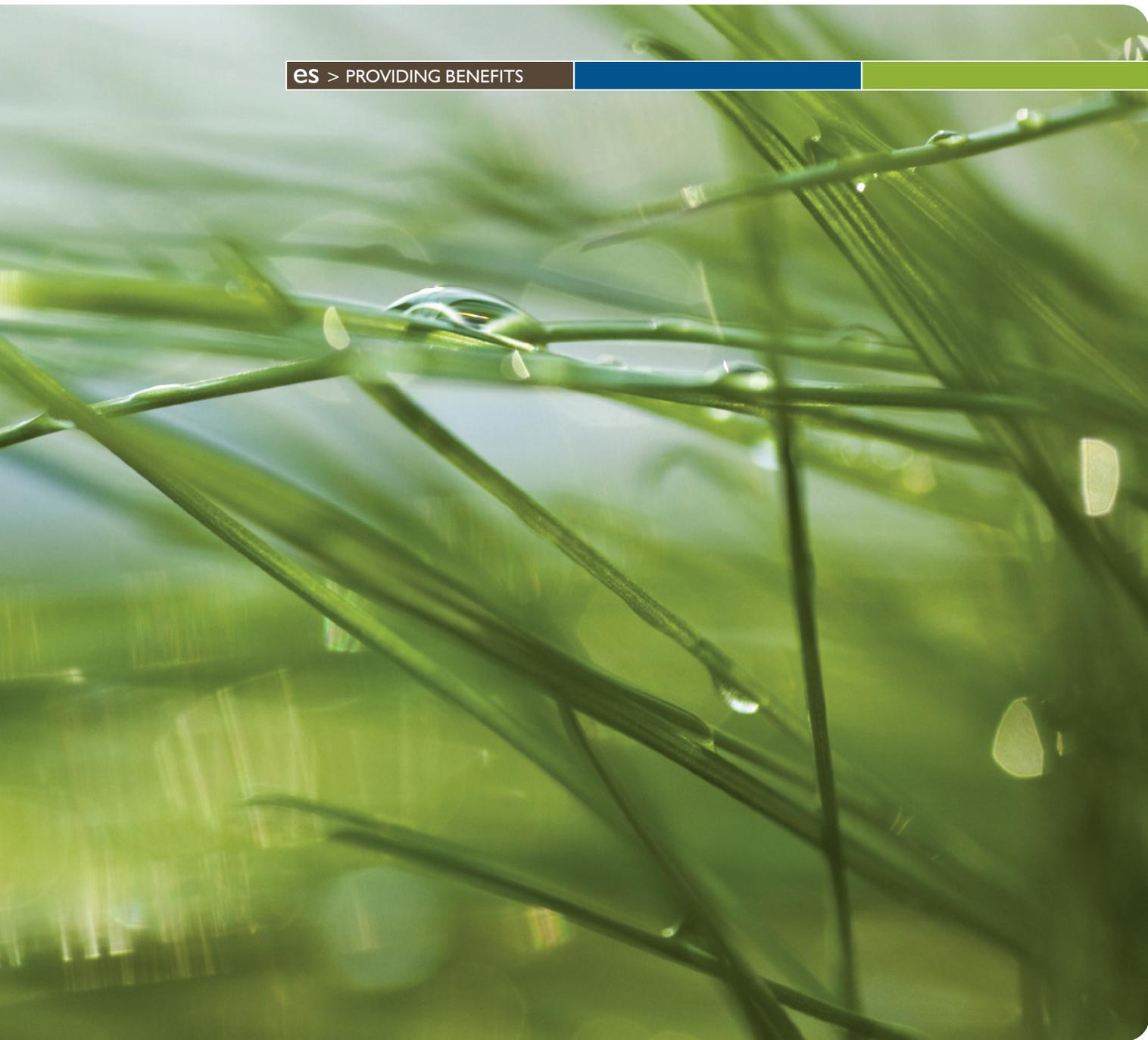




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Table of Contents

Executive Summary	3
Recommendations.....	4
1 Introduction	5
1.1 Background	5
1.2 Objectives of the Investigation	5
1.3 Scope of Works	5
2 Limitations	6
3 Site Identification	7
3.1 Site Description.....	7
4 Site History	9
4.1 Zoning	9
4.2 Proposed Development Zoning	10
4.3 Current Land Use	10
4.4 Council Development Approvals.....	10
4.5 Title Deeds	10
4.6 Aerial Photographs	11
4.7 Chemical Inventory	13
4.8 Manufacturing Processes.....	14
4.9 Hazardous Materials	15
4.10 Storage Tanks.....	16
4.11 Product Spill and Loss History.....	16
4.12 Discharges to Land, Water and Air	16
4.13 Disposal Locations.....	16
4.14 Complaint History	16
4.15 Local Site Knowledge (Past and Present).....	16
4.16 Permits, Licences, approvals and trade waste agreements	16
4.17 Property Searches	17
4.18 Review of Council Records.....	17
4.19 Potential Contaminant Sources	18
5 Site Condition and Surrounding Environment	20
5.1 Surrounding Land-uses	20
5.2 Topography.....	21
5.3 Conditions of the Site Boundary	21
5.4 Visible Signs of Contamination	21
5.5 Visible Signs of Plant Stress.....	21
5.6 Presence of Drums, Wastes and Fill Material	21
5.7 Odours	21
5.8 Conditions of Buildings	21
5.9 Quality of Surface Water	21
5.10 Flood Potential.....	21
5.11 Local Sensitive Environments	22
6 Geology and Hydrogeology	23



6.1	Geology	23
6.2	Fill Material	23
6.3	Hydrogeology	23
6.4	Groundwater Bore Search	23
6.5	Hydrology	25
6.6	Summary of Local Meteorology.....	25
6.7	Acid Sulfate Soil Risk	25
7	Integrity Assessment	27
8	Potential Contamination Issues	28
8.1	Potential Areas of Environmental Concern	28
9	Conclusions and Recommendations	29
9.1	Conclusions	29
9.2	Recommendations	30

Appendices

Appendix A	Figures
Appendix B	Site Photographs
Appendix C	Title Deeds
Appendix D	Aerial Photographs
Appendix E	Council and Government Records
Appendix F	Groundwater Bore Search

Executive Summary

Woolworths Limited engaged Environmental Strategies Pty Ltd (ES) to complete a Phase 1 Preliminary Site Investigation (PSI) of the property located at 130-140 Parraweena Road, Miranda NSW (the Site) for the purposes of a planning proposal.

A site location map and site layout plan have been provided in **Figure 1** and **Figure 2, Appendix A** respectively.

The primary objectives of this investigation were to identify issues, concerns, environmental risks and liabilities associated with the present and historical uses of the Site, with particular focus on potential for soil and groundwater contamination.

The subject site is square in shape, and occupies a combined area of approximately 7,725m². The site is bounded by Parraweena Road to the north, and commercial/ industrial properties to the east, west and south.

It is understood that Woolworths Limited intend to purchase the subject site in addition to an adjacent property to accommodate a proposed Woolworths supermarket development. The details of a previous Phase 1 (PSI) for the adjacent site (140-142 Parraweena Road) has been reported separately by Environmental Strategies.

The subject site has been vacant until commercial development began in 1970s. The current building structure consists of a large factory with a two storey office building attached to the northern side of the factory. The site has been used in the warehousing of furniture and electronic materials in addition to the manufacturing of timber products and minor electrical components and recent records of flammable liquid and chemical stores.

The site is currently occupied by two (2) companies, Rittal Pty Ltd (Rittal) and Phoenix Contact Ltd (Phoenix Contact). It is understood that both companies share admin resources within the two storey office area but are separate companies.

A review of the historical records, anecdotal information and site observations indicate the following areas of potential environmental concern (APEC):

- Storage and use of chemicals during historical and current manufacturing and assembly processes involving the construction of timber furniture.
- Unknown fill material used to level the site.
- Asbestos containing material within the building (including the factory roof which was replaced in 2010).
- Potential work activities and management practices that may have the potential to contaminate soils.

Based on the presence and likely age of the concrete hardstand in place across the majority of the site area and a review of the site history, it is considered unlikely that gross contamination is present on the site. It is considered more likely that unknown fill material historically imported to level the site during construction may be the potential environmental concern on the site.. Further intrusive assessment would be required to confirm this opinion and quantify any risk.

ES notes that an additional site walkover was completed on the 9th June 2016 at the request of Woolworths. No changes in landuse or additional potential contaminating activities were noted. The conclusions made by ES in October 2014 remain unchanged.

Recommendations

The following recommendations are made for the subject site.

Hazardous Materials Audit

ES understands that a hazardous materials audit has not been undertaken at the site and given the age of the building and the observation of original elements, the presence of hazardous materials is likely. ES notes that the factory roof was historically comprised of asbestos containing material (ACM). This asbestos roof was reportedly replaced in 2010. Prior to undertaking any demolition works, it is recommended that an Accredited Occupational Hygienist be engaged to inspect the building and subject site, review and sample (if required) potentially hazardous materials, and provide further advice on appropriate management, removal and disposal procedures.

Soil

The subject site has reportedly been used for the manufacturing of timber products and minor electrical components. Records of flammable liquid storage on the site are available from 1989 and chemical storage areas were identified during the recent site inspection. No evidence of product loss has been reported historically. The site is capped by a concrete slab likely to have been installed during initial construction of the site, and the reported presence of designated chemical storage areas minimises the likelihood of significant soil contamination being present. It is possible that fill of unknown origin and quality may have been used on the subject site during development.

A Phase 2 environmental site assessment (ESA) should be undertaken to determine the suitability of site soils for the current and proposed land use and to further assess any potential impacts on local groundwater (as required).

1 Introduction

Woolworths Limited engaged Environmental Strategies Pty Ltd (ES) to complete a Phase 1 Preliminary Site Investigation (PSI) of the property located at 130-140 Parraweena Road, Miranda NSW (the Site) for the purposes of a planning proposal.

A site location map and site layout plan have been provided in **Figure 1** and **Figure 2**, **Appendix A** respectively.

1.1 Background

The subject site encompasses the following lot:

- Lot 2 (DP 715461)

It is understood that Woolworths Limited intend to purchase the subject site as well as an adjacent property. The properties are intended to be developed to accommodate a Woolworth's supermarket. The details of the Phase 1 PSI for two adjacent properties have been reported in separate standalone-reports. As the Site is located in an industrial area, a review of historical and current land uses is required to evaluate the likelihood of subsurface contamination being present.

1.2 Objectives of the Investigation

The primary objectives of this investigation were to identify issues, concerns, environmental risks and liabilities associated with the present and historical uses of the Site, with particular focus on the potential for soil and groundwater contamination.

1.3 Scope of Works

The scope of works for the Phase 1 PSI was as follows:

- Preparation of an OHS plan and job hazard analysis (JHA) to cover the site walkover;
- Site visit and walkover to characterise the property setting, including inspection of the site surface for obvious signs of potential contamination and / or contaminant sources (i.e. underground tanks);
- A visual evaluation of surrounding land uses to identify any neighbouring activities which may have affected or present a potential risk to the environmental quality of the site;
- A review of available zoning plans, council records, and documents to determine potentially contaminating activities that may have occurred on the site;
- An evaluation of aerial photographs to assist in assessing historical land uses and conditions on and adjacent to the site;
- Review of Local Council Dangerous Goods license database to determine the presence of any licensed dangerous goods formerly stored on the site;
- Review of historical title deed information and NSW EPA Contaminated Site Register;
- A review of the environmental setting with regards to geology, topography, hydrology and hydrogeology; and
- Preparation of a report in general accordance with the NEPM and NSW EPA reporting guidelines.

2 Limitations

This report is based on the Scope of Work outlined in Section 1.3. Environmental Strategies has performed services in a manner consistent with the normal level of care and expertise exercised by members of the environmental assessment profession. No warranties express or implied, are made.

Subject to the Scope of Work, Environmental Strategies' assessment is limited strictly to identifying typical environmental conditions associated with the subject site and does not include evaluation of any other issues.

The absence of any identified hazardous or toxic materials on the subject site should not be interpreted as a guarantee that such materials do not exist on the site. Environmental Strategies will not investigate any waste materials from the subject site that may have been disposed of off the site, nor related waste management practices.

The results of this assessment are based upon the site inspection at the time of writing conducted by Environmental Strategies personnel and information from the Client, regulatory agencies, Council and other third parties. No sampling and analysis was undertaken. All conclusions and recommendations regarding the subject site are the professional opinions of the Environmental Strategies personnel involved with the project, subject to the qualifications made above.

While normal assessments of data reliability are made, Environmental Strategies will not assume responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of Environmental Strategies, or developments resulting from situations outside the scope of this project.

3 Site Identification

The location of the site is shown in **Figure 1, Appendix A**. The site details are provided in **Table 3.0** below and described in detail in the following sections.

Table 3.0: Summary Site Details

Site Characteristic	Detail
Street Address	130-140 Parraweena Road, Miranda NSW 2228
Lots / DPs	Lot 2 715461
Local Government Area	Sutherland Shire Council
Land Zoning	Lot 2 DP 715461 Zone IN1 General Industrial (<i>Sutherland Shire Local Environmental Plan 2013</i>)
Site Area	7,725m ²
Geographic Coordinates (to approximate centre of site) Projection: GDA94 – NSW Lambert	Easting: 9679743.122 Northing: 4406367.018

3.1 Site Description

The current site layout is presented in **Figure 2, Appendix A**.

A site walkover was completed by Ryan Wells on Thursday 27th August 2014. Full access to the buildings on the subject property was granted at the time of the site walkover. Paul Baldwin, the Finance Manager for both Rittal and Phoenix Contact supplied anecdotal information on the site's current use.

ES notes that an additional site walkover was completed on the 9th June 2016 at the request of Woolworths. No changes in landuse or additional potential contaminating activities were noted. The conclusions made by ES in October 2014 remain unchanged.

The subject site is square in shape, and occupies a combined area of approximately 7,725m². The site is bounded by Parraweena Road to the north followed by residential, commercial/industrial properties to the south; Commercial/industrial to the west, commercial industrial to the east.

The buildings on the subject site currently occupy a footprint of approximately 4,690m², 660m² of which is occupied by a two (2) storey office , with the remaining 4,030m² occupied by an open planned factory.

The balance of the subject site is occupied by hardstand driveway (approx. 1,950m²) and garden landscaping (approx. 1,085m²). Landscaping is predominantly along the boundary on the northern and eastern site boundaries.

A drainage culvert was observed to run along the eastern, western and southern boundaries of the site.

The site is currently occupied by two (2) companies, Rittal Pty Ltd (Rittal) and Phoenix Contact Ltd (Phoenix Contact). It is understood that both companies share admin resources within the

two storey office area but are separate companies. The site is currently used for the following activities:

Rittal:

- Occupies approximately 85% of the factory area for the storage and modification of computer related system enclosures.
- It is understood that the modification process involves minor cutting of pre-fabricated metal enclosure panels for cabling, and the painting of enclosures after modification.
- The painting process is conducted in a spray booth on the south eastern corner of the factory. The spray booth was observed to be mechanically vented to the atmosphere outside the building. The spray booth was not fully enclosed, with an opening on the western side of the unit. The concrete slab, which the spray booth was on, appeared in good condition.
- A drying oven was observed to be adjacent to the spray booth and is used to dry the painted items. The drying oven was observed to be vented to the atmosphere outside the building.
- A chemical storage area was observed to be opposite the spray booth along the southern wall of the factory. This chemical storage area was observed to be split into two separate rooms and comprised of brick (walls) and concrete sealed floors. No staining was visible on the floor. A bund was visible in both rooms, with small quantities of paints and oils observed within the rooms. Refer to **Section 4.6** for an inventory of chemicals observed.

Phoenix Contact:

- Occupies the remaining approximately 15% of the factory space.
- It is understood that Phoenix Contact assembles electrical components within a small room on the south western corner of the factory.
- A storage room for electrical components is located on the western boundary of the factory, and is understood to have a controlled atmosphere to regulate temperature within the storage room.

Photographs of the site are provided in **Appendix B**. Further details relating to the site walkover are included in **Section 4**.

4 Site History

4.1 Zoning

4.1.1 Current Zoning

The property is currently zoned:

- **Zone IN1 General Industrial** (Sutherland Shire Local Environmental Plan 2013)

The description of the *Zone IN1 General Industrial* zoning from the *Sutherland Shire Local Environment Plan 2013* (LEP 2013) is provided below. ES notes that this section was updated in June 2016 to reflect the change in the LEP from Draft to final.

Zone IN1 General Industrial

Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To enhance the visual appearance of the employment area by ensuring new development achieves a high architectural and landscape standard.
- To minimise the impact of development within the zone on areas of environmental significance.

Permitted without consent

Nil

Permitted with consent

Animal boarding or training establishments; Boat building and repair facilities; Building identification signs; Business identification signs; Car parks; Crematoria; Depots; Environmental protection works; Flood mitigation works; Freight transport facilities; Funeral homes; Garden centres; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries; Kiosks; Landscaping material supplies; Light Industries; Mortuaries; Neighbourhood shops; Passenger transport facilities; Places of public worship; Plant nurseries; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Research stations; Roads; Service stations; Sex services premises; Storage premises; Take away food and drink premises; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops;

Vehicle repair stations; Vehicle sales or hire premises; Veterinary hospitals; Warehouse or distribution centres.

*Any other development not specified in item 2 or 4 refer to **Appendix B** for council S149 certificates.*

Prohibited

Advertising signage; Agriculture; Air transport facilities; Airstrip; Amusement centres; Boat building and repair facilities; Boat launching ramps; Boat sheds; Business premises; Camping grounds; Caravan parks; Cemeteries; Charter & tourism boating facilities; Child care centres; Community facilities; Eco-tourist facilities; Educational establishments; Entertainment facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Jetties; Marinas; Office premises; Open cut mining; Recreation facilities (major); Registered clubs;

Residential accommodation; Respite day care centres; Restricted premises; Retail premises; Rural industries; Sewerage systems; Sex services premises; Tourist and visitor accommodation; Water supply systems; Wharf or boating facilities; Wholesale supplies.

4.2 Proposed Development Zoning

It is understood that the site is to be developed as a commercial supermarket. Development consent will be required.

4.3 Current Land Use

Based on a review of the available historical data, the subject site has historically been used for commercial purposes. The site is currently unoccupied.

ES understands that Woolworths Limited intend to purchase the subject site as well as the property to the west for a large commercial development.

4.4 Council Development Approvals

ES is not aware of any development plans submitted by Woolworths Limited to Sutherland Shire Council in respect of the Site. ES understands that the project is currently in a planning and feasibility phase, with assessments, including this PSI, being completed for the purpose of a planning proposal.

4.5 Title Deeds

A complete listing of historic title deeds is provided in **Appendix C** and the information has been summarised in the following sections.

Table 4.4a: Summary of Proprietor(s) Lot2 DP715461

Summary of proprietor(s) Lot 2 DP 715461	
Year	Proprietor
	Lot: 2 715461
1995-Todate:	Electrical Components Pty Limited
1998-1995	Burn Philp Trustee Company Limited
1986-1988	Walker Holdings Pty Limited
1985-1986	Leda Holdings Pty Limited
(1985-Todate)	<i>(Various Current Commercial Leases shown on Folio identifier 2/715431)</i>
(1985-Todate)	<i>(Various Commercial leases shown on Historical Folio 2/715461)</i>

4.5.1 Plan of Lot: 2 DP: 715461

The Plan of Subdivision for Lot 2 DP 715461 dated 11th July 1985 (map reference; U0930-44) indicates the Lot is an area of 7,725m² and was at that time partially occupied by a brick and fibro constructed factory which occupies lots 1 and 2 DP 715461 and part of Lot 3 of DP 715461. The portion of the factory occupying Lot 3 DP715461 was indicated for demolition on the Plan. The plan indicates another brick and fibro constructed factory building on Lot 3 of DP 385650 further to the east.

4.5.2 Additional information regarding adjacent properties

A Plan of Lot Subdivision for 1 DP237017 South west of site dated 5 October 1967 (map reference: Sutherland Sheet 26) indicates the Lot was at that time occupied by a brick and asbestos cement constructed building.

4.5.3 Items of Note from the Title Deeds Information

The following items from the available title deed information were noted as important in regards to the PSI:

- The lots which form the subject site have changed identifiers multiple times according to the available records;
- Brick and fibro buildings were constructed at Lot 1 DP 715461 and at least one adjacent property.
- Site contained brick and asbestos/fibro cement building.

4.6 Aerial Photographs

ES reviewed aerial photographs from 1961, 1970, 1984, 1994 and 2005 supplied by NSW Government Land & Property Information. 2010 and 2014 satellite imagery were reviewed and sourced online at www.nearmap.com.

Copies of the aerial photographs are included in **Appendix D**. The relevant information from the aerial photographs review is summarised in **Table 4.5** below.

Table 4.5: Summary of Aerial Photography at 130-140 Parraweena Road

Date	Description of the Subject Site	Description of Surrounding Land
NSW 1043 5165 Cumberland 1961 Series Run 45	<i>The Site is vacant with very sparse levels of vegetation on the surface. A drainage channel is running east to west making up the southern boundary of the site.</i>	<ul style="list-style-type: none">• North- Residential• West- Vacant with sparse amounts of vegetation. Occupied by a fenced premise, including two buildings possibly residential/ utility facility. Further west of the site is residential• South- vacant with little vegetation. A channel enters the site near the South West boundary of Lot 1 DP 512558• East- Vacant land with no vegetation. Further east is residential

Date	Description of the Subject Site	Description of Surrounding Land
NSW 1906 5198 Cumberland 1970 Series Run 24 6 July 1970	<p><i>Construction of new facility appears to be taking place with the laydown area for construction material. Rise to new infrastructure also apparent.</i></p>	<ul style="list-style-type: none"> • East- a new facility which appears to be a laydown area for construction materials (contiguous with the land use of Lot 1 DP 512558), and further east is a new commercial or industrial facility. • South West- channel no longer crosses the Site and a commercial or industrial facility is located in the area now identified as Lot 1 DP 237017 on Cnr Kareena Road and Kumulla Road • West Lot -1 DP 512558 there appears to be a laydown area for construction materials and further west there is little notable. Lot B DP 385650 appears unchanged. • North- The foreshore at Gwawley Bay Site has been filled and landscape and developed with residential dwellings. • South east- new educational facility which includes at least 6 buildings (ca. 300m southeast), and there are sporting facilities and playing fields (ca. 200m to the south and southeast). Further to the south are small commercial or industrial buildings <30m²
NSW 3410 83 Wollongong 1984 Run 2, 8 August 1984	<p><i>Construction of industrial/commercial building has been extended between 1970 and 1984. The building occupies the majority of the site, and extends to properties to the east and west. Vegetation exists running parallel to Parraweena Road and this is made up of predominately trees.</i></p>	<ul style="list-style-type: none"> • West-Lot 1 DP 512558 has been redeveloped and appears to be an extension of the industrial building to the east, which was identified on the aerial photograph from 1970. Notably, these buildings are indicated on historical title documents dated 11 July 1985 as being brick and fibro constructed factories. • South- A new cluster of buildings have been constructed south of the site.
NSW 4178 Port Hacking Run 1, 4 January 1994	<p><i>The large building extending onto the eastern and western properties has been modified. Remnants of the original large building remain on the eastern and western properties. The building on site retains the original building structure, but has decreased in size with a concrete driveway now forming the western portion of the site.</i></p> <p><i>Four external roofs have been added to the south which were identified during the site walkover as former loading docks.</i></p> <p><i>The site appears connected to the property at the south. This cannot be confirmed via aerial photography.</i></p>	<ul style="list-style-type: none"> • East-Lot B DP 385650 – buildings have been demolished and the Site is vacant land with the exception of a small structure approximately 5m² at the north of the Site which appears to be temporary. • Lot 1 DP 512558 has been redeveloped and appears to be a self-contained commercial or industrial facility. • Part of the brick and asbestos constructed factory to the east has been demolished as indicated in an historical title plan dated 11 July 1985. • South-The building appears to be unchanged. • West- land use appears unchanged. • North- land use appears unchanged.

Date	Description of the Subject Site	Description of Surrounding Land
NSW4939 Port Hacking Run 1, 18 December 2005	<i>No major changes are noted, with the exception of a concrete driveway forming the entire frontage of the northern boundary of the site.</i>	<ul style="list-style-type: none"> • South-The land use to the south appears to be unchanged. • South East-The building to the southeast has been redeveloped, now occupying the former car park; however use of the land for commercial/industrial purposes appears to be unchanged. Lot B DP 385650 – has been redeveloped and appears to be in the current building layout. • East-Lot 1 DP 512558 – has been redeveloped and appears to be in the current building layout. • West-Land use is unchanged • North- land use unchanged
8 Jan 2010*	<i>No apparent change, with the exception of a newly installed roof.</i>	<ul style="list-style-type: none"> • North- land use appears unchanged. • East- land use appears unchanged. • South- land use appears unchanged. • West- land use appears unchanged.
17/9/ 2014*	<i>Lot: 2 DP: 715461No apparent change</i>	<ul style="list-style-type: none"> • North- land use appears unchanged. • East- land use appears unchanged. • South- land use appears unchanged. • West- land use appears unchanged.

Aerials sourced from the NSW Government Land & Property Information department unless denoted with an '*'. Aerials denoted with an '*' were sourced from www.nearmap.com

The review of historical aerial photography indicates that:

- The site appeared vacant until construction occurred during late 1960's-early 1970's.
- The site appeared to be used for commercial/industrial premise from the 1970s;
- An original building, which forms the current building layout, was extended onto surrounding lands including lot 1 DP 512558 and Lot B DP 385650.
- The original building was divided presumably during the sub-division of the original Lot. Remnants of the original large building remain on the eastern and western properties. The building on site retains the original building structure, but has decreased in size, with a concrete driveway now forming the western portion of the site
- The Site is located in an industrial cluster which may have a history of manufacturing of building materials since at least 1970;
- Neighbouring Lot 1 DP 237017 has been the site of a brick and asbestos cement constructed building identified on an historical title plan dated 1967 since at least 1967 and has remained relatively unchanged until at least 2005;
- Demolition of a portion of an ACM constructed factory neighbouring Lot 1 DP 715461 of the Site occurred during the period from 1984 to 1994;
- Educational and/or sporting facilities may have been present near the site since at least 1970; and
- Industrial and/or commercial land use in the vicinity of the site intensified in the period from 1970 to the present.

4.7 Chemical Inventory

As stated in **Section 3.1**, a chemical storage area was observed to be opposite the spray booth along the southern wall of the factory. This chemical storage area was observed to be split into two separate rooms and comprise of brick (walls) and concrete sealed floors. A bund was visible in both rooms, with the following quantities of chemicals observed:

Item	Number of Items	Quantity
Protec – Enamel Reducer	1	60L
Mineral Turpentine	1	20L
Oil Lubricants	1	40L
Rust Guard (aerosol spray)	2	600g (~300g each)
Enamel Paint (aerosol spray)	5	1,500g (~300g each)
Enamel Paint	8	160L (~20L each)

The chemicals observed are consistent with the current use of the site and were stored within the bunded chemical storage room. The placement of chemicals within the chemical storage room appeared to be relatively unorganised, and some of the containers were observed to be open with no li present.

4.8 Manufacturing Processes

As stated in **Section 3.1**, Rittal conduct minor modification works within the factory which involves minor cutting of pre-fabricated enclosure panels for cabling, and the painting of enclosures after modification.

Computer and manually operated machinery is used to modify the panels. This equipment is primarily located on the southern boundary of the factory.

The painting process is conducted in a spray booth on the south eastern corner of the factory. The spray booth was observed to be mechanically vented to the atmosphere outside the building.

A drying oven was observed to be adjacent to the spray booth and is used to dry the painted items. The drying oven was observed to be vented to the atmosphere outside the building.

Phoenix Contact perform minor electrical component assembly within the factory which is understood to involve soldering of electrical components and arrangement of devices within designed systems.

Anecdotal evidence sourced from the online literature and the Stored Chemical Information Database (SCID) and the microfiche records held by WorkCover NSW (see **Section 4.9**), indicate that Carmen Furniture Company Pty Ltd previously occupied the factory. Carmen Furniture Pty Ltd is understood to have been one of the largest manufactures of furniture in Australia at the time of operation. The SCID records indicate that Carmen Furniture Pty Ltd held licences for the bulk storage of chemicals consistent with the manufacturing and processing of timber furniture. No evidence was available at the time of writing this report regarding the manufacturing processes that occurred during the time the site was occupied by Carmen Furniture Pty Ltd.

Typically, timber product manufacturing can involve the use of formaldehyde resins and adhesives, resin hardeners (ammonium based), sizing agents (acids), bitumen (PAHs), surface coatings (heavy metals – Al, Ca, Cu, Pb, Zn), organic and inorganic pigments, paints, thinners, dyes and binders (complex hydrocarbons), organic solvents (aliphatic and aromatic hydrocarbons, naphthalene, alcohols and glycols, ketones and esters), additives (plasticisers, driers, antifreeze) and preservative treatments (various) and other general contaminants (fuels, asbestos, PCBs, dioxins and furans). The inventory and quantities of these typical materials associated with the historical use of the site are unknown.

ES conclude that no major manufacturing work currently occurs on the property. Anecdotal evidence supplied by Paul Baldwin, indicated that a furniture company (presumably Carmen Furniture Pty Ltd) had historically occupied the factory and manufactured wooden furniture for commercial sale. The specific factory processes involved with these activities is unknown. ES assumes that various chemicals may have been used for the preparation of furniture and operation of plant equipment. ES assumes that the chemical storage area was initially constructed for use by the furniture company. The potential for contamination from the historical activities associated with Carmen Pty Ltd therefore exists.

4.9 Hazardous Materials

ES did not undertake a formal hazardous materials inspection during the site walkover. It is not known if a hazardous material survey or an environmental site assessment has been undertaken to date.

Anecdotal evidence supplied by Paul Baldwin indicate that the factory roof was historically comprised of asbestos containing material (ACM). Paul stated that this roof was replaced in 2010 with Colour bond by a licenced asbestos removal company. Details of the asbestos removal company, and/ or the methodology used to remove the ACM roof, was unknown at the time of writing this report. No other ACM was observed during the site walkover, however, considering the age of the factory the presence of ACM cannot be discounted in other locations. ES notes that access to the electrical boards on the site was not available at during the site walkover, and may contain ACM.

A search of the Stored Chemical Information Database (SCID) and the microfiche records held by WorkCover NSW identified the following Dangerous Goods Items on the site:

Item	Description	Quantity	First Record	Removal Record	Licence Number	Company
Flammable Liquid	<ul style="list-style-type: none"> ▪ Internal (roofed); ▪ Inside bund, with 1200L capacity; ▪ Class 3 Flammable Liquids 	<ul style="list-style-type: none"> ▪ 3000 L in first records; ▪ 4,800 in removal record 	1989	N/A	<ul style="list-style-type: none"> ▪ First Record: 35-0268970; ▪ Removal Record: 35-026897 	Carmen Furniture Co Pty Ltd
LPG	Above Ground Tank	2,000L	1989	Removed 2/10/92	<ul style="list-style-type: none"> ▪ First Record: 35-0268970; ▪ Removal Record: 35-026897 	Carmen Furniture Co Pty Ltd

The records indicate that an aboveground storage tank (AST) used for Liquid Petroleum Gas (LPG) storage, was present on the site between 1989 and 1992. This AST was located on the south eastern corner of the site, within a loading zone area. No ASTs were observed during the site walkover.

The records also indicate that the storage of flammable liquid (Class 3) has occurred on the site. The description indicates that paint thinners and polyester paint (classified as flammable liquids) were stored within an internal roofed store area (assumed to be the identified chemical storage area – See **Section 3.1**). The records indicate that the 4,800L of flammable liquid stored exceeded the maximum capacity of the bund (1,200L).

Please refer to **Appendix E** for details of the searches completed by WorkCover NSW.

4.10 Storage Tanks

Observations indicated that there were no underground storage tanks (USTs) present at the subject site at the time of the site walkover. WorkCover records also did not indicate the presence of USTs on the site, however the presence of USTs on the site cannot be completely discounted as a possibility.

One rain water tank was observed on the north eastern boundary of the site, with an approximate capacity of 10,000L. The water is understood to be collected from gutters on top of the factory, and used to water vegetation.

4.11 Product Spill and Loss History

No information regarding product spill and loss history was available for review at the time of writing this report.

4.12 Discharges to Land, Water and Air

No information regarding discharges to land, water and air was available for review at the time of writing this report.

4.13 Disposal Locations

No information regarding disposal locations was available for review at the time of writing this report.

4.14 Complaint History

No information regarding complaint history was available for review at the time of writing this report.

4.15 Local Site Knowledge (Past and Present)

Paul Baldwin, the Finance Manager for both Rittal and Phoenix Contact, provided the following anecdotal information:

- Forty five (45) full time and two (2) part time employees work currently occupy the site.
- Typical hours of operation are from 7:30am to 5:00pm Monday to Friday.
- Mains electricity and natural gas are used on the site. The natural gas is used to power an external BBQ facility only, located on the northern boundary of the site.
- The site is owned by a Holding Company (understood to be Electrical Components Pty Limited, according to the title deeds.)
- No Environmental Plan, or Environmental policy was available for either Rittal or Phoenix Contact.
- No air emission are measured from the painting booth or drying ovens.
- There is no trade waste agreement for the site.
- Rubbish is collected by a company called SIMS Recycling Solutions.
- Emergency plans are available for fire evacuations only.
- No complaints, prosecutions, improvement notices and/ or fines relating to the mishandling or incorrect disposal of waste are known have been issued for the site.
- A former ACM roof was reportedly removed from the factory in 2010.
- No asbestos register is available for the site.
- No noise permits, or measurement requirements are applicable to the site.
- No environmental investigations are known to have completed on the site.

4.16 Permits, Licences, approvals and trade waste agreements

No information regarding permits, licences, approvals and trade waste agreements was available for review at the time of writing this report.

4.17 Property Searches

The following property searches have been completed:

- Notices under the Contaminated Land Management Act (CLM) Act; and
- Notices under the Protection of the Environment Operations Act (POEO) Act.

4.17.1 Review of NSW EPA Record of Notices

The NSW EPA Contaminated Land Public Record contains records of written notices issued under the CLM Act, including those prior to the commencement of the CLM Amendment Act 2008. ES searched the record for Notices issued to sites in Miranda NSW between 1 January 1951 and 17 September 2014 (the date of the search). It is noted that the Contaminated Land Public Record is not a listing of all contaminated sites in New South Wales.

The search did not return records of any notices issued to the Site.

4.17.2 Review of List of Contaminated Sites Notified to NSW EPA

At the date of the search conducted 17 September 2014, the Site was not included on the List of Contaminated Sites Notified to EPA, being current at 21 August 2014.

The list is a publically available list of contaminated sites that EPA is aware of, with regard to its regulatory role under the CLM Act. Note that an absence of a site from the list does not necessarily imply the site is not contaminated (NSW EPA).

4.17.3 Review of POEO Public Register

ES searched the Protection of the Environment Operations (POEO) Act Public Register for licenses, and notices issued under the POEO Act to sites in Miranda NSW. The registered search returned zero results.

4.18 Review of Council Records

Planning Certificates under section 149(2) and 149(5) of the *Environmental Planning & Assessment Act (1979) (as amended)* were requested from Sutherland Shire Council for each Lot/DP on the Site. A copy of the certificates are provided in **Appendix E**. Review of the certificates indicated the following (for both Lots/DPs comprising the Site):

- The controlling instrument for the subject site is currently the *Sutherland Shire Local Environment Plan 2006*. SEPPs which apply to development on the land are detailed in the planning certificates;
- The zoning for the lots is Zone 11 – Employment (Sutherland Shire Local Environmental Plan 2006) and Zone IN1 General Industrial (*Sutherland Shire Local Environmental Plan 2013*);
- The Draft State Environmental Planning Policy (Competition) 2010 and draft Standard Instrument Local Environment Plan for the Sutherland Shire will apply to the land.
- The Lots does not include or comprise a critical habitat;
- The Lots are not in a conservation area;
- No item of environmental heritage is situated on the Lots;
- The Lots are not affected by the operation of Section 38 or 39 of the Coastal Protection Act 1979;
- No orders or notifications of any temporary coastal protection works for the land or adjacent public land are reported on the planning certificates, and no properties on the land are subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services;
- The Lots have not been proclaimed to be a mine subsidence district;
- The Lots are not affected by road widening or road realignment under Division 2 of Part 3 of the Roads Act 1993;

- The land is not subject to development restriction because of the likelihood of landslip, bushfire, tidal inundation, subsidence, acid sulfate soil or any other risk (other than flooding);
- The Lots are subject to flood related developmental control;
- The Lots are not reserved for acquisition by public authority under Section 27 of the Environmental Planning and Assessment Act 1979;
- The Contribution Plans which apply to the land include the 2005 Shire Wide Open Space and Recreation Facilities Contribution Plans; the 2003 Community Facilities Contributions Plan; and the Employment Zoned Land Contributions Plan;
- The Lots are not biodiversity certified land under the *Threatened Species Conservation Act 1995*;
- The Lots are not subject to a bio-banking agreement;
- The Lots are not bush-fire prone land;
- The Lots are not subject to a property vegetation plan under the Native Vegetation Act 2003;
- The Lots are not subject to orders to carry out work in relation to a tree on the land under the Trees (Disputes Between Neighbours) Act 2006;
- The Lots are not subject to 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;
- There are no current site compatibility certificates or development consents for seniors housing, infrastructure or affordable rent housing issued for the land under SEPP (Housing for Seniors or People with a Disability) 2004, SEPP (Infrastructure) 2007 or SEPP (Affordable Rental Housing) 2009;
- The land is not subject to any development plan adopted by a relevant authority or that is proposed to be subject to a consent ballot;
- The council is not aware of any current site verification certificate in respect of the land;
- The land has been classified as Class 5 on the Acid Sulfate Soils Maps in the Sutherland Shire Local Environmental Plan 2006 and is subject to the provision of clause 23 which detail the restrictions to works within this Class; and
- Within the meaning of the Contaminated Land Management Act 1997, the land is not significantly contaminated land, and is not subject to a management order, approved voluntary management order, ongoing maintenance order or site audit statement.

The Planning Certificates states that:

The land may contain drainage infrastructure within an easement which is protected by statutory rights of access and maintenance. Further information is available on the Deposited Plan/Strata Plan and associated instruments. Council's records indicate that one or more of the activities listed in Table 1 of the Managing Land Contamination Planning Guidelines 1998 may have been undertaken and/or approved on the land. Council's records do not currently contain sufficient information to determine that there is actual contamination of the land. Council may require further investigation of potential contamination, and remediation action where contamination is found, particularly if the land is to be redeveloped or the land use is to be changed to a more sensitive use.

4.19 Potential Contaminant Sources

A review of the historical records, anecdotal information and site observations indicate the following potential historic and current contaminant sources on the site:

- Storage and use of chemicals during historical timber furniture manufacturing and current electronic equipment, and electronic cabinet assembly processes.
- Unknown fill material used to level the site.

- Asbestos containing material within the building (including the factory roof which was reportedly replaced in 2010).
- Potential work activities and management practices that may have the potential to contaminate soils.

Due to the concrete hardstand present on the majority of the site, it is unlikely that large scale contamination has occurred on the site due to site practices. It is more likely that fill material (if any), that was imported to level the site during construction, may exceed land use values. Further intrusive assessment would be required to quantify this risk.

Based on the presence and likely age of the concrete hardstand present in place across on the majority of the site area and a review of the site history information, it is considered unlikely that gross contamination is present on the site. It is considered more likely that unknown fill material (if any) may have been imported to level the site during construction and may be a potential environmental concern on the site. Further intrusive assessment would be required to confirm this opinion and quantify any risk.

5 Site Condition and Surrounding Environment

A summary of observations from review of available information and a site inspection is provided in **Table 5.1**.

Table 5.1: Summary of Observations at the Subject Site

Item	Site Walkover Photo (Appendix B)	Location(s)	Condition
Front signage of building	1	Parraweena Road	No comment. Good condition. No significant surface staining or evidence of spillage.
Northern Boundary of Site	7	Parraweena Road	Fence and gardens appear in good condition
Western Site Boundary	11	Western site boundary	Brick wall of adjacent building and culvert in good condition.
Drive entrance to building offices and overcroft parking	4	Parraweena Road	Driveway in good condition.
Painting Booth and Drying Oven	5 & 6	South eastern corner of the factory	Appear in good working condition. Not in use when observed.
Phoenix Contact assembly area	2	South western corner of the factory	Appears to be in good working condition with good housekeeping.
Phoenix Contact storage area	9	Central western portion of the factory	Appears to be in good working condition with good housekeeping.
Southern Boundary and Loading docks	8	Southern boundary of the site facing east	The fence and concrete appears in good condition. Area appears used for storage of electrical cabinets.
Rittal Factory storage	3	Centre of the factory	Good housekeeping observed within this area. Pallet racks appear in good working condition. Concrete pavement observed throughout the factory appeared to be in good condition.
Rittal Chemical Storage Rooms (internal)	10	South eastern corner of the factory	Internal shelving and, walls, and explosion proof electrical fittings appear to be in good working order. Housekeeping is relatively poor, with rubbish and empty boxes observed within the area. The storage of chemicals appeared disorganised, with some containers observed to have no lids.
Eastern Boundary	12	Eastern Boundary	Gardens and drainage culvert appear in good condition. 10,000L rainwater tank visible in the background of the picture (to the north).

5.1 Surrounding Land-uses

The current land-uses of adjacent properties surrounding the site are summarised below:

- North:** Parraweena Road with Residential properties beyond;
- East:** Commercial/ industrial properties adjoining the site;
- South:** Commercial/ industrial buildings adjoining the site; and

West: Commercial/ industrial buildings adjoining the site - understood to be under consideration for purchase by Woolworths. Further west is Kareena Road with Residential properties beyond.

5.2 Topography

The subject site is generally flat, with the surrounding properties generally sloping to the east and south. The site appears to have been levelled by cutting and filling.

5.3 Conditions of the Site Boundary

A number of boundaries exist between the properties that comprise the subject site. For the purposes of this investigation the conditions of the boundaries on the perimeter of the entire subject site are listed below:

- **Northern Boundary:** Comprised of an aluminium picket fence. The fence appears to be in good general condition.
- **Southern Boundary:** Comprised of a chain link wire fence, with barbed wire. The fence, appears to be in good general condition.
- **Western Boundary:** No fence is present; however the building wall of the adjacent property and a small drainage culvert divides the two properties. The wall and culvert appear to be in good condition.
- **Eastern Boundary:** No fence is present; however the building wall of the adjacent property and a drainage culvert divides the two properties. The wall and culvert appear to be in good condition.

5.4 Visible Signs of Contamination

There were no visual signs of contamination within the subject site. Generally, housekeeping appeared to have been of a good standard.

5.5 Visible Signs of Plant Stress

There were no visible signs of plant stress in the landscaped areas of the subject site.

5.6 Presence of Drums, Wastes and Fill Material

There were no visible signs of putrescible waste or building rubbish/ waste observed onsite during the site walkover.

5.7 Odours

No significant odours were observed outside or inside of the buildings on the subject site.

5.8 Conditions of Buildings

The commercial building (office and factory), concrete hardstand and gardens appear to be in relatively good condition.

5.9 Quality of Surface Water

No surface water was observed on the subject site at the time of the site walkover. Surface water flow direction across the site was observed to generally be to the south towards the southern drainage culvert.

5.10 Flood Potential

The reviewed Planning Certificates under section 149(2) and 149(5) of the *Environmental Planning & Assessment Act (1979) (as amended)* show that the subject site 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. Sutherland Shire Development Control Plan 2006 contains flood risk management controls which may be relevant to the site.

5.11 Local Sensitive Environments

The nearest environmental receptors include:

- Residential dwellings to the west beyond Kareena Road and north beyond Parraweena Road;
- Endeavour Sports High School including playing fields are approximately 200m south of the subject site; and
- The Port Hacking Rugby Field, Sylvania Waters Tennis Courts and Forshaw Rugby Park are approximately 350m north of the subject site, with Gwawley Bay located approximately 320m north-east and 600m west-north-west of the Site beyond the playing fields.

6 Geology and Hydrogeology

6.1 Geology

A review of the Wollongong-Port Hacking 1:250,000 Geological Map Sheet 9029-9129 (Department of Mineral Resources, 1985) indicates that the Site and the local area immediately south of Parraweena Road is mapped as Rh - Medium to coarse-grained quartz sandstone, very minor shale and laminite lenses. North of Parraweena Road the geology is mapped as a mixture of mf - Man-made fill (dredged estuarine sand and mud, coal washing, industrial and household waste); and Qht - Organic-rich muddy, mostly "marine" sand.

The Site is mapped as Disturbed Terrain on the 1:25,000 Acid Sulphate Soil Risk Map for Port Hacking (Dept. of Land & Water Conservation (DLWC) Sheet No. 9129N4, Edition 2, Dec 1997): Disturbed terrain may include filled areas, which often occur during reclamation of low lying swamps for urban development. Other disturbed terrain includes areas which have been mined or dredged, or have undergone heavy ground disturbance through general urban development or construction of dams or levees. This information is consistent with information provided by the Client.

6.2 Fill Material

The site is observed to have a different level than the surrounding properties and roadways. This indicates that cutting and filling activities may have occurred on the site during construction. The majority of the site is covered with concrete hardstand, and therefore ES did not observe any of the underlying material.

6.3 Hydrogeology

The nearest shallow groundwater data available from registered groundwater bores (see Section 6.4) indicated the groundwater table was at 1.2-2.2m bgl at the time of installation. This data is for bores located in the estuarine/marine sands and disturbed terrain unit which occurs immediately north of the Site; these bores may not intersect the sandstone unit which has been mapped at the Site.

The nearest bores with standing water level data drilled in the area mapped as Rh Quartz Sandstone are approximately 1km southeast and northeast of the Site and indicate, respectively, a standing water level of 2.2m and 11m. In the bore to the northeast, where additional descriptive data in the bore record confirms the bore is located in Sandstone with small clay bands, water bearing zones are identified at 21-21.1m and deeper, suggesting that the groundwater may be confined or partially confined in the Rh unit.

ES note that the geology may be heterogeneous, and groundwater head at the site may be affected by connectivity with surrounding water bodies and may not be representative of local Site conditions.

6.4 Groundwater Bore Search

A search of the NSW National Resources Atlas revealed a total of forty-one (41) registered groundwater bores within a 1km radius of the site. A listing of all registered groundwater bores is available in **Appendix F**. A summary of these groundwater bores is presented in Table 6.4.

Table 6.4: Summary of registered groundwater bores

Works number	GDA94 Easting	GDA94 Northing	Distance from Site (m approx)	Authorised Purposes	Intended Use	SWL	Water bearing zones
GW023683	324374	6233615	1693	domestic	general use	1.2	1.5
GW020543	325925	6234429	1259	waste	waste		
GW024170	326810	6234333	1410	domestic	domestic		
GW024645	326440	6232269	1002	recreation	irrigation		
GW062211	326077	6231736	1439	industrial	industrial		
GW101273	324789	6232021	1677	monitoring	monitoring		
GW101274	324725	6232705	1366	monitoring	monitoring		
GW101275	325397	6232392	992	monitoring	monitoring		
GW102635	325859	6233797	642	monitoring	monitoring	2.1	0
GW102872	326111	6234079	912	domestic	domestic	5	
GW103241	326141	6234336	1171	monitoring	monitoring	7.8	
GW105856	326730	6233897	1022	domestic			
GW106656	326625	6234014	1043	recreation	recreation	11	21-21.1; 32-32.1; 58-58.1; 79-79.1
GW106758	326628	6234052	1076	domestic	domestic		
GW106781	326230	6233970	827	recreation	recreation	1.7	
GW108344	326246	6233978	839	test	test		
GW108607	325954	6234110	939	domestic	domestic	4	
GW109492	325964	6234094	922	domestic	domestic		
GW109594	325465	6232890	612	monitoring	monitoring		
GW109595	325476	6232898	599	monitoring	monitoring		
GW109596	325477	6232871	611	monitoring	monitoring		
GW109597	327044	6233572	1110	monitoring	monitoring		
GW109598	327095	6233573	1158	monitoring	monitoring		
GW109599	327070	6233542	1124	monitoring	monitoring		
GW110207	324759	6233576	1312	monitoring	monitoring	1.5	
GW110208	324718	6233537	1340	monitoring	monitoring	1.6	
GW110736	324814	6233503	1239	domestic	domestic	4	
GW110843	324774	6233518	1281	domestic	domestic		
GW110979	324754	6233515	1300	monitoring	monitoring		
GW110980	324758	6233503	1293	monitoring	monitoring	2.2	
GW110981	326919	6232540	1109	monitoring	monitoring	2.2	
GW112146	326896	6232524	1100	monitoring	monitoring		
GW112147	326899	6232490	1123	monitoring	monitoring		
GW112148	326889	6232477	1123	monitoring	monitoring		
GW112149	326888	6232489	1115	monitoring	monitoring		
GW112150	326882	6232502	1102	monitoring	monitoring		
GW112151	326860	6232522	1072	monitoring	monitoring		
GW112152	326832	6232543	1037	monitoring	monitoring		
GW112152	326860	6232522	1072	monitoring	monitoring		
GW112153	326816	6232505	1048	monitoring	monitoring		

Works number	GDA94 Easting	GDA94 Northing	Distance from Site (m approx)	Authorised Purposes	Intended Use	SWL	Water bearing zones
GW112154	326833	6232490	1071	monitoring	monitoring		

6.5 Hydrology

The nearest surface water receptor is an easement for drainage indicated in an historical title plan dated 5 October 1967 and is present between Lot 1 DP 385650 and Lot 1 DP 237017. Surface water that enters the drainage network is expected to travel north towards Gwawley Bay which is located approximately 800m NNW of the Site.

6.6 Summary of Local Meteorology

A review of available climate statistics for the subject site was obtained from the Bureau of Meteorology (BOM). The nearest observation point from which monthly climate statistics were available was Station 066037 Sydney Airport, approximately 10km from the Site at -33.95°S, 151.17°E, 9m ASL. The following information is a summary of the available data between 1939-2013.

Table 6.6: Summary of local meteorological data

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	An.
Temp													
Mean max temp (°C)	26.5	26.4	25.3	22.9	20	17.6	17	18.3	20.5	22.5	24	25.7	22.2
Mean min temp (°C)	18.8	19	17.5	14.2	10.9	8.6	7.2	8.1	10.4	13.2	15.4	17.5	13.4
Rainfall													
Mean rainfall (mm)	93.6	112	116	106	99	122	70	74	60	70	82	73	1083
Decile 5 (median) rainfall (mm)	72	83	83	81	81	97	53	43	46	47	68	59	1045
Mean no. of days of rain ≥ 1 mm	8	8.6	9.2	8.4	8.5	8.8	6.7	6.7	6.8	7.8	8.4	7.7	95.6

6.7 Acid Sulfate Soil Risk

The land has been classified as Class 5 on the Acid Sulfate Soils Maps in the Sutherland Shire Local Environmental Plan 2006 and is subject to the provision of clause 23 which detail the restrictions to works within this Class. Class 5 land encompasses land and where development consent is required for the carrying out works within 500 metres of adjacent Class 1, 2, 3 or 4 land that are likely to lower the water table below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.

The Site is located near (within ca. 100m of) an area mapped as Disturbed Terrain on the 1:25,000 Acid Sulphate Soil Risk Map for Port Hacking (Dept. of Land & Water Conservation (DLWC) Sheet No. 9129N4, Edition 2, Dec 1997): Disturbed terrain may include filled areas, which often occur during reclamation of low lying swamps for urban development. Other disturbed terrain includes areas which have been mined or dredged, or have undergone heavy ground disturbance through general urban development or construction of dams or levees.

ES has assumed that the proposed development will not lower the water table by 1m within 500m of the adjacent Class 4 land and therefore consider that an acid sulphate soil investigation will not be required.



7 Integrity Assessment

Information was collected from a number of sources to determine the risk of site contamination. The sources included a combination of government bodies and private organisations that have no knowledge of the proposed development, nor are they project stakeholders.

One exception is Sutherland Shire Council who supplied the Section 149 (2&5) documents for the property (see Section 4.16). The Section 149(2&5) documents were supplied through an automated online service, and therefore ES considers that the information presented from Sutherland Shire Council is accurate and without bias.

Whilst ES uses professional judgement when evaluating information, ES cannot guarantee all information is correct nor complete. ES does not take responsibility for any errors nor incomplete data.

The data obtained from other historical sources reviewed has been found to be in general agreement. It is therefore considered that the information provided in this historical assessment has an acceptable level of accuracy.

8 Potential Contamination Issues

8.1 Potential Areas of Environmental Concern

Based on the historical review and field observations, the following areas of potential environmental concern (APEC) were identified.

- Storage and use of chemicals during historical timber furniture manufacturing and current and electronic cabinet and equipment assembly processes.
- Unknown fill material used to level the site.
- Asbestos containing material within the building (including the factory roof which was replaced in 2010).
- Potential work activities and management practices that may have the potential to contaminate soils.

9 Conclusions and Recommendations

9.1 Conclusions

The subject site is square in shape, and occupies a combined area of approximately 7,725m². The site is bounded by Parraweena Road to the north, and commercial/ industrial properties to the east, west and south.

The subject site has been vacant until commercial activities began in 1970s. The current building structure consists of a large factory with a two storey office building attached to the northern side of the factory.

The site is currently occupied by two (2) companies, Rittal Pty Ltd (Rittal) and Phoenix Contact Ltd (Phoenix Contact). It is understood that both companies share administrative resources within the two storey office area but are separate companies.

A review of the historical records, anecdotal information and site observations indicate the following areas of potential environmental concern (APEC):

- Storage and use of chemicals during historical and current timber furniture manufacturing and electronic equipment assembly processes.
- Unknown fill material used to level the site.
- Asbestos containing material within the building (including the factory roof which was replaced in 2010).
- Potential work activities and management practices that may have the potential to contaminate soils.

Based on the presence and likely age of the concrete hardstand in place across the majority of the site area and a review of the site history, it is considered unlikely that gross contamination is present on the site. It is considered more likely that unknown fill material historically imported to level the site during construction may be the potential environmental concern on the site. Further intrusive assessment would be required to confirm this opinion and quantify any risk.

ES notes that an additional site walkover was completed on the 9th June 2016 at the request of Woolworths. No changes in landuse or additional potential contaminating activities were noted. The conclusions made by ES in October 2014 remain unchanged.

9.2 Recommendations

The following recommendations are made for the subject site.

Hazardous Materials Audit

ES understands that a hazardous materials audit has not been undertaken at the site and given the age of the building and the observation of original elements, the presence of hazardous materials is likely. ES notes that the factory roof was historically comprised of asbestos containing material (ACM). This asbestos roof was reportedly replaced in 2010. Prior to undertaking any demolition works, it is recommended that an Accredited Occupational Hygienist be engaged to inspect the building and subject site, review and sample (if required) potentially hazardous materials, and provide further advice on appropriate management, removal and disposal procedures.

Soil and Groundwater

The subject site has reportedly been used for the manufacturing of timber products and minor electrical components. Records of flammable liquid storage on the site are available from 1989 and chemical storage areas were identified during the recent site inspection. No evidence of product loss has been reported historically. The site area is capped by a concrete slab likely to have been installed during initial construction of the site and the reported presence of designated chemical storage areas minimises the likelihood of significant soil contamination being present. It is possible that fill of unknown origin and quality may have been used on the subject site during development.

A Phase 2 environmental site assessment (ESA) should be undertaken to determine the suitability of site soils for the current and proposed land use and to further assess any potential impacts on local groundwater (as required). Where considered appropriate, the ESA could also be designed to assess appropriate waste management and handling requirements in accordance with any proposed excavation plans prior to development of the site.

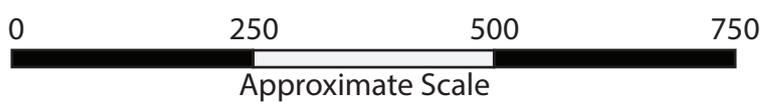
Appendix A

Figures



Key

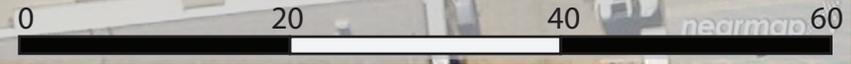
 Site Boundary





Key

- Site Boundary
- Office Building
- Factory
- Phoenix Contact Areas



Approximate Scale



Appendix B

Site Photographs

Client Name
 Woolworths Limited

Site Location
 130-140 Parraweena Road, Miranda NSW 2228

Project No.
 14115

Photo No.	Date
1	27 th August 2014

Description

Rittal- Container Receiving Front Sign.



Photo Facing South

Photo No.	Date
2	27 th August 2014

Description

Phoenix Contact electrical component assembly room (internal).



Photo Facing West

Client Name
 Woolworths Limited

Site Location
 130-140 Parraweena Road, Miranda NSW 2228

Project No.
 14115

Photo No. 3	Date 27 th August 2014
Description Rittal Factory storage on pallet racking.	



Photo Facing North

Photo No. 4	Date 27 th August 2014
Description Drive entrance to building offices and undercroft parking	



Photo Facing South

Client Name
 Woolworths Limited

Site Location
 130-140 Parraweena Road, Miranda NSW 2228

Project No.
 14115

Photo No. 5	Date 27 th August 2014
-----------------------	--

Description

Painting Booth, on south eastern corner of factory, adjacent the drying oven



Photo Facing East

Photo No. 6	Date 27 th August 2014
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Description

. Drying Oven on south eastern corner of factory.



Photo Facing East

Client Name
 Woolworths Limited

Site Location
 130-140 Parraweena Road, Miranda NSW 2228

Project No.
 14115

Photo No. 7	Date 27 th August 2014
Description External northern office facade.	



Photo Facing South

Photo No. 8	Date 27 th August 2014
Description Southern former loading docks currently used for storage.	

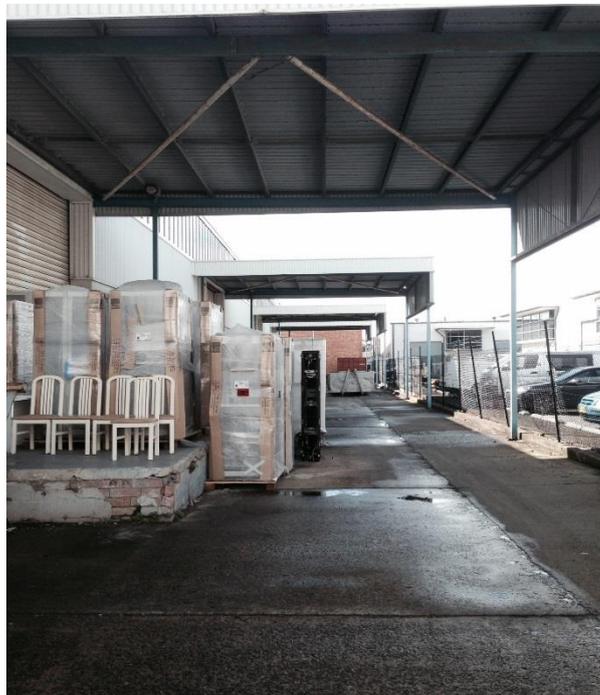


Photo Facing East

Client Name
 Woolworths Limited

Site Location
 130-140 Parraweena Road, Miranda NSW 2228

Project No.
 14115

Photo No. 9	Date 27 th August 2014
Description Phoenix Contact electrical component storage room (internal).	



Photo Facing West

Photo No. 10	Date 27 th August 2014
Description Chemical Storage rooms on the south eastern corner of the factory.	



Photo Facing South

Client Name
 Woolworths Limited

Site Location
 130-140 Parraweena Road, Miranda NSW 2228

Project No.
 14115

Photo No. 11	Date 27 th August 2014	<p>Description</p> <p>Driveway located on the western side of the site.</p>	
Photo Facing South			

Photo No. 12	Date 27 th August 2014	<p>Description</p> <p>Eastern boundary of the site, showing drainage culvert dividing the site from the adjacent property on the eastern boundary.</p>	
Photo Facing North			

Appendix C

Title Deeds

ADVANCE LEGAL SEARCHERS PTY LTD

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29th August, 2014

ENVIRONMENTAL STRATEGIES Pty Limited
Suite 15201, Locomotive Workshop,
2 Locomotive Street,
EVELEIGH NSW 2015

Attention: Gabby Nicol,

**Re: 130-140 Parraweena, Road,
Miranda**

Current Search

Folio Identifier 2/715461 (title attached)
DP 715461 (plan attached)
Dated 28th August, 2014
Registered Proprietor:
ELECTRONICAL COMPONENTS PTY LIMITED

Title Tree
Lot 2 DP 715461

Folio Identifier 2/715461

Certificate of Title Volume 10077 Folio 97

Certificate of Title Volume 8368 Folio 109

Certificate of Title Volume 6432 Folio 136

Certificate of Title Volume 4934 Folio 215

Certificate of Title Volume 2314 Folio 22

**Summary of proprietor(s)
Lot 2 DP 715461**

Year	Proprietor
	(Lot 2 DP 715461)
1995 – todate	Electronical Components Pty Limited
1988 – 1995	Burns Philp Trustee Company Limited
1986 – 1988	Walker Holdings Pty Limited
1985 – 1986	Leda Holdings Pty Limited
<i>(1985 – todate)</i>	<i>(various current commercial leases shown on Folio Identifier 2/715461)</i>
<i>(1985 – todate)</i>	<i>(various commercial leases shown on Historical Folio 2/715461)</i>
	(Lot 1 DP 512558 – CTVol 10077 Fol 97)
1985 – 1985	Leda Holdings Pty Limited
1973 – 1985	T.R.W. Australia Limited
1965 – 1973	The Colonial Mutual Life Assurance Society Limited
1965 – 1965	Eastern Motors Pty Limited The Colonial Mutual Life Assurance Society Limited
<i>(1965 – 1985)</i>	<i>(various commercial leases shown on CTVol 10077 Fol 97)</i>
	(Lot 11 DP 6359 – CTVol 8368 Fol 109)
1964 – 1965	The Colonial Mutual Life Assurance Society Limited
1962 – 1964	The Council of The Shire of Sutherland
	(Lots 11 & 12 DP 6359 – CTVol 6432 Fol 136)
1961 – 1962	The Council of The Shire of Sutherland
1954 – 1961	Mabel Laura Charlotte Mills, widow
1951 – 1954	Arthur Mills, dairyman
	(Lots 11 & 12 DP 6359 and other lands – CTVol 4934 Fol 215)
1938 – 1951	The Holt Sutherland Company (1933) Limited
1938 – 1938	The Honourable Thomas Holt, Member of the Legislative Council
	(Part Portion 6 Parish of Sutherland and other lands – CT Vol 2314 Fol 22)
1912 – 1938	The Honourable Thomas Holt, Member of the Legislative Council

o No Car Expenses
 o No work related Expenses
 Yes



Advance Legal Searchers Pty Ltd 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.

Information provided through Tri-Search an approved LPINSW Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 2/715461

SEARCH DATE	TIME	EDITION NO	DATE
28/8/2014	4:31 PM	9	9/8/1995

LAND

LOT 2 IN DEPOSITED PLAN 715461
AT CARINGBAH
LOCAL GOVERNMENT AREA SUTHERLAND SHIRE
PARISH OF SUTHERLAND COUNTY OF CUMBERLAND
TITLE DIAGRAM DP715461

FIRST SCHEDULE

ELECTRONICAL COMPONENTS PTY LIMITED (T U954313)

SECOND SCHEDULE (6 NOTIFICATIONS)

- * 1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN AND RIGHTS TO MINE-SEE CROWN GRANT AND F461615 AND F548955
- 2 DP715461 RESTRICTION(S) ON THE USE OF LAND
- 3 DP715461 EASEMENT TO DRAIN WATER 3 WIDE APPURTENANT TO THE LAND WITHIN DESCRIBED SHOWN SO BENEFITED AFFECTING THE LAND SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 4 DP640441 DP640441. EASEMENT TO DRAIN WATER VARIABLE WIDTH AFFECTING PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN DP640441
- 5 E99123 LEASE TO THE SYDNEY COUNTY COUNCIL OF SUBSTATION PREMISES NO.9947 TOGETHER WITH A RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES 1.26 & 1.165 WIDE SHOWN ON PLAN WITH E99123 EXPIRES 31-12-2040
- 6 O443258 MORTGAGE TO WESTPAC BANKING CORPORATION

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 ***



Advance Legal Searchers Pty Ltd hereby certifies that the information contained in this document has been provided electronically by the Registrar General.

Information provided through Tri-Search an approved LPI/NSW Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

28/8/2014 4:32PM

FOLIO: 2/715461

First Title(s): OLD SYSTEM
Prior Title(s): VOL 10077 FOL 97

Recorded	Number	Type of Instrument	C.T. Issue
7/8/1985	DP715461	DEPOSITED PLAN	FOLIO CREATED EDITION 1
14/11/1986	W610268	TRANSFER	
14/11/1986	W610269	MORTGAGE	EDITION 2
20/10/1987	DP640441	DEPOSITED PLAN	EDITION 3
27/1/1988	X344593	DISCHARGE OF MORTGAGE	
27/1/1988	X344594	LEASE	
27/1/1988	X344595	MORTGAGE	EDITION 4
12/8/1988	X759046	VARIATION OF MORTGAGE	EDITION 5
24/10/1988	X929703	DISCHARGE OF MORTGAGE	
24/10/1988	X929704	TRANSFER	
24/10/1988	X929705	MORTGAGE	EDITION 6
8/1/1992	E99121	REQUEST	
8/1/1992	E99122	DETERMINATION OF LEASE	
8/1/1992	E99123	LEASE	EDITION 7
15/1/1992	E192461	VARIATION OF MORTGAGE	
19/1/1995	U954312	DISCHARGE OF MORTGAGE	
19/1/1995	U954313	TRANSFER	EDITION 8
9/8/1995	O443258	MORTGAGE	EDITION 9
1/7/2013	AH849332	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

Environ Strategie

PRINTED ON 28/8/2014

*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.



9/1



X929704

TRANSFER
 REAL PROPERTY ACT, 1900

T 72 of 3
 \$ 47 R 2/3

DESCRIPTION OF LAND
 Note (a)

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
CERTIFICATE OF TITLE FOLIO IDENTIFIER 2/715461	WHOLE	TAREN POINT

TRANSFEROR
 Note (b)

WALKER HOLDINGS PTY LIMITED of 1 Box Road, Caringbah

ESTATE
 Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of \$3,225,000.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE
 Note (d)

BURNS PHILP TRUSTEE COMPANY LIMITED of 51 Pitt Street, Sydney	OFFICE USE ONLY S
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TENANCY
 Note (e)

as joint tenants/tenants in common

PRIOR ENCUMBRANCES
 Note (f)

subject to the following PRIOR ENCUMBRANCES 1. Lease X344594

DATE 13th October 1988

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION
 Note (g)

Signed in my presence by the transferor who is personally known to me

THE COMMON SEAL OF WALKER HOLDINGS PTY LIMITED



Director
 Signature of Transferor

was hereunto affixed by authority of its

Board of Directors in the presence of:

Secretary

Note (g)

Signed in my presence by the transferee who is personally known to me



The Common Seal of Burns Philp Trustee Company Limited hath been hereunto affixed by us AND WE do hereby certify that we are the proper Officers of the said Company by whom or in whose presence the said Common Seal is to be affixed to all deeds executed by the said Company



TO BE COMPLETED BY LODGING PARTY
 Notes (h) and (i)

LODGED BY JOHN M. FITZGERALD & ASSOCIATES, SOLICITORS, 2ND FLOOR, 140 PHILLIP STREET, SYDNEY NSW. 2000 D.X. 959 SYDNEY Delivery Box Number 320E	LOCATION OF DOCUMENTS	
	CT	OTHER
Checked	Passed	REGISTERED - -19
SIGNED		24 OCT 1988
Extra Fee		Secondary Directions
NSW \$*****1.00 STAMP DUTY 14/10/88 36463 X C		Delivery Directions



CERTIFICATE OF TITLE
PROPERTY ACT, 1900, as amended.



10077037

NEW SOUTH WALES

Application No. 49

Prior Titles Vol. 6414 Fol. 215
Vol. 8368 Fol. 109

Vol. 10077 Fol. 97

MA 1st Edition issued 9-8-1965



CANCELLED

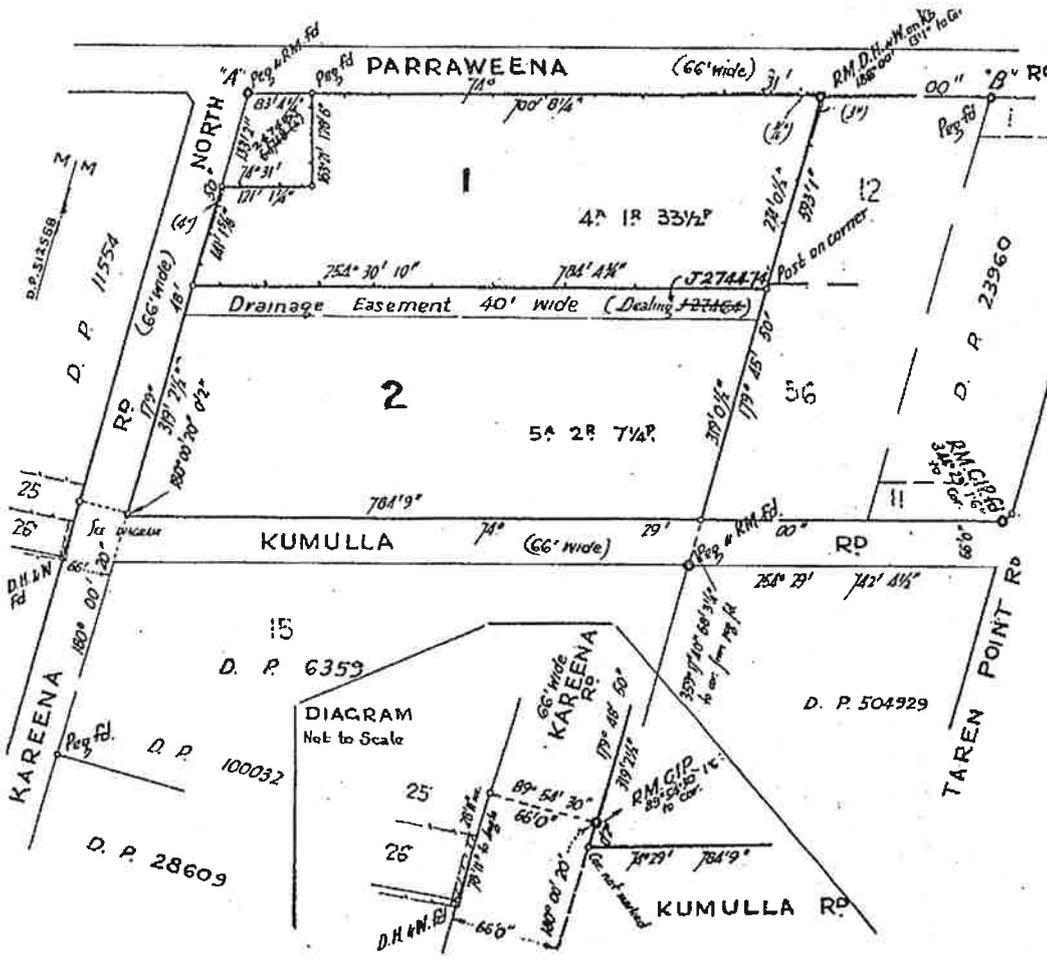
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate and land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness *J. Charles*

Jawatson
Registrar General.



PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 512558 at Caringbah in the Shire of Sutherland Parish of Sutherland and County of Cumberland being part of Portion 6 granted to John Connell on 8-1-1835 excepting thereout all mines beds seams and veins of coal iron and other metals and minerals excepted by Transfers Nos. F461615 and F548955 affecting parts.

FIRST SCHEDULE (continued overleaf)

~~EASTERN MOTORS PTY. LIMITED of the part of the land above described formerly comprised in Certificate of Title Volume 6414 Folio 215 and THE COLONIAL MUTUAL LIFE ASSURANCE SOCIETY LIMITED, of the part formerly comprised in Certificate of Title Volume 8368 Folio 109.~~

Jawatson
Registrar General.

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Mortgage No. J367933 of the part of the land above described formerly comprised in Certificate of Title Volume 6414 Folio 215 to Bank of New South Wales. Entered 13-9-1963. Discharged J548657.

Jawatson
Registrar General.

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

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

10077 Fol. 97 (Page 1) Vol.

Ref:als /Src: 1
 18486
 K4398
 V150795 K11
 V829834
 V829834
 DP 715461
 6-8-1985

OF 1808 V. C. N. PLIGHT, GOVERNMENT PRINTER

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT		ENTERED	Signature of Registrar General
	NATURE	NUMBER		
The Ledaired Mutual Life Assurance Society Limited Leda Holdings Pty Limited by Transfer V829834. Registered 2.8.1985	Transfer	V848857	11-11-1984	
	Transfer	V116344	2-7-1972	

SECOND SCHEDULE (continued)

PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION

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

FORM No. 62

S. SUTHERLAND

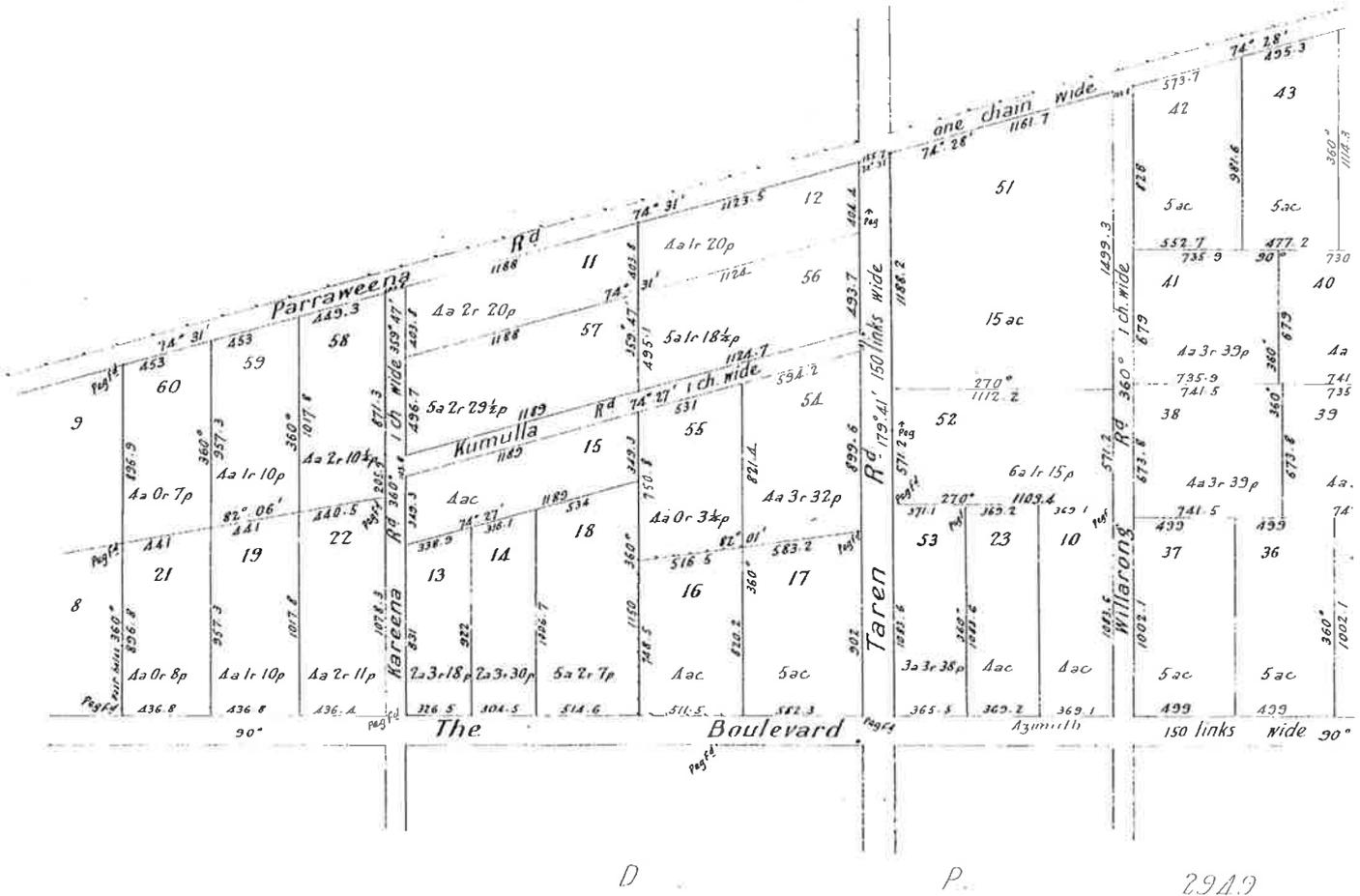
Plan

of part of Parish Portions 6, 33, & 35 Holt Sutherland Estate
 Parish of Sutherland County of Cumberland

DP 6359 (E)

"A"

90° 21'
 Box Rd



Alterations and additions made by me
 L.C.C.
 29.11.11

This is the plan marked "A" referred to in
 the Declaration made by Mr. L. A. Curtis
 before me this 10th day of October 1911

L. A. Curtis

Scale 5 Chains to an Inch
 Surveyed in Septem^r 1911

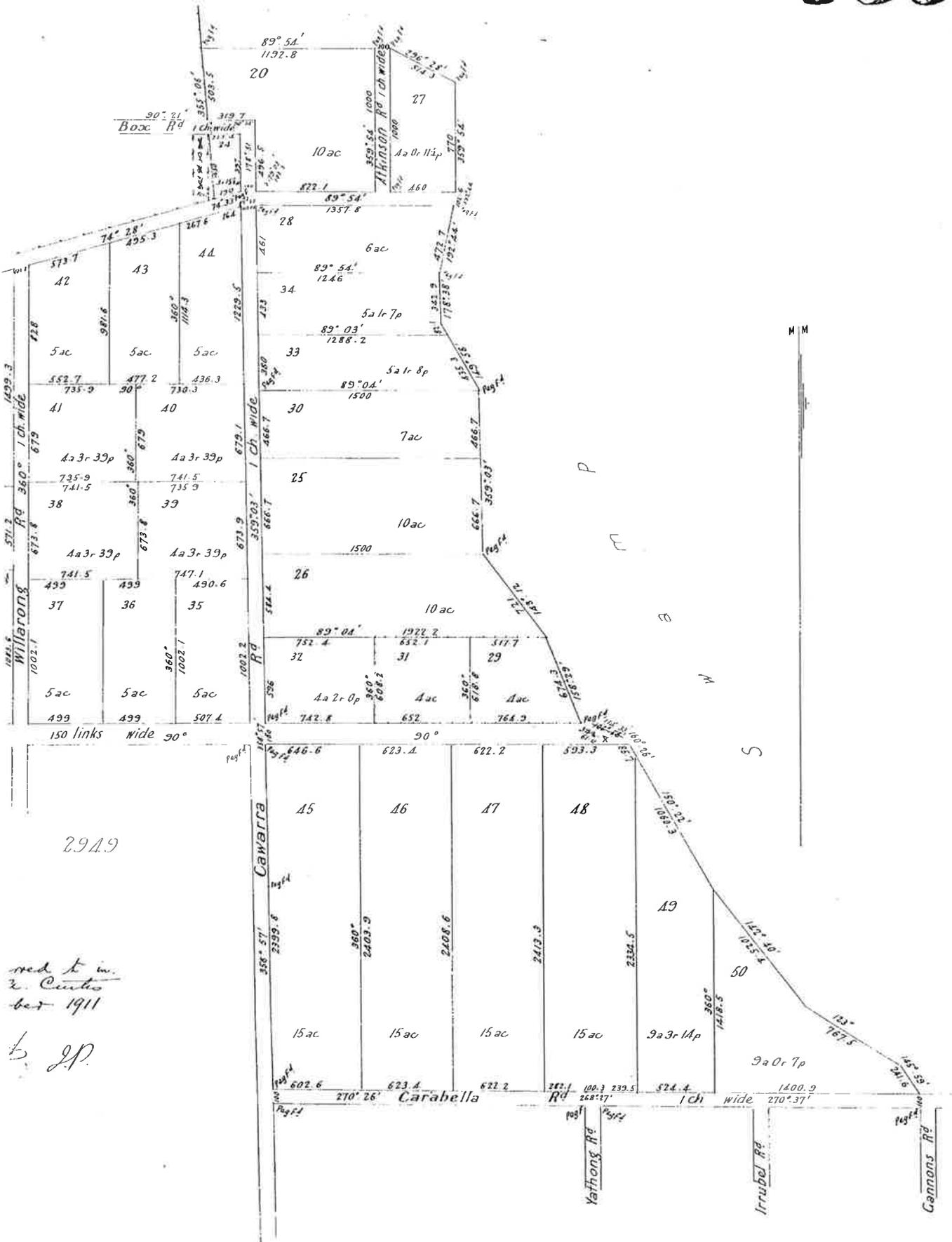
Louis A. Curtis S.S.

DP 6359 (E)

29.11.11
 29.11.11
 29.11.11

DP 6359 (E) 6359

6



2949

red to in
 2. Curtis
 bet 1911

L.P.

CONVERSION TABLE ADDED IN
 REGISTRAR GENERAL'S DEPARTMENT

DP 6359	LINKS	METRES
	0.3	0.06
	2.1	0.42
	4.5	0.905
	22	4.425
	22.2	4.465
	39.5	7.945
	61	12.27
	82.1	16.515
	85.7	17.24
	97	19.515
	100	20.115
	100.3	20.175
	103.3	20.78
	103.6	20.84
	103.8	20.88
	150	30.175
	155.7	31.32
	160	32.185
	164	32.99
	190	36.22
	213.4	42.93
	239.5	48.18
	241.6	48.6
	267.6	53.83
	282.1	56.75
	304.5	61.26
	316.1	63.59
	319.7	64.31
	326.5	65.68
	338.9	68.18
	342.9	68.98
	349.3	70.27
	365.5	73.53
	369.1	74.25
	369.2	74.27
	371.1	74.65
	380	76.44
	403.8	81.23
	403.9	81.25
	404.4	81.35
	408.6	82.2
	418.5	84.19
	433	87.11
	435.3	87.57
	436.3	87.77
	436.4	87.79
	440.5	88.61
	441	88.72
	449.3	90.38
	450	90.53
	453	91.13
	460	92.54
	461	92.74
	466.7	93.89
	472.7	95.09
	477.2	96
	490.6	98.69
	493.7	99.32
	495.1	99.6
	495.3	99.64
	496.5	99.88
	496.7	99.92
	499	100.38
	503.5	101.29
	507.4	102.07
	511.2	102.84
	511.5	102.9
	514.3	103.46
	514.6	103.52
	516.5	103.9
	517.7	104.14
	524.4	105.49
	531	106.82
	534	107.42
	552.7	111.19
	571.2	114.91
	573.7	115.41

CONVERSION TABLE ADDED IN
 REGISTRAR GENERAL'S DEPARTMENT

DP 6359	LINKS	METRES	CONTINUED
	582.3	117.14	
	583.2	117.32	
	584.4	117.56	
	593.3	119.35	
	594.2	119.53	
	596	119.9	
	602.6	121.22	
	608.2	122.35	
	618.8	124.48	
	622.2	125.17	
	623.4	125.41	
	646.6	130.08	
	652	131.16	
	652.1	131.18	
	666.7	134.12	
	673.8	135.55	
	673.9	135.57	
	674.3	135.65	
	679	136.59	
	679.1	136.61	
	721	145.04	
	730.3	146.91	
	735.9	148.04	
	741.5	149.17	
	742.8	149.43	
	747.1	150.29	
	748.5	150.57	
	750.8	151.04	
	752.4	151.36	
	764.9	153.87	
	767.5	154.4	
	770	154.9	
	820.2	165	
	821.4	165.24	
	822.1	165.38	
	828	166.57	
	831	167.17	
	871.3	175.28	
	896.8	180.41	
	896.9	180.43	
	899.6	180.97	
	902	181.45	
	922	185.48	
	957.3	192.58	
	981.6	197.47	
	1000	201.17	
	1002.1	201.59	
	1002.2	201.61	
	1006.7	202.52	
	1017.8	204.75	
	1025.4	206.28	
	1060.3	213.3	
	1078.3	216.92	
	1083.6	217.99	
	1109.4	223.18	
	1112.2	223.74	
	1114.3	224.16	
	1123.5	226.01	
	1124	226.11	
	1124.7	226.25	
	1150	231.34	
	1161.7	233.7	
	1188	238.99	
	1188.2	239.03	
	1189	239.19	
	1192.8	239.95	
	1229.5	247.34	
	1246	250.66	
	1288.2	259.14	
	1357.8	273.15	
	1400.9	281.82	
	1418.5	285.36	
	1499.3	301.61	
	1500	301.75	
	1922.2	386.69	
	2334.5	469.63	
	2399.8	482.76	

CONVERSION TABLE ADDED IN
 REGISTRAR GENERAL'S DEPARTMENT

DP 6359	LINKS	METRES	CONTINUED
	2403.9	483.59	
	2408.6	484.53	
	2413.1	485.48	
	AC RD P	SQ M	
	- 3 15 1/2	3427	
	AC RD P	HA	
	2 3 18	1.158	
	2 3 30	1.189	
	3 3 38	1.614	
	4 - -	1.619	
	4 - 3 1/4	1.627	
	4 - 7	1.636	
	4 - 8	1.639	
	4 - 11 1/4	1.647	
	4 1 1	1.722	
	4 1 10	1.745	
	4 1 20	1.77	
	4 2 -	1.821	
	4 2 10 1/4	1.847	
	4 2 10.55	1.848	
	4 2 11	1.849	
	4 2 20	1.872	
	4 3 32	2.0	
	4 3 39	2.021	
	5 - -	2.023	
	5 1 8	2.127	
	5 1 7	2.142	
	5 1 8	2.145	
	5 1 18 1/4	2.171	
	5 2 7	2.243	
	5 2 29 1/2	2.3	
	6 - -	2.428	
	6 1 15	2.567	
	6 3 14	2.767	
	7 - -	2.833	
	9 - 7	3.66	
	9 3 14	3.981	
	10 - -	4.047	
	15 - -	6.07	

DATE: 26th Nov. 2010
 SCALE: AS SHOWN
 2010 - 320

Approved: *Alan Croucher*
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 6/1008 OLD PRINCE HIGHWAY ENGLADE, N.S.W. PH 9548-1124 FAX 9548-1174 A.C.N. 111 761 545
 B.E. CIVIL (HONS)
 M.E. (AUST) L.G.E.

TITLE
 CLIENT

Croucher Engineering Pty. Ltd.

GENERAL NOTES

- SITE CLASSIFIED AS CLASS 1 IN ACCORDANCE WITH AS 2870 - 1988 RESIDENTIAL SLABS AND FOOTINGS.
- SITE CLASSIFIED ON BY ALAN CROUCHER
- THE OWNER'S ATTENTION IS DRAWN TO APPENDIX A OF AS 2870 - 1988 - PERFORMANCE REQUIREMENTS & FOUNDATION MAINTENANCE.
- MECHANICALLY VIBRATE ALL CONCRETE TO SLABS DURING PLACEMENT.
- WET CURE SLABS BY MEANS OF A HAND HELD HOSE OR SPRINKLER AT LEAST 4 TIMES DAILY FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT.
- WET CURING REDUCES THE RISK OF CRACKING DUE TO TEMPERATURE SHRINKAGE.
- COMMENCE WET CURING AS SOON AS POSSIBLE AFTER PLACEMENT BUT AFTER SUFFICIENT LAPSE OF TIME AS NOT TO DAMAGE SURFACE OF CONCRETE.
- SITE PREPARATION & CONSTRUCTION NOTES
- STRIP ALL VEGETATION & 100mm OF TOP SOIL.
- RECOMPACT DISTURBED AREAS.
- IF FILL REQUIRED THEN IMPORT & SPREAD IN 150mm THICK LAYER (MAX) & COMPACT USING MULTIPLE PASSES OF EXCAVATOR. ENGINEER TO BE ADVISED SHOULD FILL EXCEED 450mm BEFORE PROCEEDING WITH FURTHER WORKS.
- CONCRETE PIERS TO BE USED TO ACHIEVE AN EVEN BEARING AS REQUIRED BY SITE CONDITIONS.
- 400 Ø TO CLAY BEARING @ 2000mm CTRS
- 300 Ø TO SHALE BEARING @ 2000mm CTRS
- USE 0.2mm POLYTHENE VAPOUR BARRIER, MAKE WATERPROOF AT ALL JOINTS & DRAINAGE PIPES, ETC. SITE IS TO BE PROPERLY DRAINED TO ELIMINATE SURFACE & SUBSOIL WATER FLOW.
- ALL EDGE & INTERNAL BEAMS ARE A MINIMUM DEPTH ONLY & MAY BE INCREASED TO SUIT SITE CONDITIONS.
- ALL TRENCH CUTTINGS TO BE REMOVED FROM SLAB AREA & NOT TO BE USED AS FILLING UNLESS COMPACTED.
- 8. F.C. = MP2 @ 28 DAYS
- 80mm SLUMP
- 20mm MAX AGGREGATE

DEVELOPMENT CONSENT
 Development Consent No. K1230
 This plan / supporting documentation forms part of the above development consent.
 30 DEC 2011
 SUTHERLAND SHIRE COUNCIL

DEVELOPMENT APPLICATION DETAILS

FOR

TO ROAD FRONTAGE

AT

RITTAL PTY LTD.

No 130-140 PAKKAWEKA ROAD, MIRAUDA (N.S.W.)

PROPOSED SECURITY GATES & FENCE PANELS

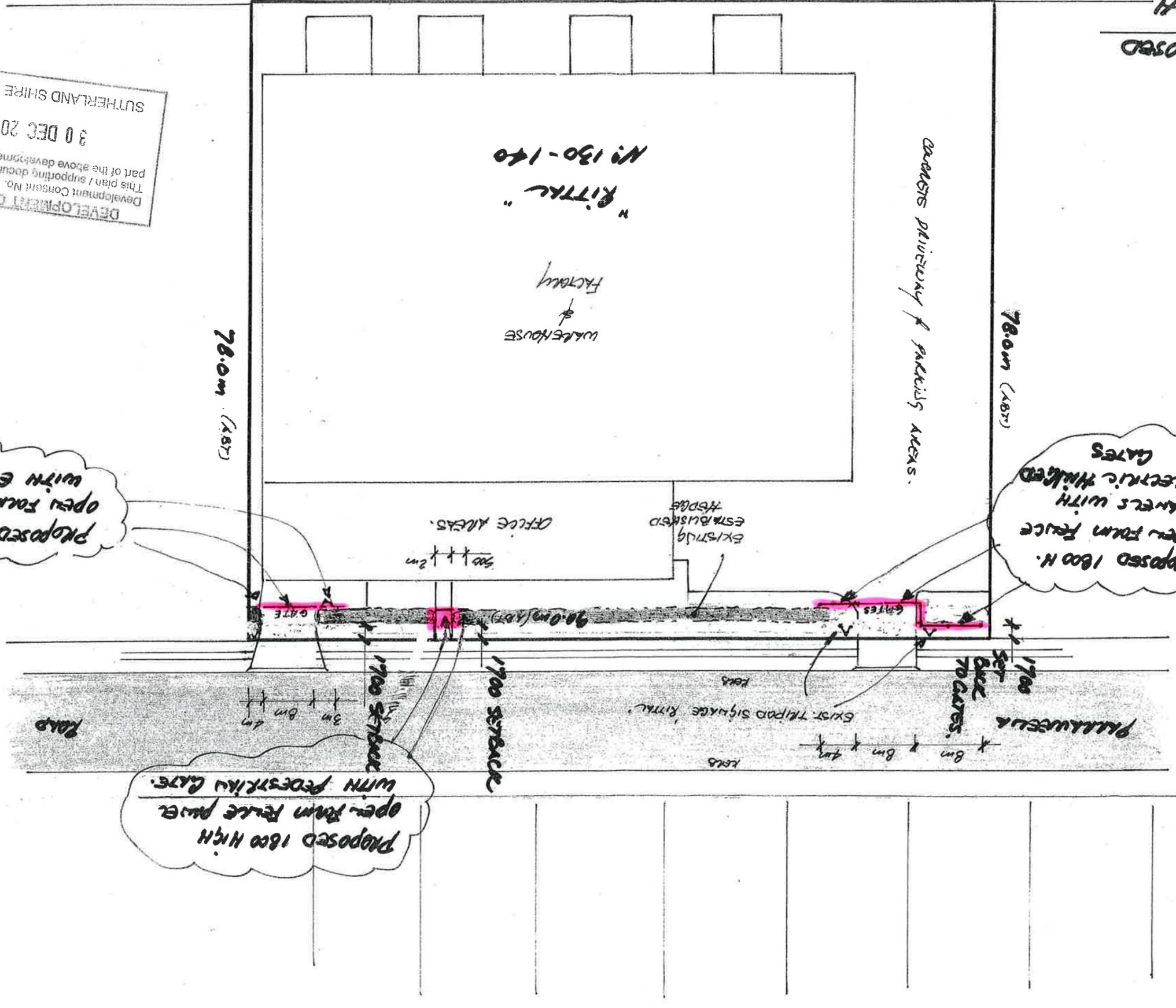
DRG N: 2010-320

(1:500)

90.0m (ABT)

SITE PLAN
SHOWING PROPOSED
NEW 1800 HIGH
FENCE PANELS & GATES.

DEVELOPMENT CONSENT
Development Consent No. D/1230
This plan / supporting documentation forms
part of the above development consent.
30 DEC 2011
SUTHERLAND SHIRE COUNCIL



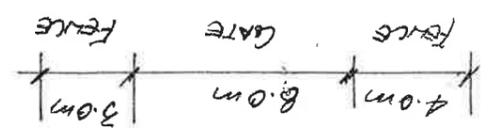
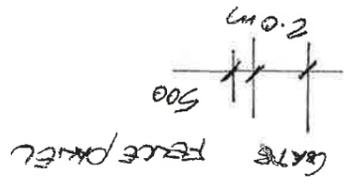
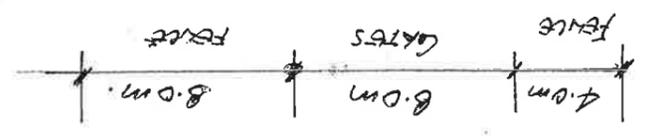
PROPOSED 1800 H.
OPEN FORM FENCE PANELS
WITH ELECTRIC SLIDE GATE

PROPOSED 1800 H.
OPEN FORM FENCE
WITH ELECTRIC WINDING
GATES

PROPOSED 1800 HIGH
OPEN FORM FENCE PANEL
WITH PEDESTRIAN GATE.

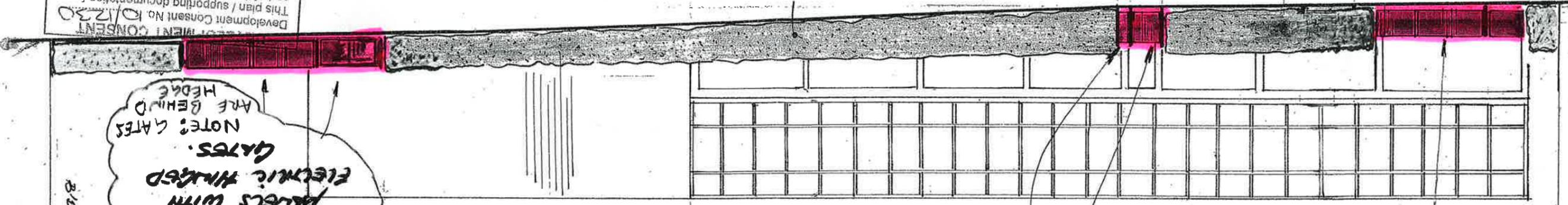
N.

NORTHERN ELEVATION (1:250)
 FRONTAGE TO PARAUWEEVA ROAD.



SUTHERLAND SHIRE COUNCIL
 30 DEC 2011
 This plan / supporting documentation forms part of the above development consent.
 Development Consent No 10/1230

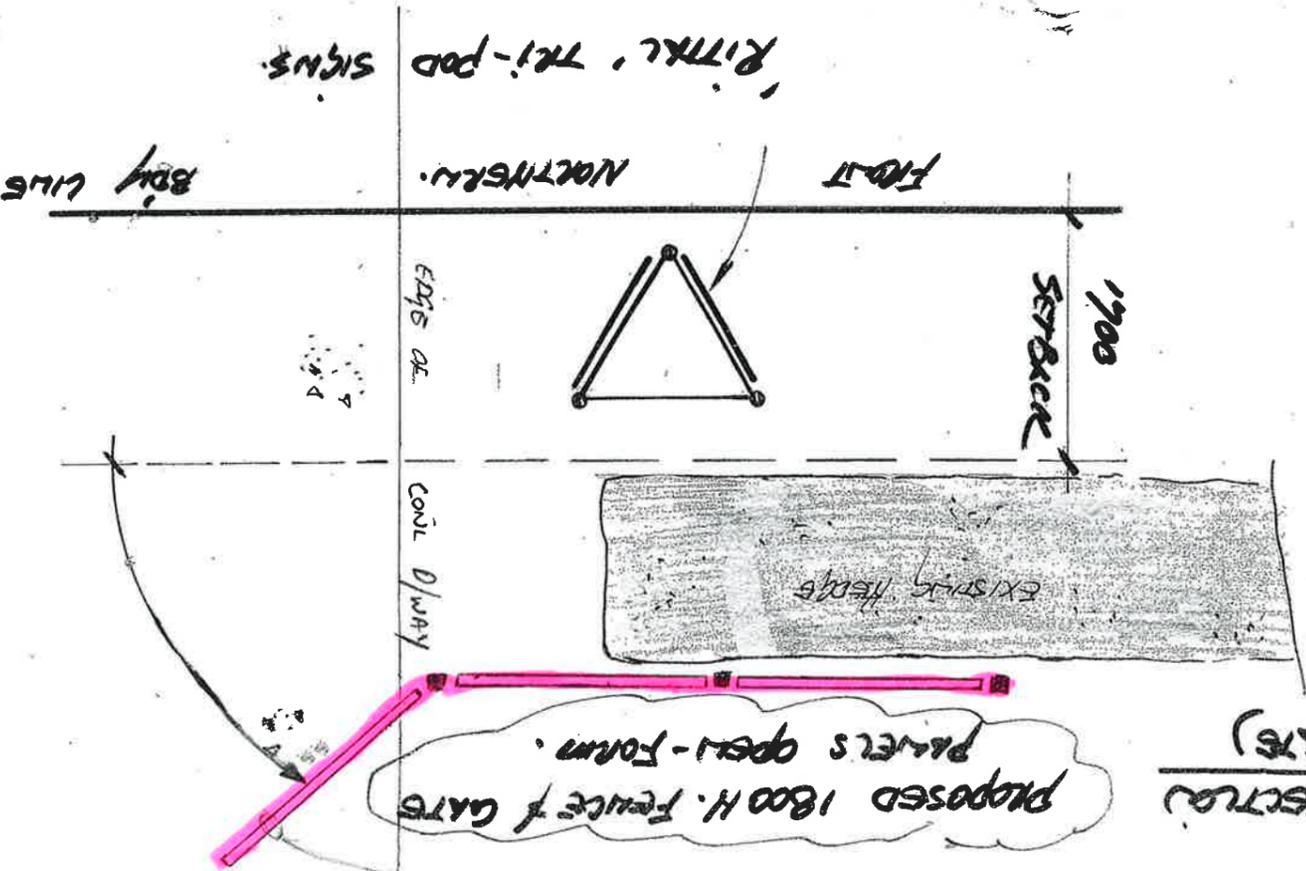
EXISTING HEDGE PLANTING
 VALUES IN HEIGHT 1600 - 2200H.



PROPOSED 1800H. OPEN FORM FENCE PANELS WITH ELECTRIC FINISHED GATES.
 NOTE: GATES ARE BEHIND HEDGE

PROPOSED 1800H PEDESTAL GATE WITH SIDE PANEL FENCE

PROPOSED 1800 HIGH OPEN FORM FENCE PANELS WITH ELECTRIC SLIDE GATE
 NOTE: GATE IS BEHIND HEDGE



PROPOSED 1800H. FENCE & GATE PANELS OPEN-FORM.

TYPICAL PANEL SECTION (WESTERN GATE)

SPECIFICATIONS FOR FENCE & GATES.

- COLOUR TO BE BLACK
- SPACING BETWEEN FENCE/GATE UPRIGHTS - 100mm.
- FENCE & GATE SUPPORT POSTS TO BE 102x102 S.H.S. (HOT DIP GALV.) POSTS SET INTO CONCRETE PITS (TO MANUFACTURERS SPECS)
- FENCE/GATE HEIGHT TO BE 1800 (Nom.)

90.0m (ABT)

- ALL TRUCKS SHALL BE CARRIED INTERNALLY. TRUCKS TO BE PROTECTED BY SECURITY FENCING & SILENT (AS NECESSARY)
- EACH ZONE WILL ALSO HAVE A TEMPORARY SILENT FENCE IS SAID & DEPOSITABLE AS NECESSARY
- ALL TRUCKS SHALL BE CARRIED INTERNALLY. TRUCKS TO BE PROTECTED BY SECURITY FENCING & SILENT (AS NECESSARY)
- EACH ZONE WILL BE SURROUNDED BY 2.0m HIGH TEMPORARY SECURITY FENCING ONLY. IF FENCING NEEDS TO ENLARGE ON TO FOOTPATH AS AN APPROPRIATE PERMIT WILL BE OBTAINED FROM COUNCIL
- EACH ZONE WILL ALSO HAVE A TEMPORARY SILENT FENCE IS SAID & DEPOSITABLE AS NECESSARY
- ALL TRUCKS SHALL BE CARRIED INTERNALLY. TRUCKS TO BE PROTECTED BY SECURITY FENCING & SILENT (AS NECESSARY)

DEVELOPMENT CONSENT
 Development Consent No. 10/12
 This plan/ supporting documentation forms part of the above development consent.
 8 DEC 2011
 SUTHERLAND SHIRE COUNCIL

No 130-140

"RITTAL"

WATERHOUSE & FACTORY

OFFICE AREAS

Eastern driveway & parking areas

78.0m (ABT)

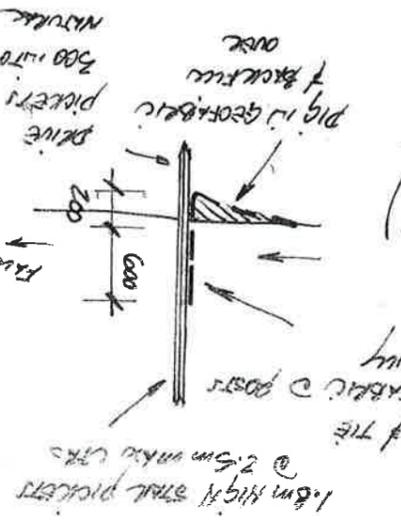
SITE MANAGEMENT PLAN
SHOWING EROSION CONTROL MEASURES
 (1:500)

DESIGNATED WORK ZONES

1. ESTABLISH STORAGE AREA COMPOUND
2. EXCAVATE & INSTALL ALL FENCE POSTS WITHIN DRIVE WORK AREAS
3. EXCAVATE & LAY ELECTRICAL CABLES AS LEAD (DRIVE)
4. INSTALL FENCE PANELS
5. INSTALL GATES

TEMPORARY STORAGE AREA FOR CONSTRUCTION MATERIALS SURROUNDED BY 2.0m HIGH TEMP SECURITY FENCES

TYPICAL SILENT FENCE DETAIL



PILOT TO COMMENCEMENT OF WORK (AND ONLY IF ROAD TO OCCUPY SOME OF) COUNCIL'S FOOTPATH RESERVE OBTAIN FROM COUNCIL THE NECESSARY PERMITS TO DO SO.

• ALL TRAFFIC MOVEMENTS TO & FROM SITE FOR ALL VEHICLES DURING CONSTRUCTION PERIOD TO BE CONTROLLED BY STOP/GO PERSONS.

• IF DEBRIS, SOIL OR SPILL FALLS onto ROAD PAVEMENT DURING CONSTRUCTION, KILN TO DRY THEM BURN OFF. DO NOT WASH DOWN ROAD PAVEMENT.

ROAD PAVEMENT

EXISTING PAVED DRIVEWAY

EXISTING TRIP-POD SIGNAGE

EXISTING PAVED DRIVEWAY

20m ROAD RESERVE

NORTH

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 2/715461

SEARCH DATE	TIME	EDITION NO	DATE
16/3/2012	1:17 PM	9	9/8/1995

LAND

LOT 2 IN DEPOSITED PLAN 715461
AT CARINGBAH
LOCAL GOVERNMENT AREA SUTHERLAND SHIRE
PARISH OF SUTHERLAND COUNTY OF CUMBERLAND
TITLE DIAGRAM DP715461

FIRST SCHEDULE

ELECTRONICAL COMPONENTS PTY LIMITED (T U954313)

SECOND SCHEDULE (6 NOTIFICATIONS)

- 1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN AND RIGHTS TO MINE-SEE CROWN GRANT AND F461615 AND F548955
- 2 DP715461 RESTRICTION(S) ON THE USE OF LAND
- 3 DP715461 EASEMENT TO DRAIN WATER 3 WIDE APPURTENANT TO THE LAND WITHIN DESCRIBED SHOWN SO BENEFITED AFFECTING THE LAND SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 4 DP640441 DP640441. EASEMENT TO DRAIN WATER VARIABLE WIDTH AFFECTING PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN DP640441
- 5 E99123 LEASE TO THE SYDNEY COUNTY COUNCIL OF SUBSTATION PREMISES NO.9947 TOGETHER WITH A RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES 1.26 & 1.165 WIDE SHOWN ON PLAN WITH E99123 EXPIRES 31-12-2040
- 6 O443258 MORTGAGE TO WESTPAC BANKING CORPORATION

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 ***

9519918

PRINTED ON 16/3/2012

Australian Business Research received search result from Land and Property Information New South Wales on 16/3/2012 12:17:11

Australian Business Research Pty Ltd 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.

The information is not an "official search" within the meaning of section 96A of the Real Property Act 1900 (NSW)

For the purposes of paragraph (c) of the definition "property certificate" in clause 23 (1) of the Conveyancing (Sale of Land) Regulation 2000 (NSW), the title search is provided for the purposes of section 96B of the Real Property Act 1900 (NSW)

* 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 on the Register.

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - PLAN INQUIRY

Plan Number: DP715461

Plan Purpose: SUBDIVISION

Title System: TORRENS SURVEY

No. of Sheets: 1

Plan Registration Date: 6/8/1985

Section 88B Easement: Single

Council: SUTHERLAND SHIRE

Approval Number: 8563/85

County: CUMBERLAND

Parish: SUTHERLAND

*** END OF SEARCH ***

9519986

PRINTED ON 16/3/2012

Australian Business Research received search result from Land and Property Information New South Wales on 16/3/2012 12:22:17

Australian Business Research. A division of Veda Advantage Information Services and Solutions Limited 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.

The information is not an "official search" within the meaning of section 96A of the Real Property Act 1900 (NSW)

For the purposes of paragraph (c) of the definition "property certificate" in clause 23 (1) of the Conveyancing (Sale of Land) Regulation 2000 (NSW), the title search is provided for the purposes of section 96B of the Real Property Act 1900 (NSW)

OFFICE USE ONLY

D.P. 715461

Registered: **CAVY** 6/8/1989
C.A.: NO 63/85 OF 11-7-1985
Title System: **TORRENS**
Purpose: **SUBDIVISION**
Ref. Nos: UO930-44

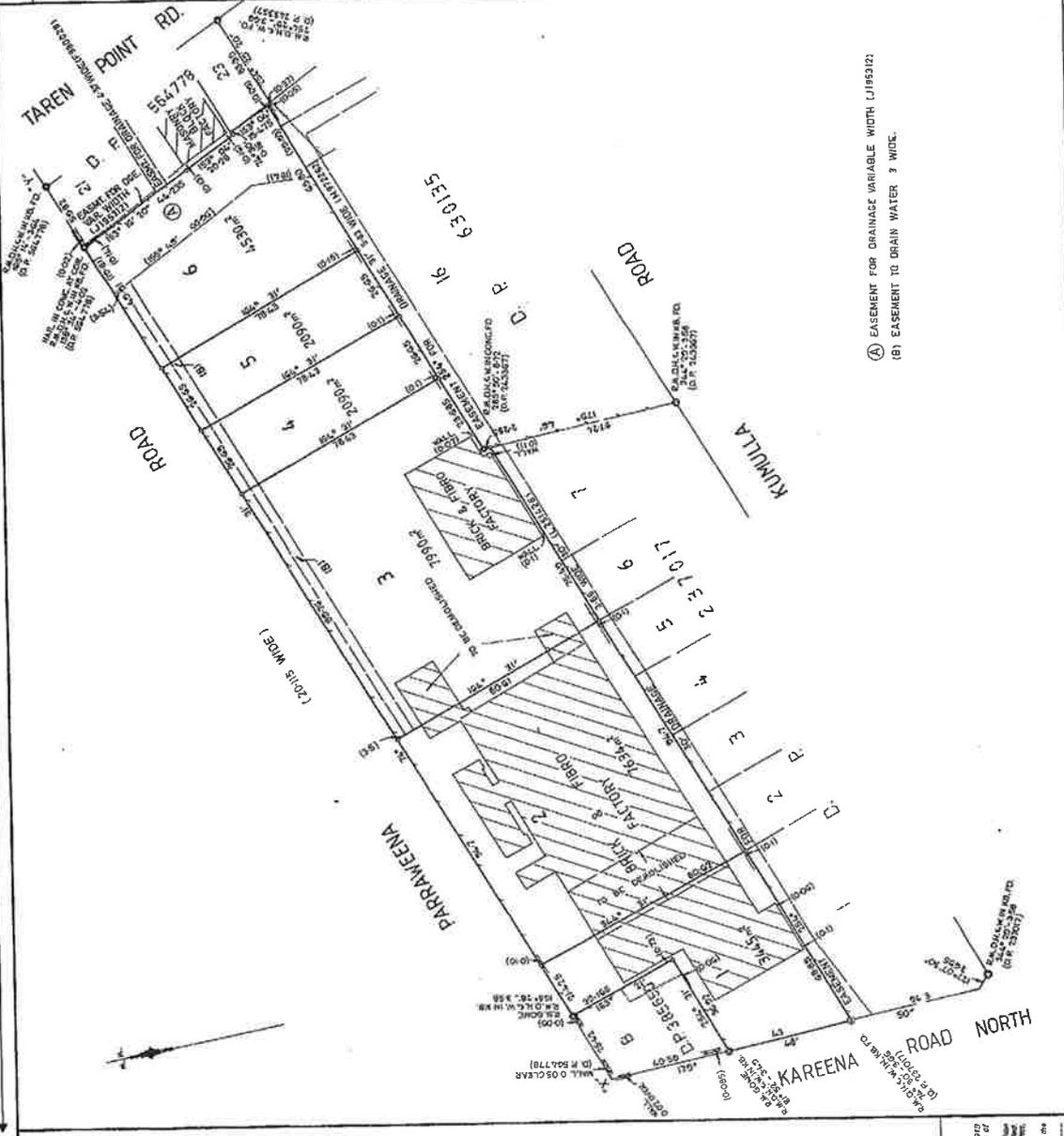
PLAN OF SUBDIVISION OF
LOT 1 O.P. 512558 & LOT 22
D.P. 564778

Reduction Ratio: 1:1000
Lengths are in metres.
Municipality: **SUTHERLAND**
Locality: **CARINGBAH**
Parish: **SUTHERLAND**
County: **CUMBERLAND**

This plan is prepared in accordance with the provisions of the Real Property Act, 1925, as amended.
I, **ROBERT DOUGLAS DUNLOP**, of the County of Cumberland, in the State of New South Wales, being the proprietor of the land hereinafter described, do hereby certify that the above is a true and correct copy of the plan as shown to me by the proprietor of the land hereinafter described, and that the same is in accordance with the provisions of the Real Property Act, 1925, as amended.
11. 5. 85

Panel for use only for statements of intention to create, amend, vary, discharge, or restrict easements, covenants, or restrictions as to users.
PURSUANT TO SECTION 88 OF THE REAL PROPERTY ACT, 1925, AS AMENDED, THIS PANEL IS APPLICABLE TO THE PLAN AS TO USERS.
1. RESTRICTION AS TO USERS.
2. EASEMENT TO DRAIN WATER 3 WIDE.

Plan Drawing only to appear in this space



(A) EASEMENT FOR DRAINAGE VARIABLE WIDTH 1/195312
(B) EASEMENT TO DRAIN WATER 3 WIDE.

Signature seal with name **EDA HOLDINGS PTY LIMITED** and **First** class stamp. Includes a signature and date **11/7/85**.

Council Clerk's Certificate
I hereby certify that the requirements of the Local Government Act, 1982 have been complied with in relation to the registration of this plan.
Date: **11/7/85**
Signature: **[Signature]**
Name: **[Name]**

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day, 7th August, 1985

MPD

Successors reference 5320

10	20	30	40	50	60	70	Table of mm	110	120	130	140
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This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 29th May, 1991



INSTRUMENT SETTING OUT TERMS OF EASEMENTS AND RESTRICTIONS AS TO USER INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919

Lengths are in metres Sheet 1 of 3 Sheets

PART I

Plan: DP715461

Subdivision of the whole of the land comprised in Certificate of Title Volume 6788 Folio 26 and Volume 10077 Folio 97 and Volume 12255 Folio 193 covered by Council Clerk's Certificate No. 63/95

Full name and address of the Proprietors of the land: Leda Holdings Pty. Limited of 98 Alfred Street, Milsons Point, N.S.W., 2060.

1. Identity of Easement or Restriction firstly referred to in the abovementioned plan: Restrictions as to User

SCHEDULE OF LOTS AFFECTED

1 & 2 Lots Burdened: 1 & 2
 Lots, Name of Road or Authority Benefited: The Council of the Shire of Sutherland

2. Identity of Easement or Restriction secondly referred to in the abovementioned plan: Restrictions as to User

SCHEDULE OF LOTS AFFECTED

5 & 6 Lots Burdened: 5 & 6
 Lots, Name of Road or Authority Benefited: The Council of the Shire of Sutherland

3. Identity of Easement or Restriction thirdly referred to in the abovementioned plan: Easement to Drain Water 3 wide

SCHEDULE OF LOTS AFFECTED

Lots Burdened	Lots, Name of Road or Authority Benefited
3	2
4	2, 3
5	2, 3, 4
6	2, 3, 4, 5

Approved by Sutherland Shire Council

[Signature]
 Deputy Shire Clerk

INSTRUMENT SETTING OUT TERMS OF EASEMENTS AND RESTRICTIONS AS TO USER INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919

Lengths are in metres Sheet 3 of 3 Sheets

PART II

Plan: DP715461

Subdivision of the whole of the land comprised in Certificates of Title Volume 6788 Folio 26 and Volume 10077 Folio 97 and Volume 12255 Folio 193 covered by Council Clerk's Certificate No. 63/95

Full name and address of the Proprietors of the land: Leda Holdings Pty. Limited of 98 Alfred Street, Milsons Point, N.S.W., 2060.

THE COMMON SEAL OF LEDA HOLDINGS PTY. LIMITED was hereunto affixed by authority of the Board in the presence of:



[Signature]
 Secretary

Approved by Sutherland Shire Council

[Signature]
 Deputy Shire Clerk

10	20	30	40	50	60	70	Table of mm	110	120	130	140
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This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 29th May, 1991



2

AMENDMENTS AND/OR ADDITIONS MADE ON PLAN IN THE LAND TITLES OFFICE

INSTRUMENT SETTING OUT TERMS OF EASEMENTS AND RESTRICTIONS AS TO USER INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919

Lengths are in metres

Sheet 2 of 3 Sheets

PART II

Plan: DP715461

Subdivision of the whole of the land comprised in Certificates of Title Volume 6788 Folio 26 and Volume 10077 Folio 97 and Volume 12255 Folio 193 covered by Council Clerk's Certificate No. 63/85.

Full name and address of the Proprietors of the land:

Leda Holdings Pty. Limited of 98 Alfred Street, Mison Point, N.S.W., 2060.

TERMS OF RESTRICTIONS AS TO USER FIRSTLY REFERRED TO IN THE ABOVEMENTIONED PLAN:

That no development or occupation of the said lots shall take place until a brick wall has been constructed along the common boundary of the said lots to achieve a four (4) hour fire resistance rating to comply with Table 16.11 of Ordinance 70.

TERMS OF RESTRICTIONS AS TO USER SECONDLY REFERRED TO IN THE ABOVEMENTIONED PLAN:

That no development or occupation of the said lots shall take place until the stormwater drainage system as required by Condition No. 7 of the Council's subdivision approval dated 7th May, 1985 has been constructed to the satisfaction of the Council of the Shire of Sutherland.

Name of Authority empowered to release vary or modify easement or restriction as to user firstly, secondly and thirdly referred to in the above-mentioned plan:

The Council of the Shire of Sutherland

Approved by Sutherland Shire Council

[Signature]
Deputy Shire Clerk

INSTRUMENT SETTING OUT INTERESTS CREATED PURSUANT TO SECTION 88B, CONVEYANCING ACT, 1919, LODGED WITH DP715461

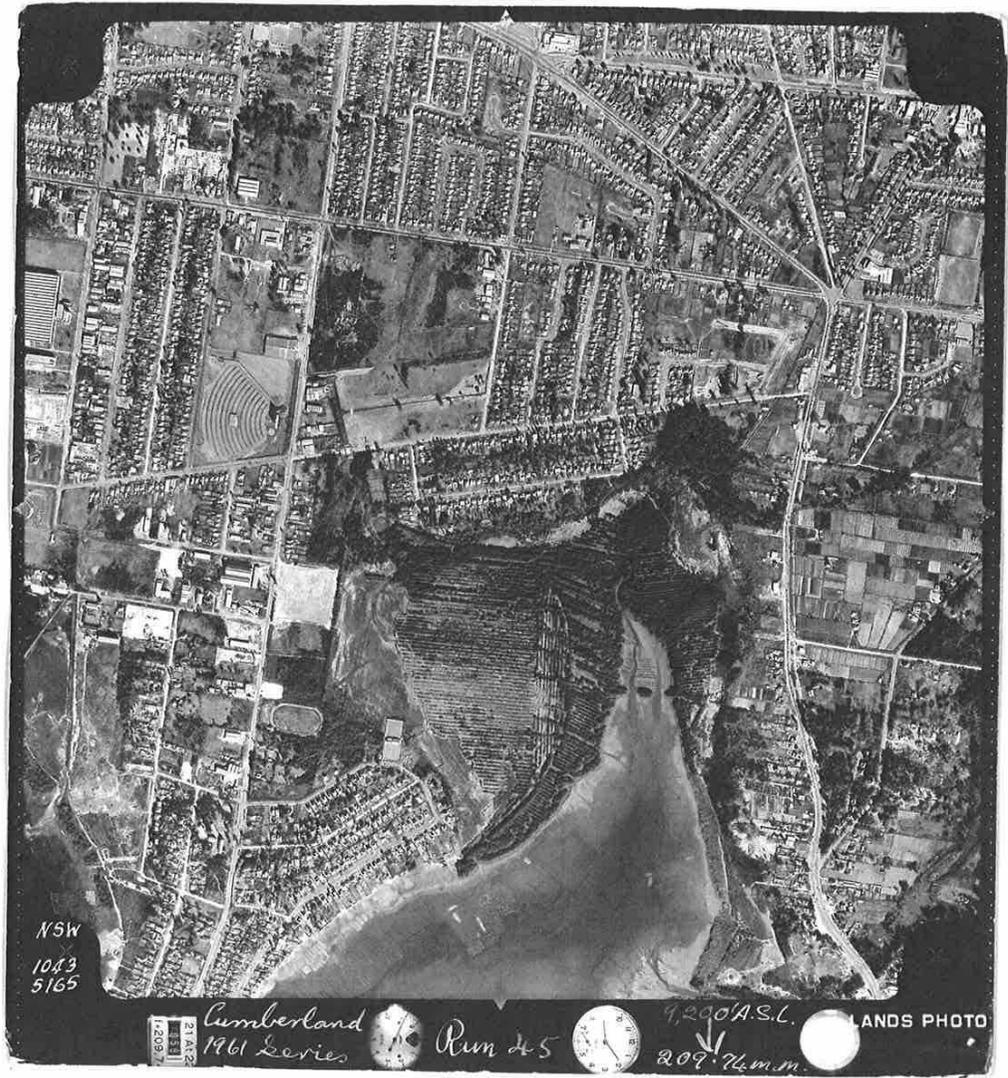
6-8-1985

28/1



Appendix D

Aerial Photographs



NSW
1043
5165

21A32
1-2097

Cumberland
1961 Series

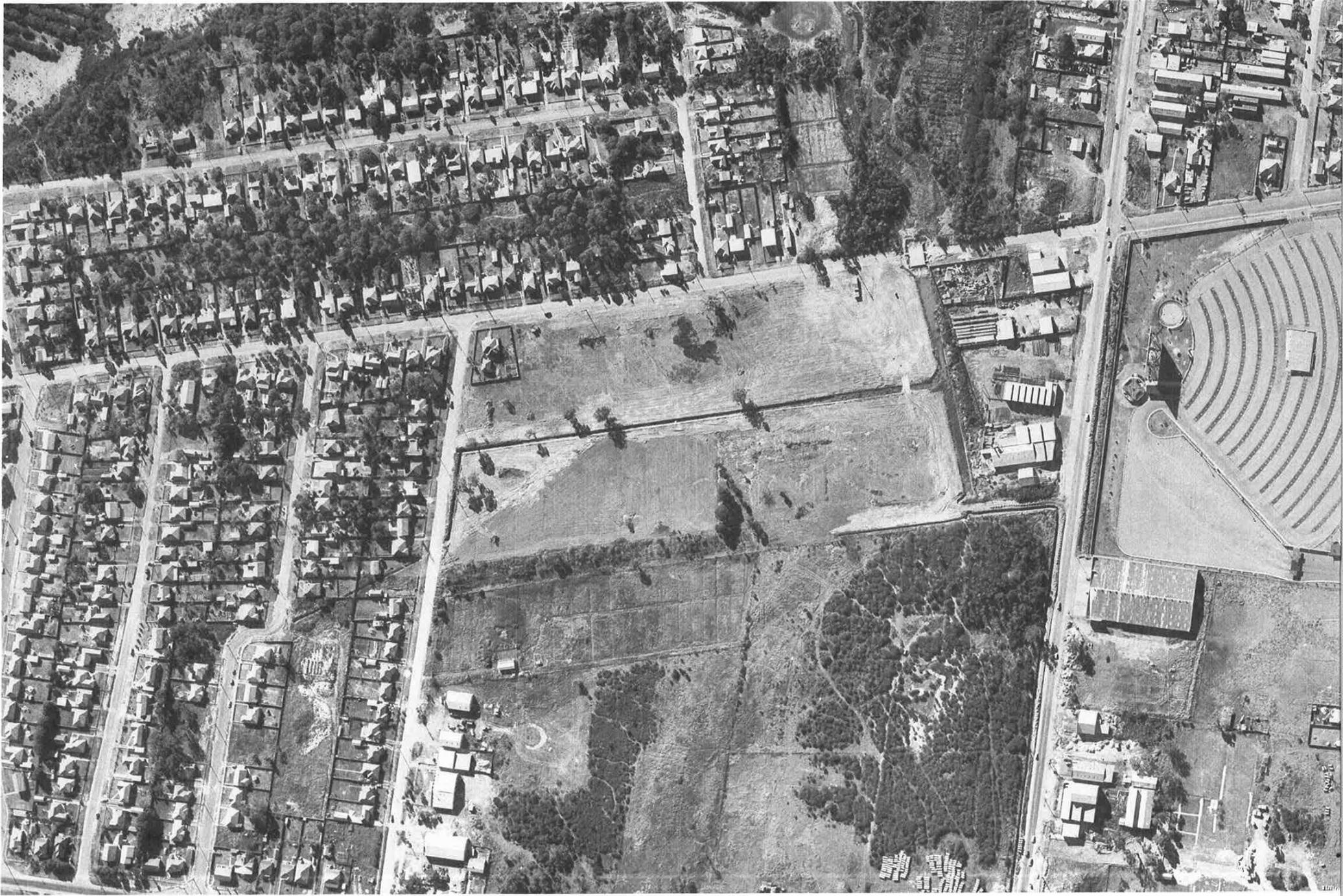


Run 265



9,200 A.S.L.
209' 76 m. m.

LANDS PHOTO





UAg 1001 152.37

7.111



NSW
1906
5198

CUMBERLAND
1970 SERIES

NSW 1806

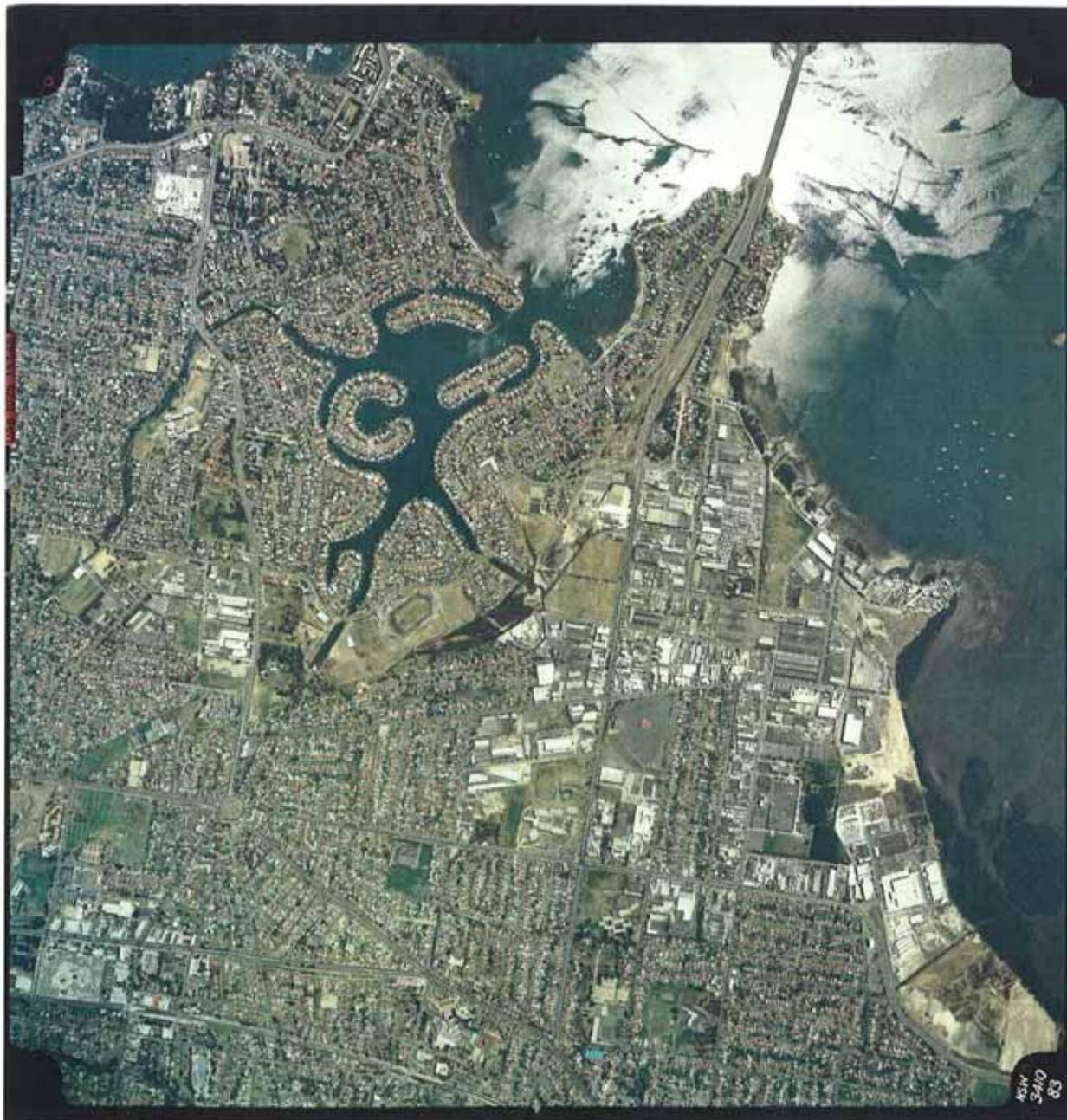
RUN 24
6.7.70

7.500 AS/L
152.37M-M

CROWN
COPY N.S.W.
LANDS PHOTO
JOB F
1ST COPY







AGW
3410
83

HONGKONG 1984
1:16000 COLOUR
NSM3410 1M16231

RUN 3
8-10-84

2530 M ASL
151-45MM



Photography of Land
in Progress







PORT HACKING
1:25000 Approx. Scale
NSW4178

RUN 1
04-01-94
23-33

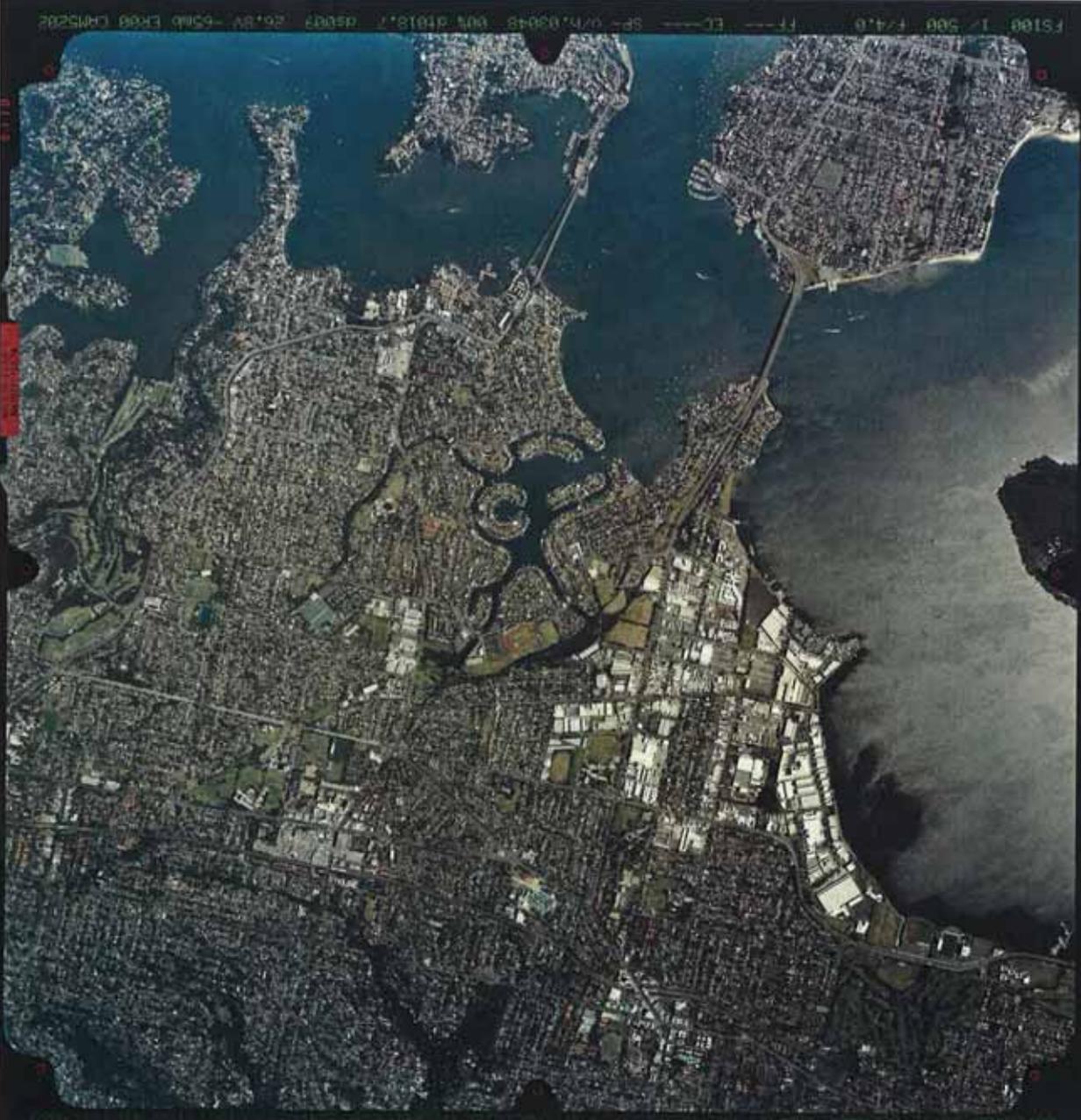
4206 M ASL
152.76 mm











FS100 17 500 17470 FT — EC — SF 07N 03048 005 01018 7 05007 261BA — 65MB ER00 CHMS202

PORT HACKING
1:25000 Approx. Scale
NSW4939 (M2512)

RUN 1
18-12-05
103-116

152.76 mm



© Department of Land
and Water Resources







Appendix E

Council and Government Records



Applicant:

Environmental Strategies
Suite 15201, 2 Locomotive Street
EVELEIGH NSW 2015

Planning Certificate – Section 149(2)(5) Certificate Environmental Planning and Assessment Act, 1979

Certificate no:	e149:14/3678	Delivery option:	
Certificate date:	22/08/2014	Your reference:	14115

Property:

Lot 2 DP 715461
130-140 Parraweena Road MIRANDA NSW 2228

Zone:

Sutherland Shire Local Environmental Plan 2006
Zone 11 - Employment
Draft Sutherland Shire Local Environmental Plan 2013
Zone IN1 General Industrial

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 149(2), ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 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 2006

Greater Metropolitan Regional Environmental Plan No. 2 - Georges River Catchment (5/2/1999) (deemed SEPP).

* 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 No. 1 - Development Standards

* SEPP No. 19 – Bushland in Urban Areas.

* SEPP No. 21 – Caravan Parks.

* SEPP No. 32 – Urban Consolidation (Redevelopment of Urban Land).

* SEPP No. 33 – Hazardous and Offensive Development.

* SEPP No. 39 – Spit Island Bird Habitat.

* SEPP No. 50 – Canal Estates.

* SEPP No. 55 – Remediation of Land.

* SEPP No. 62 – Sustainable Aquaculture.

* SEPP No. 64 – Advertising and Signage.

* SEPP No. 65 – Design Quality of Residential Flat Development.

* SEPP (Housing for Seniors or People with a Disability) 2004: (Does not apply to land to which State Environmental Planning Policy (Kurnell Peninsula) 1989 applies).

* SEPP (Major Development) 2005.

* SEPP (Mining, Petroleum Production and Extractive Industries) 2007.

* SEPP (Temporary Structures) 2007.

* SEPP (Infrastructure) 2007.

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):

Draft State Environmental Planning Policy (Competition) 2010
applies and aims to promote economic growth and competition and
remove anti competitive barriers in planning and assessment.

Council has prepared a draft Standard Instrument Local Environmental Plan (draft SSLEP2013) for the Sutherland Shire. The draft plan affects all land and water within the Sutherland Shire. Council has resolved to forward an amended planning proposal for Gateway Determination by the NSW Department of Planning and Environment (CCL007-15). Following Gateway Determination, the draft plan will be re-exhibited. The draft plan proposes changes to zoning and land use and development standards that may change development potential of individual properties. For further information please see Council's website www.sutherlandshire.nsw.gov.au.

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

* Sutherland Shire Development Control Plan 2006

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 2006
Zone 11 - Employment
Draft Sutherland Shire Local Environmental Plan 2013
Zone IN1 General Industrial

Sutherland Shire Local Environmental Plan 2006 Zone 11 - Employment

- (b) Development allowed without development consent:

Development for the purpose of:
bush fire hazard reduction work, drainage.

Exempt development.

- (c) Development that requires development consent:

Development (other than development included in item (b)) for the purpose of:
advertisements, animal boarding or training establishment (not including a riding school), arts and craft centres, awnings, brothels, bulky goods premises (but only on land identified on the map for such a

purpose), bus depots, business identification signs, car parks, childcare centres, community facilities, convenience stores, dwelling houses ancillary to other permissible uses, food shops, generating works, high technology industries, industries, junk yards, liquid fuel depots, maritime activities, motor showrooms, nightclubs, passenger transport facilities, places of public worship, recreation areas, recreation facilities, registered clubs, repair centres, road transport terminals, roads, service stations, service support industries, sex shops, subdivision, utility installations, vehicle and mechanical repair premises, vehicle rental centres, veterinary hospitals, vehicle rental centre, warehouse, warehouses, waste recycling and management centres.

Demolition not included in item (b).

- (d) Development that is prohibited within the zone:

Any development other than development included in (b) or (c).

**Sutherland Shire Local Environmental Plan 2006
Clauses 28, 29, and 31**

Clause 28 Subdivision - consent requirements,
Clause 29 Crown development and public utilities, and/or
Clause 31 Development for group homes,
of Sutherland Shire Local Environmental Plan 2006 apply to this property.

**Draft Sutherland Shire Local Environmental Plan 2013
Zone IN1 General Industrial**

- (b) Development allowed without development consent:

Nil

- (c) Development that requires development consent:

Animal boarding or training establishments; Boat building and repair facilities; Building identification signs; Business identification signs; Car parks; Crematoria; Depots; Environmental protection works; Flood mitigation works; Freight transport facilities; Funeral homes; Garden centres; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries; Kiosks; Landscaping material supplies; Light Industries; Mortuaries; Neighbourhood shops; Passenger transport facilities; Places of public worship; Plant nurseries; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Research stations; Roads; Service stations; Sex services premises; Storage premises; Take away food and drink premises; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops;

Vehicle repair stations; Vehicle sales or hire premises; Veterinary hospitals; Warehouse or distribution centres.

Any other development not specified in item 2 or 4

(d) Development that is prohibited within the zone:

Advertising signage; Agriculture; Air transport facilities; Airstrip; Amusement centres; Boat building and repair facilities; Boat launching ramps; Boat sheds; Business premises; Camping grounds; Caravan parks; Cemeteries; Charter & tourism boating facilities; Child care centres; Community facilities; Eco-tourist facilities; Educational establishments; Entertainment facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Jetties; Marinas; Office premises; Open cut mining; Recreation facilities (major); Registered clubs; Residential accommodation; Respite day care centres; Restricted premises; Retail premises; Rural industries; Sewerage systems; Sex services premises; Tourist and visitor accommodation; Water supply systems; Wharf or boating facilities; Wholesale supplies.

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

Under SSLEP2006 there are no relevant development standards for the erection of a dwelling house due to site dimensions.

Under Draft Sutherland Shire Local Environmental Plan 2013 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.

General Housing Code

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

Commercial and Industrial (New Buildings and Additions) Code

Complying development may be carried out on the land under the General Commercial and Industrial 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.)

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.)

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.

4. Coastal Protection

Is the land affected by section 38 or 39 of the *Coastal Protection Act 1979* (so far as Council has been notified by the Department of Services, Technology and Administration)?

No

4A. Information relating to beaches and coasts

- (1) In relation to a coastal council - whether an order has been made under Part 4D of the *Coastal Protection Act 1979* in relation to temporary coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the Council is satisfied that such an order has been fully complied with.
- (2) In relation to a coastal council:
 - (a) whether the Council has been notified under section 55X of the *Coastal Protection Act 1979* that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and
 - (b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Note: Sutherland Shire Council has not issued any orders or been notified of any temporary coastal protection works to date.

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 mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act, 1961*?

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?

The land has been classified as Class 3 on the Acid Sulfate Soils Maps in the Sutherland Shire Local Environmental Plan 2006. Accordingly the land is subject to the provisions of clause 23 which detail the restrictions to works within this Class.

The land has been classified as Class 5 on the Acid Sulfate Soils Maps in the Sutherland Shire Local Environmental Plan 2006. Accordingly the land is subject to the provisions of clause 23 which detail the restrictions to works within this Class.

- (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. Sutherland Shire Development Control Plan 2006 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. Sutherland Shire Development Control Plan 2006 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 27 of the Act?

No

9. Contribution Plans

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

- * The 2005 Shire Wide Open Space and Recreation Facilities Contribution Plans applies to this property (Effective 1/1/05).
- * The 2003 Community Facilities Contributions Plan applies to this property (Effective 14/12/04).
- * The Employment Zoned Land Contributions Plan applies to this property (Effective 13/03/07).

9A. Biodiversity certified land

If the land is biodiversity certified land (within the meaning of Part 7AA of the *Threatened Species Conservation Act 1995*), a statement to that effect.

No

10. Biobanking agreements

If the land is land to which a biobanking agreement under Part 7A of the *Threatened Species Conservation Act 1995* relates, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Director-General of the Department of Environment, Climate Change and Water).

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

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) 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

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 149(5) of the Environmental Planning and Assessment Act, 1979.

**ADDITIONAL INFORMATION PURSUANT TO SECTION 149(5),
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979**

The following additional information relating to the land is provided in good faith. The information is not exhaustive of matters likely to affect the land. Section 149(6) states that a council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5).

The land may contain drainage infrastructure within an easement which is protected by statutory rights of access and maintenance. Further information is available on the Deposited Plan/Strata Plan and associated instruments. Council's records indicate that one or more of the activities listed in Table 1 of the Managing Land Contamination Planning Guidelines 1998 may have been undertaken and/or approved on the land. Council's records do not currently contain sufficient information to determine that there is actual contamination of the land. Council may require further investigation of potential contamination, and remediation action where contamination is found, particularly if the land is to be redeveloped or the land use is to be changed to a more sensitive use. Please contact Council for further information.

For further information please telephone [02] 9710 0333.

Yours faithfully



J W Rayner
General Manager



WorkCover

Our Ref: D14/114765
Your Ref: Gabby Nicol

WorkCover NSW
92-100 Donnison Street, Gosford, NSW 2250
Locked Bag 2906, Lisarow, NSW 2252
T 02 4321 5000 F 02 4325 4145
WorkCover Assistance Service 13 10 50
DX 731 Sydney workcover.nsw.gov.au

24 September 2014

Attention: Gabby Nicol
Environmental Strategies Pty Ltd
Suite 15201
2 Locomotive St
Eveleigh NSW 2015

Dear Ms Nicol,

RE SITE: 130-140 Parraweena Rd Miranda NSW

I refer to your site search request received by WorkCover NSW on 9 September 2014 requesting information on licences to keep dangerous goods for the above site.

Enclosed are copies of the documents that WorkCover NSW holds on Dangerous Goods Licence 35/026897 relating to the storage of dangerous goods at the above-mentioned premises, as listed on the Stored Chemical Information Database (SCID).

If you have any further queries please contact the Dangerous Goods Licensing Team on (02) 4321 5500.

Yours Sincerely

A handwritten signature in blue ink, appearing to be 'Brent Jones'.

Brent Jones
Senior Licensing Officer
Dangerous Goods Notification Team



WORKCOVER AUTHORITY
DANGEROUS GOODS ACT, 1975

APPLICATION FOR LICENCE (or AMENDMENT or TRANSFER of LICENCE) **35026897**
FOR THE KEEPING OF DANGEROUS GOODS

March '90

(* Delete whichever is not required)

Name of Applicant in full (see Item 1 - Explanatory notes - page 4)	CARMEN FURNITURE		
Trading name or occupier's name (if any)	CARMEN FURNITURE CO		
Postal Address	PRIVATE BAG 267 TAREN POINT Postcode 2229		
Address of the premises to be licensed. (Including Street No.)	118 Parramatta Rd Miranda		Postcode 2228
Nature of premises (See Item 2 - Explanatory notes - page 4)	MANUFACTURING SITE		
Telephone number of applicant	STD Code	Number 5261188	Contact Person: ALAN CHAPERLIN

Particulars of type of all depots and maximum quantities of dangerous goods to be kept at any one time.

Depot number	Type of depot (See item 3 - Explanatory notes - page 4)	Storage capacity	Dangerous goods	C & C Office use only	
			Product being stored		
1	INTERNAL ROOFED PACKAGE STORE	4800	Flammable Liquids 3.1		
2		3500 LTRS	LOW POLYESTER PAINT GMB		
3	LPG Above ground	2000	PAINT THINNERS GMB		
4			Liquids: None previously licensed		
5	SEEN		2. Bund has capacity of 1200 litres here		
6			can be licensed to 4800L.		
7			3. Is a previously approved		
8			internal flammable liquid		
9			store. LPG tank removed		
10				John 2/10/92	
11					
12					

Has site plan been approved by the Dangerous Goods Branch? Yes No
If yes, no plans required. If no, please attach site plan, or provide sketch plan overleaf which has been stamped by an accredited consultant.

Have premises previously been licensed? Yes No
If, yes, state name of previous occupier, and licence No. (if known)
CARMEN

Name of oil company supplying flammable liquid and/or flammable gases (if applicable). ANZOL

Signature of applicant: [Signature] Date: 30/4/92

For external explosives magazine(s), please fill in page 3.

FOR OFFICE USE ONLY

CERTIFICATE OF INSPECTION

I, [Inspector Name] being an Inspector under the Dangerous Goods Act, 1975, do hereby certify that the premises described above do comply with the requirements of the Dangerous Goods Act, 1975, and the Dangerous Goods Regulation with regard to their situation and construction for the keeping of dangerous goods of the nature and in the quantity specified.

DEPARTMENT OF INDUSTRIAL RELATIONS AND EMPLOYMENT
 1 OXFORD STREET, P.O. BOX 847, DARLINGHURST N.S.W. 2010
 TELEPHONE: 266 8111



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APPLICATION FOR
 LICENCE FOR THE KEEPING OF DANGEROUS GOODS
 UNDER AND SUBJECT TO THE PROVISIONS OF THE
 DANGEROUS GOODS ACT, 1975
 AND REGULATIONS THEREUNDER.

DEPOT TYPE	PRODUCT	UNITS (ABT)	CLASS	FEE
1 ROOFED	FLAMMABLE LIQUIDS	3,000	3	\$19
2 A/G TANK	FLAMMABLE GASES	2,000	2.1	\$19



NO FEES
 TO BE PAID

*DGI sent to
 new address
 9/10/90
 PH*

DECLARATION: I certify that the details shown are correct (amend if necessary) and forward

herewith fee of \$ ~~50.00~~ (Signature) *[Signature]* (Date) 14/09/90

APPLICANT
 CARMEN FURNITURE CO P/L
 140 ~~118~~ PARRAWEENA RD
 MIRANDA 2228

Fees abolished 1 Jan 90
 AMOUNT PAYABLE
 \$50.00

PREMISES TO BE LICENSED OR REGISTERED IF NOT AS ABOVE

*Letter to
 DGI*

35 0268970 15 MAR 91
 LICENCE/REG. No. NEXT EXPIRY

INSERT



Form L 1

Department of Industrial Relations

DANGEROUS GOODS ACT, 1975

LICENCE No.
35-0268970

APPLICATION FOR LICENCE (or AMENDMENT or TRANSFER of LICENCE)* FOR THE KEEPING OF DANGEROUS GOODS

88/0015

(* delete whichever is not required)

FEE: \$15.00 per Depot for new licence.
\$15.00 for amendment or transfer. **\$30.00**

DG 8903 0001 90

Name of Applicant in full (see Item 1 - Explanatory notes - page 4)	NFCARMEN FURNITURE CO PTY LTD 350268970		
Trading name or occupier's name (if any)	AS ABOVE	M289112 06/03/89 CHQ	\$30.00
Postal Address	PF 118 "PARRAWEENA RD" PP MIRANDA	Postcode	2228
Address of the premises to be licensed. (Including Street No.)	AS BOVE	Postcode	✓
Nature of premises (See Item 2 - Explanatory notes - page 4)	STORAGE		
Telephone number of applicant	STD Code (02)	Number	526-1188

Particulars of type of depots and maximum quantities of dangerous goods to be kept at any one time.

Depot number	Type of depot (See item 3 - Explanatory notes - page 4)	Storage capacity	Dangerous goods	C & C Office use only
			Product being stored	
1	Flammable liq store	3.0KL	class 3 Flammable liquids	DD 002.120.0 6 020 33
2	Flammable liq store		LPG 21	1.100.23
3	<div style="border: 2px solid black; padding: 10px; text-align: center;"> <p>DATA LIMITED</p> <p>9 MAR 1989</p> <p>OPERATOR FIVE</p> </div>			
4				
5				
6				
7				
8				
9				
10				
11				
12				

Has site plan been approved by the Dangerous Goods Branch? Yes No If yes, no plans required. If no, please attach site plan, or provide sketch plan overleaf.

Have premises previously been licensed? Yes No If yes, state name of previous occupier, and licence No. (if known).

Name of oil company supplying flammable liquid (if applicable):

Signature of applicant: *[Signature]* Date: 2.3.89.

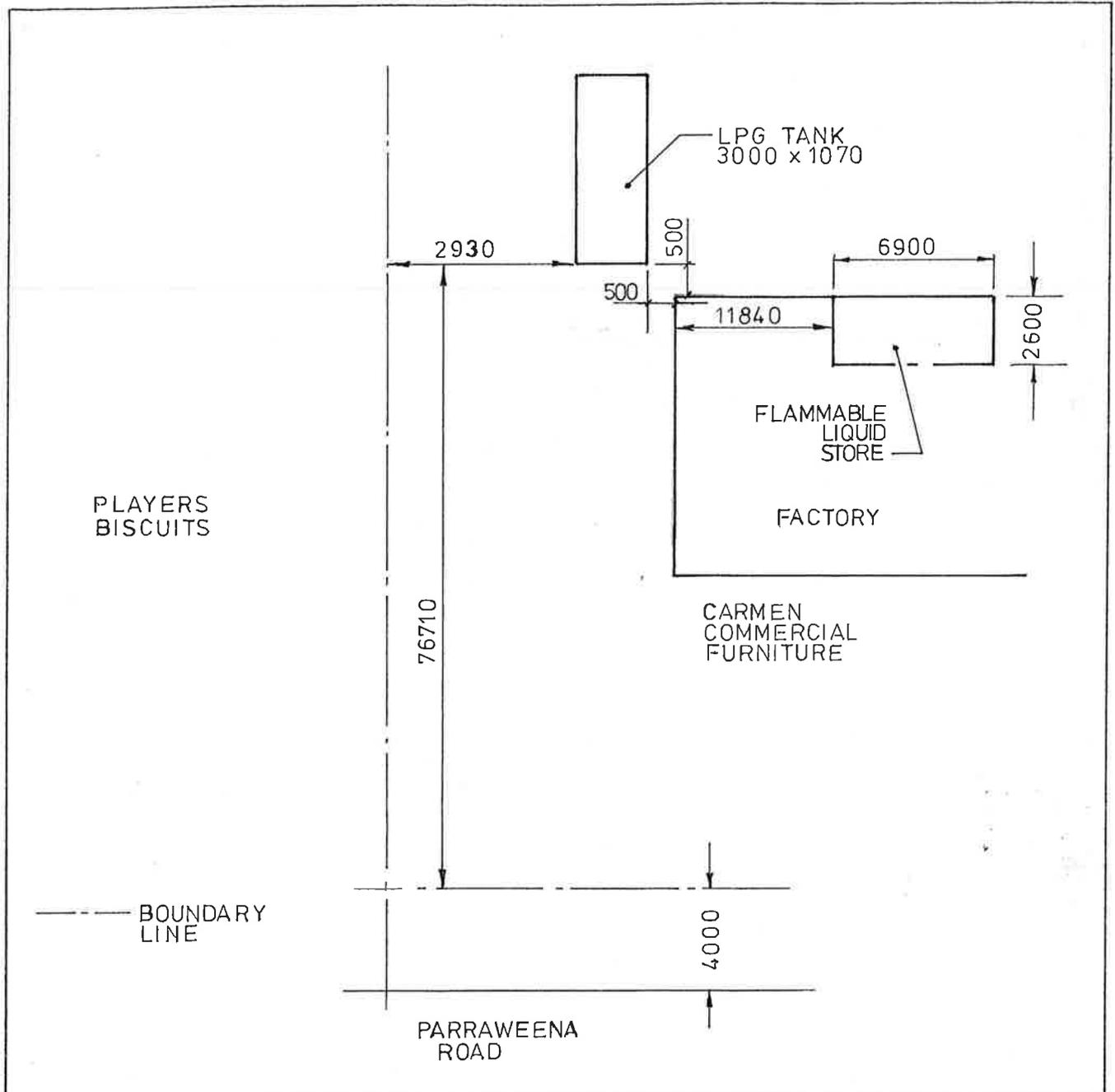
For external explosives magazine(s), please fill in page 3.

FOR OFFICE USE ONLY **CERTIFICATE OF INSPECTION**

I, _____ being an Inspector under the Dangerous Goods Act, 1975, do hereby certify that the premises described above do comply with the requirements of the Dangerous Goods Act, 1975, and the Dangerous Goods Regulation with regard to their situation and construction for the keeping of dangerous goods of the nature and in the quantity specified.

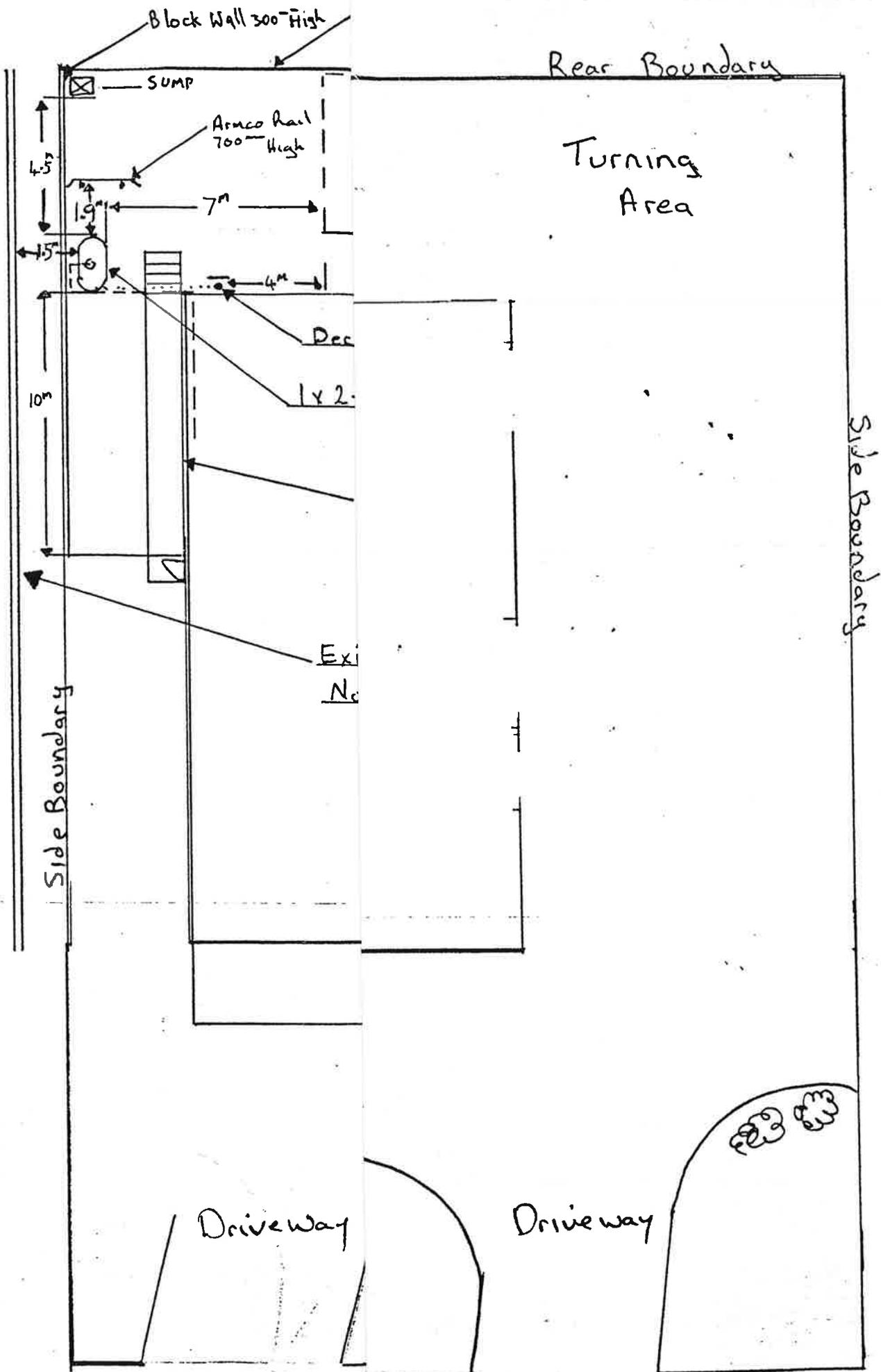
Signature of Inspector: _____ Date: _____

SKETCH PLAN OF SITE



Show positions of Depot(s) with: -

- (1) distances from public places and protected works;
- (2) street names;
- (3) nature and details of adjacent properties.



an Plan Submitted Verbally to Peter Williams and Approved

Appendix F

Groundwater Bore Search

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW023683

Works Details [\(top\)](#)

GROUNDWATER NUMBER	GW023683
LIC-NUM	10WA108130
AUTHORISED-PURPOSES	DOMESTIC
INTENDED-PURPOSES	GENERAL USE
WORK-TYPE	Well
WORK-STATUS	(Unknown)
CONSTRUCTION-METHOD	Hand Dug
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	1966-03-01
FINAL-DEPTH (metres)	4.26
DRILLED-DEPTH (metres)	4.26
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	N/A
GWMA	603 - SYDNEY BASIN
GW-ZONE	-
STANDING-WATER-LEVEL	
SALINITY	
YIELD	

Site Details [\(top\)](#)

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	213 - SYDNEY COAST - GEORGES RIVER
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	
ELEVATION	
ELEVATION-SOURCE	(Unknown)
NORTHING	6233615.00
EASTING	324374.00
LATITUDE	34 1' 24"

LONGITUDE 151 5' 52"
GS-MAP 0094A1
AMG-ZONE 56
COORD-SOURCE GD.,PR. MAP
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 99999

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP N/A

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	Concrete Cylinder	0.00	4.80	1219			Seated on Bottom

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
1.50	1.50	0.00	Unconsolidated	1.20		0.51			(Unknown)

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.60	0.60	Loam Sandy		
0.60	4.26	3.66	Clay Sandy	Water Supply	

use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)

Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW110736

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 110736
LIC-NUM 10WA109172
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Spear
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2007-04-01
FINAL-DEPTH (metres) 16.00
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY GEORGE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 4.00
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6234429.00

EASTING 325925.00
LATITUDE 34 0' 59"
LONGITUDE 151 6' 53"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2//539045

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 539045

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW102872

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 102872
LIC-NUM 10WA113178

AUTHORISED-PURPOSES	DOMESTIC
INTENDED-PURPOSES	DOMESTIC
WORK-TYPE	Bore
WORK-STATUS	(Unknown)
CONSTRUCTION-METHOD	
OWNER-TYPE	
COMMENCE-DATE	
COMPLETION-DATE	1995-01-01
FINAL-DEPTH (metres)	10.00
DRILLED-DEPTH (metres)	
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	MURRAY
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	5.00
SALINITY	
YIELD	0.10

Site Details [\(top\)](#)

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	
ELEVATION	
ELEVATION-SOURCE	
NORTHING	6234333.00
EASTING	326810.00
LATITUDE	34 1' 3"
LONGITUDE	151 7' 28"
GS-MAP	
AMG-ZONE	56
COORD-SOURCE	
REMARK	

Form-A [\(top\)](#)

COUNTY	CUMBERLAND
PARISH	SUTHERLAND
PORTION-LOT-DP	64//9352

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 64 9352

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	10.00				
1	1	Casing	Steel	0.00	0.00	50			

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW106656

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 106656
LIC-NUM 10WA109431
AUTHORISED-PURPOSES RECREATION (GROUNDWATER)
INTENDED-PURPOSES RECREATION (GROUNDWATER)
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Rotary Air

OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2004-09-24
FINAL-DEPTH (metres) 103.00
DRILLED-DEPTH (metres) 103.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY CARINGBAH BOWLING & REC CLUB
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 11.00
SALINITY
YIELD 0.30

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 213 - SYDNEY COAST - GEORGES RIVER
AREA-DISTRICT
CMA-MAP 9129-4N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6232269.00
EASTING 326440.00
LATITUDE 34 2' 9"
LONGITUDE 151 7' 12"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 5 31460

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	18.00	200			Rotary Air
1		Hole	Hole	18.00	103.00	162			Rotary Air
1	1	Casing	PVC Class 6	0.30	18.00	158			Glued; Driven into Hole

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
21.00	21.10	0.10		11.00		0.20	24.00	0.50	Fresh
32.00	32.10	0.10		11.00		0.30	35.00	0.50	Fresh
58.00	58.10	0.10		11.00		0.30	61.00	0.50	Fresh
79.00	79.10	0.10		11.00		0.30	82.00	0.50	Fresh

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL COMMENT
0.00	1.00	1.00	TOPSOIL/CLAY	
1.00	4.00	3.00	COLOURED CLAY	
4.00	5.50	1.50	WEATHERED SANDSTONE	
5.50	103.00	97.50	SANDSTONE WITH SMALL SHALE BANDS	

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW024170

Works Details [\(top\)](#)

GROUNDWATER NUMBER	GW024170
LIC-NUM	10WA108138
AUTHORISED-PURPOSES	DOMESTIC
INTENDED-PURPOSES	DOMESTIC
WORK-TYPE	Spear
WORK-STATUS	Supply Obtained
CONSTRUCTION-METHOD	Driven
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	1966-09-01
FINAL-DEPTH (metres)	4.50
DRILLED-DEPTH (metres)	4.60
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	N/A
GWMA	603 - SYDNEY BASIN
GW-ZONE	-
STANDING-WATER-LEVEL	
SALINITY	
YIELD	

Site Details [\(top\)](#)

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	213 - SYDNEY COAST - GEORGES RIVER
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	
ELEVATION	
ELEVATION-SOURCE	(Unknown)
NORTHING	6231736.00
EASTING	326077.00
LATITUDE	34 2' 26"
LONGITUDE	151 6' 57"
GS-MAP	0094A 1
AMG-ZONE	56
COORD-SOURCE	GD.,PR. MAP
REMARK	

Form-A [\(top\)](#)

COUNTY CUMBERLAND
 PARISH SUTHERLAND
 PORTION-LOT-DP 99999

Licensed [\(top\)](#)

COUNTY CUMBERLAND
 PARISH SUTHERLAND
 PORTION-LOT-DP N/A

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	Corrugated Galvanised Iron	-0.30	4.50	31			Seated on Bottom
1	1	Opening	Perforations		0.70	31	1		SL: 0mm; A: 6.35mm

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
1.80	1.80	0.00	(Unknown)	1.20					(Unknown)

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	4.57	4.57	Loam Sandy	Water Supply	

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
 Document Generated on Thursday, April 3, 2014

Print Report

Work Requested -- GW020543

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW020543
LIC-NUM 10WA108104
AUTHORISED-PURPOSES WASTE DISPOSAL
INTENDED-PURPOSES WASTE DISPOSAL
WORK-TYPE Bore open thru rock
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD Cable Tool
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1960-06-01
FINAL-DEPTH (metres) 40.80
DRILLED-DEPTH (metres) 40.80
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY N/A
GWMA 603 - SYDNEY BASIN
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 214 - WOLLONGONG COAST
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6232021.00
EASTING 324789.00
LATITUDE 34 2' 16"
LONGITUDE 151 6' 7"
GS-MAP 0094A 1
AMG-ZONE 56
COORD-SOURCE GD.,PR. MAP

REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 99999

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 12 29707

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	Threaded Steel	-0.30	5.70	152			Cemented

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT- DESC	S- W- L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
7.30	7.30	0.00	Consolidated	1.80		0.63			Good

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	6.09	6.09	Clay		
6.09	40.84	34.75	Sandstone	Grey	Water Supply

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

Work Requested -- GW108344

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 108344
LIC-NUM 10BL163856
AUTHORISED-PURPOSES TEST BORE
INTENDED-PURPOSES TEST BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Rotary Air
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2004-09-16
FINAL-DEPTH (metres) 120.00
DRILLED-DEPTH (metres) 120.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY SEYMORE SHAW PARK
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY 2047.00
YIELD 0.05

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6232705.00
EASTING 324725.00
LATITUDE 34 1' 54"
LONGITUDE 151 6' 5"
GS-MAP
AMG-ZONE 56
COORD-SOURCE

REMARK**Form-A [\(top\)](#)**

COUNTY CUMBERLAND
 PARISH SUTHERLAND
 PORTION-LOT-DP 533 866360

Licensed [\(top\)](#)

COUNTY CUMBERLAND
 PARISH SUTHERLAND
 PORTION-LOT-DP 533 866360

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	18.00	240			Down Hole Hammer
1		Hole	Hole	18.00	120.00	150			Down Hole Hammer
1	1	Casing	PVC Class 9	-0.40	18.00	161			C: -.1-18m; Seated on Bottom

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT-DESC	S- W- L	D-D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
92.10	93.00	0.90			120.00	0.05	120.00	1.00	2047.00

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	6.80	6.80	CLAY BROWN		
6.80	11.10	4.30	SANDSTONE CG YELLOW DARK		
11.10	33.40	22.30	SANDSTONE MG GREY LT		
33.40	80.50	47.10	SANDTONE CG GREY LT		
80.50	85.90	5.40	SANDSTONE MG GREY DARK		
85.90	92.10	6.20	SANDSTONE MG GREY LT		
92.10	93.00	0.90	SANDSTONE MG GREY LT WB		

93.00 98.90 5.90 SANDSTONE FG GREY DARK

98.90 120.00 21.10 SANDSTONE MG GREY LT

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW103241

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 103241
LIC-NUM 10BL157411
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD Auger
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 1995-11-06
FINAL-DEPTH (metres) 8.70
DRILLED-DEPTH (metres) 8.70
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY N/A
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 7.80
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT

CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6232392.00
EASTING 325397.00
LATITUDE 34 2' 5"
LONGITUDE 151 6' 31"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 23//5802

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP LOTX DP393907

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	8.70	125			Auger
1	1	Casing	PVC Class 18	0.00	0.00	50			
1	1	Opening	Screen	0.00	0.00	50			

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.20	0.20	CONCRETE		

0.20	0.50	0.30	CLAY
0.50	1.20	0.70	CLAY ORANGE
1.20	6.00	4.80	SHALE WEATHERED BROWN
6.00	8.50	2.50	CLAY GREY BROWN
8.50	8.70	0.20	CLAY BROWN STIFF

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW105856

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 105856
LIC-NUM 10WA108710
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2005-05-04
FINAL-DEPTH (metres)
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HARRIS
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST

RIVER-BASIN 213 - SYDNEY COAST - GEORGES RIVER
AREA-DISTRICT
CMA-MAP 9129-4N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6233797.00
EASTING 325859.00
LATITUDE 34 1' 19"
LONGITUDE 151 6' 50"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 405 230440

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 405 230440

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW024645

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW024645
LIC-NUM 10BL018681
AUTHORISED-PURPOSES RECREATION (GROUNDWATER)
INTENDED-PURPOSES IRRIGATION
WORK-TYPE Battery Spears
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD Pre-drilled
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1966-02-01
FINAL-DEPTH (metres) 5.40
DRILLED-DEPTH (metres) 5.50
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY N/A
GWMA 603 - SYDNEY BASIN
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 213 - SYDNEY COAST - GEORGES RIVER
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6234079.00
EASTING 326111.00
LATITUDE 34 1' 10"
LONGITUDE 151 7' 0"
GS-MAP 0094A1
AMG-ZONE 56
COORD-SOURCE GD.,PR. MAP
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 99999

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP N/A

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	Corrugated Galvanised Iron	0.00	4.50	31			Seated on Bottom
1	1	Opening	Screen - Gauze/Mesh	4.50	5.10	50	2		Copper Alloy; SL: 0mm; A: .25mm
1	1	Opening	Perforations	4.50	5.10	50	1		Mechanically Slotted; SL: 0mm; A: 15.87mm

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
0.60	4.80	4.20	Unconsolidated	0.60		0.51			(Unknown)

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.60	0.60	Sand Black		
0.60	1.21	0.61	Clay Grey	Water Supply	
1.21	5.48	4.27	Sand White	White Clay	Water Supply
1.21	5.48	4.27	Sandstone		

use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)

Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW108607

Works Details [\(top\)](#)

GROUNDWATER NUMBER	GW 108607
LIC-NUM	10WA108719
AUTHORISED-PURPOSES	DOMESTIC
INTENDED-PURPOSES	DOMESTIC
WORK-TYPE	Spear
WORK-STATUS	Supply Obtained
CONSTRUCTION-METHOD	Auger - Solid Flight
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	2004-09-20
FINAL-DEPTH (metres)	7.00
DRILLED-DEPTH (metres)	7.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	LARSEN
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	4.00
SALINITY	
YIELD	0.50

Site Details [\(top\)](#)

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	
ELEVATION	
ELEVATION-SOURCE	

NORTHING 6234336.00
EASTING 326141.00
LATITUDE 34 1' 2"
LONGITUDE 151 7' 2"
GS-MAP
AMG-ZONE 56
COORD-SOURCE GIS - Geographic Information System
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 669//238579

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 669 238579

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	7.00	125			Auger - Solid Flight
1	1	Casing	PVC Class 12	0.00	5.00	114	106		Riveted and Glued; Driven into Hole; Open End
1	1	Opening	Screen - Gauze/Mesh	0.00	5.00	114			PVC Class 12; A: .2mm; Riveted and Glued

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
4.00	7.00	3.00		3.00	5.00	0.50			4.50

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	4.00	4.00		sand	
4.00	5.00	1.00		clay	
5.00	7.00	2.00		sand	

Warning To Clients: This raw data has been supplied to the Department of Infrastructure, Planning and Natural Resources (DIPNR) by drillers, licensees and other sources. The DIPNR does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW062211

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW062211
LIC-NUM 10BL136181
AUTHORISED-PURPOSES INDUSTRIAL
INTENDED-PURPOSES INDUSTRIAL
WORK-TYPE Bore open thru rock
WORK-STATUS Supply Obtained
CONSTRUCTION-METHOD Cable Tool
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1988-03-01
FINAL-DEPTH (metres) 130.00
DRILLED-DEPTH (metres) 130.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY BERT SHELL
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 213 - SYDNEY COAST - GEORGES RIVER

AREA-DISTRICT
CMA-MAP 9129-4N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6233897.00
EASTING 326730.00
LATITUDE 34 1' 17"
LONGITUDE 151 7' 24"
GS-MAP 0094A 1
AMG-ZONE 56
COORD-SOURCE GD.,ACC.MAP
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP L7 DP228854 (29)

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 7 228854

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
110.00	130.00	20.00	(Unknown)	10.00		1.00			S.Salty

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL COMMENT
0.00	110.00	110.00	Driller	
110.00	120.00	10.00	Shale Grey Water Supply	
110.00	120.00	10.00	Clay Soft Lens Or Lenses	
120.00	130.00	10.00	Sandstone White Medium Water Supply	

(DIPNR) by drillers, licensees and other sources. The DIPNR does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW110208

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 110208
LIC-NUM 10BL603059
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2009-05-07
FINAL-DEPTH (metres) 4.00
DRILLED-DEPTH (metres) 4.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY SHELL COMPANY OF AUST LTD
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 1.60
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE

NORTHING 6234014.00
EASTING 326625.00
LATITUDE 34 1' 13"
LONGITUDE 151 7' 20"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A ([top](#))

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 11//829777

Licensed ([top](#))

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 11 829777

Construction ([top](#))

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.00	125			Auger - Solid Flight
1	1	Casing	PVC Class 18	0.00	1.00	65	53		Screwed; Seated on Bottom; End cap
1	1	Opening	Slots - Horizontal	1.00	4.00	65			(Unknown); Casing - Machine Slotted; SL: 30mm; A: .4mm
1		Annulus	Waterworm/Rounded	0.80	4.00				Graded; GS: 1-2mm

Water Bearing Zones ([top](#))

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
1.60	4.00	2.40		1.60					

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.10	0.10	SURFACE CONCRETE		
0.10	0.50	0.40	FILL,ROADBASE		
0.50	2.00	1.50	SAND BROWN, FINE GRAINED,		STRONG ODOUR
2.00	2.50	0.50	BECOMING MOIST		
2.50	4.00	1.50	SATURATED,		SLIGHT HYDROCARBON ODOUR

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW110207

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 110207
LIC-NUM 10BL603059
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2009-05-06
FINAL-DEPTH (metres) 4.00
DRILLED-DEPTH (metres) 4.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY SHELL COMPANY OF AUST LTD
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 1.50
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6234052.00
EASTING 326628.00
LATITUDE 34 1' 11"
LONGITUDE 151 7' 20"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 11//829777

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 11 829777

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.00	125			Auger - Solid Flight
1	1	Casing	Steel	1.00	4.00	65	53		Screwed; Seated on Bottom; End cap

1	1	Opening	Slots - Horizontal	1.00	4.00	65	Steel; Casing - Machine Slotted; SL: 30mm; A: .4mm
1		Annulus	Waterworm/Rounded	0.80	4.00		Graded; GS: 1-2mm

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
1.50	4.00	2.50		1.50					

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.10	0.10	SURFACE CONCRETE		
0.10	0.50	0.40	FILL ROADBASE		
0.50	1.80	1.30	SAND,FINE GRAINED,BROWN.NO ODOUR		
1.80	2.60	0.80	SAND,FINE GRAINED LIGHT BROWN		
2.60	3.40	0.80	BECOMING DARK BROWN,NO ODOUR		
3.40	4.00	0.60	SAND,FINE GRAINED,DARK BROWN,GRAVELS		

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Groundwater Works Summary

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Document Generated on Thursday, April 3, 2014

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW106781

Works Details [\(top\)](#)

GROUNDWATER NUMBER	GW 106781
LIC-NUM	10WA 114721
AUTHORISED-PURPOSES	RECREATION (GROUNDWATER)
INTENDED-PURPOSES	RECREATION (GROUNDWATER)
WORK-TYPE	Bore
WORK-STATUS	
CONSTRUCTION-METHOD	

OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2004-06-01
FINAL-DEPTH (metres) 11.00
DRILLED-DEPTH (metres) 11.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY TAREN POINT BOWLING & REC CLUB
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 1.70
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233970.00
EASTING 326230.00
LATITUDE 34 1' 14"
LONGITUDE 151 7' 5"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 1 236198

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	11.00	400			Rotary Mud
1	1	Casing	PVC Class 12	-0.40	3.70	225	203		Screwed and Glued
1	1	Casing	PVC Class 12	5.20	8.50	225	203		Screwed and Glued
1	1	Casing	PVC Class 12	9.50	11.00	225	203		Screwed and Glued
1	1	Opening	Screen	3.70	5.20	225			PVC Class 18; A: .8mm
1	1	Opening	Screen	8.50	9.50	225			PVC Class 18; A: .8mm
1		Annulus	Waterworm/Rounded	1.00	1.20				Graded; GS: 0-11mm

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
3.50	5.50	2.00		1.70					
8.50	9.00	0.50		1.70					

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.60	0.60	SOIL, LOAM		
0.60	6.50	5.90	SAND		
6.50	9.00	2.50	CLAYEY SAND		
9.00	11.00	2.00	SILTY SAND AND CLAY		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW110843

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW110843
LIC-NUM 10WA113951
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Spear
WORK-STATUS
CONSTRUCTION-METHOD Jetted - Water
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2008-06-26
FINAL-DEPTH (metres) 5.00
DRILLED-DEPTH (metres) 5.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY GREEN
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233978.00

EASTING 326246.00
 LATITUDE 34 1' 14"
 LONGITUDE 151 7' 5"
 GS-MAP
 AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
 PARISH SUTHERLAND
 PORTION-LOT-DP 10//239150

Licensed [\(top\)](#)

COUNTY CUMBERLAND
 PARISH SUTHERLAND
 PORTION-LOT-DP 10 239150

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	5.00	100			Jetted - Water

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	5.00	5.00		SAND	

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Groundwater Works Summary

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW109492

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 109492
LIC-NUM 10WA 108935
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Spear
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2005-03-01
FINAL-DEPTH (metres) 6.00
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY JOHNSTONE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6234110.00
EASTING 325954.00
LATITUDE 34 1' 9"
LONGITUDE 151 6' 54"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 561//236289

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 561 236289

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW106758

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 106758
LIC-NUM 10WA108863
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Spear
WORK-STATUS Supply Obtained

CONSTRUCTION-METHOD (Unknown)
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2004-12-28
FINAL-DEPTH (metres) 4.50
DRILLED-DEPTH (metres) 4.50
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY PETROPOULOS
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 213 - SYDNEY COAST - GEORGES RIVER
AREA-DISTRICT
CMA-MAP 9129-4N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE
NORTHING 6234094.00
EASTING 325964.00
LATITUDE 34 1' 10"
LONGITUDE 151 6' 54"
GS-MAP
AMG-ZONE 56
COORD-SOURCE GIS - Geographic Information System
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 562//236289

Licensed [\(top\)](#)

COUNTY CUMBERLAND

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.50	100			(Unknown)
1	1	Casing	P.V.C.	0.00	4.40	100			Glued

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	2.50	2.50	fill		
2.50	4.50	2.00	sand		

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Groundwater Works Summary

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Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW110980

Works Details [\(top\)](#)

GROUNDWATER NUMBER	GW 110980
LIC-NUM	10BL603738
AUTHORISED-PURPOSES	MONITORING BORE
INTENDED-PURPOSES	MONITORING BORE
WORK-TYPE	Bore
WORK-STATUS	Equipped - bore used for obs
CONSTRUCTION-METHOD	Auger
OWNER-TYPE	Private

COMMENCE-DATE
COMPLETION-DATE 2010-02-02
FINAL-DEPTH (metres) 5.00
DRILLED-DEPTH (metres) 5.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY COULITS
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 2.20
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6232890.00
EASTING 325465.00
LATITUDE 34 1' 49"
LONGITUDE 151 6' 34"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 4/31861

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 4 31861

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	5.00	100			Auger
1	1	Casing	PVC Class 18	0.00	2.00	50			Screwed; Seated on Bottom; Cap
1	1	Opening	Slots - Horizontal	2.00	5.00	55			PVC Class 18; Slotted In Hole; SL: 3mm; A: 1.5mm
1		Annulus	Waterworm/Rounded	0.00	0.00				Graded; GS: 2- 2mm

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT-DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
2.20	5.00	2.80		2.20					

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	2.60	2.60	FILL		
2.60	3.00	0.40	SANDY CLAY		
3.00	5.00	2.00	SANDSTONE		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW110981

[Works Details](#) [\(top\)](#)

GROUNDWATER NUMBER GW110981
LIC-NUM 10BL603738
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS Equipped - bore used for obs
CONSTRUCTION-METHOD Auger
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2010-02-02
FINAL-DEPTH (metres) 5.00
DRILLED-DEPTH (metres) 5.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY COULITS
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 2.20
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6232898.00
EASTING 325476.00
LATITUDE 34 1' 48"
LONGITUDE 151 6' 35"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND
 PORTION-LOT-DP 4//31861

Licensed [\(top\)](#)

COUNTY CUMBERLAND
 PARISH SUTHERLAND
 PORTION-LOT-DP 4 31861

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	5.00	100			Auger
1	1	Casing	PVC Class 18	0.00	2.00	50			Screwed; Seated on Bottom; Cap
1	1	Opening	Slots - Horizontal	2.00	5.00	55			PVC Class 18; Slotted In Hole; SL: 3mm; A: 1.5mm
1		Annulus	Waterworm/Rounded	0.00	0.00				Graded; GS: 2- 2mm

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT-DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
2.20	5.00	2.80		2.20					

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.50	1.50	FILL		
1.50	5.00	3.50	SANDSTONE		

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Groundwater Works Summary

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW110979

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 110979
LIC-NUM 10BL603738
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS Equipped - bore used for obs
CONSTRUCTION-METHOD Auger
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2010-02-02
FINAL-DEPTH (metres) 5.00
DRILLED-DEPTH (metres) 5.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY COULITS
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6232871.00
EASTING 325477.00
LATITUDE 34 1' 49"
LONGITUDE 151 6' 35"
GS-MAP

AMG-ZONE 56

COORD-SOURCE

REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 4//31861

Licensed [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 4 31861

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	5.00	100			Auger
1	1	Casing	PVC Class 18	0.00	2.00	50			Screwed; Seated on Bottom; Cap
1	1	Opening	Slots - Horizontal	2.00	5.00	55			PVC Class 18; Slotted In Hole; SL: 3mm; A: 1.5mm
1		Annulus	Waterworn/Rounded	0.00	0.00				Graded; GS: 2- 2mm

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT-DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
2.20	5.00	2.80		2.20					

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.00	1.00	FILL		
1.00	5.00	4.00	SANDSTONE		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW101275

Works Details [\(top\)](#)

GROUNDWATER NUMBER	GW 101275
LIC-NUM	10BL158253
AUTHORISED-PURPOSES	MONITORING BORE
INTENDED-PURPOSES	MONITORING BORE
WORK-TYPE	Bore
WORK-STATUS	Equipped - bore used for obs
CONSTRUCTION-METHOD	Other
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	1997-11-26
FINAL-DEPTH (metres)	4.00
DRILLED-DEPTH (metres)	4.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	N/A
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	
SALINITY	
YIELD	

Site Details [\(top\)](#)

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	

ELEVATION**ELEVATION-SOURCE**

NORTHING 6233572.00

EASTING 327044.00

LATITUDE 34 1' 27"

LONGITUDE 151 7' 36"

GS-MAP

AMG-ZONE 56

COORD-SOURCE**REMARK****Form-A** [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP LOT20 DP6359

Licensed [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 20 6359

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.00	125			Other
1	1	Casing	PVC Class 18	0.00	2.00	65			C: 0-1.2m; Screwed; Seated on Bottom; Cap; Casing Shoe
1	1	Opening	Slots - Horizontal	2.00	4.00				PVC Class 18; SL: 2mm
1		Annulus	(Unknown)	1.70	4.00				(Unknown)

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT-DESC	S- W- L	D- D-L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
2.60	4.00	1.40							

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.40	1.40	gravelly clay		
1.40	2.30	0.90	sandy clay		
2.30	4.00	1.70	clayey sand		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW101274

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 101274
LIC-NUM 10BL158253
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS Equipped - bore used for obs
CONSTRUCTION-METHOD Other
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1997-11-25
FINAL-DEPTH (metres) 4.00
DRILLED-DEPTH (metres) 4.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY N/A
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233573.00
EASTING 327095.00
LATITUDE 34 1' 27"
LONGITUDE 151 7' 38"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP LOT20 DP6359

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 20 6359

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.00	125			Backhoe
1	1	Casing	PVC Class 18	0.00	2.00	85			C: 0-1.2m; Screwed; Seated on Bottom; Cap; Casing Shoe
1	1	Opening	Slots - Horizontal	2.00	4.00				PVC Class 18; SL: 2mm

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
1.40	4.00	2.60							

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.40	0.40	Asphalt/crushed rock		
0.40	1.20	0.80	sandy clay		
1.20	3.00	1.80	silty sand		
3.00	4.00	1.00	clayey sand		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
 Document Generated on Thursday, April 3, 2014

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW101273

Works Details [\(top\)](#)

GROUNDWATER NUMBER	GW 101273
LIC-NUM	10BL158253
AUTHORISED-PURPOSES	MONITORING BORE
INTENDED-PURPOSES	MONITORING BORE
WORK-TYPE	Bore
WORK-STATUS	Equipped - bore used for obs
CONSTRUCTION-METHOD	Other
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	1997-11-25
FINAL-DEPTH (metres)	4.20
DRILLED-DEPTH (metres)	4.20

CONTRACTOR-NAME
DRILLER-NAME
PROPERTY N/A
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233542.00
EASTING 327070.00
LATITUDE 34 1' 28"
LONGITUDE 151 7' 37"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP LOT20 DP6359

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 20 6359

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.20	125			Other
1	1	Casing	PVC Class 18	0.00	2.20	65	55		C: 0-1.5m; Screwed; Seated on Bottom; Cap; Casing Shoe
1	1	Opening	Slots	2.20	4.20				PVC Class 18; SL: 2mm
1		Annulus	Waterworn/Rounded	1.60	4.20				Graded

Water Bearing Zones [\(top\)](#)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
2.40	4.20	1.80							

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.15	0.15	clayey gravel		
0.15	0.85	0.70	gravelly clay		
0.85	1.80	0.95	sandy clay		
1.80	2.40	0.60	sandy silt/organics		
2.40	2.90	0.50	clayey sand		
2.90	3.80	0.90	sandy clay		
3.80	4.20	0.40	sandstone		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW109599

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 109599

LIC-NUM 10BL160159
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Well
WORK-STATUS
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Other Govt
COMMENCE-DATE
COMPLETION-DATE 2001-05-11
FINAL-DEPTH (metres) 4.00
DRILLED-DEPTH (metres) 4.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HAMMONDCARE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233576.00
EASTING 324759.00
LATITUDE 34 1' 26"
LONGITUDE 151 6' 7"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 1//1037852

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 1 1097917

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.00	125			Auger - Solid Flight

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.20	0.20	CLAY,SANDY,MINOR GRAVELS,RED,YELLOW		
0.20	1.00	0.80	SANDSTONE WEATHERED,YELLOW,M/GRAINED		
1.00	1.50	0.50	SANDSTONE RED, FINE GRAINED,DRY,MINOIR CLAY		
1.50	4.00	2.50	SANDSTONE RED, FINE GRAINED,DRY,MINOIR CLAY		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW109594

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 109594
LIC-NUM 10BL160159

AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Well
WORK-STATUS
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Other Govt
COMMENCE-DATE
COMPLETION-DATE 2001-05-10
FINAL-DEPTH (metres) 4.40
DRILLED-DEPTH (metres) 4.40
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HAMMONDCARE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233537.00
EASTING 324718.00
LATITUDE 34 1' 27"
LONGITUDE 151 6' 6"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 547751

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 1 1097917

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.40	125			Auger - Solid Flight

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.30	0.30	TOPSOIL,SOFT BLACK		
0.30	0.70	0.40	SILTY CLAY,LOOSE,BROWN		
0.70	1.50	0.80	CLAY,SANDY,DRY,YELLOW		
1.50	2.70	1.20	WEATHERED SANDSTONE		
2.70	3.70	1.00	SANDSTONE FINE GRAINED,WHITE		
3.70	4.35	0.65	SANDSTONE,FRESH,RED/ORANGE		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW109598

[Works Details](#) [\(top\)](#)

GROUNDWATER NUMBER GW 109598
LIC-NUM 10BL160159
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Well
WORK-STATUS
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Other Govt
COMMENCE-DATE
COMPLETION-DATE 2001-05-10
FINAL-DEPTH (metres) 6.00
DRILLED-DEPTH (metres) 6.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HAMMONDCARE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233503.00
EASTING 324814.00
LATITUDE 34 1' 28"
LONGITUDE 151 6' 9"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND
PORTION-LOT-DP 1//1097917

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 1 1097917

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	6.00	125			Auger - Solid Flight

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO- MATERIAL	COMMENT
0.00	0.20	0.20	FILL,SILTY,LOOSE,DAMP,DARK BROWN		
0.20	0.50	0.30	CLAYEY SILT DAMP,YELLOW,BLACK		
0.50	1.50	1.00	CLAY YELLOW,RED,ORANGE MOTTLES,LOW PLASTICITY,STIFF,DAMP		
1.50	5.00	3.50	WEATHERED SANDSTONE,WHITE,DAMP,FINE GRAINED,SOFT		
5.00	6.00	1.00	SANDSTONE MEDIUM,FINE GRAINED,FIRM DAMP		

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Groundwater Works Summary

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Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW109597

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 109597
LIC-NUM 10BL160159
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Well
WORK-STATUS
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Other Govt
COMMENCE-DATE
COMPLETION-DATE 2001-05-10
FINAL-DEPTH (metres) 6.00
DRILLED-DEPTH (metres) 6.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HAMMONDCARE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233518.00
EASTING 324774.00
LATITUDE 34 1' 28"
LONGITUDE 151 6' 8"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 547751

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 1 1097917

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	6.00	125			Auger - Solid Flight

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.10	0.10	FILL,SILTY,GRAVELLY,LOOSE,BLACK,DRY		
0.10	0.80	0.70	CLAY,RED/ORANGE,YELLOW MOTTLES,NO ODOUR		
0.80	1.50	0.70	CLAY.SANDY.HIGH PLASTICITY,FINE GRAINED		
1.50	5.50	4.00	WEATHERED SANDSTONE,MOIST RED/ORANGE		
5.50	6.00	0.50	SHALE,WITH MINOR SAND,GREY/RED,NO ODOIUR		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW109595

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 109595
LIC-NUM 10BL160159
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Well
WORK-STATUS
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Other Govt
COMMENCE-DATE
COMPLETION-DATE 2001-05-10
FINAL-DEPTH (metres) 5.60
DRILLED-DEPTH (metres) 5.60
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HAMMONDCARE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233515.00
EASTING 324754.00
LATITUDE 34 1' 28"
LONGITUDE 151 6' 7"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 547751

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 1 1097917

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	5.60	125			Auger - Solid Flight

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.20	0.20	ASPHALT		
0.20	0.70	0.50	CLAY,RED,ORANGE,MINOR GRAVEL		
0.70	1.70	1.00	SANDY CLAY		
1.70	3.00	1.30	WEATHERED SANDSTONE		
3.00	4.00	1.00	WEATHERED SANDSTONE,YELLOW,RED MOTTLES		
4.00	5.00	1.00	WEATHERED SANDSTONE,SOME MOISTURE		
5.00	5.30	0.30	WEATHERED SANDSTONE FINE GRAINED		
5.30	5.55	0.25	SANDSTONE,RED,MOIST,FINE GRAINED		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW109596

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 109596
LIC-NUM 10BL160159
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Well
WORK-STATUS
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Other Govt
COMMENCE-DATE
COMPLETION-DATE 2001-05-10
FINAL-DEPTH (metres) 5.40
DRILLED-DEPTH (metres) 5.40
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HAMMONDCARE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6233503.00
EASTING 324758.00
LATITUDE 34 1' 28"
LONGITUDE 151 6' 7"
GS-MAP

AMG-ZONE 56

COORD-SOURCE

REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 2 547751

Licensed [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 1 1097917

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	5.40	125			Auger - Solid Flight

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.20	0.20	ASPHALT, GRAVELLY, SILTY FILL		
0.20	1.00	0.80	CLAY, RED, YELLOW, ORANGE, DAMP		
1.00	1.40	0.40	CLAY SANDY, MOTTLED, STIFF L/PLASTICITY		
1.40	2.00	0.60	WEATHERED SANDSTONE		
2.00	3.00	1.00	WEATHERED SANDSTONE RED, FINE GRAINED		
3.00	4.00	1.00	WEATHERED SANDSTONE, DRY FIRM		
4.00	5.00	1.00	WEATHERED SANDSTONE, SOME MOISTURE, RED		
5.00	5.40	0.40	WEATHERED SANDSTONE, AS ABOVE.		

use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)

Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112151

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 112151
LIC-NUM 10BL158918
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 3.60
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE

NORTHING 6232540.00
EASTING 326919.00
LATITUDE 34 2' 1"
LONGITUDE 151 7' 31"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112149

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW112149
LIC-NUM 10BL158918

AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 2.40
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6232524.00
EASTING 326896.00
LATITUDE 34 2' 1"
LONGITUDE 151 7' 30"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112154

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW112154
LIC-NUM 10BL158918
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 1.70
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -

STANDING-WATER-LEVEL

SALINITY

YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST

RIVER-BASIN

AREA-DISTRICT

CMA-MAP

GRID-ZONE

SCALE

ELEVATION

ELEVATION-SOURCE

NORTHING 6232490.00

EASTING 326899.00

LATITUDE 34 2' 2"

LONGITUDE 151 7' 30"

GS-MAP

AMG-ZONE 56

COORD-SOURCE

REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 3//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112153

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 112153
LIC-NUM 10BL158918
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 1.00
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE

NORTHING 6232477.00
EASTING 326889.00
LATITUDE 34 2' 3"
LONGITUDE 151 7' 29"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 3//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112146

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW112146
LIC-NUM 10BL158918

AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 2.10
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6232489.00
EASTING 326888.00
LATITUDE 34 2' 2"
LONGITUDE 151 7' 29"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 3//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

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Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112147

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 112147
LIC-NUM 10BL158918
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 2.20
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -

STANDING-WATER-LEVEL

SALINITY

YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST

RIVER-BASIN

AREA-DISTRICT

CMA-MAP

GRID-ZONE

SCALE

ELEVATION

ELEVATION-SOURCE

NORTHING 6232502.00

EASTING 326882.00

LATITUDE 34 2' 2"

LONGITUDE 151 7' 29"

GS-MAP

AMG-ZONE 56

COORD-SOURCE

REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 3//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112152

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 112152
LIC-NUM 10BL158918
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 1.40
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE

NORTHING 6232522.00
EASTING 326860.00
LATITUDE 34 2' 1"
LONGITUDE 151 7' 28"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112150

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW112150
LIC-NUM 10BL158918

AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 1.20
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6232543.00
EASTING 326832.00
LATITUDE 34 2' 1"
LONGITUDE 151 7' 27"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112152

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW112152
LIC-NUM 10BL158918
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 1.40
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -

STANDING-WATER-LEVEL

SALINITY

YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST

RIVER-BASIN

AREA-DISTRICT

CMA-MAP

GRID-ZONE

SCALE

ELEVATION

ELEVATION-SOURCE

NORTHING 6232522.00

EASTING 326860.00

LATITUDE 34 2' 1"

LONGITUDE 151 7' 28"

GS-MAP

AMG-ZONE 56

COORD-SOURCE

REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 2//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND

PARISH SUTHERLAND

PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, April 3, 2014

Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW112148

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 112148
LIC-NUM 10BL158918
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1998-11-15
FINAL-DEPTH (metres) 1.30
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY S L A S LIMITED
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE

NORTHING 6232505.00
EASTING 326816.00
LATITUDE 34 2' 2"
LONGITUDE 151 7' 27"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 3//866034

Licensed [\(top\)](#)

COUNTY CUMBERLAND
PARISH SUTHERLAND
PORTION-LOT-DP 2 866034

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Print Report

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW102635

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW 102635
LIC-NUM 10BL158789

AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 1998-09-14
FINAL-DEPTH (metres) 4.50
DRILLED-DEPTH (metres) 4.50
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY BONCONE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6232490.00
EASTING 326833.00
LATITUDE 34 2' 2"
LONGITUDE 151 7' 27"
GS-MAP
AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

no details

Licensed [\(top\)](#)

COUNTY CUMBERLAND
 PARISH SUTHERLAND
 PORTION-LOT-DP 9 228921

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.50	100			Auger
1	1	Casing	P.V.C.	0.00	1.50				C: 0-.1m; Screwed
1	1	Opening	Slots - Vertical	1.50	4.50	50			PVC; SL: 3mm
1		Annulus	Waterworn/Rounded	4.00	5.00				Graded; GS: 1.5- 2mm; Q: 2m ³

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT-DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
0.00	0.00	0.00		2.10					

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	3.80	3.80	SILTY CLAY		
3.80	4.50	0.70	SANDSTONE		

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Environmental Strategies
PROVIDING BENEFITS

Sydney

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