Application No. P462464
Entered 10th November 1975
~~As to land in this application this deed is cancelled and new Certificate issued~~
Vol. ____ Fol. ____

REGISTRAR GENERAL

1/3/-
(Lot 24A)
(Residue)

No. 588770 TRANSFER dated 21st December 1964
to Alan Lively of Lot 39 on Deposited Plan No. 29493
of the land within described.

Entered 10th March 1965.
As to land in this transfer this deed is cancelled and new Certificate issued
Vol. 9945 Fol. 233.

REGISTRAR GENERAL

As to the residue Lot 24A in D.P. 26995, Lot 34 in D.P. 26995, and Lots 37, 38, 40, 63, A, B, C, D & E in D.P. 29493 this Deed is cancelled and New Certificate of Title issued.
Vol. 12951. Fols 72 to 82. dated 30-12-1975.
Vide P462464.

REGISTRAR GENERAL

No. M653132 TRANSFER dated 14th March 1972.
to President Pty. Limited of Lot 27 in D.P. 26995.
of the land within described

Entered 21st April 1972.
As to land in this transfer this deed is cancelled and new certificate issued
Vol. 11819 Fol. 45.

REGISTRAR GENERAL

No. M653133 TRANSFER dated 14th March 1972.
to President Pty. Limited of Lots 24, 25 and 26 in D.P. 26995.
of the land within described

Entered 21st April 1972.
As to land in this transfer this deed is cancelled and new certificate issued
Vol. 11819 Fol. 42, 43, 44

REGISTRAR GENERAL

Total Area included in Certificate.

All lengths shown hereon are in

Scale to one inch.

202

New South Wales

[CERTIFICATE OF TITLE.]

JOINT TENANCY

Primary Appn No. 184

Reference to Last Title

Vol. 7361 Fol. 82

REGISTER BOOK.

VOL. 7816 FOL. 182

MH Issued on Transfer No. H344316

S

GRY

CANCELLED W 54/29493
ON ISSUE OF NEW FOLIO

BADEN POWELL HAWKINS of Carlton, Clerk and JOY DEVEY HAWKINS his wife, are now the proprietors of an Estate in Fee Simple as joint tenants,

subject nevertheless to the reservations and conditions, if any, contained in the Grant hereinafter referred to, and also subject to such encumbrances liens, and interests as are notified hereon, in That piece of land

in the Shire of Sutherland Parish of Sutherland and County of Cumberland

being Lot 54 in Deposited Plan No. 29493 and being part of Portion 106 granted to Thomas Holt on 31st December 1862.

EXCEPTING THEREOUT the mines, beds, seams and veins of coal, iron and other metals and minerals excepted and reserved by Transfer No. A190749.P

68949 6.59 K 2606—1 V. C. N. Blight, Government Printer

Persons are cautioned against altering or adding to this Certificate or any notification thereon.

In witness whereof I have hereunto signed my name and affixed my Seal, this Fifteenth day of December , 1959

Signed in the presence of

Registrar-General.

NOTIFICATION REFERRED TO

Covenant contained in Transfer No. H344316.

Registrar General

N.D. J.T. K762720

M H344317

No. H344317 MORTGAGE dated 29th October 1959 from the said Baden Powell Hawkins and Joy Devey Hawkins to Joseph Horace King of Lyndea, Poultry Farmer

Entered 11th January 1960

REGISTRAR GENERAL

MORTGAGE No. H344317 has been discharged.

See H418283 Entered 25th February 1960.

REGISTRAR GENERAL

* Joy Devey Hawkins

, the surviving joint tenant, is now registered sole proprietor of the land within described.

See Notice of Death (Section 101) No. K762720

Entered 11th August 1961

REGISTRAR GENERAL

H344317 H

COMPUTER FOLIO NO FURTHER DEALINGS TO BE REGISTERED.

[redacted]FICATE OF TITLE

NEW SOUTH WALES

[redacted]L PROPERTY ACT, 1900

12951072

Vol. 12951 Fol. 72

EDITION ISSUED

30 12 1975

Appln. No. 184

Prior Title Vol. 8343 Fol. 169

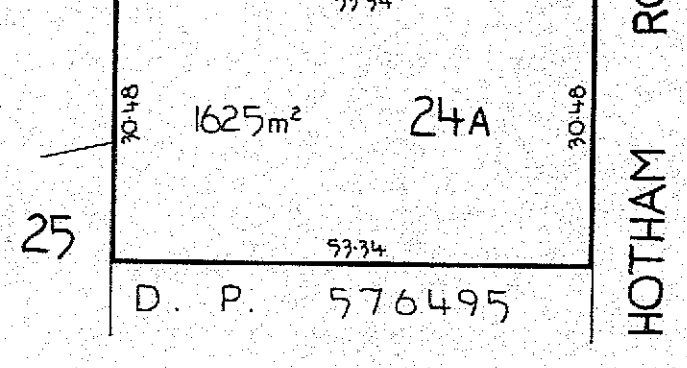
(Page 1) Vol. 12951 Fol. 72

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



P462464

GRY

XM

REDUCTION RATIO 1 : 800

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 24A in Deposited Plan 26995 at Kirrawee in the Shire of Sutherland Parish of Sutherland and County of Cumberland being part of Portions 106 and 107 granted to Thomas Holt on 31-12-1862. EXCEPTING THEREOUT all mines beds seams and veins of coal iron and other metals and minerals excepted by Transfer No.A190749.P

FIRST SCHEDULE

~~CHINITA KING of Gymea, Widow, JOHN HARVEY of Walgett, Grazier and WILLIAM REGINALD KING of Townsville in the State of Queensland, Retired, as Joint Tenants.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.

Vol. 12951 Fol. 72

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
~~Chinita King by Transfer T175727. Registered 10-8-1982.~~					
Paul Francis Holdsworth by Transfer W388097. Registered 30-6-1986					

T175727 To W388097 To 98 M

CANCELLED

SEE AUTO FOLIO

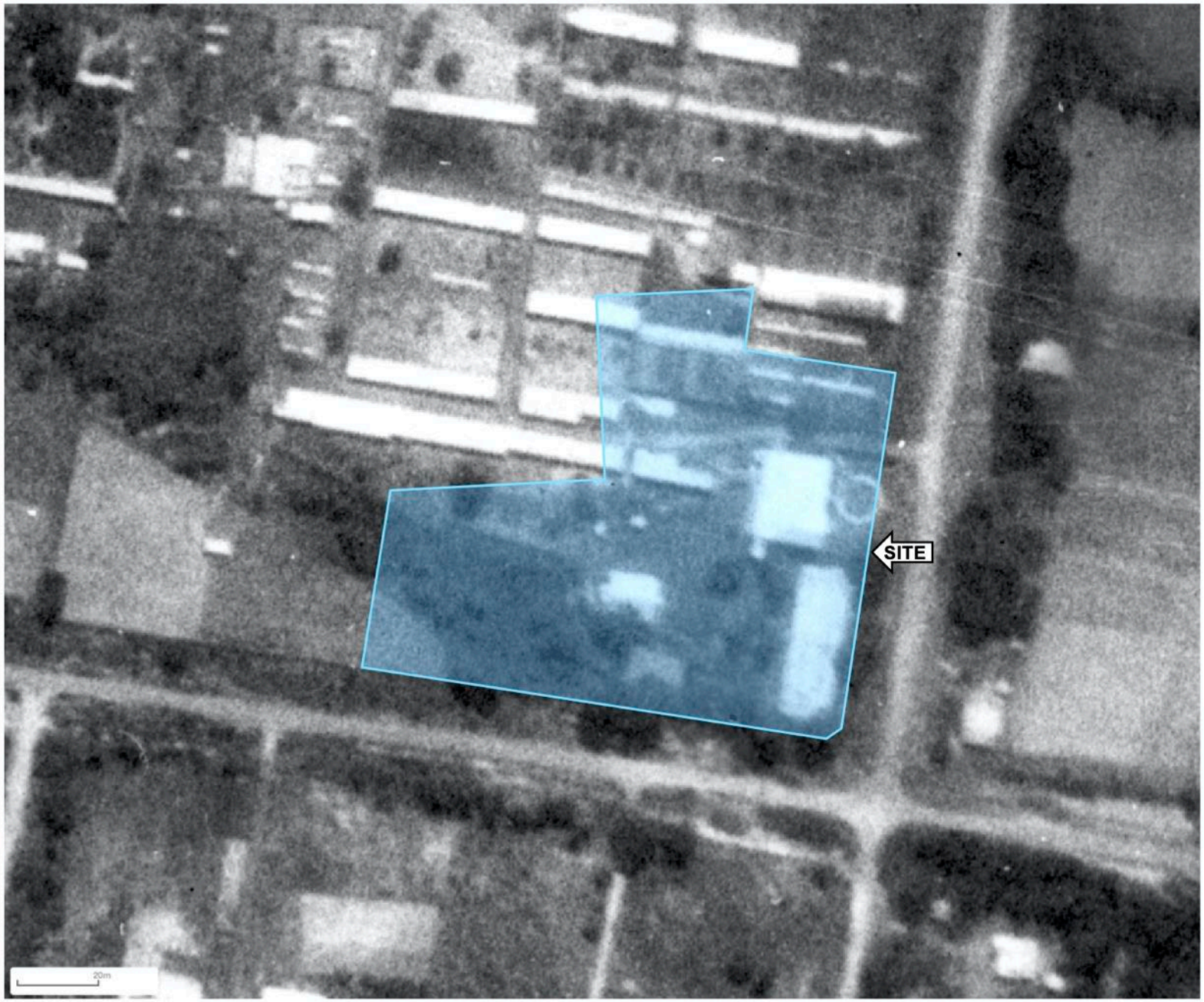
SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
M W388098P	Mortgage		to Chinita King. Registered 30-6-1986			

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Appendix D – Historical Aerial Photographs



SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Aerial Photograph 1930**

FIGURE: A4

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Aerial Photograph 1955**

FIGURE: A4

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Aerial Photograph 1961**

FIGURE:

A4

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Aerial Photograph 1970**

FIGURE:

A4

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Aerial Photograph 1978**

FIGURE:

A4

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Aerial Photograph 1984**

FIGURE:

A4

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

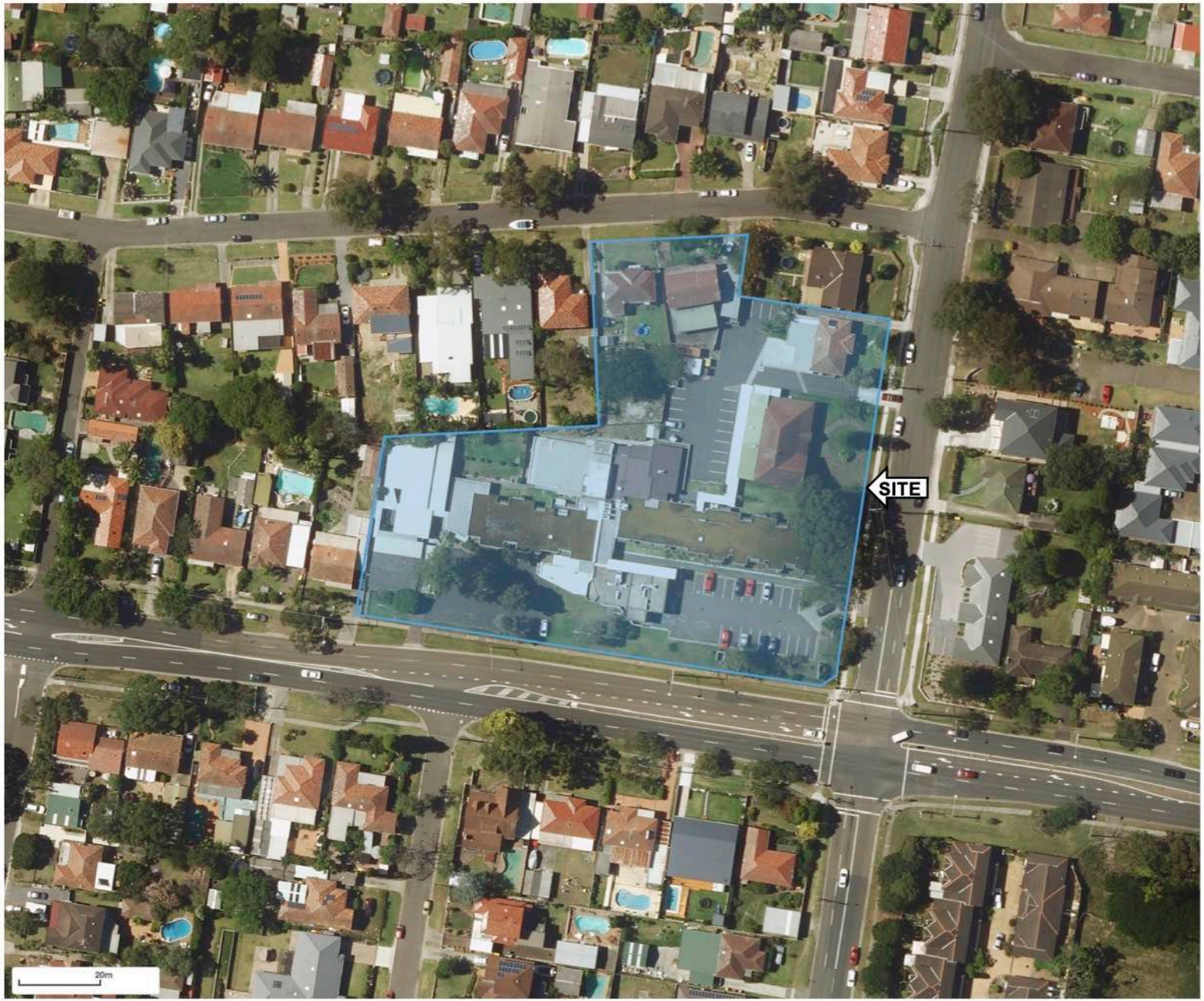
PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Aerial Photograph 2001**

FIGURE:

A4



SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Aerial Photograph 2014**

FIGURE:

A4

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Photograph courtesy of
SSC Maps & NSW Land and Property Information

LG CONSULT

REV:	A
DATE:	07/06/2020
DRAWN:	GP
APPROVED:	GP
STATUS:	Final
DWG NO:	

CLIENT: **President Private Hospital**

PROJECT: **369-381 President Avenue, Kirrawee, NSW**

PROJECT NUMBER: LG1930.01

TITLE: **Aerial Photograph 2018**

FIGURE:

A4

Appendix E – NSW EPA Search Results

Search results

Your search for: **General Search** with the following criteria

Suburb - Kirrawee

returned 14 results

Export to excel 1 of 1 Pages Search Again

Number	Name	Location	Type	Status	Issued date
513	CONCRITE PTY LTD	444 THE BOULEVARDE, KIRRAWEE, NSW 2232	POEO licence	No longer in force	18 Feb 2000
1004224	CONCRITE PTY LTD	444 THE BOULEVARDE, KIRRAWEE, NSW 2232	s.58 Licence Variation	Issued	08 Feb 2001
1345	HANDYCRETE CONCRETE PTY LTD	5 / 423 THE BOULEVARDE, KIRRAWEE, NSW 2232	POEO licence	No longer in force	27 Jun 2000
1076733	HANDYCRETE CONCRETE PTY LTD	5 / 423 THE BOULEVARDE, KIRRAWEE, NSW 2232	s.58 Licence Variation	Issued	04 Sep 2007
1081041	HANDYCRETE CONCRETE PTY LTD	5 / 423 THE BOULEVARDE, KIRRAWEE, NSW 2232	s.58 Licence Variation	Issued	21 Jan 2008
1145	INDUSTRIAL GALVANIZERS CORPORATION PTY LTD	127-141 BATH ROAD, KIRRAWEE, NSW 2232	POEO licence	Surrendered	26 Jun 2000
1031399	INDUSTRIAL GALVANIZERS CORPORATION PTY LTD	127-141 BATH ROAD, KIRRAWEE, NSW 2232	s.58 Licence Variation	Issued	18 Nov 2003
1040463	INDUSTRIAL GALVANIZERS CORPORATION PTY LTD	127-141 BATH ROAD, KIRRAWEE, NSW 2232	s.58 Licence Variation	Issued	28 Oct 2004
1057363	INDUSTRIAL GALVANIZERS CORPORATION PTY LTD	127-141 BATH ROAD, KIRRAWEE, NSW 2232	s.58 Licence Variation	Issued	07 Apr 2006
1072471	INDUSTRIAL GALVANIZERS CORPORATION PTY LTD	127-141 BATH ROAD, KIRRAWEE, NSW 2232	s.58 Licence Variation	Issued	31 Aug 2007
1081498	INDUSTRIAL GALVANIZERS CORPORATION PTY LTD	127-141 BATH ROAD, KIRRAWEE, NSW 2232	s.80 Surrender of a Licence	Issued	02 Jan 2008
6880	PRESIDENT PRIVATE HOSPITAL PTY. LIMITED	369 PRESIDENT AVE , KIRRAWEE, NSW 2232	POEO licence	No longer in force	26 Jun 2000
1019128	PRESIDENT PRIVATE HOSPITAL PTY. LIMITED	369 PRESIDENT AVE , KIRRAWEE, NSW 2232	s.58 Licence Variation	Issued	25 Jul 2002
1042127	PRESIDENT PRIVATE HOSPITAL PTY. LIMITED	369 PRESIDENT AVE , KIRRAWEE, NSW 2232	s.58 Licence Variation	Issued	08 Nov 2004

09 June 2020

For business and industry

For local government

Contact us

Licence summary

Search Again Return to Previous Page

Summary Licence No: 6880

View this licence (PDF document 200 kb)

Licence holder: **PRESIDENT PRIVATE HOSPITAL PTY. LIMITED**
Trading as: PRESIDENT PRIVATE HOSPITAL
Premises: PRESIDENT PRIVATE HOSPITAL
369 PRESIDENT AVE , KIRRAWEE, NSW, 2232
LGA: SUTHERLAND SHIRE **Catchment:** Illawarra Coast
Administrative fee: $500.00
Licence status: No_longer_in_force
Activity type: Hazardous, Industrial or Group A Waste Generation or Storage
Licence review: Complete date 08 Nov 2004
Complete date 01 Jun 2002
Due date 08 Nov 2009
Pollution incident management plan: No

Notices

Number	Issue date	Notice type
1019128	25 Jul 2002	s.58 Licence Variation
1042127	08 Nov 2004	s.58 Licence Variation

Annual Returns

Start date	End date	Date received	Non-compliance	LBL data
01-Apr-2007	31-Mar-2008	29-May-2008	No	Not available
01-Apr-2006	31-Mar-2007	18-Apr-2007	No	Not available
01-Apr-2005	31-Mar-2006	24-Apr-2006	No	Not available
01-Apr-2004	31-Mar-2005	30-May-2005	No	Not available
01-Apr-2003	31-Mar-2004	31-May-2004	No	Not available
01-Apr-2002	31-Mar-2003	02-Jun-2003	No	Not available
01-Apr-2001	31-Mar-2002	24-May-2002	No	Not available
01-Apr-2000	31-Mar-2001	15-May-2001	No	Not available

Notice summary

Search Again Return to Previous Page

Summary of Notice No: 1019128

View report (PDF document 1325 kb)

Organisation: PRESIDENT PRIVATE HOSPITAL PTY. LIMITED
Location: PRESIDENT PRIVATE HOSPITAL
369 PRESIDENT AVE , KIRRAWEE, NSW, 2232
LGA: SUTHERLAND SHIRE
Catchment: Illawarra Coast
Issue date: 25 Jul 2002
Notice type: s.58 Licence Variation

Licence

Number	Name	Licence status
6880	PRESIDENT PRIVATE HOSPITAL PTY. LIMITED	No longer in force

Notice summary

Search Again Return to Previous Page

Summary of Notice No: 1042127

View report (PDF document 961 kb)

Organisation: PRESIDENT PRIVATE HOSPITAL PTY. LIMITED
Location: PRESIDENT PRIVATE HOSPITAL
369 PRESIDENT AVE , KIRRAWEE, NSW, 2232
LGA: SUTHERLAND SHIRE
Catchment: Illawarra Coast
Issue date: 08 Nov 2004
Notice type: s.58 Licence Variation

Licence

Number	Name	Licence status
6880	PRESIDENT PRIVATE HOSPITAL PTY. LIMITED	No longer in force

Search results

Your search for:Suburb: KIRRAWEE

Search Again
Refine Search

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the planning process.

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... more search tips

More information about particular sites may be available from:

- The POEO public register
- The appropriate planning authority: for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act.

See What's in the record and What's not in the record.

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.
This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.POEO public register

09 June 2020

Appendix F – Laboratory Reports

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Gonzalo Parra
Client	LAND AND GROUNDWATER CONSULTING PTY LTD
Address	131 B Riverview Road NSW 2204
Telephone	61 2 95598424
Facsimile	(Not specified)
Email	gparra@lgconsult.com.au
Project	**LG1930.01 369-381 President Ave, Kirrawe**
Order Number	**LG1930.01**
Samples	22

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE207286 R0**
Date Received	9/6/2020
Date Reported	16/6/2020

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.
Samples 1-21:A portion of the sample supplied has been sub-sampled for asbestos analysis in soil according to SGS In-house procedures due to large volume. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Environmental Services recommends supplying approximately 50-100g of sample in a separate container.
Sample 22:A portion of the sample supplied has been sub-sampled for asbestos analysis in soil according to SGS In-house procedures. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Environmental Services recommends supplying approximately 50-100g of sample in a separate container.
Sample #3: Asbestos found in approx 5x3x2mm cement sheet fragments.
Sample # 13 : Asbestos found in approx 12x10x4mm cement sheet fragments x 2.

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam .

SIGNATORIES

Dong LIANG
Metals/Inorganics Team Leader

Kamrul AHSAN
Senior Chemist

Ly Kim HA
Organic Section Head

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

VOC's in Soil [AN433] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH1/0.1-0.3 SOIL - 9/6/2020 SE207286.001	BH2/0.1-0.3 SOIL - 9/6/2020 SE207286.002	BH3/0.1-0.3 SOIL - 9/6/2020 SE207286.003	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH6/0.1-0.3 SOIL - 9/6/2020 SE207286.006	BH7/0.1-0.3 SOIL - 9/6/2020 SE207286.007	BH8/0.1-0.3 SOIL - 9/6/2020 SE207286.008	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

VOC's in Soil [AN433] Tested: 10/6/2020 (continued)

PARAMETER	UOM	LOR	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021	QC1 SOIL - 9/6/2020 SE207286.022
Benzene	mg/kg	0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH1/0.1-0.3 SOIL - 9/6/2020 SE207286.001	BH2/0.1-0.3 SOIL - 9/6/2020 SE207286.002	BH3/0.1-0.3 SOIL - 9/6/2020 SE207286.003	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH6/0.1-0.3 SOIL - 9/6/2020 SE207286.006	BH7/0.1-0.3 SOIL - 9/6/2020 SE207286.007	BH8/0.1-0.3 SOIL - 9/6/2020 SE207286.008	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021	QC1 SOIL - 9/6/2020 SE207286.022
TRH C6-C9	mg/kg	20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH1/0.1-0.3 SOIL - 9/6/2020 SE207286.001	BH2/0.1-0.3 SOIL - 9/6/2020 SE207286.002	BH3/0.1-0.3 SOIL - 9/6/2020 SE207286.003	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH6/0.1-0.3 SOIL - 9/6/2020 SE207286.006	BH7/0.1-0.3 SOIL - 9/6/2020 SE207286.007	BH8/0.1-0.3 SOIL - 9/6/2020 SE207286.008	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 10/6/2020 (continued)

PARAMETER	UOM	LOR	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021	QC1 SOIL - 9/6/2020 SE207286.022
TRH C10-C14	mg/kg	20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.1**	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 10/6/2020 (continued)

PARAMETER	UOM	LOR	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	QC1 SOIL - 9/6/2020 SE207286.022
Naphthalene	mg/kg	0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1
Fluorene	mg/kg	0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1
Anthracene	mg/kg	0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1
Pyrene	mg/kg	0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1
Chrysene	mg/kg	0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8

OC Pesticides in Soil [AN420] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH1/0.1-0.3 SOIL - 9/6/2020 SE207286.001	BH2/0.1-0.3 SOIL - 9/6/2020 SE207286.002	BH3/0.1-0.3 SOIL - 9/6/2020 SE207286.003	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	<0.1	<0.1
Alpha BHC	mg/kg	0.1	-	-	-	<0.1	<0.1
Lindane	mg/kg	0.1	-	-	-	<0.1	<0.1
Heptachlor	mg/kg	0.1	-	-	-	<0.1	<0.1
Aldrin	mg/kg	0.1	-	-	-	<0.1	<0.1
Beta BHC	mg/kg	0.1	-	-	-	<0.1	<0.1
Delta BHC	mg/kg	0.1	-	-	-	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	-	-	-	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	-	-	-	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	-	-	-	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	-	-	-	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	-	-	-	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	-	-	-	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	-	-	-	<0.1	<0.1
Dieldrin	mg/kg	0.2	-	-	-	<0.2	<0.2
Endrin	mg/kg	0.2	-	-	-	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	-	-	-	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	-	-	-	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	-	-	-	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	-	-	-	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	-	-	-	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	-	-	-	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	-	-	-	<0.1	<0.1
Methoxychlor	mg/kg	0.1	-	-	-	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	-	-	-	<0.1	<0.1
Isodrin	mg/kg	0.1	-	-	-	<0.1	<0.1
Mirex	mg/kg	0.1	-	-	-	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	-	-	-	<1	<1

OC Pesticides in Soil [AN420] Tested: 10/6/2020 (continued)

PARAMETER	UOM	LOR	BH6/0.1-0.3 SOIL - 9/6/2020 SE207286.006	BH7/0.1-0.3 SOIL - 9/6/2020 SE207286.007	BH8/0.1-0.3 SOIL - 9/6/2020 SE207286.008	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-	-	-
Lindane	mg/kg	0.1	-	-	-	-	-
Heptachlor	mg/kg	0.1	-	-	-	-	-
Aldrin	mg/kg	0.1	-	-	-	-	-
Beta BHC	mg/kg	0.1	-	-	-	-	-
Delta BHC	mg/kg	0.1	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-	-	-
Dieldrin	mg/kg	0.2	-	-	-	-	-
Endrin	mg/kg	0.2	-	-	-	-	-
o,p'-DDD	mg/kg	0.1	-	-	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-	-	-
Isodrin	mg/kg	0.1	-	-	-	-	-
Mirex	mg/kg	0.1	-	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	-	-

OC Pesticides in Soil [AN420] Tested: 10/6/2020 (continued)

PARAMETER	UOM	LOR	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	-	<1	<1

OC Pesticides in Soil [AN420] Tested: 10/6/2020 (continued)

PARAMETER	UOM	LOR	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Lindane	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Heptachlor	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Aldrin	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Beta BHC	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Delta BHC	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Dieldrin	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Endrin	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Isodrin	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Mirex	mg/kg	0.1	<0.1	<0.1	-	<0.1	-
Total CLP OC Pesticides	mg/kg	1	<1	<1	-	<1	-

OC Pesticides in Soil [AN420] Tested: 10/6/2020 (continued)

PARAMETER	UOM	LOR	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021	QC1 SOIL - 9/6/2020 SE207286.022
Hexachlorobenzene (HCB)	mg/kg	0.1	-	<0.1
Alpha BHC	mg/kg	0.1	-	<0.1
Lindane	mg/kg	0.1	-	<0.1
Heptachlor	mg/kg	0.1	-	<0.1
Aldrin	mg/kg	0.1	-	<0.1
Beta BHC	mg/kg	0.1	-	<0.1
Delta BHC	mg/kg	0.1	-	<0.1
Heptachlor epoxide	mg/kg	0.1	-	<0.1
o,p'-DDE	mg/kg	0.1	-	<0.1
Alpha Endosulfan	mg/kg	0.2	-	<0.2
Gamma Chlordane	mg/kg	0.1	-	<0.1
Alpha Chlordane	mg/kg	0.1	-	<0.1
trans-Nonachlor	mg/kg	0.1	-	<0.1
p,p'-DDE	mg/kg	0.1	-	<0.1
Dieldrin	mg/kg	0.2	-	<0.2
Endrin	mg/kg	0.2	-	<0.2
o,p'-DDD	mg/kg	0.1	-	<0.1
o,p'-DDT	mg/kg	0.1	-	<0.1
Beta Endosulfan	mg/kg	0.2	-	<0.2
p,p'-DDD	mg/kg	0.1	-	<0.1
p,p'-DDT	mg/kg	0.1	-	<0.1
Endosulfan sulphate	mg/kg	0.1	-	<0.1
Endrin Aldehyde	mg/kg	0.1	-	<0.1
Methoxychlor	mg/kg	0.1	-	<0.1
Endrin Ketone	mg/kg	0.1	-	<0.1
Isodrin	mg/kg	0.1	-	<0.1
Mirex	mg/kg	0.1	-	<0.1
Total CLP OC Pesticides	mg/kg	1	-	<1

OP Pesticides in Soil [AN420] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	QC1 SOIL - 9/6/2020 SE207286.022
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PCBs in Soil [AN420] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH1/0.1-0.3 SOIL - 9/6/2020 SE207286.001	BH2/0.1-0.3 SOIL - 9/6/2020 SE207286.002	BH3/0.1-0.3 SOIL - 9/6/2020 SE207286.003	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005
Arochlor 1016	mg/kg	0.2	-	-	-	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	-	-	-	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	-	-	-	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	-	-	-	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	-	-	-	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	-	-	-	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	-	-	-	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	-	-	-	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	-	-	-	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	-	-	-	<1	<1

PARAMETER	UOM	LOR	BH6/0.1-0.3 SOIL - 9/6/2020 SE207286.006	BH7/0.1-0.3 SOIL - 9/6/2020 SE207286.007	BH8/0.1-0.3 SOIL - 9/6/2020 SE207286.008	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010
Arochlor 1016	mg/kg	0.2	-	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-	-

PARAMETER	UOM	LOR	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	<1	<1

PCBs in Soil [AN420] Tested: 10/6/2020 (continued)

PARAMETER	UOM	LOR	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	<0.2	-
Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	<1	-

PARAMETER	UOM	LOR	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021	QC1 SOIL - 9/6/2020 SE207286.022
Arochlor 1016	mg/kg	0.2	-	<0.2
Arochlor 1221	mg/kg	0.2	-	<0.2
Arochlor 1232	mg/kg	0.2	-	<0.2
Arochlor 1242	mg/kg	0.2	-	<0.2
Arochlor 1248	mg/kg	0.2	-	<0.2
Arochlor 1254	mg/kg	0.2	-	<0.2
Arochlor 1260	mg/kg	0.2	-	<0.2
Arochlor 1262	mg/kg	0.2	-	<0.2
Arochlor 1268	mg/kg	0.2	-	<0.2
Total PCBs (Arochlors)	mg/kg	1	-	<1

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH1/0.1-0.3 SOIL - 9/6/2020 SE207286.001	BH2/0.1-0.3 SOIL - 9/6/2020 SE207286.002	BH3/0.1-0.3 SOIL - 9/6/2020 SE207286.003	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005
Arsenic, As	mg/kg	1	1	2	6	3	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	5.2	6.9	11	12	10
Copper, Cu	mg/kg	0.5	3.8	38	10	7.4	12
Lead, Pb	mg/kg	1	25	20	40	17	36
Nickel, Ni	mg/kg	0.5	1.7	66	4.8	3.6	5.7
Zinc, Zn	mg/kg	2	19	45	80	31	86

PARAMETER	UOM	LOR	BH6/0.1-0.3 SOIL - 9/6/2020 SE207286.006	BH7/0.1-0.3 SOIL - 9/6/2020 SE207286.007	BH8/0.1-0.3 SOIL - 9/6/2020 SE207286.008	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010
Arsenic, As	mg/kg	1	4	2	2	3	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	12	12	31	8.8	6.9
Copper, Cu	mg/kg	0.5	12	3.3	3.7	6.7	9.9
Lead, Pb	mg/kg	1	20	75	8	18	55
Nickel, Ni	mg/kg	0.5	15	5.4	6.6	3.2	1.7
Zinc, Zn	mg/kg	2	44	42	20	43	140

PARAMETER	UOM	LOR	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015
Arsenic, As	mg/kg	1	2	2	10	4	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	12	10	7.8	26	14
Copper, Cu	mg/kg	0.5	<0.5	<0.5	35	7.8	2.0
Lead, Pb	mg/kg	1	13	6	22	25	11
Nickel, Ni	mg/kg	0.5	0.6	0.8	1.5	3.4	1.0
Zinc, Zn	mg/kg	2	12	18	140	97	13

PARAMETER	UOM	LOR	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020
Arsenic, As	mg/kg	1	3	4	2	1	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	13	21	19	9.4	10
Copper, Cu	mg/kg	0.5	5.7	3.4	3.2	1.3	5.2
Lead, Pb	mg/kg	1	48	22	12	4	22
Nickel, Ni	mg/kg	0.5	2.5	1.5	0.9	0.6	1.3
Zinc, Zn	mg/kg	2	37	55	47	23	200

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 10/6/2020

(continued)

PARAMETER	UOM	LOR	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021	QC1 SOIL - 9/6/2020 SE207286.022
Arsenic, As	mg/kg	1	1	2
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	4.5	11
Copper, Cu	mg/kg	0.5	5.4	0.7
Lead, Pb	mg/kg	1	33	4
Nickel, Ni	mg/kg	0.5	1.8	0.7
Zinc, Zn	mg/kg	2	24	17

Mercury in Soil [AN312] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH1/0.1-0.3 SOIL - 9/6/2020 SE207286.001	BH2/0.1-0.3 SOIL - 9/6/2020 SE207286.002	BH3/0.1-0.3 SOIL - 9/6/2020 SE207286.003	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005
Mercury	mg/kg	0.05	<0.05	<0.05	**0.07**	**0.07**	**0.06**

PARAMETER	UOM	LOR	BH6/0.1-0.3 SOIL - 9/6/2020 SE207286.006	BH7/0.1-0.3 SOIL - 9/6/2020 SE207286.007	BH8/0.1-0.3 SOIL - 9/6/2020 SE207286.008	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010
Mercury	mg/kg	0.05	**0.05**	<0.05	<0.05	<0.05	**0.12**

PARAMETER	UOM	LOR	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	**0.05**

PARAMETER	UOM	LOR	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021	QC1 SOIL - 9/6/2020 SE207286.022
Mercury	mg/kg	0.05	<0.05	<0.05

Moisture Content [AN002] Tested: 10/6/2020

PARAMETER	UOM	LOR	BH1/0.1-0.3 SOIL - 9/6/2020 SE207286.001	BH2/0.1-0.3 SOIL - 9/6/2020 SE207286.002	BH3/0.1-0.3 SOIL - 9/6/2020 SE207286.003	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005
% Moisture	%w/w	1	18.0	11.5	15.9	20.1	14.2

PARAMETER	UOM	LOR	BH6/0.1-0.3 SOIL - 9/6/2020 SE207286.006	BH7/0.1-0.3 SOIL - 9/6/2020 SE207286.007	BH8/0.1-0.3 SOIL - 9/6/2020 SE207286.008	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010
% Moisture	%w/w	1	12.5	10.7	16.2	8.8	10.9

PARAMETER	UOM	LOR	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015
% Moisture	%w/w	1	14.7	14.6	16.1	11.4	14.7

PARAMETER	UOM	LOR	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020
% Moisture	%w/w	1	9.8	13.1	11.6	15.6	16.6

PARAMETER	UOM	LOR	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021	QC1 SOIL - 9/6/2020 SE207286.022
% Moisture	%w/w	1	19.0	15.3

Fibre Identification in soil [AN602] Tested: 15/6/2020

PARAMETER	UOM	LOR	BH1/0.1-0.3 SOIL - 9/6/2020 SE207286.001	BH2/0.1-0.3 SOIL - 9/6/2020 SE207286.002	BH3/0.1-0.3 SOIL - 9/6/2020 SE207286.003	BH4/0.1-0.3 SOIL - 9/6/2020 SE207286.004	BH5/0.1-0.3 SOIL - 9/6/2020 SE207286.005
Asbestos Detected	No unit	-	No	No	Yes	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH6/0.1-0.3 SOIL - 9/6/2020 SE207286.006	BH7/0.1-0.3 SOIL - 9/6/2020 SE207286.007	BH8/0.1-0.3 SOIL - 9/6/2020 SE207286.008	BH9/0.1-0.3 SOIL - 9/6/2020 SE207286.009	BH10/0.1-0.3 SOIL - 9/6/2020 SE207286.010
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH11/0.1-0.3 SOIL - 9/6/2020 SE207286.011	BH12/0.1-0.3 SOIL - 9/6/2020 SE207286.012	BH13/0.1-0.3 SOIL - 9/6/2020 SE207286.013	BH14/0.1-0.3 SOIL - 9/6/2020 SE207286.014	BH15/0.1-0.3 SOIL - 9/6/2020 SE207286.015
Asbestos Detected	No unit	-	No	No	Yes	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	**>0.01**	<0.01	<0.01

PARAMETER	UOM	LOR	BH16/0.1-0.3 SOIL - 9/6/2020 SE207286.016	BH17/0.1-0.3 SOIL - 9/6/2020 SE207286.017	BH18/0.1-0.3 SOIL - 9/6/2020 SE207286.018	BH19/0.1-0.3 SOIL - 9/6/2020 SE207286.019	BH20/0.1-0.3 SOIL - 9/6/2020 SE207286.020
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH21/0.1-0.3 SOIL - 9/6/2020 SE207286.021	QC1 SOIL - 9/6/2020 SE207286.022
Asbestos Detected	No unit	-	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid , mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser . Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC /MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup /fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS /ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable ’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Gonzalo Parra
Client	LAND AND GROUNDWATER CONSULTING PTY LTD
Address	131 B Riverview Road NSW 2204
Telephone	61 2 95598424
Facsimile	(Not specified)
Email	gparra@lgconsult.com.au
Project	**LG1930.01 369-381 President Ave, Kirrawe**
Order Number	**LG1930.01**
Samples	22

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE207286 R0**
Date Received	09 Jun 2020
Date Reported	16 Jun 2020

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.
Samples 1-21:A portion of the sample supplied has been sub-sampled for asbestos analysis in soil according to SGS In-house procedures due to large volume. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Environmental Services recommends supplying approximately 50-100g of sample in a separate container.
Sample 22:A portion of the sample supplied has been sub-sampled for asbestos analysis in soil according to SGS In-house procedures. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Environmental Services recommends supplying approximately 50-100g of sample in a separate container.
Sample #3: Asbestos found in approx 5x3x2mm cement sheet fragments.
Sample # 13 : Asbestos found in approx 12x10x4mm cement sheet fragments x 2.

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

SIGNATORIES

Kamrul AHSAN
Senior Chemist

Ly Kim HA
Organic Section Head

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

RESULTS

Fibre Identification in soil — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE207286.001	BH1/0.1-0.3	Soil	158g Clay,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.002	BH2/0.1-0.3	Soil	160g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.003	BH3/0.1-0.3	Soil	150g Clay,Sand,Soil,Rocks	09 Jun 2020	Chrysotile Asbestos Found	<0.01
SE207286.004	BH4/0.1-0.3	Soil	170g Clay,Sand,Soil,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.005	BH5/0.1-0.3	Soil	198g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.006	BH6/0.1-0.3	Soil	166g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.007	BH7/0.1-0.3	Soil	215g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.008	BH8/0.1-0.3	Soil	158g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.009	BH9/0.1-0.3	Soil	150g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.010	BH10/0.1-0.3	Soil	165g Clay,Sand,Soil,Rocks	09 Jun 2020	No Asbestos Found Organic Fibres Detected	<0.01
SE207286.011	BH11/0.1-0.3	Soil	186g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.012	BH12/0.1-0.3	Soil	161g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.013	BH13/0.1-0.3	Soil	174g Clay,Sand,Rocks	09 Jun 2020	Chrysotile Asbestos Found	>0.01
SE207286.014	BH14/0.1-0.3	Soil	178g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.015	BH15/0.1-0.3	Soil	172g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.016	BH16/0.1-0.3	Soil	168g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.017	BH17/0.1-0.3	Soil	157g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.018	BH18/0.1-0.3	Soil	154g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.019	BH19/0.1-0.3	Soil	178g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01

RESULTS

Fibre Identification in soil — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE207286.020	BH20/0.1-0.3	Soil	143g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.021	BH21/0.1-0.3	Soil	142g Clay,Sand,Soil, Rocks	09 Jun 2020	No Asbestos Found	<0.01
SE207286.022	QC1	Soil	123g Clay,Sand,Rocks	09 Jun 2020	No Asbestos Found	<0.01

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples , Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable ’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	NATA accreditation does not cover the performance of this service .
Amphiboles	-	Amosite and/or Crocidolite	**	-	Indicative data, theoretical holding time exceeded.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.
Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy , including dispersion staining.
Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos -containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety .

STATEMENT OF QA/QC PERFORMANCE

SE207286 R0

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Gonzalo Parra	Manager	Huong Crawford
Client	LAND AND GROUNDWATER CONSULTING PTY LTD	Laboratory	SGS Alexandria Environmental
Address	131 B Riverview Road NSW 2204	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	61 2 95598424	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	gparra@lgconsult.com.au	Email	au.environmental.sydney@sgs.com
Project	**LG1930.01 369-381 President Ave, Kirrawe**	SGS Reference	**SE207286 R0**
Order Number	**LG1930.01**	Date Received	09 Jun 2020
Samples	22	Date Reported	16 Jun 2020

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Duplicate	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
Matrix Spike	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Volatile Petroleum Hydrocarbons in Soil	1 item

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	22 Soil
Date documentation received	9/6/2020@5:21pm	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	6.7°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE207286 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Fibre Identification in soil

Method: ME-(AU)-[ENV]AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH12/0.1-0.3	SE207286.012	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020
QC1	SE207286.022	LB201898	09 Jun 2020	09 Jun 2020	09 Jun 2021	15 Jun 2020	09 Jun 2021	16 Jun 2020

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH12/0.1-0.3	SE207286.012	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201652	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	16 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201657	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	15 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201657	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	15 Jun 2020
QC1	SE207286.022	LB201657	09 Jun 2020	09 Jun 2020	07 Jul 2020	10 Jun 2020	07 Jul 2020	15 Jun 2020

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020

HOLDING TIME SUMMARY

SE207286 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content (continued)

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH12/0.1-0.3	SE207286.012	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020
QC1	SE207286.022	LB201645	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	15 Jun 2020	15 Jun 2020

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH12/0.1-0.3	SE207286.012	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
QC1	SE207286.022	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH12/0.1-0.3	SE207286.012	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
QC1	SE207286.022	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020

HOLDING TIME SUMMARY

SE207286 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH12/0.1-0.3	SE207286.012	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
QC1	SE207286.022	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH12/0.1-0.3	SE207286.012	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
QC1	SE207286.022	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH12/0.1-0.3	SE207286.012	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201651	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	16 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201654	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	15 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201654	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	15 Jun 2020
QC1	SE207286.022	LB201654	09 Jun 2020	09 Jun 2020	06 Dec 2020	10 Jun 2020	06 Dec 2020	15 Jun 2020

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH12/0.1-0.3	SE207286.012	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020
QC1	SE207286.022	LB201644	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	15 Jun 2020

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH12/0.1-0.3	SE207286.012	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
QC1	SE207286.022	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020

HOLDING TIME SUMMARY

SE207286 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Volatile Petroleum Hydrocarbons in Soil — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1/0.1-0.3	SE207286.001	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH2/0.1-0.3	SE207286.002	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH3/0.1-0.3	SE207286.003	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH4/0.1-0.3	SE207286.004	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH5/0.1-0.3	SE207286.005	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH6/0.1-0.3	SE207286.006	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH7/0.1-0.3	SE207286.007	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH8/0.1-0.3	SE207286.008	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH9/0.1-0.3	SE207286.009	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH10/0.1-0.3	SE207286.010	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH11/0.1-0.3	SE207286.011	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH12/0.1-0.3	SE207286.012	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH13/0.1-0.3	SE207286.013	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH14/0.1-0.3	SE207286.014	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH15/0.1-0.3	SE207286.015	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH16/0.1-0.3	SE207286.016	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH17/0.1-0.3	SE207286.017	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH18/0.1-0.3	SE207286.018	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH19/0.1-0.3	SE207286.019	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH20/0.1-0.3	SE207286.020	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
BH21/0.1-0.3	SE207286.021	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020
QC1	SE207286.022	LB201643	09 Jun 2020	09 Jun 2020	23 Jun 2020	10 Jun 2020	20 Jul 2020	16 Jun 2020

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH4/0.1-0.3	SE207286.004	%	60 - 130%	120
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	119
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	117
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	119
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	115
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	119
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	113
	BH17/0.1-0.3	SE207286.017	%	60 - 130%	125
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	125
	QC1	SE207286.022	%	60 - 130%	116

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH4/0.1-0.3	SE207286.004	%	60 - 130%	83
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	79
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	80
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	81
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	81
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	86
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	79
	BH17/0.1-0.3	SE207286.017	%	60 - 130%	84
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	81
	QC1	SE207286.022	%	60 - 130%	77
d14-p-terphenyl (Surrogate)	BH4/0.1-0.3	SE207286.004	%	60 - 130%	83
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	80
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	85
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	83
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	82
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	84
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	85
	BH17/0.1-0.3	SE207286.017	%	60 - 130%	81
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	81
	QC1	SE207286.022	%	60 - 130%	82

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH4/0.1-0.3	SE207286.004	%	70 - 130%	83
	BH5/0.1-0.3	SE207286.005	%	70 - 130%	79
	BH9/0.1-0.3	SE207286.009	%	70 - 130%	83
	BH10/0.1-0.3	SE207286.010	%	70 - 130%	87
	BH11/0.1-0.3	SE207286.011	%	70 - 130%	80
	BH12/0.1-0.3	SE207286.012	%	70 - 130%	81
	BH13/0.1-0.3	SE207286.013	%	70 - 130%	80
	BH14/0.1-0.3	SE207286.014	%	70 - 130%	81
	BH15/0.1-0.3	SE207286.015	%	70 - 130%	86
	BH16/0.1-0.3	SE207286.016	%	70 - 130%	79
	BH17/0.1-0.3	SE207286.017	%	70 - 130%	84
	BH18/0.1-0.3	SE207286.018	%	70 - 130%	79
	BH19/0.1-0.3	SE207286.019	%	70 - 130%	81
	BH20/0.1-0.3	SE207286.020	%	70 - 130%	77
	BH21/0.1-0.3	SE207286.021	%	70 - 130%	79
	QC1	SE207286.022	%	70 - 130%	77
d14-p-terphenyl (Surrogate)	BH4/0.1-0.3	SE207286.004	%	70 - 130%	83
	BH5/0.1-0.3	SE207286.005	%	70 - 130%	80
	BH9/0.1-0.3	SE207286.009	%	70 - 130%	82
	BH10/0.1-0.3	SE207286.010	%	70 - 130%	89
	BH11/0.1-0.3	SE207286.011	%	70 - 130%	85
	BH12/0.1-0.3	SE207286.012	%	70 - 130%	83
	BH13/0.1-0.3	SE207286.013	%	70 - 130%	79
	BH14/0.1-0.3	SE207286.014	%	70 - 130%	82
	BH15/0.1-0.3	SE207286.015	%	70 - 130%	84
	BH16/0.1-0.3	SE207286.016	%	70 - 130%	85

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	BH17/0.1-0.3	SE207286.017	%	70 - 130%	81
	BH18/0.1-0.3	SE207286.018	%	70 - 130%	78
	BH19/0.1-0.3	SE207286.019	%	70 - 130%	81
	BH20/0.1-0.3	SE207286.020	%	70 - 130%	79
	BH21/0.1-0.3	SE207286.021	%	70 - 130%	74
	QC1	SE207286.022	%	70 - 130%	82
d5-nitrobenzene (Surrogate)	BH4/0.1-0.3	SE207286.004	%	70 - 130%	93
	BH5/0.1-0.3	SE207286.005	%	70 - 130%	95
	BH9/0.1-0.3	SE207286.009	%	70 - 130%	93
	BH10/0.1-0.3	SE207286.010	%	70 - 130%	96
	BH11/0.1-0.3	SE207286.011	%	70 - 130%	93
	BH12/0.1-0.3	SE207286.012	%	70 - 130%	94
	BH13/0.1-0.3	SE207286.013	%	70 - 130%	92
	BH14/0.1-0.3	SE207286.014	%	70 - 130%	94
	BH15/0.1-0.3	SE207286.015	%	70 - 130%	92
	BH16/0.1-0.3	SE207286.016	%	70 - 130%	98
	BH17/0.1-0.3	SE207286.017	%	70 - 130%	97
	BH18/0.1-0.3	SE207286.018	%	70 - 130%	93
	BH19/0.1-0.3	SE207286.019	%	70 - 130%	93
	BH20/0.1-0.3	SE207286.020	%	70 - 130%	93
	BH21/0.1-0.3	SE207286.021	%	70 - 130%	93
	QC1	SE207286.022	%	70 - 130%	92

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH4/0.1-0.3	SE207286.004	%	60 - 130%	120
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	119
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	117
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	119
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	115
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	119
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	113
	BH17/0.1-0.3	SE207286.017	%	60 - 130%	125
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	125
	QC1	SE207286.022	%	60 - 130%	116

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1/0.1-0.3	SE207286.001	%	60 - 130%	85
	BH2/0.1-0.3	SE207286.002	%	60 - 130%	79
	BH3/0.1-0.3	SE207286.003	%	60 - 130%	81
	BH4/0.1-0.3	SE207286.004	%	60 - 130%	84
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	79
	BH6/0.1-0.3	SE207286.006	%	60 - 130%	81
	BH7/0.1-0.3	SE207286.007	%	60 - 130%	89
	BH8/0.1-0.3	SE207286.008	%	60 - 130%	86
	BH9/0.1-0.3	SE207286.009	%	60 - 130%	91
	BH10/0.1-0.3	SE207286.010	%	60 - 130%	85
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	84
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	80
	BH13/0.1-0.3	SE207286.013	%	60 - 130%	81
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	82
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	84
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	68
	BH17/0.1-0.3	SE207286.017	%	60 - 130%	72
	BH18/0.1-0.3	SE207286.018	%	60 - 130%	73
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	74
	BH20/0.1-0.3	SE207286.020	%	60 - 130%	64
	BH21/0.1-0.3	SE207286.021	%	60 - 130%	73
	QC1	SE207286.022	%	60 - 130%	70
d4-1,2-dichloroethane (Surrogate)	BH1/0.1-0.3	SE207286.001	%	60 - 130%	102
	BH2/0.1-0.3	SE207286.002	%	60 - 130%	100

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d4-1,2-dichloroethane (Surrogate)	BH3/0.1-0.3	SE207286.003	%	60 - 130%	100
	BH4/0.1-0.3	SE207286.004	%	60 - 130%	99
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	97
	BH6/0.1-0.3	SE207286.006	%	60 - 130%	100
	BH7/0.1-0.3	SE207286.007	%	60 - 130%	112
	BH8/0.1-0.3	SE207286.008	%	60 - 130%	108
	BH9/0.1-0.3	SE207286.009	%	60 - 130%	113
	BH10/0.1-0.3	SE207286.010	%	60 - 130%	106
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	104
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	99
	BH13/0.1-0.3	SE207286.013	%	60 - 130%	102
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	102
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	101
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	86
	BH17/0.1-0.3	SE207286.017	%	60 - 130%	92
	BH18/0.1-0.3	SE207286.018	%	60 - 130%	93
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	93
	BH20/0.1-0.3	SE207286.020	%	60 - 130%	81
	BH21/0.1-0.3	SE207286.021	%	60 - 130%	91
	QC1	SE207286.022	%	60 - 130%	89
d8-toluene (Surrogate)	BH1/0.1-0.3	SE207286.001	%	60 - 130%	98
	BH2/0.1-0.3	SE207286.002	%	60 - 130%	96
	BH3/0.1-0.3	SE207286.003	%	60 - 130%	97
	BH4/0.1-0.3	SE207286.004	%	60 - 130%	98
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	92
	BH6/0.1-0.3	SE207286.006	%	60 - 130%	96
	BH7/0.1-0.3	SE207286.007	%	60 - 130%	111
	BH8/0.1-0.3	SE207286.008	%	60 - 130%	104
	BH9/0.1-0.3	SE207286.009	%	60 - 130%	111
	BH10/0.1-0.3	SE207286.010	%	60 - 130%	101
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	102
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	96
	BH13/0.1-0.3	SE207286.013	%	60 - 130%	98
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	99
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	96
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	85
	BH17/0.1-0.3	SE207286.017	%	60 - 130%	92
	BH18/0.1-0.3	SE207286.018	%	60 - 130%	92
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	95
	BH20/0.1-0.3	SE207286.020	%	60 - 130%	81
	BH21/0.1-0.3	SE207286.021	%	60 - 130%	91
	QC1	SE207286.022	%	60 - 130%	88

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1/0.1-0.3	SE207286.001	%	60 - 130%	85
	BH2/0.1-0.3	SE207286.002	%	60 - 130%	79
	BH3/0.1-0.3	SE207286.003	%	60 - 130%	81
	BH4/0.1-0.3	SE207286.004	%	60 - 130%	84
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	79
	BH6/0.1-0.3	SE207286.006	%	60 - 130%	81
	BH7/0.1-0.3	SE207286.007	%	60 - 130%	89
	BH8/0.1-0.3	SE207286.008	%	60 - 130%	86
	BH9/0.1-0.3	SE207286.009	%	60 - 130%	91
	BH10/0.1-0.3	SE207286.010	%	60 - 130%	85
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	84
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	80
	BH13/0.1-0.3	SE207286.013	%	60 - 130%	81
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	82
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	84
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	68

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH17/0.1-0.3	SE207286.017	%	60 - 130%	72
	BH18/0.1-0.3	SE207286.018	%	60 - 130%	73
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	74
	BH20/0.1-0.3	SE207286.020	%	60 - 130%	64
	BH21/0.1-0.3	SE207286.021	%	60 - 130%	73
	QC1	SE207286.022	%	60 - 130%	70
d4-1,2-dichloroethane (Surrogate)	BH1/0.1-0.3	SE207286.001	%	60 - 130%	102
	BH2/0.1-0.3	SE207286.002	%	60 - 130%	100
	BH3/0.1-0.3	SE207286.003	%	60 - 130%	100
	BH4/0.1-0.3	SE207286.004	%	60 - 130%	99
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	97
	BH6/0.1-0.3	SE207286.006	%	60 - 130%	100
	BH7/0.1-0.3	SE207286.007	%	60 - 130%	112
	BH8/0.1-0.3	SE207286.008	%	60 - 130%	108
	BH9/0.1-0.3	SE207286.009	%	60 - 130%	113
	BH10/0.1-0.3	SE207286.010	%	60 - 130%	106
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	104
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	99
	BH13/0.1-0.3	SE207286.013	%	60 - 130%	102
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	102
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	101
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	86
	BH17/0.1-0.3	SE207286.017	%	60 - 130%	92
	BH18/0.1-0.3	SE207286.018	%	60 - 130%	93
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	93
	BH20/0.1-0.3	SE207286.020	%	60 - 130%	81
	BH21/0.1-0.3	SE207286.021	%	60 - 130%	91
	QC1	SE207286.022	%	60 - 130%	89
d8-toluene (Surrogate)	BH1/0.1-0.3	SE207286.001	%	60 - 130%	98
	BH2/0.1-0.3	SE207286.002	%	60 - 130%	96
	BH3/0.1-0.3	SE207286.003	%	60 - 130%	97
	BH4/0.1-0.3	SE207286.004	%	60 - 130%	98
	BH5/0.1-0.3	SE207286.005	%	60 - 130%	92
	BH6/0.1-0.3	SE207286.006	%	60 - 130%	96
	BH7/0.1-0.3	SE207286.007	%	60 - 130%	111
	BH8/0.1-0.3	SE207286.008	%	60 - 130%	104
	BH9/0.1-0.3	SE207286.009	%	60 - 130%	111
	BH10/0.1-0.3	SE207286.010	%	60 - 130%	101
	BH11/0.1-0.3	SE207286.011	%	60 - 130%	102
	BH12/0.1-0.3	SE207286.012	%	60 - 130%	96
	BH13/0.1-0.3	SE207286.013	%	60 - 130%	98
	BH14/0.1-0.3	SE207286.014	%	60 - 130%	99
	BH15/0.1-0.3	SE207286.015	%	60 - 130%	96
	BH16/0.1-0.3	SE207286.016	%	60 - 130%	85
	BH17/0.1-0.3	SE207286.017	%	60 - 130%	92
	BH18/0.1-0.3	SE207286.018	%	60 - 130%	92
	BH19/0.1-0.3	SE207286.019	%	60 - 130%	95
	BH20/0.1-0.3	SE207286.020	%	60 - 130%	81
	BH21/0.1-0.3	SE207286.021	%	60 - 130%	91
	QC1	SE207286.022	%	60 - 130%	88

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB201652.001	Mercury	mg/kg	0.05	<0.05
LB201657.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB201644.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	93

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB201644.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	mg/kg	0.5	<0.5
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5
		Fenitrothion	mg/kg	0.2	<0.2
		Malathion	mg/kg	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	89
		d14-p-terphenyl (Surrogate)	%	-	86

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB201644.001	Naphthalene	mg/kg	0.1	<0.1
	2-methylnaphthalene	mg/kg	0.1	<0.1
	1-methylnaphthalene	mg/kg	0.1	<0.1
	Acenaphthylene	mg/kg	0.1	<0.1
	Acenaphthene	mg/kg	0.1	<0.1
	Fluorene	mg/kg	0.1	<0.1
	Phenanthrene	mg/kg	0.1	<0.1
	Anthracene	mg/kg	0.1	<0.1
	Fluoranthene	mg/kg	0.1	<0.1
	Pyrene	mg/kg	0.1	<0.1
	Benzo(a)anthracene	mg/kg	0.1	<0.1
	Chrysene	mg/kg	0.1	<0.1
	Benzo(a)pyrene	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB201644.001		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
		Benzo(ghi)perylene	mg/kg	0.1	<0.1
		Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	95
		2-fluorobiphenyl (Surrogate)	%	-	89
		d14-p-terphenyl (Surrogate)	%	-	86

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB201644.001		Arochlor 1016	mg/kg	0.2	<0.2
		Arochlor 1221	mg/kg	0.2	<0.2
		Arochlor 1232	mg/kg	0.2	<0.2
		Arochlor 1242	mg/kg	0.2	<0.2
		Arochlor 1248	mg/kg	0.2	<0.2
		Arochlor 1254	mg/kg	0.2	<0.2
		Arochlor 1260	mg/kg	0.2	<0.2
		Arochlor 1262	mg/kg	0.2	<0.2
		Arochlor 1268	mg/kg	0.2	<0.2
		Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	93

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number		Parameter	Units	LOR	Result
LB201651.001		Arsenic, As	mg/kg	1	<1
		Cadmium, Cd	mg/kg	0.3	<0.3
		Chromium, Cr	mg/kg	0.5	<0.5
		Copper, Cu	mg/kg	0.5	<0.5
		Nickel, Ni	mg/kg	0.5	<0.5
		Lead, Pb	mg/kg	1	<1
		Zinc, Zn	mg/kg	2	<2.0
LB201654.001		Arsenic, As	mg/kg	1	<1
		Cadmium, Cd	mg/kg	0.3	<0.3
		Chromium, Cr	mg/kg	0.5	<0.5
		Copper, Cu	mg/kg	0.5	<0.5
		Nickel, Ni	mg/kg	0.5	<0.5
		Lead, Pb	mg/kg	1	<1
		Zinc, Zn	mg/kg	2	<2.0

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result
LB201644.001		TRH C10-C14	mg/kg	20	<20
		TRH C15-C28	mg/kg	45	<45
		TRH C29-C36	mg/kg	45	<45
		TRH C37-C40	mg/kg	100	<100
		TRH C10-C36 Total	mg/kg	110	<110

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB201643.001	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1
	Hydrocarbons	Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	117
		d8-toluene (Surrogate)	%	-	113
		Bromofluorobenzene (Surrogate)	%	-	97
	Totals	Total BTEX	mg/kg	0.6	<0.6

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter	Units	LOR

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Sample Number		Parameter	Units	LOR	Result
LB201643.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	117

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.010	LB201652.014	Mercury	mg/kg	0.05	0.12	0.11	73	3
SE207286.019	LB201652.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE207286.022	LB201657.021	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE207287.010	LB201657.014	Mercury	mg/kg	0.05	0.0081820705	0.0142260945	200	0

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.010	LB201645.011	% Moisture	%w/w	1	10.9	12.3	39	12
SE207286.020	LB201645.022	% Moisture	%w/w	1	16.6	16.8	36	1
SE207286.022	LB201645.025	% Moisture	%w/w	1	15.3	14.6	37	5

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.022	LB201644.031		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.17	0.17	30	1

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.011	LB201644.033		Dichlorvos	mg/kg	0.5	<0.5	0	200	0
			Dimethoate	mg/kg	0.5	<0.5	0.0009759485	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	0.0087461135	200	0
			Fenitrothion	mg/kg	0.2	<0.2	0	200	0
			Malathion	mg/kg	0.2	<0.2	0.0050577411	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	0	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	0.0054415448	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	0	200	0
			Methidathion	mg/kg	0.5	<0.5	0	200	0
			Ethion	mg/kg	0.2	<0.2	0.0002590497	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	0	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	0	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4000233831	30	0
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4401936273	30	4
SE207286.022	LB201644.031		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.022	LB201644.031		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	6
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.011	LB201644.033		Naphthalene	mg/kg	0.1	<0.1	0.0009397480	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	0	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	0.0001654217	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	0.0009770048	200	0
			Acenaphthene	mg/kg	0.1	<0.1	0.0006026688	200	0
			Fluorene	mg/kg	0.1	<0.1	0.0012954141	200	0
			Phenanthrene	mg/kg	0.1	<0.1	0.0015879697	200	0
			Anthracene	mg/kg	0.1	<0.1	0.0151857233	200	0
			Fluoranthene	mg/kg	0.1	<0.1	0.0045697534	200	0
			Pyrene	mg/kg	0.1	<0.1	0.0055077910	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	0.0118099735	200	0
			Chrysene	mg/kg	0.1	<0.1	0.0125337010	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.0073540689	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	0.0064895007	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	0	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	0.0027092325	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	0	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	0	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	0	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	0.242	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	0.121	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	0	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.4589289483	30	1
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4000233831	30	0
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4401936273	30	4
SE207286.022	LB201644.031		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.022	LB201644.031	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	6
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	0

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.022	LB201644.031		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	1

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.010	LB201651.014		Arsenic, As	mg/kg	1	3	4	60	41
			Cadmium, Cd	mg/kg	0.3	<0.3	0.3	143	6
			Chromium, Cr	mg/kg	0.5	6.9	8.4	37	19
			Copper, Cu	mg/kg	0.5	9.9	14	34	32
			Nickel, Ni	mg/kg	0.5	1.7	2.7	53	45
			Lead, Pb	mg/kg	1	55	74	32	29
			Zinc, Zn	mg/kg	2	140	150	31	11
SE207286.019	LB201651.024		Arsenic, As	mg/kg	1	1	1	106	20
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.5	9.4	5.4	37	55 ②
			Copper, Cu	mg/kg	0.5	1.3	1.1	72	11
			Nickel, Ni	mg/kg	0.5	0.6	0.5	118	14
			Lead, Pb	mg/kg	1	4	3	59	29
			Zinc, Zn	mg/kg	2	23	18	40	27
SE207286.022	LB201654.021		Arsenic, As	mg/kg	1	2	2	81	8
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.5	11	16	34	43 ②
			Copper, Cu	mg/kg	0.5	0.7	0.7	101	14
			Nickel, Ni	mg/kg	0.5	0.7	0.7	103	10
			Lead, Pb	mg/kg	1	4	4	56	9
			Zinc, Zn	mg/kg	2	17	17	42	2
SE207287.010	LB201654.014		Arsenic, As	mg/kg	1	0.4211970405	0.41720336	200	0
			Cadmium, Cd	mg/kg	0.3	0.0285713528	0.032628	200	0
			Chromium, Cr	mg/kg	0.5	4.0377773184	3.94450768	43	2
			Copper, Cu	mg/kg	0.5	21.9391123685	23.50129584	32	7
			Nickel, Ni	mg/kg	0.5	32.8008347378	31.32679536	32	5
			Lead, Pb	mg/kg	1	4.7718767555	4.07327952	53	16
			Zinc, Zn	mg/kg	2	30.2340212632	32.58406096	36	7

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.011	LB201644.032		TRH C10-C14	mg/kg	20	<20	0	200	0
			TRH C15-C28	mg/kg	45	<45	0	200	0
			TRH C29-C36	mg/kg	45	<45	0	200	0
			TRH C37-C40	mg/kg	100	<100	0	200	0
			TRH C10-C36 Total	mg/kg	110	<110	0	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	0	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	0	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	0	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	0	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	0	200	0
SE207286.022	LB201644.031		TRH C10-C14	mg/kg	20	<20	<20	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.022	LB201644.031		TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.010	LB201643.015	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	10.0	50	6
			d8-toluene (Surrogate)	mg/kg	-	10.1	9.5	50	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	7.7	50	9
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
SE207286.022	LB201643.031	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.9	8.8	50	1
			d8-toluene (Surrogate)	mg/kg	-	8.8	8.9	50	0
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.0	6.9	50	2
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE207286.010	LB201643.015		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	10.0	30	6
			d8-toluene (Surrogate)	mg/kg	-	10.1	9.5	30	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	7.7	30	9
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE207286.022	LB201643.031		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.9	8.8	30	1
			d8-toluene (Surrogate)	mg/kg	-	8.8	8.9	30	0
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.0	6.9	30	2
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB201652.002		Mercury	mg/kg	0.05	0.24	0.2	70 - 130	121
LB201657.002		Mercury	mg/kg	0.05	0.23	0.2	70 - 130	116

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB201644.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	107
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	105
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	104
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	104
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	104
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	90
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.13	0.15	40 - 130	89

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB201644.002		Dichlorvos	mg/kg	0.5	1.4	2	60 - 140	68
		Diazinon (Dimpylate)	mg/kg	0.5	1.7	2	60 - 140	83
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.8	2	60 - 140	92
		Ethion	mg/kg	0.2	1.3	2	60 - 140	67
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	82
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	77

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB201644.002		Naphthalene	mg/kg	0.1	4.2	4	60 - 140	106
		Acenaphthylene	mg/kg	0.1	3.9	4	60 - 140	97
		Acenaphthene	mg/kg	0.1	4.0	4	60 - 140	101
		Phenanthrene	mg/kg	0.1	4.1	4	60 - 140	102
		Anthracene	mg/kg	0.1	3.9	4	60 - 140	97
		Fluoranthene	mg/kg	0.1	4.0	4	60 - 140	100
		Pyrene	mg/kg	0.1	4.1	4	60 - 140	101
		Benzo(a)pyrene	mg/kg	0.1	4.1	4	60 - 140	102
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	97
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	82
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	77

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB201644.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	89

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB201651.002	Arsenic, As	mg/kg	1	270	318.22	80 - 120	85
	Cadmium, Cd	mg/kg	0.3	4.6	5.41	80 - 120	84
	Chromium, Cr	mg/kg	0.5	33	38.31	80 - 120	85
	Copper, Cu	mg/kg	0.5	240	290	80 - 120	84
	Nickel, Ni	mg/kg	0.5	160	187	80 - 120	84
	Lead, Pb	mg/kg	1	78	89.9	80 - 120	87
	Zinc, Zn	mg/kg	2	220	273	80 - 120	81
LB201654.002	Arsenic, As	mg/kg	1	310	318.22	80 - 120	98
	Cadmium, Cd	mg/kg	0.3	4.5	5.41	80 - 120	83
	Chromium, Cr	mg/kg	0.5	34	38.31	80 - 120	89
	Copper, Cu	mg/kg	0.5	280	290	80 - 120	95
	Nickel, Ni	mg/kg	0.5	170	187	80 - 120	90
	Lead, Pb	mg/kg	1	84	89.9	80 - 120	93
	Zinc, Zn	mg/kg	2	250	273	80 - 120	92

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB201644.002		TRH C10-C14	mg/kg	20	37	40	60 - 140	93
		TRH C15-C28	mg/kg	45	45	40	60 - 140	113
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	105
	TRH F Bands	TRH >C10-C16	mg/kg	25	38	40	60 - 140	95
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	125
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	95

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB201643.002	Monocyclic	Benzene	mg/kg	0.1	4.1	5	60 - 140	82
	Aromatic	Toluene	mg/kg	0.1	4.2	5	60 - 140	85
		Ethylbenzene	mg/kg	0.1	4.3	5	60 - 140	86
		m/p-xylene	mg/kg	0.2	8.7	10	60 - 140	87
		o-xylene	mg/kg	0.1	4.4	5	60 - 140	87
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.4	10	70 - 130	114
		d8-toluene (Surrogate)	mg/kg	-	11.3	10	70 - 130	113
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.8	10	70 - 130	98

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB201643.002		TRH C6-C10	mg/kg	25	67	92.5	60 - 140	72
		TRH C6-C9	mg/kg	20	61	80	60 - 140	76
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.4	10	70 - 130	114
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	62.5	60 - 140	66

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE207286.001	LB201652.004	Mercury	mg/kg	0.05	0.25	<0.05	0.2	112
SE207287.001	LB201657.004	Mercury	mg/kg	0.05	0.22	0.03127807778	0.2	95

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE207286.001	LB201651.004	Arsenic, As	mg/kg	1	44	1	50	86
		Cadmium, Cd	mg/kg	0.3	38	<0.3	50	76
		Chromium, Cr	mg/kg	0.5	50	5.2	50	90
		Copper, Cu	mg/kg	0.5	45	3.8	50	83
		Nickel, Ni	mg/kg	0.5	46	1.7	50	89
		Lead, Pb	mg/kg	1	59	25	50	68 ④
		Zinc, Zn	mg/kg	2	58	19	50	79
SE207287.001	LB201654.004	Arsenic, As	mg/kg	1	48	0.29859365200	50	95
		Cadmium, Cd	mg/kg	0.3	41	0.00708951408	50	82
		Chromium, Cr	mg/kg	0.5	49	1.42123905870	50	95
		Copper, Cu	mg/kg	0.5	71	13.1122648133	50	115
		Nickel, Ni	mg/kg	0.5	50	1.60765157609	50	97
		Lead, Pb	mg/kg	1	62	7.68086296457	50	108
		Zinc, Zn	mg/kg	2	60	5.72290598669	50	108

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE207286.001	LB201644.004		TRH C10-C14	mg/kg	20	34	<20	40	85
			TRH C15-C28	mg/kg	45	<45	<45	40	88
			TRH C29-C36	mg/kg	45	<45	<45	40	80
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	34	<25	40	85
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	34	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	88
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE207286.001	LB201643.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	3.5	<0.1	5	70
			Toluene	mg/kg	0.1	3.9	<0.1	5	77
			Ethylbenzene	mg/kg	0.1	4.0	<0.1	5	80
			m/p-xylene	mg/kg	0.2	8.2	<0.2	10	82
			o-xylene	mg/kg	0.1	4.1	<0.1	5	82
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.2	10.2	10	102
			d8-toluene (Surrogate)	mg/kg	-	10.3	9.8	10	103
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.5	10	91
		Totals	Total Xylenes	mg/kg	0.3	12	<0.3	-	-
			Total BTEX	mg/kg	0.6	24	<0.6	-	-

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE207286.001	LB201643.005		TRH C6-C10	mg/kg	25	58	<25	92.5	62
			TRH C6-C9	mg/kg	20	52	<20	80	65
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.2	10.2	10	102
			d8-toluene (Surrogate)	mg/kg	-	10.3	9.8	10	103
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.5	-	91
		VPH F Bands	Benzene (F0)	mg/kg	0.1	3.5	<0.1	-	-
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	34	<25	62.5	54 ④

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

QC Sample	Sample Number	Parameter	Units	LOR

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.

①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to relevant report comments for further information.

SAMPLE RECEIPT ADVICE

SE207286

CLIENT DETAILS

Contact	Gonzalo Parra
Client	LAND AND GROUNDWATER CONSULTING PTY LTD
Address	131 B Riverview Road NSW 2204
Telephone	61 2 95598424
Facsimile	(Not specified)
Email	gparra@lgconsult.com.au
Project	**LG1930.01 369-381 President Ave, Kirrawe**
Order Number	(Not specified)
Samples	22

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Tue 9/6/2020
Report Due	Tue 16/6/2020
SGS Reference	**SE207286**

SUBMISSION DETAILS

This is to confirm that 22 samples were received on Tuesday 9/6/2020. Results are expected to be ready by COB Tuesday 16/6/2020. Please quote SGS reference SE207286 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	22 Soil
Date documentation received	9/6/2020@5:21pm	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	6.7°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

20 soil samples have been placed on hold as no tests have been assigned for them by the client. These samples will not be processed.

SAMPLE RECEIPT ADVICE

SE207286

CLIENT DETAILS

Client LAND AND GROUNDWATER CONSULTING PTY LTD

Project LG1930.01 369-381 President Ave, Kirrawe

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	BH1/0.1-0.3	-	-	-	-	7	10	11	7
002	BH2/0.1-0.3	-	-	-	-	7	10	11	7
003	BH3/0.1-0.3	-	-	-	-	7	10	11	7
004	BH4/0.1-0.3	29	14	26	11	7	10	11	7
005	BH5/0.1-0.3	29	14	26	11	7	10	11	7
006	BH6/0.1-0.3	-	-	-	-	7	10	11	7
007	BH7/0.1-0.3	-	-	-	-	7	10	11	7
008	BH8/0.1-0.3	-	-	-	-	7	10	11	7
009	BH9/0.1-0.3	-	-	26	-	7	10	11	7
010	BH10/0.1-0.3	-	-	26	-	7	10	11	7
011	BH11/0.1-0.3	29	14	26	11	7	10	11	7
012	BH12/0.1-0.3	29	14	26	11	7	10	11	7
013	BH13/0.1-0.3	-	-	26	-	7	10	11	7
014	BH14/0.1-0.3	29	14	26	11	7	10	11	7
015	BH15/0.1-0.3	29	14	26	11	7	10	11	7
016	BH16/0.1-0.3	29	14	26	11	7	10	11	7
017	BH17/0.1-0.3	29	14	26	11	7	10	11	7
018	BH18/0.1-0.3	-	-	26	-	7	10	11	7
019	BH19/0.1-0.3	29	14	26	11	7	10	11	7
020	BH20/0.1-0.3	-	-	26	-	7	10	11	7
021	BH21/0.1-0.3	-	-	26	-	7	10	11	7
022	QC1	29	14	26	11	7	10	11	7

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE207286

CLIENT DETAILS

Client LAND AND GROUNDWATER CONSULTING PTY LTD

Project LG1930.01 369-381 President Ave, Kirrawe

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content
001	BH1/0.1-0.3	2	1	1
002	BH2/0.1-0.3	2	1	1
003	BH3/0.1-0.3	2	1	1
004	BH4/0.1-0.3	2	1	1
005	BH5/0.1-0.3	2	1	1
006	BH6/0.1-0.3	2	1	1
007	BH7/0.1-0.3	2	1	1
008	BH8/0.1-0.3	2	1	1
009	BH9/0.1-0.3	2	1	1
010	BH10/0.1-0.3	2	1	1
011	BH11/0.1-0.3	2	1	1
012	BH12/0.1-0.3	2	1	1
013	BH13/0.1-0.3	2	1	1
014	BH14/0.1-0.3	2	1	1
015	BH15/0.1-0.3	2	1	1
016	BH16/0.1-0.3	2	1	1
017	BH17/0.1-0.3	2	1	1
018	BH18/0.1-0.3	2	1	1
019	BH19/0.1-0.3	2	1	1
020	BH20/0.1-0.3	2	1	1
021	BH21/0.1-0.3	2	1	1
022	QC1	2	1	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

LG CONSULT

E-MAILED 9/6 @ 5-21pm

Chain of Custody Record

Project No:	LG1930.01	Lab:	SGS
Project/Site:	369-381 President Avenue, Kirrawee, NSW	Lab Quote No:	LGC141106060
Sampled By:	Gonzalo Parra	Lab Batch No:	
Phone:	0415 726 951	Date Results Required:	Standadrd TAT
Page 1 of 2		Sample Disposal After:	
Number of Eskies: 2			

LAB ID	SAMPLE ID	DATE	MATRIX	CONTAINER TYPE & PRESERVATIVE: Soil 0.1-0.2 L Glass jar, unpreserved	Soil - Plastic bag	Water 0.1-0.2 L Plastic, Filtered, HNO3	Water 0.5-1.0 L Amber glass, unpreserved	Water 40-50ml Glass, unpreserved	Water 0.25-1 L Plastic, unpreserved	Water 0.2-1.0L Plastic, sterile	ANALYSIS REQUIRED: CL 17: TRH C6-C40/BTEXN/PAH/OC/OP/PCB/8 Metals	CL 10: TRH C6-C40/BTEXN/PAH/8	CL 7: TRH C6-C40/BTEXN/8 Metals	Asbestos	HOLD
1	BH1/0.1-0.3	9/6/20	Soil	1	1								X	X	
	BH1/0.5-1.0	9/6/20	Soil	1											X
2	BH2/0.1-0.3	9/6/20	Soil	1	1								X	X	
	BH2/0.5-1.0	9/6/20	Soil	1											X
3	BH3/0.1-0.3	9/6/20	Soil	1	1								X	X	
	BH3/0.5-1.0	9/6/20	Soil	1											X
4	BH4/0.1-0.3	9/6/20	Soil	1	1						X			X	
	BH4/0.5-1.0	9/6/20	Soil	1											X
5	BH5/0.1-0.3	9/6/20	Soil	1	1						X			X	
	BH5/0.5-1.0	9/6/20	Soil	1											X
6	BH6/0.1-0.3	9/6/20	Soil	1	1								X	X	
	BH6/0.5-0.7	9/6/20	Soil	1											X
7	BH7/0.1-0.3	9/6/20	Soil	1	1								X	X	
	BH7/0.5-0.9	9/6/20	Soil	1											X
8	BH8/0.1-0.3	9/6/20	Soil	1	1								X	X	
	BH8/0.5-0.7	9/6/20	Soil	1											X
9	BH9/0.1-0.3	9/6/20	Soil	1	1							X		X	
	BH9/0.5-1.0	9/6/20	Soil	1											X
10	BH10/0.1-0.3	9/6/20	Soil	1	1							X		X	
	BH10/0.5-0.9	9/6/20	Soil	1											X
11	BH11/0.1-0.3	9/6/20	Soil	1	1						X			X	
12	BH12/0.1-0.3	9/6/20	Soil	1	1						X			X	
	BH12/0.5-0.8	9/6/20	Soil	1											X
13	BH13/0.1-0.3	9/6/20	Soil	1	1							X		X	
	BH13/0.5-1.0	9/6/20	Soil	1											X
14	BH14/0.1-0.3	9/6/20	Soil	1	1						X			X	
	BH14/0.5-0.7	9/6/20	Soil	1											X
15	BH15/0.1-0.3	9/6/20	Soil	1	1						X			X	
	BH15/0.5-0.7	9/6/20	Soil	1											X
			TOTALS	29	15										

Relinquished By:			Received By:		
Gonzalo Parra		9/6/20	Suba	09/06/20 @ 3:50	Custody Seals Intact Y N
NAME	SIGNATURE	DATE	NAME SIGNATURE	DATE	Samples Received Chilled Y N
					Method of Shipment

NOTES:

Land & Groundwater Consulting Pty Ltd ABN 65 162 117 928
13/80-84 Illawarra Road
Marrickville NSW 2204

SGS EHS Sydney COC

SE207286

web www.lgconsult.com.au
email
email gparra@lgconsult.com.au

LG CONSULT

Chain of Custody Record

Project No:	LG1930.01
Project/Site:	369-381 President Avenue, Kirrawee, NSW
Sampled By:	Gonzalo Parra
Phone:	0415 726 951
Page 2 of 2	
Number of Eskies: 2	

Lab:	SGS
Lab Quote No:	LGC141106060
Lab Batch No:	
Date Results Required:	Standadrd TAT
Sample Disposal After:	

LAB ID	SAMPLE ID	DATE	MATRIX	Soil: 0.1-0.2 L Glass jar, unpreserved	Soil: - Plastic bag	Water: 0.1-0.2 L Plastic, Filtered, HNO3	Water: 0.5-1.0 L Amber glass, unpreserved	Water: 40-50ml Glass, unpreserved	Water: 0.25-1 L Plastic, unpreserved	Water: 0.2-1.0L Plastic, sterile	CL 17: TRH C6-C40/BTEXN/PAH/OC/OP/PCB/8 Metals	CL 10: TRH C6-C40/BTEXN/PAH/8	CL 7: TRH C6-C40/BTEXN/8 Metals	Asbestos	HOLD
16	BH16/0.1-0.3	9/6/20	Soil	1	1						X			X	
	BH16/0.5-0.8	9/6/20	Soil	1											X
17	BH17/0.1-0.3	9/6/20	Soil	1	1						X			X	
	BH17/0.5-0.9	9/6/20	Soil	1											X
18	BH18/0.1-0.3	9/6/20	Soil	1	1							X		X	
	BH18/0.5-0.8	9/6/20	Soil	1											X
19	BH19/0.1-0.3	9/6/20	Soil	1	1						X			X	
	BH19/0.5-1.0	9/6/20	Soil	1											X
20	BH20/0.1-0.3	9/6/20	Soil	1	1							X		X	
	BH20/0.5-1.0	9/6/20	Soil	1											X
21	BH21/0.1-0.3	9/6/20	Soil	1	1							X		X	
	BH21/0.5-1.0	9/6/20	Soil	1											X
22	QC1	9/6/20	Soil	1	1						X			X	
			TOTALS	13	7										

Relinquished By:
Gonzalo Parra — NAME
SIGNATURE: [signature]
9/6/20 — DATE

Received By:
Suba — NAME
SIGNATURE: [signature]
09/06/20 @3.50 — DATE

	Y	N
Custody Seals Intact	Y	N
Samples Received Chilled	Y	N
Method of Shipment		

NOTES:

Land & Groundwater Consulting Pty Ltd ABN 65 162 117 928
13/80-84 Illawarra Road
Marrickville NSW 2204

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