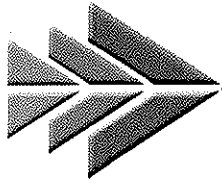

Appendix H

Preliminary Contamination Assessment by JBS Environmental



JBS
ENVIRONMENTAL

Preliminary Contamination Assessment

The Applicant

**165 – 185 River Road
Tahmoor NSW**

**November 2010
JBS 41274-15405
JBS Environmental Pty Ltd**

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List of Abbreviations

A list of the common abbreviations used throughout this report is provided below.

AEC	Area of Environmental Concern
AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
As	Arsenic
ASLP	Australian Standard Leaching Procedure
Cd	Cadmium
COC	Chain of Custody
COPC	Contaminants Of Potential Concern
CSM	Conceptual site model
Cr	Chromium
Cu	Copper
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
B(a)P	Benzo(a)pyrene
DEC	NSW Department of Environment and Conservation
DECC	NSW Department of Environment Conservation and Climate Change
DECCW	NSW Department of Environment Conservation and Climate Change and Water
DLWC	NSW Department of Land and Water Conservation
DoM	NSW Department of Mines
DQIs	Data Quality Indicators
DQOs	Data Quality Objectives
DWE	NSW Department of Water and Energy
EMP	Environmental Management Plan
Envirolab	Envirolab Services Pty Ltd
ESA	Environmental Site Assessment
EPA	NSW Environment Protection Authority
Ha	Hectare
Hg	Mercury
HIL	Health based investigation level
IPL	Incitec Pivot Limited
JBS	JBS Environmental
LCS	Laboratory Control Sample
LOR	Limit of Reporting
LPI	NSW Department of Land and Property Information
Mn	Manganese
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NHMRC	National Health and Medical Research Council
Ni	Nickel

OCP	Organochlorine Pesticides
OPP	Organophosphorus Pesticides
PAHs	Polycyclic Aromatic Hydrocarbons
PARCC	Precision, Accuracy, Comparability and Completeness
Pb	Lead
PCBs	Polychlorinated Biphenyls
Pickford	Pickford and Rhyder Consulting Pty Ltd
PID	Photoionisation Detector
PIL	Phytotoxicity based Investigation Level
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RPD	Relative Percentage Difference
SAQP	Sampling, Analysis and Quality Plan
SCID	Stored Chemical Information Database
SGS	SGS Environmental Pty Ltd
TPH	Total Petroleum Hydrocarbons
UCL	Upper Confidence Level
Zn	Zinc

Executive Summary

JBS Environmental Pty Ltd was engaged by EG Property Group, to conduct a Preliminary Contamination Assessment (PCA) of a property located 165-185 River Road, Tahmoor, NSW. The site has an approximate area of 107 hectares, and comprises Lot A in DP 369710, Lot B in DP 369710, Lot 85 in DP 751270, and Lot 86 in DP 751270.

It is understood that the preliminary contamination assessment was required to identify the potential for contamination at the site, and any possible constraints on future site development.

The assessment was conducted in general accordance with relevant guidelines made or approved by the NSW Department of Environment, Climate Change and Water (DECCW), and relevant Australian Standards.

The objective of the investigation was to assess the potential for contamination at the site and to draw conclusions regarding the likelihood of the presence of significant, widespread, contamination.

To achieve the objectives of the assessment the following scope of works was undertaken:

- Review of available Council documentation, aerial photos, legal title information, DECCW records and Heritage records to identify areas of environmental concern and associated contaminants of potential concern (COPCs);
- Review of the topography, geology and hydrogeology of the site and surrounding areas;
- A site inspection of all accessible areas to identify any additional visible areas of concern and associated potential COPCs;
- A limited program of soil sampling and analysis from 15 locations targeting identified areas of concern and associated COPCs;
- Analysis of selected soil samples at a NATA accredited laboratory for 8 heavy metals, TPH, BTEX compounds, VOCs, SVOCs, OCPs, PCBs and asbestos;
- Leachate analysis from selected soil samples at a NATA accredited laboratory for 8 heavy metals and PAHs; and
- Preparation of a Preliminary Contamination Assessment report in accordance with relevant DECCW Guidelines.

Based on the results of the investigation undertaken at the site, and subject to the limitations stated in **Section 12**, the following conclusions are made:

- There were no reported concentrations of heavy metals, TPH, BTEX compounds, VOCs, SVOCs, OCPs and PCBs above the nominated assessment criteria for standard residential land use within any of the soil samples submitted for laboratory analysis.
- There were no reported concentrations of the contaminants of potential concern above the nominated assessment criteria for standard residential land use within any of the background soil samples submitted for laboratory analysis.
- The potential for the migration of the potential contaminants of concern to the groundwater is considered to be low based on the shallow depth to sandstone

bedrock, the anticipated depth to groundwater, the low to moderate permeability of the sand and clay soils at the site, and the concentrations of heavy metals and PAHs within the leachates for soil samples submitted for TCLP and ASLP analysis.

- The potential for the migration of the potential contaminants of concern to the surface water bodies present across the site is considered to be low based on the long grass cover present across the majority of the site surface, and the concentrations of heavy metals and PAHs within the leachates for soil samples submitted for TCLP and ASLP analysis.

It is concluded that, while there is a potential for isolated areas of contamination to be present in areas of the site not directly sampled, the potential is low in consideration of the rural residential historical use of the site. It is unlikely that any significant, widespread, contamination is present at the site.

Based on the results of the investigation undertaken at the site, and subject to the limitations stated in **Section 12**, the following recommendations are made:

- Prior to the demolition of all buildings and structures across the site, a hazardous materials building survey be undertaken. The objectives of the survey will be to document the presence of hazardous materials, including asbestos and lead based paint, within the buildings and structures across the site.

Based on the results of the investigation undertaken at the site, and subject to the limitations stated in **Section 12**, there is no barrier to a residential zone at the site. The site is considered to be suitable for both residential land use, and for the development of 'The Tahmoor Tourism and Recreation Precinct'.

1 Introduction

Introduction and Background

JBS Environmental Pty Ltd was engaged by EG Property Group, to conduct a Preliminary Contamination Assessment (PCA) of a property located 165-185 River Road, Tahmoor, NSW. The site has an approximate area of 107 hectares, and comprises Lot A in DP 369710, Lot B in DP 369710, Lot 85 in DP 751270, and Lot 86 in DP 751270.

It is understood that the preliminary contamination assessment was required to identify the potential for contamination at the site, and any possible constraints on future site development.

The assessment was conducted in general accordance with relevant guidelines made or approved by the NSW Department of Environment, Climate Change and Water (DECCW), and relevant Australian Standards (**Section 6**).

Objectives

The objective of the assessment was to assess the potential for contamination at the site and to draw conclusions regarding the likelihood of the presence of significant, widespread, contamination.

Scope of Work

To achieve the objectives of the assessment, the following scope of works was implemented:

- Review of available Council documentation (including zoning certificate), aerial photos, legal title information, and Heritage records to identify areas of environmental concern and associated contaminants of potential concern (COPCs);
- Review of the topography, geology and hydrogeology of the site and surrounding areas;
- A site inspection of all accessible areas to identify any additional visible areas of concern and associated potential COPCs;
- A limited program of soil sampling and analysis from 15 locations targeting identified areas of concern and associated COPCs;
- Analysis of selected soil samples at a NATA accredited laboratory for 8 heavy metals, TPH, BTEX compounds, VOCs, SVOCs, OCPs, PCBs and asbestos;
- Leachate analysis from selected soil samples at a NATA accredited laboratory for 8 heavy metals and PAHs; and
- Preparation of a Preliminary Contamination Assessment report in accordance with relevant DECCW Guidelines.

2 Site Condition & Surrounding Environment

Site Identification

The location of the site is shown in **Figure 1**. The site details are summarised in **Table 2.1** and described in detail in the following sections.

Table 2.1 Summary Site Details

Lot/DP	Lot A in DP 369710, Lot B in DP 369710, Lot 85 in DP 751270, and Lot 86 in DP 751270
Address	165 - 185 River Road, Tahmoor, NSW.
Local Government Authority	Wollondilly Shire Council.
Site Zoning	Lot A in DP 369710 - Zone No 9(d) (Open Space Reservation Zone); Lot B in DP 369710 - Zone No 1 (a2) (Rural "A2" Zone); Lot 85 in DP 751270 - Zone No 9(d) (Open Space Reservation Zone); and Lot 86 in DP 751270 - Zone No 1 (a2) (Rural "A2" Zone) Under the Wollondilly Local Environment Plan 1991.
Proposed zoning	It is understood that there are no proposed zoning changes at the site.
Current Use	The site is currently used for rural residential purposes. Occupied residential dwellings are present in the western and northern portions of the site. An unoccupied residential dwelling is present in the south-eastern portion of the site. The remainder of the site is used as grazing land for cattle and other farm animals.
Previous Use	The site has historically been used for rural residential and pastoral purposes. The site occupants revealed the site had historically been used as a stud farm for horses.
Proposed Use	It is understood that the preliminary contamination assessment was required to identify the potential for contamination at the site, and any possible constraints on future site development for residential use with the 'The Tahmoor Tourism and Recreation Precinct' which comprises 92 large lot residential dwellings, a range of recreational facilities associated with those dwellings and a brand new conference/function centre, restaurant and bar.
Site Area	Approximately 107 hectares.
Coordinates of approximate centre of site	56H 280341 UTM 6210536 (MGA Zone 56)

2.2 Site Description

An inspection of the site was undertaken on 20 July 2010. The site comprised a parcel of land located at 165 - 185 River Road, Tahmoor, NSW. The layout of the site is shown on **Figure 2**. The majority of the area of the site comprised improved pastures with a number of water storage ponds (dams). Residential dwellings were located in the western, northern and south-eastern portions of the site. Garage and storage buildings were located in the western portion of the site. A number of stables were located across the site. Derelict sheds and timber stockpiles were located in the southern portion of the site. Overall, the majority of the site was unsealed. Pastoral grasses were present across the majority of the site. Timber and wire fencing were present along the site boundaries.

Access to the site was via a steel gate located on the western boundary of the site, adjacent to River Road. A gravel roadbase driveway was present in the western portion of the site, extending from the access gate to the south and west, adjacent to the dwellings and structures present in the western portion of the site.

The main residence was located in the western portion of the site, to the west of the steel access gate. The main residence appeared to be less than 20 years old and constructed from brick, with corrugated iron roofing, and concrete flooring. The eaves of the dwelling were constructed from timber and fibreboard. An awning was present extending across the entrance on the western wall of the dwelling. Slate and cement pavement was present underlying the awning. A double garage was present on the ground level in the eastern portion of the dwelling. Minor flaking paint was noted on the timber surfaces of the dwelling. Two LPG cylinders were present on the exterior of the southern wall of the dwelling. The cylinders were in good condition with no evidence of significant corrosion.

A storage shed was present in the western portion of the site, to the east of the main residence. The storage shed appeared to be less than 20 years old and constructed from corrugated steel, steel framework and concrete flooring. The shed was used to store timber, furniture, tools and small machinery, electrical equipment, a caravan, and sporting equipment. The concrete floor within the storage shed was in good condition with no significant cracking or staining observed. Two plastic containers were present in the eastern portion of the storage shed. The plastic containers were in good condition, and were labelled for the storage of glycolic acid.

A garage was present in the western portion of the site, to the east of the storage shed. The garage appeared to be less than 20 years old and was constructed from brick, with steel sheeting across the upper exterior walls, steel roofing and a concrete floor. Two steel shutters were present on the northern and southern walls of the garage. Farm machinery, hand and power tools, oils and lubricants were stored within the garage. The concrete floor appeared to be in good condition with no significant cracking or degradation observed. Oil staining was observed on the concrete surface in the southern portion of the garage, underlying the southern roller door. No oil staining was observed on the unsealed surface immediately to the south of the oil staining.

A stable was present in the western portion of the site, to the south of the garage. "The Cottage" signage was present on the western exterior wall of the stable. The stable appeared to be less than 20 years old and was constructed from brick with sheet metal roofing, fibreboard eaves and timber framework. The floor within the stable was mainly concrete with unsealed areas within the individual horse stables. Minor flaking paint was observed on the eaves and timber framework. The concrete floor was in good condition with no significant staining, cracking or degradation observed.

A second stable was present in the western portion of the site, to the south of the garage and storage shed. "Jay-R-Stud" signage was present on the northern exterior wall of the stable. The stable was constructed from brick with corrugated sheet metal and fibreglass roofing and timber roof frames. The floor within the stable was mainly concrete with unsealed areas within the individual horse stalls. A vehicle was present in the northern portion of the stable. A timber showyard was present in the southern portion of the stable. Amenities were present in the south-western portion of the stable. Minor flaking paint was present on the timber surfaces of the stable. No significant staining, cracking or degradation of the concrete floor within the stable was observed.

A pond was present in the western portion of the site, to the south of the stable described above. The water within the pond appeared to be of good quality, with no sheen or staining observed. Shale and sandstone gravels were present on the surface along the banks of the pond.

A stable was present in the central portion of the site. The stable was constructed from brick with corrugated steel and timber roofing and steel guttering. The floor within the stable was mainly concrete with unsealed areas within the individual horse stalls. No significant staining, cracking or degradation was observed on the concrete floor.

A stable was present in the south-western portion of the site, to the south-east of the pond described above. The stable was constructed from brick with corrugated steel and timber roofing, steel guttering, and steel and timber eaves. The floor within the stable was mainly concrete with unsealed areas within the individual horse stalls. Minor flaking paint was observed on the eaves of the stable. No significant staining, cracking or degradation was observed on the concrete floor within the stable.

A stable was present in the southern portion of the site, to the south-east of the stable described above. The stable was constructed from brick, with tile roofing, steel gutters and a timber and steel framework. The floor within the stable was mainly concrete with unsealed areas within the individual horse stalls. Minor flaking paint was observed on the steel and timber surfaces of the stable.

A vacant residence was present in the south-eastern portion of the site. The vacant dwelling appeared to be approximately 40 years old and was constructed from brick, with tile roofing, timber framework, timber eaves, and a concrete floor. Brick pavement was present on the exterior surface surrounding the vacant dwelling. An electrical circuit box was present on the western exterior wall of the vacant residential dwelling. A suspected asbestos-containing 'zelemite' electrical backing board was present within the electrical circuit box. Minor flaking paint was observed on the timber surfaces across the vacant dwelling. The area surrounding the vacant dwelling was landscaped. A covered spa was present to the south-east of the vacant dwelling. A landscaped round-a-bout was present to the north-west of the vacant dwelling. A circular arrangement of small trees was located to the south-west of the vacant residential dwelling. Pallisade steel fencing was present surrounding the vacant residence. A steel gate was located to the north-west of the vacant residence.

A garage was located to the east of the vacant dwelling. The garage was constructed from brick with tile roofing, timber framework, and a concrete floor. Three doors were present on the northern wall of the garage. Minor flaking paint was observed on the timber surfaces of the garage. Asphalt pavement was present extending from the northern wall of the garage to the west.

An occupied residence was located in the northern portion of the site. The occupied 'secondary' dwelling was constructed from fibre-cement sheeting on the upper walls, brick lower walls, painted corrugated steel and tile roofing, fibre cement eaves, steel guttering and a concrete floor. Flaking paint was observed on the timber and steel surfaces of the secondary dwelling. A timber and steel awning was located adjacent to the western exterior wall of the secondary dwelling. Timber decking was located underlying the awning. A garage was located to the south of the secondary dwelling. The garage was constructed from sheet metal. A gravel driveway was located to the east of the secondary dwelling. Toys and children's exercise equipment were located to the east and west of the secondary dwelling. A cubby house which was constructed from timber with corrugated steel roofing was located to the west of the secondary dwelling. A chicken pen and small stable were located to the west of the secondary dwelling. A car body and a large plastic container, labelled as containing degreaser, were located to the north of the secondary dwelling.

A derelict shed and raised shipping container were located underlying tree stand vegetation in the southern portion of the site. The derelict shed was constructed from timber and corrugated sheet metal. Timber pallets, tree cuttings, corrugated sheet metal, bricks and sandstone boulders were located in the vicinity of the derelict shed. A raised shipping container was located immediately to the east of derelict shed. The shipping container was constructed from steel and was raised upon tree trunk cuttings. Flaking paint was observed across the shipping container. Plastic paint containers and corroded steel containers were present underlying and in the vicinity of the raised shipping container. A corroded steel drum was located adjacent to the eastern wall of the raised shipping container.

Remnants of a former brick stable, in the form of cemented brick walls, were located to the east of the shipping container. Stacked bricks and tiles were within the remnants of the former stable. A stockpile of tree cuttings and timber was present to the east of the former brick stable. A stockpile of tree branches, timber pallets and timber furniture panelling was located to the south of the derelict shed and mounted shipping container.

A number of paddocks were located across the site. The paddocks were fenced with a combination of timber, steel, and barbed wire fencing. Flaking paint was observed on the timber paddock fencing across the site. Grazing cattle and farm animals were present across the south-eastern and central portions of the site. A gully was present across the central to southern portion of the site. The gully extended from the west to east across the site. The northern portion of the site exhibited a fall to the east. The central to southern portion of the site exhibited a fall towards the gully.

Photographs of the site obtained during the site inspection are included in **Appendix A**.

2.3 Surrounding Landuse

The current landuse of adjacent properties or properties across adjacent roads is shown in **Figure 2** and summarised below.

- North – Rural residential and pastoral land;
- East – Riparian corridor and Nepean River, with rural residential properties further east;
- South – Rural residential and pastoral land; and
- West – River Road with rural residential land further west.

Rural residential, pastoral and agricultural properties were located adjacent to the northern, eastern and southern site boundaries, as well as across River Road to the west of the site. The properties adjacent to the northern, eastern, southern and western boundaries were not accessed during the assessment. Based on observations made from the site and from River Road, there were no significant potential offsite sources of contamination observed at the properties located to the north, east, south and west of the site.

2.4 Topography

A review of the regional topographic map (LPI 2000¹) indicated that the elevation of the site ranges between 230 m to 150 m Australian Height Datum (AHD). The western portion of the site exhibits a gentle fall to the central portion of the site, with the elevation ranging between 230 m to 200 m AHD. The eastern portion of the site exhibits a steeper fall to the east, towards the Nepean River, with the elevation ranging between 200 m to 150 m AHD. The northern portion of the site exhibits a fall to the north towards Myrtle Creek, with the elevation ranging between 200 m and 160 m AHD. The gully is identifiable in the central to southern portion of the site, with elevations ranging between 200 m and 170 m AHD. The topography of the site detailed in LPI 2000 appears to be consistent with observations made during the site inspection.

¹ Picton 9029-4S (3rd Edition) Topographic and Orthophoto Map, NSW Land and Property Information Centre, 2000 (LPI 2000).

2.5 Hydrology

Two ponds were observed across the site during the assessment. One pond was located in the western portion of the site and occupied an area of approximately 7000 m². Evidence of former pumping and irrigation infrastructure was present on the southern edge of pond.

A second pond was located in the south-eastern portion of the site and occupied an area of approximately 500 m². Pumping and irrigation infrastructure was present on the northern edge of the pond. The pumping and irrigation infrastructure was not in use at the time of the inspection.

The nearest surface water receptor to the site is the Nepean River, located approximately 160 m east of the site. The Nepean River flows into the Hawkesbury River, located approximately 68 km north of the site.

The majority of the site is unsealed. Rainfall is expected to infiltrate the sandy clay surface soils present across the site. Rainfall runoff generated during heavy or prolonged rain periods is expected to follow the topography of the land, generally directed towards the gully in the central to southern portion of the site, and towards the Nepean River to the east of the site.

2.6 Geology

A review of the regional geological map (DoM 1966²) indicates that the site is located overlying the Triassic Age Hawkesbury Sandstone formation. The Hawkesbury Sandstone comprises sandstone, quartz with some shale.

A review of the regional soil landscape series sheet (SCS 1990³) indicates that three distinct soil formations are present across the site. Colluvial soils identified as the Hawkesbury Soil Landscape Grouping are located in the vicinity of the Nepean River and Myrtle Creek across the northern and eastern portions of the site, respectively. Soils that are part of the Hawkesbury Soil Landscape Grouping comprise of shallow (less than 50 cm), discontinuous, Lithosols/Siliceous Sands associated with the rock outcrops. Earthy Sands, Yellow Earths and locally deep sands are located on the inside of benches and along joints and fractures. Localised Yellow and Red Podzolic soils are associated with the shale lenses. Siliceous sands are located on narrow valley flats.

Residual soils identified as the Blacktown Landscape Group are located across the central to northern portion of the site. Soils that are part of the Blacktown Soil Landscape Group comprise shallow to moderately deep (less than 150 cm) Red and Brown Podzolic Soils on the crests, upper slopes and well drained areas. Deep (100 cm to 300 cm) Yellow Podzolic Soils and Solaths are located on the lower slopes, within drainage depressions and across localised areas of poor drainage.

Residual soils identified as the Lucas Heights Soil Landscape Group are located across the central to southern portion of the site. The soils within the Lucas Heights Soil Landscape Group comprise hard setting Yellow Podzolic Soils and Yellow Solaths on the ridges and plateau surfaces. Lateritic Podzolic Soils are located on the crests and Yellow Earths are

² Wollongong 1:250 000 Geological Series Sheet S1-56-9 2nd Edition, NSW Department of Mines, 1966 (DoM 1966).

³ Wollongong-Port Hacking Soil Landscape Series Sheet 9029-9129, Soil Conservation Service of NSW, 1990 (SCS 1990).

located on the shoulders of plateaus and ridges. Earthy Sands are located across the valley flats.

This description is consistent with the natural soils encountered at the site during the current assessment.

2.7 Acid Sulfate Soils

A review of the NSW National Resource Atlas Database (NSW 2010⁴) indicated that there was no information available for the risk of acid sulfate soils underlying the site and the immediate surrounds. Given the presence of clay soils at the site, with sandstone underlying, the risk of acid sulfate soils underlying the site and within the immediate surrounds is considered to be low.

2.8 Hydrogeology

Registered groundwater bore information obtained from the NSW National Resource Atlas Database (NSW 2010) is included in **Appendix B** and summarised below.

Based on information from NSW 2010 there are 18 registered bores within 1.5 km of the site. The closest registered groundwater bore (GW042788) is located within the central portion of the site. No evidence of the groundwater bore GW042788 was observed during the site inspection. The site occupants had no knowledge of the presence of a groundwater bore on the site. The next nearest registered groundwater bore (GW110436) is located approximately 410 m to the south-west of the western site boundary.

A review of the available groundwater bore information indicated the following:

- Groundwater in bore GW042788 was encountered within layers of sandstone bedrock at depths ranging between 105 m to 135.2 m below ground surface (bgs). The groundwater bore is authorised for domestic, irrigation and stock watering purposes. The yield of the groundwater extracted from the bore ranged between 0.25 and 1.52 (no units specified), increasing with the depth of the encountered groundwater. The salinity of the groundwater was not reported;
- Groundwater in bore GW110436 was encountered within the sandstone bedrock at depths between 90 m and 91 m bgs. The groundwater is authorised for monitoring purposes. The yield of the groundwater extracted from the bore was reported as 0.1 (no units specified). The salinity of the groundwater was reported as 822.00 (no units specified).
- The registered groundwater bores located within a 1.5 km radius of the site are used for a combination of testing, domestic, irrigation, stock, farming and monitoring purposes;
- Unconsolidated soils comprising layers of topsoil, clay and gravel were encountered overlying and between the bedding planes of the shale and sandstone bedrock at depths ranging between 0 m and 3.2 m bgs. Layers of sandstone, shale, siltstone and mudstone bedrock were encountered at depths ranging from 0 m and 186 m bgs.

⁴ NSW National Resource Atlas, <http://nratlas.nsw.gov.au/wmc/custom/homepage/index.html>, NSW Government, accessed 26 July 2010 (NSW 2010)

3 Site History

3.1 Aerial Photographs

Aerial photographs from 1969, 1979, 1984, 1994, and 2005 were obtained from the NSW Department of Lands. Copies of the aerial photographs are included in **Appendix C**.

Relevant information from the aerial photograph review is summarised below.

- **1969:** The site appeared to be used for rural residential purposes. A large proportion of the site (greater than 50%) was cleared. Tree stand vegetation was present in the eastern, central and southern portions of the site, as well as along the northern boundary of the site. Individual trees were sporadically distributed across the central to northern and south-western portions of the site. A number of buildings/structures were located in the western to north-western portions of the site, adjacent to the western site boundary. Two gullies were located across the central and southern portions of the site. Myrtle Creek and the Nepean River were located to the north and east of the site, respectively. River Road was present to the north-west of the site. Rural residential properties were located to the north, north-west, west and east of the site. Forest vegetation was located to the south-west, north-east and south-east of the site. Properties across the greater Tahmoor area were either uncleared forest or used for rural residential purposes.
- **1979:** The south-eastern, central, southern and western portions of the site had been cleared. Fewer structures were evident across the north-western portion of the site. There had been an increase in development in the western portion of the site, with additional tracks and structures present. Access tracks and fencing were present in the western, central, southern and south-eastern portions of the site. The vacant residential dwelling and garage appeared to be located in the south-eastern portion of the site. Two ponds were located across the western and eastern portions of the site, respectively, consistent with their current locations. Two additional ponds were located in the northern portion of the site. There was an increase in infrastructure development to the south-west and north-east of the site. There was an increase in development of properties for agricultural purposes to the west and north-west of the site.
- **1984:** Additional buildings/structures were present across the western portion of the site. The 'Jay-R-Stud' stable was present in the western portion of the site. Buildings were present in the current location of the main residential dwelling, storage shed, garage and 'The Cottage' stable in the western portion of the site. The driveway and round-a-bout to the vacant residence was present in the south-eastern portion of the site. The circular arrangement of small trees was evident in the south-eastern portion of the site. There was an increase in the number of tracks, defined paddocks and fencing across the southern, south-western, northern and north-eastern portions of the site. The northern-most pond was not evident. An additional pond was located in the north-western portion of the site. The properties adjacent to and in the vicinity of the site appeared to be consistent with the previous aerial photograph.
- **1994:** The two ponds located in the northern portion of the site appeared to be dry. The occupied residential dwelling and adjacent structures were present in the northern portion of the site. An additional stable was located in the central to western portion of the site. A number of tracks across the site appeared to have

been paved. The buildings located in the western portion of the site had been redeveloped. The layout of the buildings in the western portion of the site appeared to be consistent with the layout of the buildings during the site inspection. Sealed pavement appeared to be present in the vicinity of the buildings in the western portion of the site. There was an increase in agricultural development to the south-west of the site. Clearing of vegetation had occurred on the property to the south-east of the site.

- **2005:** The derelict shed and raised shipping container were present in the southern portion of the site. The remainder of the site remained unchanged and appeared to be consistent with observations made during the site inspection. The buildings and structures across the property to the south-west of the site were removed with the regrowth of vegetation evident.

3.2 DECCW Records

A search of the DECCW's public register under the *Protection of the Environment Operations Act 1997* was undertaken (**Appendix D**). The search identified that, for the site, there were:

- No prevention, clean-up or prohibition notices;
- No transfer, variation, suspension, surrender or revocation of an environment protection licence.

A search was also undertaken through the DECCW's public contaminated land register (**Appendix D**). The search identified that there have been no notices issued under the *Contaminated Land Management Act 1997* for the site.

3.3 Title Details

A historic title search was conducted for the site. The title search was extended back until 1919. Results are included in **Appendix E** and summarised below.

Lot A in DP 369710

In March 1919, the property was acquired from a Crown Grant by Alexander Edward Knauer of Myrtle Creek, Picton. In October 1936, the property was acquired by Frederick Knauer of Tahmoor, a farmer. In January 1940, the property was purchased by James Stone a labourer from Picton, and Matilda Grace Stone, his wife. In May 1950, the property was acquired by Caughlan Properties Pty Ltd. In September 1972, the property was purchased by Joan Alice Heighington of Camden, a married woman. In July 1973, the property was acquired by Saligna Pty Ltd. In November 1980, the property was purchased by Joam Investments Pty Ltd. In April 2004, the property was acquired by Tessonian Pty Ltd.

Lot B in DP 369710

In March 1919, the property was acquired from a Crown Grant by Alexander Edward Knauer of Myrtle Creek, Picton. In October 1936, the property was acquired by Frederick Knauer of Tahmoor, a farmer. In January 1940, the property was purchased by James Stone a labourer from Picton, and Matilda Grace Stone, his wife. In October 1950, the property was acquired by Eric Gordon Glencross Grant, a clerk from Tahmoor, and his wife Ena Eunice Grant. In September 1960, the property was purchased by Robert Glenroy Dunk, a motor mechanic from Camden, and Jennifer May Dunk, his wife. In

November 1972, the property was acquired by John Ross Cribb, a company director from Cronulla. In November 2004, the property was purchased by Tessonian Pty Ltd.

Lot 85 DP 751270

In October 1966, the property was acquired from a crown grant by the Commercial Banking Company of Sydney. A mortgage was placed for the property by Robert Glenroy Dunk and his wife Jennifer May Dunk. In June 1970, the property was purchased by Robert Glenroy Dunk, a coal miner from Tahmoor, and his wife Jennifer May Dunk. In February 1973, the property was acquired by John Ross Cribb of Cronulla, a company director. In November 2004, the property was purchased by Tessonian Pty Ltd.

Lot 86 in DP 751270

In August 1967, the property was acquired from a crown grant by James Stone of Rosenfelds, Tahmoor. In May 1970, the property was acquired by Caughlan Properties Pty Ltd. In September 1972, the property was purchased by Joan Alice Heighington of Camden, a married woman. In July 1973, the property was acquired by Saligna Pty Ltd. In November 1980, the property was purchased by Joam Investments Pty Ltd. In April 2004, the property was acquired by Tessonian Pty Ltd.

3.4 Council Records

The planning certificates for the site (Lots A and B in DP 550593, and Lots 85 and 86 in DP 751270) were obtained from Wollondilly Shire Council and are included in **Appendix E**. Relevant information is summarised below.

Lot A in DP 550593

- The land is zoned as Zone No 1 (a2) (Rural A2 Zone) under the Wollondilly Local Environmental Plan (LEP) 1991.
- The land is zoned as Zone RU2 Rural Landscape under the Draft Wollondilly Local Environment Plan (LEP) 2009;

Lot B in DP 550593

- The land is zoned as Zone No 9(d) (Open Space Reservation Zone) under the Wollondilly Local Environment Plan (LEP) 1991;
- The land is zoned as Zone RU2 Rural Landscape under the Draft Wollondilly Local Environment Plan (LEP) 2009;

Lot 85 in DP751270

- The land is zoned as Zone No 9(d) (Open Space Reservation Zone) under the Wollondilly Local Environment Plan (LEP) 1991;
- The land is zoned as Zone RU2 Rural Landscape under the Draft Wollondilly Local Environment Plan (LEP) 2009;

Lot 86 in DP751270

- The land is zoned as Zone No 1 (a2) (Rural A2 Zone) under the Wollondilly Local Environmental Plan (LEP) 1991.
- The land is zoned as Zone RU2 Rural Landscape under the Draft Wollondilly Local Environment Plan (LEP) 2009;

The Entire Site

- The site not known to include or comprise critical habitat under the Wollondilly LEP 1991;
- The site is not within a conservation area under the Wollondilly LEP 1991;
- The site does not contain an item of environmental heritage under the Wollondilly LEP 1991;
- The site does not include or comprise critical habitat under the Draft Wollondilly LEP 2009;
- The site is not located within a proposed Heritage Conservation Area as provided by clause 5.10 and Schedule 5 of Draft Wollondilly LEP 2009;
- The site does not contain an item of environmental heritage as provided by clause 5.10 and Schedule 5 of Draft Wollondilly LEP 2009;
- The site is not affected by the operation of Section 38 or 39 of the *Coastal Protection Act* 1979, but only to the extent that the council has been notified by the Department of Services, Technology and Administration;
- The site is within a proclaimed Mine Subsidence District under the Mine Subsidence Compensation Act 1961. The approval of the Mine Subsidence Board is required for all subdivision and building, except for certain minor structures.
- The site is not affected by road widening or road re-alignment under Division 2 of Part 3 of the Roads Act 1993; any environmental planning instrument; or any resolution of the Council;
- The council has adopted, by resolution dated 9 August 1999, a policy concerning contaminated land. That policy applied to the site will restrict development of the land if the circumstances set out in the policy prevail;
- Development on the site or part of the site for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat units (not including development for the purposes of group homes or seniors housing) is not subject to flood related development controls;
- The development of the site or part of the site for any other purpose is not subject to flood related development controls;
- Wollondilly LEP 1991 does provide for the acquisition Lot 85 in DP 751270 the site by a public authority, as referred to in section 27 of the Act;
- Wollondilly LEP 1991 does not provide for the acquisition the remainder of the site by a public authority, as referred to in section 27 of the Act;
- Draft Wollondilly LEP 2009 does not provide for the acquisition of the site by a public authority, as referred to in section 27 of the Act;
- The site is not biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995);
- Council has not been notified by the Director General of the DECCW of any biobanking agreement approved under the Threatened Species Conservation Act 1995 for the site;
- The site is partially bush fire prone land as shown in Councils records;

- Council has not been notified of any property vegetation plan under the *Native Vegetation Act 2003*, or statement to that effect, which applies to the site;
- Council has not been notified of any order that has been made under the *Trees (Disputes between Neighbours) Act 2006* to carry out work in relation to a tree on the site;
- The site is not significantly contaminated land within the meaning of the *Contaminated Land Management Act 1997* (CLMA 1997);
- The site is not subject to a management order within the meaning of the CLMA 1997;
- The site is not subject to an approved voluntary management proposal within the meaning of the CLMA 1997;
- The site is not subject to an ongoing maintenance order within the meaning of the CLMA 1997; and
- The site is not subject to a site audit statement within the meaning of the CLMA 1997.

3.5 Australian and NSW Heritage Register

A search of the Australian Heritage Trust database and the NSW Heritage Inventory did not reveal any Heritage listed items at the site (**Appendix F**).

3.6 Workcover Dangerous Goods Licenses

Due to timeframe of the assessment, a WorkCover search of the Stored Chemical Information Database (SCID) and the microfiche records held by WorkCover was not completed. The site occupant had no knowledge of the current or historical presence any above ground or underground storage tanks at the site. However, it is considered that the comprehensive nature of the remaining historical research has identified all significant potential sources of contamination, and the absence of Workcover Dangerous Goods License records does not affect the conclusions of the assessment.

3.7 Previous Investigations

There are no known previous environmental investigations which have been conducted at the site.

3.8 Development Application / Building Application (DA/BA) records

Due to the timeframe of the assessment, DA/BA records could not be obtained in time from Wollondilly Shire Council for inclusion in this report. However, it is considered that the comprehensive nature of the remaining historical research has identified all significant potential sources of contamination, and the absence of DA/BA records does not affect the conclusions of the assessment.

3.9 Site History Summary

A summary of the site history is provided in **Table 3.1**.

Table 3.1 Summary Site History

Period	Activity	Source
1919	The western portion of the site (Lot A and B in DP 369710) was acquired from a Crown Grant by Alexander Edward Knauer.	Title Documentation

Period	Activity	Source
1966	Lot 85 DP 751270 was acquired from a Crown Grant by Commercial Banking Company of Sydney. A mortgage was placed for the property by Robert Glenroy Dunk and his wife Jennifer May Dunk.	Title Documentation
1967	Lot 86 in DP 751270 was acquired from a crown grant by James Stone.	Title Documentation
1969	The site appeared to be used for rural residential purposes. A number of buildings/structures were located in the western to north-western portions of the site, adjacent to the western site boundary.	Aerial Photograph (1969)
1969 to 1979	The site was owned by a number of private residents and various real estate, investment firms and private companies.	Title Documentation
1979	There had been an increase in development in the western portion of the site, with additional tracks and structures present. The vacant residential dwelling and garage appeared to be located in the south-eastern portion of the site.	Aerial Photograph (1979)
1979 to 1984	The site was owned by a number of private residents and various real estate, investment firms and private companies.	Title Documentation
1984	Additional buildings/structures were present across the western portion of the site. The driveway and round-a-bout to the vacant residence was present in the south-eastern portion of the site. There was an increase in the number of tracks, defined paddocks and fencing across the southern, south-western, northern and north-eastern portions of the site.	Aerial Photograph (1984)
1984 to 1994	The site was owned by a number of private residents and various real estate, investment firms and private companies.	Title Documentation
1994	The occupied residential dwelling and adjacent structures were present in the northern portion of the site. The buildings located in the western portion of the site had been redeveloped. The layout of the buildings in the western portion of the site appeared to be consistent with the layout of the buildings during the site inspection.	Aerial Photograph (1994)
1994 to 2005	The site was owned by a number of private residents and various real estate, investment firms and private companies.	Title Documentation
2005	The derelict shed and mounted shipping container were present in the southern portion of the site. The remainder of the site remained unchanged and appeared to be consistent with observations made during the site inspection.	Aerial Photograph (2005)
2005 to present	The site was owned by Tessonian Pty Ltd.	Title Documentation

3.10 Integrity Assessment

The information obtained from the 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.

4 Conceptual Site Model (CSM)

4.1 Potential Areas of Environmental Concern

Based on the history review and field observations from the site, areas of environmental concern have been identified and are presented in **Table 4.1**.

Table 4.1 Potential Areas of Environmental Concern and Associated Contaminants of Potential Concern

Area of Environmental Concern (AEC)
Former and current buildings, and materials stored in the western portion of the site.
The vacant residential dwelling, associated buildings and structures and materials stored in the south-eastern portion of the site.
The secondary residential dwelling, associated buildings and structures and materials stored in the northern portion of the site.
Former structures in the north-western portion of the site.
Derelict shed and raised shipping container in the southern portion of the site
Former pumping infrastructure in the vicinity of the ponds.
Fill material at the site
Historical use of the site for rural purposes

4.2 Contaminants of Potential Concern (CoPCs)

Based on the history review and field observations from the site, the contaminants of potential concern have been identified and are presented in **Table 4.2**.

Table 4.2 Potential Areas of Environmental Concern and Associated Contaminants of Potential Concern

Area of Environmental Concern (AEC)	Contaminants of Potential Concern (COPC)
Former and current buildings, and materials stored in the western portion of the site.	Heavy metals, TPH, BTEX/VOCs, PAHs/SVOCs, OCPs, PCBs, asbestos
The vacant residential dwelling, associated buildings and structures and materials stored in the south-eastern portion of the site.	Heavy metals, TPH, BTEX/VOCs, PAHs/SVOCs, OCPs, PCBs, asbestos
The secondary residential dwelling, associated buildings and structures and materials stored in the northern portion of the site.	Heavy metals, TPH, BTEX/VOCs, PAHs/SVOCs, OCPs, PCBs, asbestos
Former structures in the north-western portion of the site.	Heavy metals, TPH, BTEX, PAHs, asbestos
Derelict shed and raised shipping container in the southern portion of the site	Heavy metals, TPH, BTEX, PAHs
Former pumping infrastructure in the vicinity of the ponds.	Heavy metals, TPH, BTEX, PAHs
Fill material at the site	Heavy metals, TPH, BTEX, PAHs, OCPs, PCBs, asbestos
Historical use of the site for rural purposes	Heavy metals, OCPs

4.3 Potentially Contaminated Media

Potentially contaminated media present at the site include:

- fill material;
- surface soils;
- natural soils;
- surface water; and
- groundwater

Information obtained from the site history review (including the development of buildings and structures across the site) and observations made during the site inspection identified the potential for fill material at the site. Whilst it may be inferred that excavated materials were reused onsite, the actual source of the fill material is unknown. Based on this, fill material at the site has been identified as a potentially contaminated medium.

In addition, surface soils (whether fill material or natural) are considered to be a potentially contaminated medium based on the operation of the site for rural/pastoral

uses for over 40 years. The demolition of buildings and structures, the potential use of pesticides, the operation of infrastructure, as well as leaks and spills associated with the storage of plant, machinery, petroleum products and other potentially hazardous substances may have resulted in the contamination of surface soils across the site.

Based on the potential leachability of contaminants within fill material and other surface soils, and the historical uses of the site, vertical migration through the fill into the underlying natural soils may occur.

Surface water at the site is considered to have a low potential for contamination based on the surface water quality observed at the site during the inspection. The potential for the surface water to be contaminated is dependant upon the potential mobility of any soil contamination identified at the site.

Groundwater at the site is considered not to be a potentially contaminated medium based on the low to moderate permeability of the surface soils (clayey sands) (**Section 2.6**) and the anticipated depth to groundwater (greater than 50 m) (**Section 2.7**). However, the potential for groundwater to be contaminated is dependant upon the potential mobility of any soil contamination identified at the site.

4.4 Potential for Migration, Exposure Pathways and Receptors

Contaminants generally migrate from site via a combination of windblown dusts, rainwater infiltration, groundwater migration and surface water runoff. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid/liquid and mobility characteristics);
- The extent of the contaminants (isolated or widespread);
- The location of the contaminants (surface soils or at depth); and
- The site topography, geology, hydrology and hydrogeology.

Once a contaminant has migrated away from its source it has the potential to expose receptors (both human and environmental), exposure pathways may include inhalation, dermal contact and ingestion. Receptors can include people, including site workers or the general public, surface water bodies, groundwater and the populations that inhabit these formations.

The potential contaminants of concern identified as part of the site history review and site inspection are generally in both solid form (eg. asbestos) and liquid form (e.g. TPH).

Dense grass cover is present across the vast majority of the site which significantly reduces the potential for windblown contaminants to migrate from the site.

The sources of contaminants of potential concern (CoPC) identified as part of the site history review and the site inspection are associated with the main areas of environmental concern, and are distributed in the western, south-eastern, northern, north-western and southern portions of the site.

The primary receptors of any identified contamination at the site may include the current/future site occupants and the Nepean River, located approximately 160 m east of the site.

Given the low to moderate permeability of the natural clayey sand soils and the anticipated depth to groundwater, there is a low potential for vertical contaminant migration from soils to groundwater via infiltration.

5 Sampling and Analysis Plan

5.1 Data Quality Objectives

Data quality objectives (DQOs) were developed for the assessment, as discussed in the following sections.

5.1.1 State the Problem

It is understood that the preliminary contamination assessment was required to identify the potential for contamination at the site, and any possible constraints on future site development for residential land use.

The site had previously been used for rural residential purposes. The contamination status of the site is unknown.

The assessment has been undertaken by suitably qualified and experienced JBS personnel. The following personnel were involved in the assessment:

- Charlie Furr – principal scientist, project director who provided senior support and a peer review;
- Cathy Roberts – senior environmental scientist who provided a peer review; and
- Michael Parker – environmental scientist, project manager who managed the project, prepared the assessment report and completed the sampling component of the assessment.

A CSM was developed for the current assessment and is detailed in **Section 4**.

5.1.2 Identify the Decision

Based on the decision making process for assessing urban redevelopment sites detailed in DEC (2006), the following decisions must be made:

- Has the preliminary contamination report been undertaken in accordance with the *Guidelines for Consultants Reporting on Contaminated Sites* (EPA 1997)?
- Are there any aesthetic issues at the site?
- Are there any concentrations of contaminants with the soil which exceed the provisional phytotoxicity based investigation levels?
- Are there any unacceptable risks to likely future onsite receptors from soil?
- Are there any issues relating to the local areas background soil concentrations that exceed appropriate soil criteria?
- Are there any impacts of chemical mixtures?
- Is there any evidence of, or potential for, migration of contaminants from the site?
- Is a site management strategy required?
- Is there any evidence of, or the potential for, the migration of contamination from the site?

Given the preliminary nature of the assessment and the limited soil sampling undertaken at the site, the decision whether a site management strategy is required and an assessment of site suitability have not been made. The objective of the assessment was

to identify the potential for contamination at the site, and any possible constraints on future site development for rural residential land use.

5.1.3 Identify Inputs to the Decision

Inputs identified to provide sufficient data to make the decisions nominated above include:

- Site condition information and site historical information;
- Installation of hand augered boreholes to allow soil sampling and interpretation of the site geology; and
- Analysis and reporting of the concentrations of the CoPC within the soil samples collected to assess against respective assessment criteria.

5.1.4 Define the Study Boundaries

The site is described as Lot A in DP 369710, Lot B in DP 369710, Lot 85 DP 751270 and Lot 86 in DP 751270 as shown in **Figure 2**. The study targeted the potential contamination issues detailed in **Section 4.1**.

The vertical extent of the assessment was extended to 1.0 m below ground surface or prior refusal.

The current assessment is restricted to the condition of the site at the time of the field activities undertaken in July 2010.

Due to the nature of potential contaminants identified, seasonality was not assessed as part of this assessment.

5.1.5 Develop a Decision Rule

Soil analytical data was assessed against DECCW endorsed criteria including:

- *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme*, 2nd Edition, NSW DEC, 2006 – Health based Investigation Levels for: Residential with gardens and accessible soil, Column 1 (DEC 2006);
- *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme*, 2nd Edition, NSW DEC, 2006 – Provisional Phytotoxicity-based Investigation Levels, Column 5 (DEC 2006);
- *Contaminated Sites: Guidelines for Assessing Service Station Sites*, NSW EPA, 1994 (EPA 1994);
- *National Environment Protection (Assessment of Site Contamination) Measure*, National Environment Protection Council, 1999 (NEPC 1999);
- *Contaminated Sites: Sampling Design Guidelines*, September 1995 (EPA 1995);
- *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*, November 1997 (EPA 1997); and
- *Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination*, NSW DEC 2007 (DEC 2007).

The decision rules adopted to answer the decisions identified in **Section 5.1.2** are summarised in **Table 5.1**.

Table 5.1 Summary of Decision Rules

Decision Required to be Made	Decision Rule
1. Are there any unacceptable risks to future onsite receptors from soils?	Soil analytical data were compared against DECCW endorsed criteria. Statistical analyses of the data in accordance with relevant guidance documents was undertaken, if appropriate, to facilitate the decision. The following statistical criteria were adopted with respect to soils: <u>Either</u> : the reported concentrations are all below the site criteria; <u>Or</u> : the average site concentration for each analyte must be below the adopted site criterion; no single analyte concentration exceeds 250% of the adopted site criterion; and the standard deviation of the results must be less than 50% of the site criterion. <u>And</u> : the 95% upper confidence limit (UCL) of the average concentration for each analyte must be below the adopted site criterion ⁴ . If the statistical criteria stated above are satisfied, the answer to the decision is No. If the statistical criteria are not satisfied, the answer to the decision is Yes.
2. Are there any issues relating to the local area background soil concentrations that exceed appropriate soil criteria?	If the 95% UCL of surface soils exceeds published background concentrations (NEPC 1999), the answer to the decision is Yes. Otherwise, the answer to the decision is No.
3. Are there any chemical mixtures?	Are there more than one group of contaminants present which increase the risk of harm? If there is, the answer to the decision is Yes. Otherwise, the answer to the decision is No.
4. Are there any aesthetic issues?	If there are any aesthetic issues, the answer to the decision is Yes. Otherwise, the answer to the decision is No.
5. Is there any evidence of, or potential for, migration of contaminants from the site?	Are contaminants present at concentrations exceeding published background concentrations (NEPC 1999)? If yes, the answer to the decision is Yes. Otherwise, the answer to the decision is No.
6. Is a site management strategy required?	Was the answer to any of the above decisions Yes? If yes, a site management strategy is required. If no, a site management strategy is not required.
7. Is there any evidence of, or the potential for, offsite migration of contamination?	If there is, the answer to the decision is Yes. Otherwise, the answer to the decision is No.

5.1.6 Specify Limits of Decision Error

The purpose of this step was to establish the decision maker's tolerable limits on decision errors, which are used to establish performance goals for limiting uncertainty in the data. Data generated during this project must be appropriate to allow decisions to be made with confidence.

Specific limits for this project have been adopted in accordance with the appropriate guidance from the NSW DECCW, NEPC (1999), DEC (2007), appropriate indicators of data quality (DQIs used to assess quality assurance / quality control, see **Section 5.2**) and standard JBS Environmental procedures for field sampling and handling

In addition, AS4482.1-2005 (AS 2005⁵) nominates two types of errors that require assessment:

- A. Deciding that the site is acceptable when it actually is not; and
- B. Deciding that the site is unacceptable when actually it is.

It is recommended in AS4482.1 that limits of 5% probability for type A errors and 20% probability for type B errors is set during environmental assessments. These recommendations have been adopted for this assessment.

⁴ Sampling Design Guidelines. NSW EPA. September 1995. (EPA 1995)

⁵ Guide to the sampling and investigation of potentially contaminated soil – Non-volatile and semi-volatile compounds, Australian Standards Ref: AS4482.1-2005 (AS 2005).

The following relationship is provided to determine if sufficient soil samples have been collected during the assessment to meet the above limits of decision error:

$$n = 6.2 \sigma^2 / (Cs - \mu)^2$$

where: n = number of samples needed

σ = estimated standard deviation of contaminant concentration in sampling area

C_s = acceptable limit (mg/kg)

μ = estimated average concentration in sampling area (mg/kg)

The limits on decision errors for soil were assessed with reference to QA/QC results compared against the DQIs as well as confirming, retrospectively, that an appropriate number of soil samples (when ' $n < 1$ '), were collected, assessed using the above formula.

5.1.7 Optimise the Design for Obtaining Data

Various strategies for developing a statistically based sampling plan are identified in EPA (1995), including judgemental, random, systematic and stratified sampling patterns.

Based on the preliminary nature of the assessment, the soil sampling works were undertaken to indicate the potential for contamination rather than for an assessment of site suitability. As a result, the number of soil sampling points was not in accordance with EPA (1995).

Based on the site inspection and known history of the site, stratified systematic sampling was considered the most appropriate for the current assessment. Samples were collected from 15 locations (as shown in **Table 5.3**) on an approximate 267 m grid. The sampling strategy results in a 95% confidence of detecting a circular hotspot with a diameter of 158 m. Given the preliminary nature of this assessment, this sampling density is considered adequate for the purposes of the assessment.

5.2 Data Quality Indicators

Data Quality Indicators (DQIs) were developed to provide assessment of the quality of data reported to meet the site-specific objectives of Environmental Site Assessments. Precision, accuracy, representativeness, comparability, completeness and sensitivity (PARCCS parameters) are all indicators of data quality.

Specific limits for this project are in accordance with the appropriate guidance from the NSW DECCW, NEPC (1999), ANZECC/ARMCANZ (2000), DEC (2007), appropriate indicators of data quality (DQIs used to assess quality assurance / quality control) and standard JBS Environmental procedures for field sampling and handling.

The pre-determined Data Quality Indicators (DQIs) established for the project are discussed below in relation to the PARCCS parameters, and are shown in **Table 5.2**

- **Precision** - measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples;
- **Accuracy** - measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is

assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards;

- **Representativeness** –expresses the degree which sample data accurately and precisely represent a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy;
- **Comparability** - expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods;
- **Completeness** – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study; and
- **Sensitivity** – expresses the appropriateness of the chosen laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

Table 5.2 Summary of Quality Assurance / Quality Control Program

Data Quality Indicator	Frequency	Data Quality Criteria
Precision		
Blind duplicates (intra laboratory)	1/10 samples analysed	<50% RPD ¹
Blind duplicates (inter laboratory)	1/20 samples analysed	<50% RPD ¹
Laboratory duplicates	1/20 samples analysed	<50% RPD ¹
Accuracy		
Surrogate spikes	All organic analyses	60-140%
Laboratory control samples	1/20 soil samples analysed	60-140%
Matrix spikes	1/20 soil samples analysed	60-140%
Representativeness		
Sampling appropriate for media and analytes	All Samples	-
Samples extracted and analysed within holding times.	All Samples	Organics (14 days), inorganics (6 months)
Laboratory blanks	1 per lab batch	<LOR
Trip spikes	1 per sampling event	60-140% recovery
Trip blanks	1 per sampling event	<LOR
Rinsate blanks	1 per sampling event	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All Samples	All samples
Standard analytical methods used for all analyses	All Samples	All samples
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples
Limits of reporting appropriate and consistent	All Samples	All samples
Completeness		
Sample description and COCs completed and appropriate	All Samples	All samples
Appropriate documentation	All Samples	All samples
Satisfactory frequency and result for QC samples	All QA/QC samples	-
Data from critical samples is considered valid	-	Critical samples valid
Sensitivity		

Data Quality Indicator	Frequency	Data Quality Criteria
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All Samples	LOR < Site assessment criteria

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

5.3 Soil Sampling Methodology

Soil samples across the site were collected from hand augered boreholes from the surface (0-0.1 m), 0.3-0.4 m, 0.4-0.6 m, and at every 0.5 m thereafter and/or where each distinct layer of fill material was noted until a maximum depth of 1.0 m or prior refusal. Soil samples were collected from the head of the hand auger while wearing a new pair of disposable nitrile gloves for each sample.

Soil samples were collected in general accordance with:

- NSW Environment Protection Authority (EPA) *Contaminated Sites: Guidelines for Assessing Service Station Sites (1994)*;
- NEPM (1999) Schedule B (2) *Guideline on Data Collection, Sample Design and Reporting*;
- Australian Standard AS4482.1-2005 *Guide to the sampling and investigation of potentially contaminated soil – Non-volatile and semi-volatile compounds*; and
- Australian Standard AS4482.2-1999 *Guide to the sampling and investigation of potentially contaminated soil – Volatile compounds*.

Collected soil samples were immediately transferred to sample containers of appropriate composition (glass jars sealed with Teflon-lined screw closures and plastic 'ziplock' bags for asbestos). Sample labels recorded the JBS job number; sample identification number; and date of sampling.

Sample containers were subsequently transferred to a chilled 'esky' for sample preservation prior to and during shipment to the testing laboratory. The sample containers were transported under standard JBS chain-of-custody protocols to Envirolab Services Pty Ltd, which is certified for the required analysis by National Association of Testing Authority (NATA). The following information was included on the chain-of-custody form:

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

Not all soil samples collected were analysed. Samples were analysed in accordance with the analytical schedule (**Section 5.3**). All samples will remain at the primary laboratory for a period of two months from delivery, allowing for further sample analysis if required

following receipt of initial results, provided the required analytes remain within recommended holding times.

5.4 Decontamination of Soil Sampling Equipment

The following procedure was used to clean non-disposable soil sampling equipment (hand auger) prior to the collection of each sample:

- Scrubbing with a plastic brush to remove gross contamination;
- Bucket wash with Decon 90 detergent and potable (tap) water mix;
- Bucket rinse with potable (tap) water; and
- Air drying.

5.5 Field PID Screening of Soil Samples

Soil samples were screened on site during works using a calibrated photo-ionisation detector (PID) to assess the presence of volatile organic compounds (VOCs) including petroleum hydrocarbons. Samples obtained for PID screening were placed in a sealed plastic bag for a period of approximately 5 minutes to equilibrate prior to a PID being attached to the bag. Readings were then monitored for a period of approximately 30 seconds or until values stabilised and the stabilised/highest reading was recorded on the field borehole logs. Calibration records are included in **Appendix H**.

5.6 Laboratory Analyses

JBS Environmental contracted Envirolab Services Pty Ltd (Envirolab) as the primary laboratory for the required analyses. The secondary laboratories contracted for the works were SGS Environmental Pty Ltd (SGS) (chemical analyses only) and Pickford and Rhyder Consulting Pty Ltd (asbestos only). All laboratories were NATA registered for the required analyses.

In addition, each laboratory was required to meet JBS Environmental's internal QA/QC requirements. Laboratory analysis of samples was conducted with reference to COPCs listed in **Table 5.3**.

Table 5.3 Analytical Schedule

Area of Environmental Concern (AEC)	Sampling Locations	No. of Analyses (excl. QA/QC)
Former and current buildings, and materials stored in the western portion of the site.	BH01 to BH04	Heavy metals – 5 TPH – 5 BTEX – 5 VOCs – 4 PAHs – 5 SVOCs – 4 OCPs – 5 PCBs – 5 Asbestos – 4 ASLP – 1 TCLP – 1
The vacant residential dwelling, associated buildings and structures and materials stored in the south-eastern portion of the site.	BH06 and BH07	Heavy metals – 2 TPH – 2 BTEX – 2 VOCs – 2 PAHs – 2 SVOCs – 2 OCPs – 2 PCBs – 2 Asbestos – 2 ASLP – 1 TCLP – 1

Area of Environmental Concern (AEC)	Sampling Locations	No. of Analyses (excl. QA/QC)
The secondary residential dwelling, associated buildings and structures and materials stored in the northern portion of the site.	BH08	Heavy metals – 1 TPH – 1 BTEX – 1 VOCs – 1 PAHs – 1 SVOCs – 1 OCPs – 1 PCBs – 1 Asbestos – 1 ASLP – 1 TCLP – 1
Former structures in the north-western portion of the site.	BH11	Heavy metals – 1 TPH – 1 BTEX – 1 PAHs – 1 OCPs – 1 PCBs – 1 Asbestos – 1
Derelict shed and mounted shipping container in the southern portion of the site	SS01	Heavy metals – 1 TPH – 1 BTEX – 1 PAHs – 1
Former pumping infrastructure in the vicinity of the ponds.	BH05	Heavy metals – 1 TPH – 1 BTEX – 1 PAHs – 1 OCPs – 1 PCBs – 1 Asbestos – 1
Fill material at the site	BH09	Heavy metals – 2 TPH – 2 BTEX – 2 PAHs – 2 OCPs – 2 PCBs – 2 Asbestos – 2 VOCs – 1 SVOCs – 1
Historical use of the site for rural purposes	BH10, BH12 to BH15	Heavy metals – 5 TPH – 5 BTEX – 5 PAHs – 5 OCPs – 5 PCBs – 5 Asbestos – 5

6 Assessment Criteria

6.1 Regulatory Guidelines

The assessment was undertaken with consideration to aspects of the following guidelines, as relevant:

- *Contaminated Sites: Guidelines for Assessing Service Station Sites*, NSW EPA, 1994 (EPA 1994).
- *Contaminated Sites: Sampling Design Guidelines*, NSW EPA, 1995 (EPA 1995)
- *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*, NSW EPA, 1997 (EPA 1997).
- *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme, 2nd Edition*, NSW DEC, 2006 (DEC 2006).
- *Contaminated Sites: Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997*, NSW DECC, 2009 (DECC 2009).
- *National Environment Protection (Assessment of Site Contamination) Measure*, National Environment Protection Council, 1999 (NEPC 1999).
- *Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites*, Australian and New Zealand Environment and Conservation Council and the National Health and Medical Research Council, 1992 (ANZECC/NHMRC 1992).
- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*. Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, Paper No 4, 2000 (ANZECC/ARMCANZ 2000).
- *Australian Drinking Water Guidelines*, National Health and Medical Research Council and Agriculture and Resource Management Council of Australia and New Zealand, 2004 (NHMRC/NRMMC 2004).
- *Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards*, Department of Health and Ageing and EnHealth Council, Commonwealth of Australia, June 2002 (EnHealth 2002).
- *Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination*, NSW DECC, March 2007 (DECC 2007).

6.2 Soil Criteria

The site is proposed to be used for residential purposes. Given the proposed land use of the site, and in accordance with the decision process for assessment of urban redevelopment sites (DEC 2006), concentrations of contaminants in the soil were compared against the provisional phytotoxicity-based investigation levels (PILs), health-based investigation levels for standard residential land use (HIL-A), and the threshold concentrations for sensitive land use as listed in **Table 6.1**.

Table 6.1 Soil Criteria (all units in mg/kg unless otherwise stated)

	Limit of Reporting	Provisional Phytotoxicity-based Investigation Levels (PILs) ¹	Residential Health-Based Investigation Level (HIL-A) ²	Threshold Concentrations for Sensitive Land Use ³
METALS				
Arsenic	4.0	20	100	-
Cadmium	0.5	3	20	-
Chromium (VI)	1.0	400	100	-
Copper	1.0	100	1,000	-
Nickel	1.0	60	600	-
Lead	1.0	600	300	-
Zinc	1.0	200	7,000	-
Mercury (inorganic)	0.1	1	15	-
PETROLEUM HYDROCARBONS				
C6 – C9 Fraction	25	-	-	65
C10 – C36 Fraction	250	-	-	1000
BTEX and VOLATILE ORGANIC COMPOUNDS				
Benzene	0.5	-	-	1
Toluene	0.5	-	-	1.4
Ethylbenzene	1.0	-	-	3.1
Total Xylenes	3.0	-	-	14
POLYCYCLIC AROMATIC HYDROCARBONS and SEMI VOLATILE ORGANIC COMPOUNDS				
Benzo(a)pyrene	0.05	-	1	-
Total PAHs	1.55	-	20	-
ORGANOCHLORINE PESTICIDES				
Aldrin + Dieldrin	0.2	-	10	-
Chlordane	0.2	-	50	-
DDT + DDD + DDE	0.3	-	200	-
Heptachlor	0.1	-	10	-
POLYCHLORINATED BIPHENYLS				
Total PCBs	0.8	-	10	-
ASBESTOS				
Asbestos	0.1 (g/kg)	-	PRESENCE	-

¹ Column 5 (PILs), Provisional Phytotoxicity-based Investigation Levels (DEC 2006)

² Column 1 (HIL - A), Health-based Investigation Levels (DEC 2006)

³ Table 3 (EPA 1994)

The presence of any aesthetic issues (including soil staining and odours emanating from the site soils) which are a result of anthropogenic contamination will also be addressed.

7 Quality Assurance / Quality Control

7.1 Soil QA/QC Results

The QA/QC results for soil are summarised in **Table 7.1** and discussed in **Section 7.2** below. Detailed QA/QC results are included in **Appendix I**.

Table 7.1 - Soil QA/QC Results Summary

Data Quality Indicator	Frequency	Results	DQI met?
Precision			
Soil blind duplicates (intra laboratory)	2/18 samples analysed	0 – 128% RPD	Partial ¹
Soil split duplicates (inter laboratory)	1/18 soil samples analysed	0 – 29% RPD	Yes
Laboratory duplicates	2/18 soil samples analysed	0 – 49% RPD	Yes
Accuracy			
Surrogate spikes	All organic analyses	0 – 140% recovery	Partial ¹
Laboratory control samples	2/18 soil samples analysed	62 – 140% recovery	Partial ¹
Matrix spikes	2/18 soil samples analysed	28 – 122% recovery	Partial ¹
Representativeness			
Sampling appropriate for media and analytes	All samples	All sampling conducted in accordance with JBS standard operating procedures	Yes
Samples extracted and analysed within holding times.	All samples	All samples were extracted and analysed between 2 and 8 days of sampling	Yes
Laboratory blanks	1 per laboratory batch	<LOR	Yes
Trip spike	1 per sample batch	79-99%	Yes
Trip blank	1 per sample batch	<LOR	Yes
Rinsate Blank	1 per sample batch	<LOR	Yes
Comparability			
Standard operating procedures used for sample collection & handling	All samples	The sampling event was conducted by a single field staff member using the same standard operating procedures throughout works	Yes
Standard analytical methods used	All samples	Standard analytical methods used as listed in Table 6.1 .	Yes
Consistent field conditions, sampling staff and laboratory analysis	-	Sampling was conducted by a single JBS field staff member using standard operating procedures in the same conditions throughout the works. Laboratories remained consistent throughout the assessment.	Yes
Limits of reporting appropriate and consistent	All samples	Limits of reporting were consistent and appropriate.	Yes
Completeness			
Sample description & COCs completed	-	All bore logs and COCs were completed appropriately.	Yes
Appropriate documentation	-	All appropriate field documentation is included in the Appendices.	Yes
Satisfactory frequency/result for QC samples	All QA/QC samples	The QC results are considered adequate for the purposes of the assessment.	Yes
Data from critical samples is considered	All samples	Data from critical	Yes

valid		samples is considered valid.	
Sensitivity			
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All Samples	All limits of reporting were less than the adopted site assessment criteria	Yes

¹ See discussion of DQI exceedances below.

7.2 Discussion of QA/QC Results

Precision

Analysis of field intra-laboratory duplicates was conducted at a rate (11.1%) exceeding 1 in 10 samples analysed (10%). JBS collected and analysed a maximum of 18 primary soil samples across the site and 2 intra-laboratory duplicates were analysed thereby meeting the required frequency (**Table 5.2**). Exceedances to the precision DQIs for the assessment are summarised below.

- An elevated RPD calculation of 128% was reported for intra-laboratory duplicate pair BH06-0.0-0.1/QC03 for copper.

The elevated soil RPDs noted may be due to the heterogeneous nature of fill material. The variability of these results has been taken into consideration in the assessment of analytical results. The results discussed above are considered not to have a significant impact on the conclusions of the assessment as the contaminant concentrations are well below the nominated assessment criteria.

Analysis of field inter-laboratory duplicates was conducted at a rate (5.6%) exceeding 1 in 20 samples analysed (5%). JBS collected and analysed a maximum of 18 primary soil samples across the site and 1 inter-laboratory duplicate was analysed thereby meeting the required frequency (**Table 5.2**). There were no reported exceedances to the precision DQIs within the inter-laboratory duplicate RPD calculations.

There were no reported exceedances to the precision DQIs for any of the laboratory duplicate RPD calculations.

Accuracy

Surrogate spikes were included with all organic analyses conducted during the assessment. The recoveries for the surrogate spikes were generally within the limits specified within the accuracy DQIs (60 – 140% recovery). Where exceeded, the surrogate spike recoveries were either attributed to interference from the sample matrix or were within accordance with the laboratory NATA endorsed limits.

Analysis of laboratory control sample (LCS) recoveries was conducted at a rate (11.1%) exceeding 1 per 20 samples analysed (5%). The LCS recoveries were within the limits specified within the accuracy DQIs (60 – 140% recovery).

Analysis of matrix spike recoveries was conducted at a rate (11.1%) exceeding 1 per 20 samples analysed (5%). The matrix spike recoveries were within the limits specified generally within the accuracy DQIs (60 – 140% recovery). Where exceeded, the surrogate spike recoveries were either attributed to interference from the sample matrix or were within accordance with the laboratory NATA endorsed limits.

Representativeness

All soil samples were collected via hand auger using methods considered appropriate for all the target analytes of the assessment.

All soil samples were extracted and analysed within holding times.

Laboratory blank analysis was conducted for the batch of samples submitted. No target analytes were detected above the laboratory LOR within any of the laboratory blanks.

A trip spike was submitted with the samples collected during the current assessment. The reported recoveries of BTEX compounds were within the acceptable limits specified within the DQIs.

A trip blank was submitted with the samples collected during the current assessment. There were no reported concentrations of BTEX compounds above the laboratory LOR in the trip blank, and were therefore within the limits specified in the DQIs.

A rinsate blank was collected from decontaminated non-disposable soil sampling equipment (hand auger) used during the assessment and analysed. There were no reported concentrations of heavy metals above the laboratory LOR within the rinsate blank, and were therefore within the limits specified in the DQIs.

Comparability

Experienced JBS personnel undertook all sampling in accordance with standard JBS sampling methods.

Both the primary and secondary laboratories were NATA accredited for all methods used.

All field works and sampling were undertaken by a single, experienced JBS field scientist.

The laboratory LORs are generally consistent and are considered appropriate.

Completeness

Samples were transported under full chain of custody (COC) documentation. The COC documentation was completed correctly and the selected analyses were correctly conducted.

All field documentation is complete and is considered to be correct. Calibration and decontamination records are included in **Appendix H**.

The frequency of analysis and result for all QC samples are considered to be appropriate.

Sensitivity

Laboratory analysis methods for all soil contaminants adopted during the assessment used limits of reporting significantly less than the site assessment criteria to ensure that contaminant concentrations could be confidently identified as being less than the adopted site assessment criteria.

7.3 QA/QC Assessment

The results of the field and laboratory QA/QC program indicate that the data obtained from this assessment generally met the predetermined Data Quality Indicators (DQIs) or, where the DQIs were exceeded, did not indicate systematic sampling or analytical errors. As such, the data are considered to be of adequate quality to be relied on for the purposes of assessing the environmental condition at the site.

7.4 Assessment of Decision Rule

As per the stated acceptance limits on decision errors nominated, an assessment of compliance has been undertaken using statistical analysis of the soil data obtained during the assessment (**Appendix L**). These are summarised in **Tables 7.2** and **7.3** for each

analyte recorded above the detection limits. For the analytes, the applicable health based assessment criteria/threshold concentrations have been adopted based upon the proposed standard residential land use.

Table 7.2 - Assessment of compliance with limits on decision error – Fill material

Constituent	μ (mg/kg)	σ (mg/kg)	C_s (mg/kg)	Required Samples (n)
Arsenic	4.833	2.167	100	<1
Chromium (total)	12.667	4.292	120 000	<1
Copper	21.750	11.678	1 000	<1
Lead	21.000	7.495	300	<1
Nickel	9.917	7.103	600	<1
Zinc	102.167	63.084	7 000	<1
TPH $C_{10}-C_{36}$	174.583	171.762	1 000	<1
Benzo(a)pyrene	0.048	0.079	1	<1
PAHs (total)	1.019	0.844	20	<1

Table 7.3 - Assessment of compliance with limits on decision error – Natural Soils

Constituent	μ (mg/kg)	σ (mg/kg)	C_s (mg/kg)	Required Samples (n)
Arsenic	5.000	3.688	100	<1
Chromium (total)	10.833	7.305	120 000	<1
Copper	3.750	6.064	1 000	<1
Lead	12.667	6.890	300	<1
Nickel	2.167	1.941	600	<1
Zinc	13.167	13.862	7 000	<1

A review of the results in **Tables 7.2** and **7.3** indicates that sufficient samples have been analysed for the decision limits to be met for all contaminants in soils.

8 Discussion of Soil Results

8.1 Field Observations

Several material types were identified during field activities conducted on 20 and 21 July 2010. Description of the different material types are detailed in the borehole logs included in **Appendix J**, and summarised below:

- **FILL** – Fill material comprised of gravelly sands and clays was present in the vicinity of a number of buildings and structures across the site. The fill material was generally grey to brown in colour, heterogenous, and dry to wet. Clayey fill materials were generally of low to moderate plasticity. Sandy fill materials were generally moderately loose to loose and poorly sorted. Roots, root fibres and fine to coarse gravels and cobbles of shale, sandstone and ironstone were present within the fill material. The fill material was encountered at depths from the surface to greater than 0.9 m bgs.
- **SILTY SAND**: Natural silty sand soils were encountered across the western portion of the site. The silty sand soils were grey to brown, homogenous, moist, moderately loose, fine grained and well sorted. Root fibres and degraded organic matter was present within the silty sand. The silty sand soils were encountered at depths ranging between 0.12 m and 0.4 m bgs.
- **CLAYEY SAND/SANDY CLAY**: Natural clayey sand and sandy clay soils were encountered across the site. The natural sand and clay soils were either grey-brown or orange-brown with grey and red mottles, homogenous, damp to moist, and exhibited varying plasticity. Root fibres and fine to coarse gravels of sandstone and ironstone were present within the natural clay and sand soils. The clayey sand and sandy clay soils were encountered at the site surface to depths greater than 1 m bgs.
- **SILTY CLAY**: Natural silty clay soils were encountered across the site. The silty clay soils were generally orange-brown with red and grey mottling, homogenous, damp, stiff to very stiff and exhibited varying degrees of plasticity. Root fibres and fine to coarse gravels of sandstone and ironstone were present within the silty clay soils. The silty clay soils were encountered at depths ranging between 0.2 m and greater than 1.0 m bgs.
- **WEATHERED SANDSTONE**: Weathered sandstone bedrock was encountered underlying the fill materials and natural soils across the site. The weathered sandstone was generally orange-brown with red and grey mottles, homogenous, dry to moist with fine to coarse sandstone gravels present. The weathered sandstone was encountered at depths ranging between 0.25 m to greater than 1 m bgs.
- **SANDSTONE**: Sandstone bedrock was encountered across the site. Sandstone outcrops were observed in the central to southern portions of the site. The sandstone bedrock was generally orange-brown in colour with red and light grey stratification. The sandstone bedrock was encountered at the site surface to depths greater than 1.0 m bgs.

No staining or emanating odours which may have resulted from contamination were observed within the fill materials or natural soils across the site during the current assessment.

8.2 Soil Analytical Results

The soil sampling locations are shown on **Figures 2** and **3** and summarised laboratory results are presented in **Table A**. Detailed laboratory reports and chain of custody documentation is provided in **Appendix K**.

The summary laboratory results are discussed in the following sections.

8.2.1 Asbestos

Suspected asbestos fibre cement sheeting was observed along the walls and eaves of the secondary residence in the northern portion of the site. Suspected asbestos fibre cement sheeting was also observed in the eaves of the vacant residence as well as for the backing board of the electrical distribution box for the vacant residence in the south-eastern portion of the site.

Suspected asbestos containing materials (ACM) were not observed on the site surface during the site inspection and field works.

There were no reported concentrations of asbestos or asbestos fibres above the laboratory LOR within any of the soil samples collected during the assessment and submitted for laboratory analysis.

8.2.2 Heavy Metals

An elevated concentration of zinc exceeding the provisional phytotoxicity-based investigation levels (PILs) was reported in the following sample.

- BH04-0.0-0.1 – 220 mg/kg

It is noted that the phytotoxicity-based criteria are provisional in nature only, and have “...significant limitations because phytotoxicity depends on soil and species parameters in ways that are not fully understood” (DEC 2006). The provisional phytotoxicity-based criteria are considered to be overly conservative, as healthy vegetation cover was present at the surface in the sample location in which the PIL exceedence was reported. In addition, the reported concentration of zinc was within the natural background ranges as reported in NEPC 1999. The reported zinc concentrations exceeding the PILs are considered not to pose an unacceptable risk to the normal growth of vegetation at the site.

There were no reported concentrations of heavy metals exceeding the PILs within the remaining soil samples collected during the assessment and submitted for laboratory analysis.

The concentrations of all heavy metals were all reported either below the nominated assessment criteria for standard residential land use or laboratory LOR.

8.2.3 TPH

There were no reported concentrations of TPH above the nominated assessment criteria for standard residential land use within any of the soil samples submitted for laboratory analysis.

8.2.4 BTEX Compounds

There were no reported concentrations of BTEX compounds above the laboratory LOR within any of the soil samples submitted for laboratory analysis.

8.2.5 VOCs

There were no reported concentrations of VOCs above the laboratory LOR within any of the soil samples submitted for laboratory analysis.

8.2.6 PAHs

There were no reported concentrations of PAHs above either the nominated assessment criteria for standard residential land use within any of the soil samples submitted for laboratory analysis.

8.2.7 SVOCs

There were no reported concentrations of SVOCs above the laboratory LOR within any of the soil samples submitted for laboratory analysis.

8.2.8 OCPs

There were no reported concentrations of OCPs above the laboratory LOR within any of the soil samples submitted for laboratory analysis.

8.2.9 PCBs

There were no reported concentrations of PCBs above the laboratory LOR within any of the soil samples submitted for laboratory analysis.

8.3 Leachate Analytical Results

8.3.1 TCLP Heavy Metals

The following concentration ranges for heavy metals were reported within the leachates from the selected samples submitted for toxicity characteristic leaching procedure (TCLP).

- Copper – 0.02 to 0.04 mg/L; and
- Zinc – 0.2 to 0.5 mg/L

The concentrations of the remaining heavy metals were below the laboratory LOR within the leachates for the samples submitted for TCLP analysis.

8.3.2 ASLP Heavy Metals

The following range of concentrations of heavy metals were reported within the leachates from the selected samples submitted for Australian Standard Leaching Procedure (ASLP).

- Arsenic – <1 to 2 µg/L;
- Cadmium – <0.1 to 0.3 µg/L;
- Chromium – <1 to 7 µg/L;
- Copper – 8 to 18 µg/L;
- Lead – 3 to 5 µg/L;
- Nickel – 1 to 8 µg/L; and
- Zinc – 190 to 290 µg/L.

The concentrations of mercury were below the laboratory LOR within the leachates for the samples submitted for ASLP analysis.

8.3.3 TCLP PAHs

There were no reported concentrations of PAHs above the laboratory LOR within any of the soil samples submitted for TCLP analysis.

8.3.4 ASLP PAHs

There were no reported concentrations of PAHs above the laboratory LOR within any of the soil samples submitted for ASLP analysis.

8.4 Updated Conceptual Site Model

8.4.1 Areas of Environmental Concern

Based on the site history review, field observations, and soil analytical data obtained during the assessment, and with reference to the limitations in **Section 12**, areas of environmental concern have been identified and are presented in **Table 8.1**.

Table 8.1 - Areas of Environmental Concern

Area of Environmental Concern
Surfaces and construction materials of the secondary residence in the northern portion of the site.
Surfaces and construction materials of the vacant residence in the south-eastern portion of the site.
Stables, fencing and timber structures across the site

8.4.2 Contaminants of Potential Concern

Based on the site history review, field observations from the site, and soil analytical data obtained during the investigation, the contaminants of potential concern have been identified and are presented in **Table 8.2**.

Table 8.2 - Areas of Environmental Concern and Associated Contaminants of Potential Concern

Area of Environmental Concern	Contaminants of Potential Concern (CoPCs)
Surfaces and construction materials of the secondary residence in the northern portion of the site.	Lead and asbestos
Surfaces and construction materials of the vacant residence in the south-eastern portion of the site.	Lead and asbestos
Stables, fencing and structures across the site	Lead

8.4.3 Contaminated Media

Contamination in surface soils, fill materials or natural soils was not identified during the assessment. Based on observations made during the site inspection, potentially contaminated media at the site may comprise:

- Surface soils in the vicinity of the secondary residence in the northern portion of the site;
- Surface soils in the vicinity of the vacant residence in the south-eastern portion of the site; and
- Surface soils in the vicinity of stables, fencing and structures across the site, particularly where flaking paint is evident.

8.4.4 Potential for Migration, Exposure Pathways and Receptors

The potential contaminants identified as part of the site history review and site inspection during the assessment, are present in solid form (e.g. asbestos).

The sources of contaminants of potential concern (CoPC) identified as part of the site history review and the site inspection are associated with construction materials and painted structures across the site.

The exposure pathways of the identified contamination at the site may include inhalation, dermal contact and ingestion. The primary receptors of any identified contamination at the site may include the current/future site occupants.

9 Site Characterisation

Based on the decision making process for assessing urban redevelopment sites detailed in DEC (2006) and discussed in **Section 5.1.2**, the decisions requiring to be made are discussed below.

9.1 Reporting in accordance with EPA requirements

The report has been prepared with consideration of the requirements of EPA 1997.

9.2 Aesthetic issues have been addressed

No unexpected staining or odours that may have resulted from contamination were observed within the fill materials or natural soils across the site during the assessment. As such, the aesthetic issues at the site have been addressed.

9.3 Assessment of the risk to future onsite receptors from the soil

A review of laboratory analytical results indicates that elevated concentrations of zinc exceeding the PILs were present within the surface soils at one sampling location in the western portion of the site. The provisional phytotoxicity criteria are considered to be overly conservative, as healthy vegetation cover was present at the surface in which the PIL exceedences were reported. The reported zinc concentration exceeding the PIL appears not to pose an unacceptable risk to the normal growth of vegetation at the site.

Laboratory results indicate that soils and materials at the site (both fill and natural) have not been impacted with heavy metals, TPH, BTEX, VOCs, PAHs, SVOCs, OCPs, and PCBs, as all results were either below the laboratory limit of reporting or the nominated assessment criteria for standard residential land use.

9.4 Assessment of background soil concentrations against the appropriate investigation levels

Laboratory results indicate that natural soils underlying the site have not been impacted with asbestos, heavy metals, TPH, BTEX, VOCs, PAHs, SVOCs, OCPs, and PCBs, as all results were either below the nominated assessment criteria for standard residential land use or the laboratory limit of reporting.

9.5 Assessment of chemical mixtures

No chemical mixtures were identified in relation to the contaminants of concern assessed across the site.

9.6 Assessment of the potential for the migration of contaminants from the site

There were no reported concentrations of heavy metals, TPH, BTEX, VOCs, PAHs, SVOCs, OCPs, and PCBs above the nominated assessment criteria for standard residential use within the surface and near surface soils across the site.

Based on the low to moderate permeability of the sand and clay soils present at the site, the anticipated depth to groundwater, and the concentrations of heavy metals and PAHs within the leachates from the selected soil samples submitted for TCLP and ASLP analysis, the potential for vertical contaminant migration from soils to groundwater is considered to be low.

Based on the presence of long grass cover across the majority of the site surface, and the concentrations of heavy metals and PAHs within the leachates for soil samples submitted for TCLP and ASLP analysis, the potential for contaminant migration from the soils to the surface water bodies is considered to be low.

10 Conclusions

Based on the results of the investigation undertaken at the site, and subject to the limitations stated in **Section 12**, the following conclusions are made:

- There were no reported concentrations of heavy metals, TPH, BTEX compounds, VOCs, SVOCs, OCPs and PCBs above the nominated assessment criteria for standard residential land use within any of the soil samples submitted for laboratory analysis.
- There were no reported concentrations of the contaminants of potential concern above the nominated assessment criteria for standard residential land use within any of the background soil samples submitted for laboratory analysis.
- The potential for the migration of the potential contaminants of concern to the groundwater is considered to be low based on the shallow depth to sandstone bedrock, the anticipated depth to groundwater, the low to moderate permeability of the sand and clay soils at the site, and the concentrations of heavy metals and PAHs within the leachates for soil samples submitted for TCLP and ASLP analysis.
- The potential for the migration of the potential contaminants of concern to the surface water bodies present across the site is considered to be low based on the long grass cover present across the majority of the site surface, and the concentrations of heavy metals and PAHs within the leachates for soil samples submitted for TCLP and ASLP analysis.

It is concluded that, while there is a potential for isolated areas of contamination to be present in areas of the site not directly sampled, the potential is low in consideration of the rural residential historical use of the site. It is unlikely that any significant, widespread, contamination is present at the site.

Based on the results of the investigation undertaken at the site, and subject to the limitations stated in **Section 12**, there is no barrier to a residential zone at the site. The site is considered to be suitable for both residential land use, and for the development of 'The Tahmoor Tourism and Recreation Precinct'.

11 Recommendations

Based on the results of the investigation undertaken at the site, and subject to the limitations stated in **Section 12**, the following recommendations are made:

- Prior to the demolition of all buildings and structures across the site, a hazardous materials building survey be undertaken. The objectives of the survey will be to document the presence of hazardous materials, including asbestos and lead based paint, within the buildings and structures across the site.

12 Limitations

This report has been prepared for use by the client who commissioned the works in accordance with the project brief only and has been based in part on information obtained from other parties. The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

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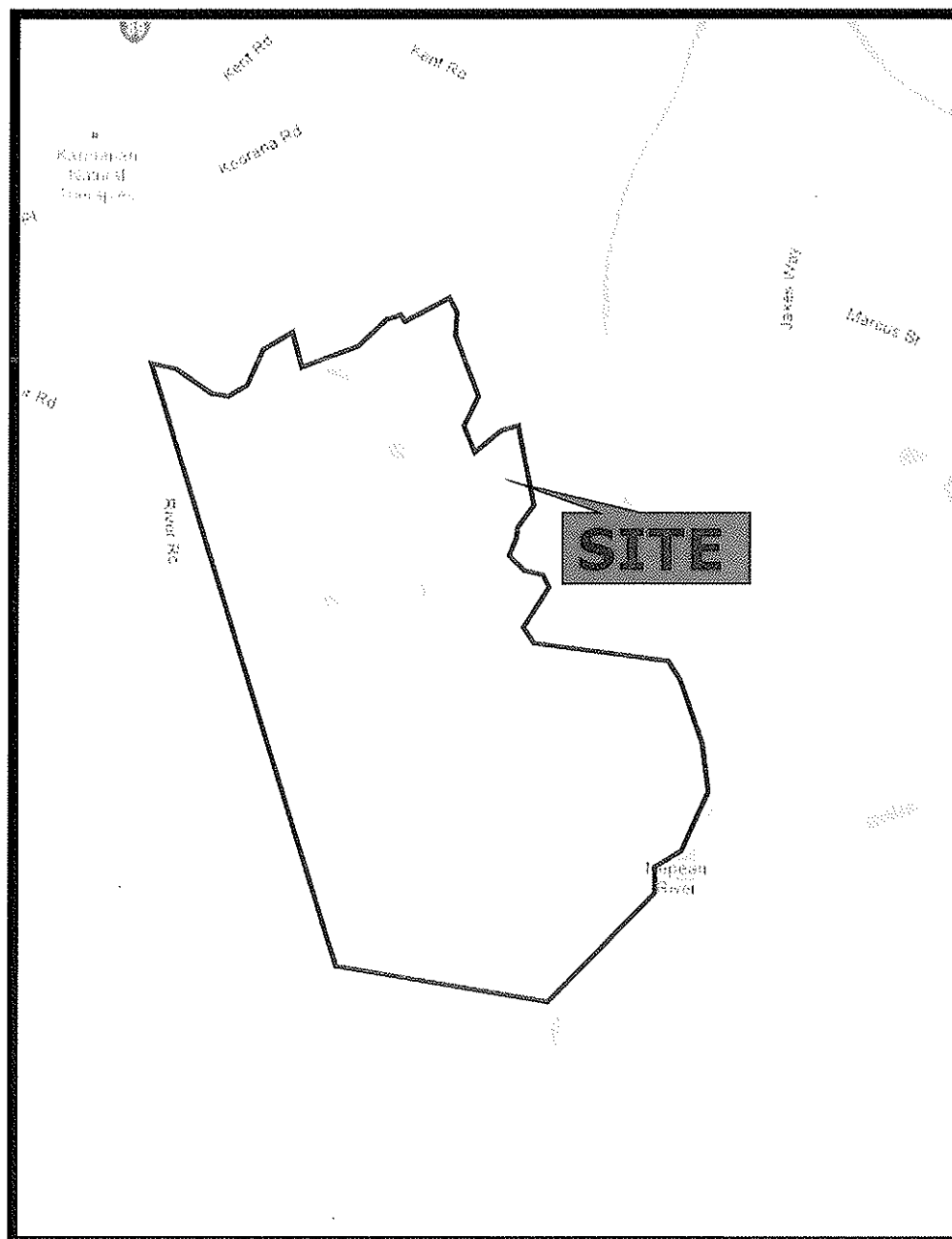
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements and site history, not on sampling and analysis of all media at all locations for all potential contaminants.

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

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

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

Figures



Not to scale

Source: Google Maps 2010 (Google 2010)



JBS
ENVIRONMENTAL

Figure 1 Site Location

Client: E.G. Property Group

Job Number: 41274

Project: Preliminary Contamination Assessment

Site Address: 165-185 River Road, Tahmoor, NSW

File Name: 41274_01.cdr (Rev 0)



0 m 250 m 500 m
Approximate Scale

Source: Google Earth 2010 (Google 2010)

Legend

— Approximate Site Boundary



Figure 2 Site Layout

Client: E.G. Property Group

Job Number: 41274

Project: 165-185 River Road, Tahmoor, NSW

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File Name: 41274_02.cdr



0 m 250 m 500 m
Approximate Scale

Source: Google Earth 2010 (Google 2010)

Legend

- Approximate Site Boundary
- ⊕ Soil Sample Location



Figure 3 Soil Sample Locations

Client: E.G. Property Group

Job Number: 41274

Project: 165-185 River Road, Tahmoor, NSW

File Name: 41274_O3.cdr

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Tables

E.G. Property Group
Project Number: 41267
165 - 185 River Road, Tahmoor, NSW
Preliminary Contamination Assessment
Table A - Soil Analytical Results

				Heavy Metals in Soil								TPH in Soil					BTE		
				Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH C29 - C36	TPH C10 - C36 (Sum of total)	Benzene	Toluene	Ethylbenzene
				mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	
LOR				4	0.5	1	1	1	0.1	1	1	25	50	100	100	250	0.5	0.5	1
Terrestrial Organisms (EPA 1994)				-	-	-	-	300	-	-	-	65	-	-	-	1000	1	1.4	3.1
PIL (DEC 2006)				20	3	400	100	600	1	60	200	-	-	-	-	-	-	-	-
HIL A (DEC 2006)				100	20	600,000	1000	300	15	600	7000	-	-	-	-	-	-	-	-
Sample ID	Depth (m)	Date	Matrix																
BH01	0 - 0.1	20/07/2010	FILL	<4	<0.5	7	7	14	<0.1	3	71	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH02	0 - 0.1	20/07/2010	FILL	<4	<0.5	9	30	22	<0.1	18	110	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH02	0.3 - 0.4	20/07/2010	CLAYEY SAND	<4	<0.5	4	1	6	<0.1	1	2	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH03	0 - 0.1	20/07/2010	FILL	4	<0.5	10	32	14	<0.1	9	140	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH04	0 - 0.1	20/07/2010	FILL	7	<0.5	19	36	23	<0.1	18	220	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH05	0 - 0.1	20/07/2010	FILL	7	<0.5	12	38	24	<0.1	23	85	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH06	0 - 0.1	21/07/2010	FILL	8	<0.5	19	20	20	<0.1	5	24	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH07	0 - 0.1	21/07/2010	FILL	<4	<0.5	7	5	11	<0.1	3	32	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH08	0 - 0.1	21/07/2010	FILL	5	<0.5	14	14	22	<0.1	7	100	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH09	0 - 0.1	21/07/2010	FILL	6	<0.5	16	13	21	<0.1	8	150	<25	120	280	320	720	<0.5	<0.5	<1
BH09	0.5 - 0.6	21/07/2010	FILL	4	<0.5	17	23	21	<0.1	4	29	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH10	0 - 0.1	21/07/2010	CLAYEY SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	0.3 - 0.4	21/07/2010	SANDSTONE	5	<0.5	14	<1	10	<0.1	2	4	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH11	0 - 0.1	21/07/2010	FILL	4	<0.5	11	11	41	<0.1	4	190	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH12	0.3 - 0.4	21/07/2010	SILTY CLAY	10	<0.5	23	16	26	<0.1	6	40	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH13	0 - 0.1	21/07/2010	CLAYEY SAND	<4	<0.5	6	3	10	<0.1	2	11	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH14	0 - 0.1	21/07/2010	SAND	<4	<0.5	5	1	12	<0.1	1	8	<25	<50	<100	<100	<250	<0.5	<0.5	<1
BH15	0 - 0.1	21/07/2010	FILL	7	<0.5	11	32	19	<0.1	17	75	<25	<50	<100	<100	<250	<0.5	<0.5	<1
SS01	0 - 0.1	31/07/2010	CLAYEY SAND	9	<0.5	13	1	12	<0.1	1	14	<25	<50	<100	<100	<250	<0.5	<0.5	<1

E.G. Property Group
Project Number: 41267
165 - 185 River Road, Tahmoor, NSW
Preliminary Contamination Assessment
Table A - Soil Analytical Results

				Organochlorine Pesticides in Soil															
				4,4'-DDE	p-BHC	Aldrin	g-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Terrestrial Organisms (EPA 1994)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PIL (DEC 2006)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
HIL A (DEC 2006)				50															
Sample ID	Depth (m)	Date	Matrix	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH01	0 - 0.1	20/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH02	0 - 0.1	20/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH02	0.3 - 0.4	20/07/2010	CLAYEY SAND	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH03	0 - 0.1	20/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH04	0 - 0.1	20/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH05	0 - 0.1	20/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH06	0 - 0.1	21/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH07	0 - 0.1	21/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH08	0 - 0.1	21/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH09	0 - 0.1	21/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH09	0.5 - 0.6	21/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH10	0 - 0.1	21/07/2010	CLAYEY SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH10	0.3 - 0.4	21/07/2010	SANDSTONE	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH11	0 - 0.1	21/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH12	0.3 - 0.4	21/07/2010	SILTY CLAY	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH13	0 - 0.1	21/07/2010	CLAYEY SAND	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH14	0 - 0.1	21/07/2010	SAND	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
BH15	0 - 0.1	21/07/2010	FILL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
SS01	0 - 0.1	31/07/2010	CLAYEY SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

E.G. Property Group
Project Number: 41267
165 - 185 River Road, Tahmoor, NSW
Preliminary Contamination Assessment
Table A - Soil Analytical Results

[illegible]

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165 - 185 River Road, Tahmoor, NSW
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Table A - Soil Analytical Results

[illegible]

E.G. Property Group
Project Number: 41267
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Table A - Soil Analytical Results

[illegible]

E.G. Property Group
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Table A - Soil Analytical Results

[illegible]

E.G. Property Group
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Table A - Soil Analytical Results

[illegible]

E.G. Property Group
Project Number: 41267
165 - 185 River Road, Tahmoor, NSW
Preliminary Contamination Assessment
Table B - TCLP and ASLP Results

				Heavy Metals In TCLP													
				Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b)&(k)fluoranthene
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
LOR				0.05	0.01	0.01	0.01	0.03	0.0005	0.02	0.02	0.001	0.001	0.001	0.001	0.001	0.002
Sample ID	Depth (m)	Date	Matrix	<0.05	<0.01	<0.01	0.02	<0.03	<0.0005	<0.02	0.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
BH02	0.0-0.1	20/07/2010	FILL	<0.05	<0.01	<0.01	0.02	<0.03	<0.0005	<0.02	0.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
BH04	0.0-0.1	20/07/2010	FILL	<0.05	<0.01	<0.01	0.04	<0.03	<0.0005	<0.02	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
BH06	0.0-0.1	21/07/2010	FILL	<0.05	<0.01	<0.01	0.02	<0.03	<0.0005	<0.02	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
BH08	0.0-0.1	21/07/2010	FILL	<0.05	<0.01	<0.01	0.02	<0.03	<0.0005	<0.02	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002

E.G. Property Group
Project Number: 41267
165 - 185 River Road, Tahmoor, NSW
Preliminary Contamination Assessment
Table B - TCLP and ASLP Results

				Heavy Metals in ASLP													
				Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b)&(k)fluoranthene
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
LOR				1	0.1	1	1	1	0.5	1	1	0.001	0.001	0.001	0.001	0.001	0.002
Sample ID	Depth (m)	Date	Matrix	<1	0.3	<1	12	4	<0.5	8	290	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
BH02	0.0-0.1	20/07/2010	FILL	2	<0.1	7	10	5	<0.5	3	250	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
BH04	0.0-0.1	20/07/2010	FILL	2	0.2	2	18	5	<0.5	1	230	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
BH06	0.0-0.1	21/07/2010	FILL	<1	0.2	2	8	3	<0.5	2	190	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002

Appendix A

Site Photographs

Appendix A – Site Photographs



Photo 1 – View from the west to the east of the main residence.



Photo 2 – View of the south-eastern corner of the main residence to the north.

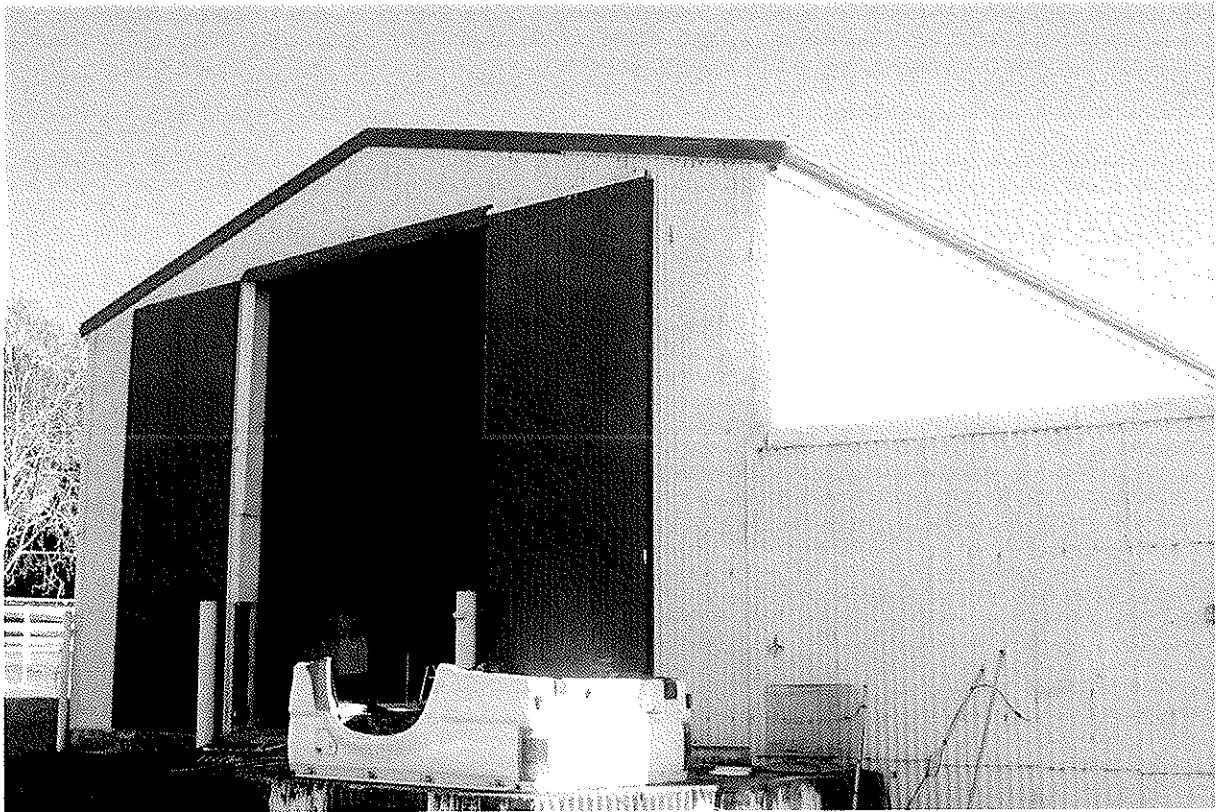


Photo 3 – View from the south of the storage shed to the north.



Photo 4 – Materials stored within the storage shed in the western portion of the site.



Photo 5 – Materials stored within the garage in the western portion of the site.



Photo 6 – View of the northern wall of the garage to the south.



Photo 7 – View of the western wall of "The Cottage" to the south-east.



Photo 8 – Stables present within "The Cottage".

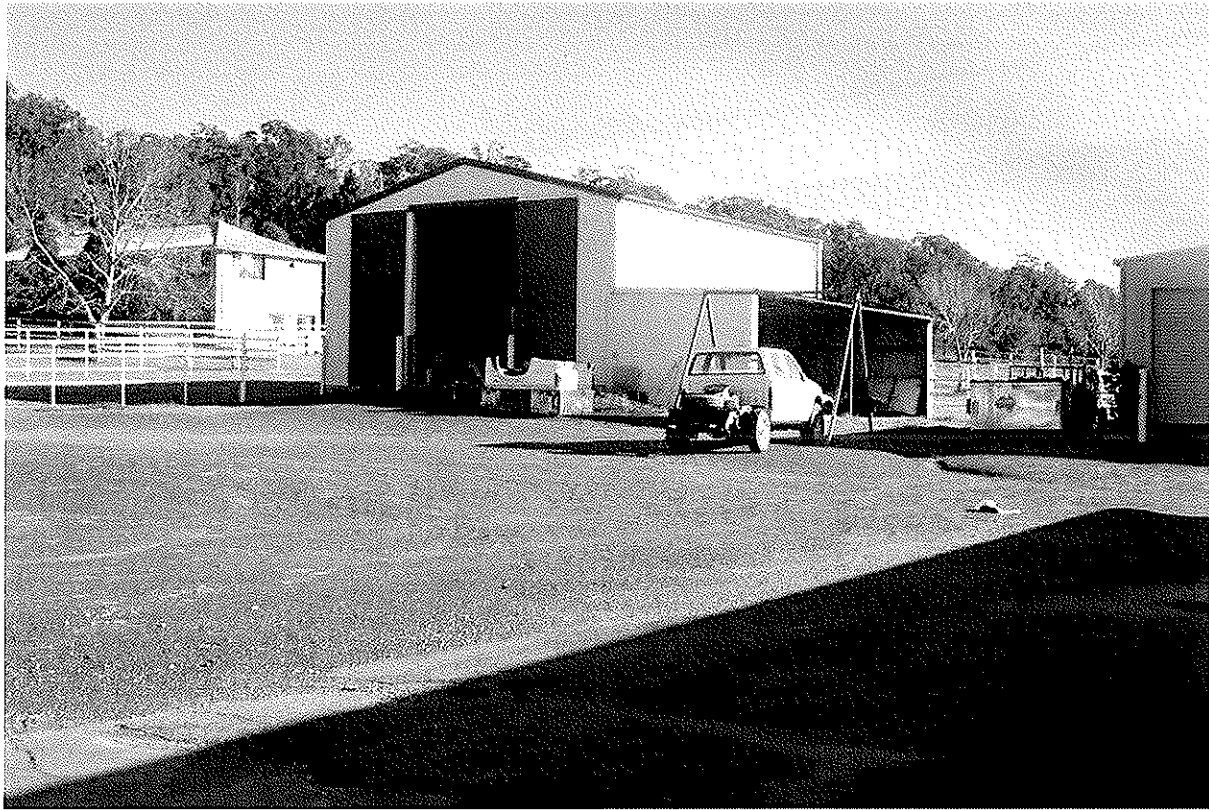


Photo 9 – View to the north-west of the sealed pavement within the western portion of the site.



Photo 10 – View of the northern wall Jay-R-Stud Stable to the south.



Photo 11 – View within the Jay-R-Stud stable.



Photo 12 – View to the north-west of the stable in the central portion of the site.



Photo 13 – View to the north-west of the stable located in the south-western portion of the site.



Photo 14 – View to the south-west of the vacant residence located in the south-eastern portion of the site.

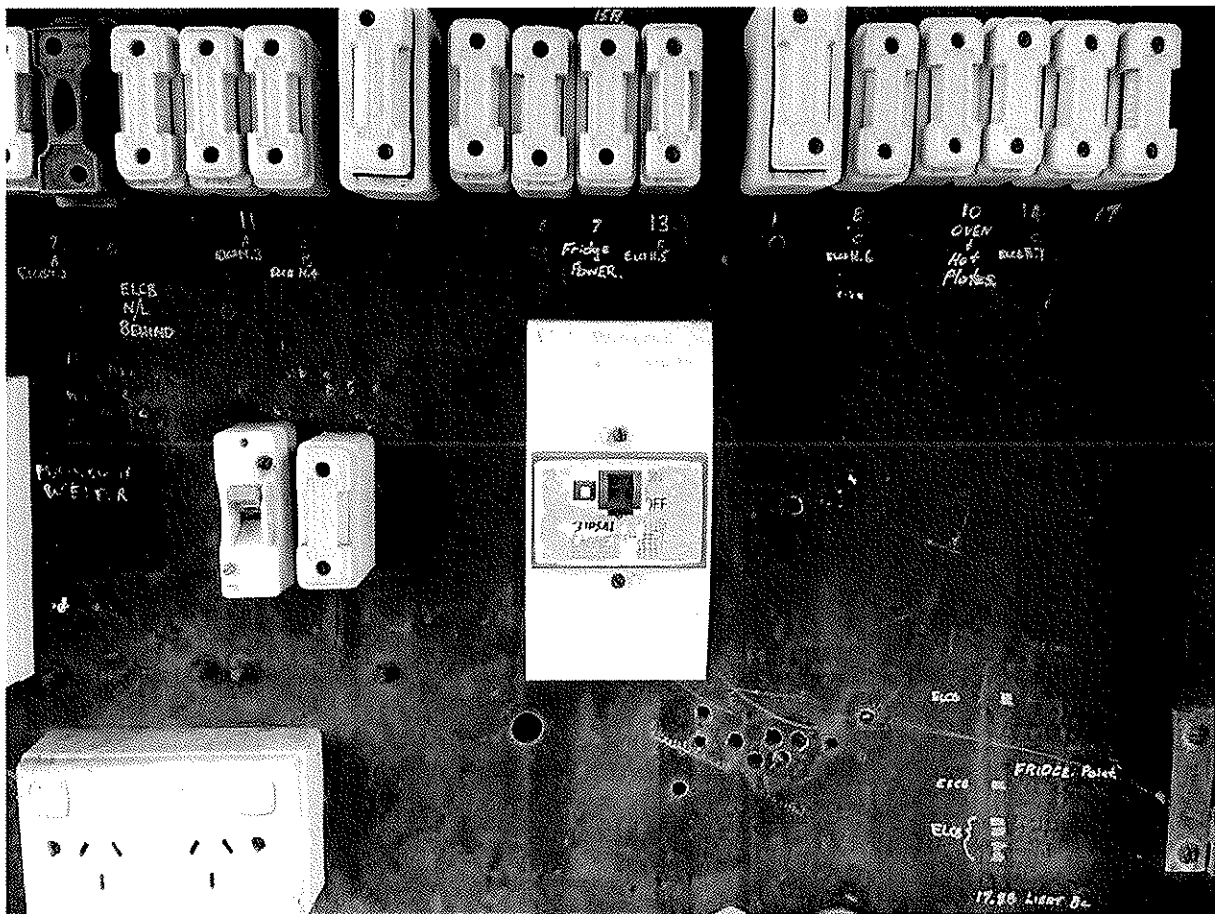


Photo 15 – A suspected 'zelemite' electrical backing board on the western exterior wall of the vacant residence.



Photo 16 – View to the south-east of the garage located to the east of the vacant residence.



Photo 17 – View to the north-west from the south-eastern portion of the site.



Photo 18 – View to the east of the eastern site boundary in the south-eastern portion of the site.



Photo 19 – View of the eastern wall to the west of the secondary residence located in the northern portion of the site.

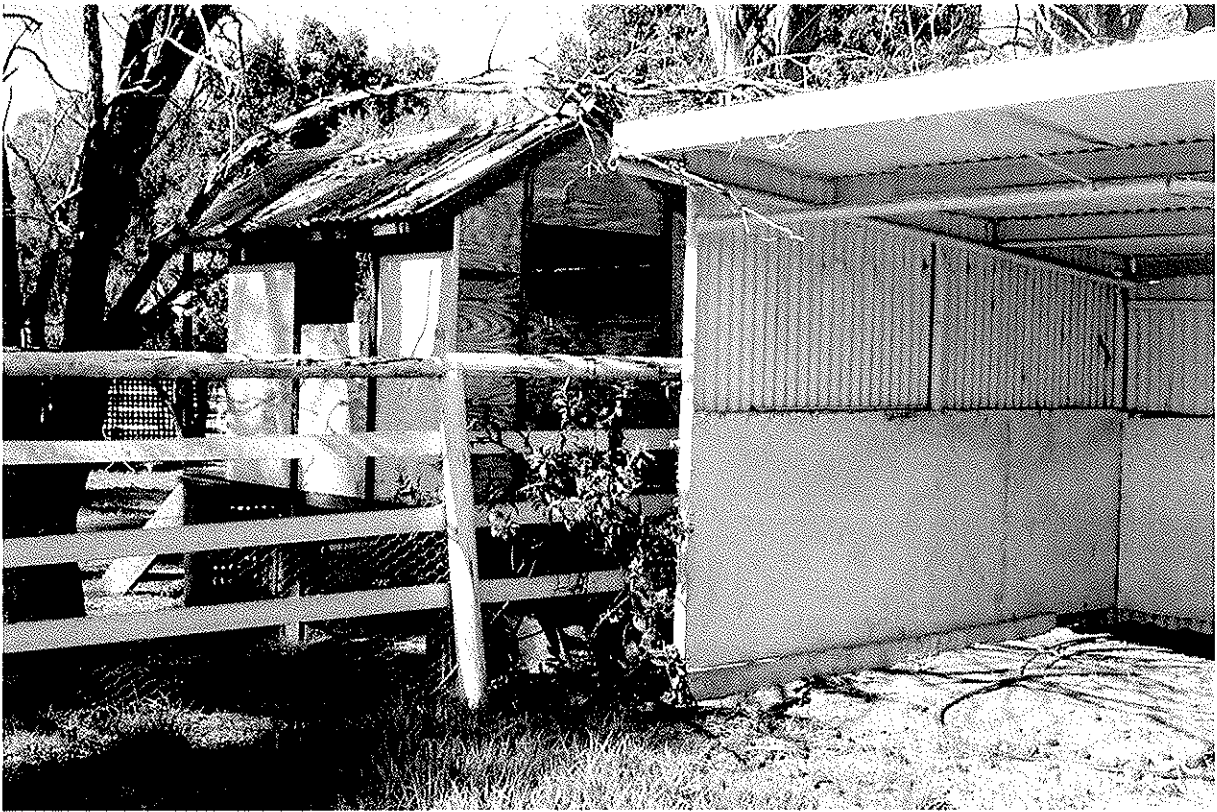


Photo 20 – A stable and cubby house to the west of the secondary residence.



Photo 21 – View to the south of paddock fencing across the northern portion of the site.



Photo 22 – Fencing present along the western site boundary.



Photo 23 – The pond located in the south-eastern portion of the site.

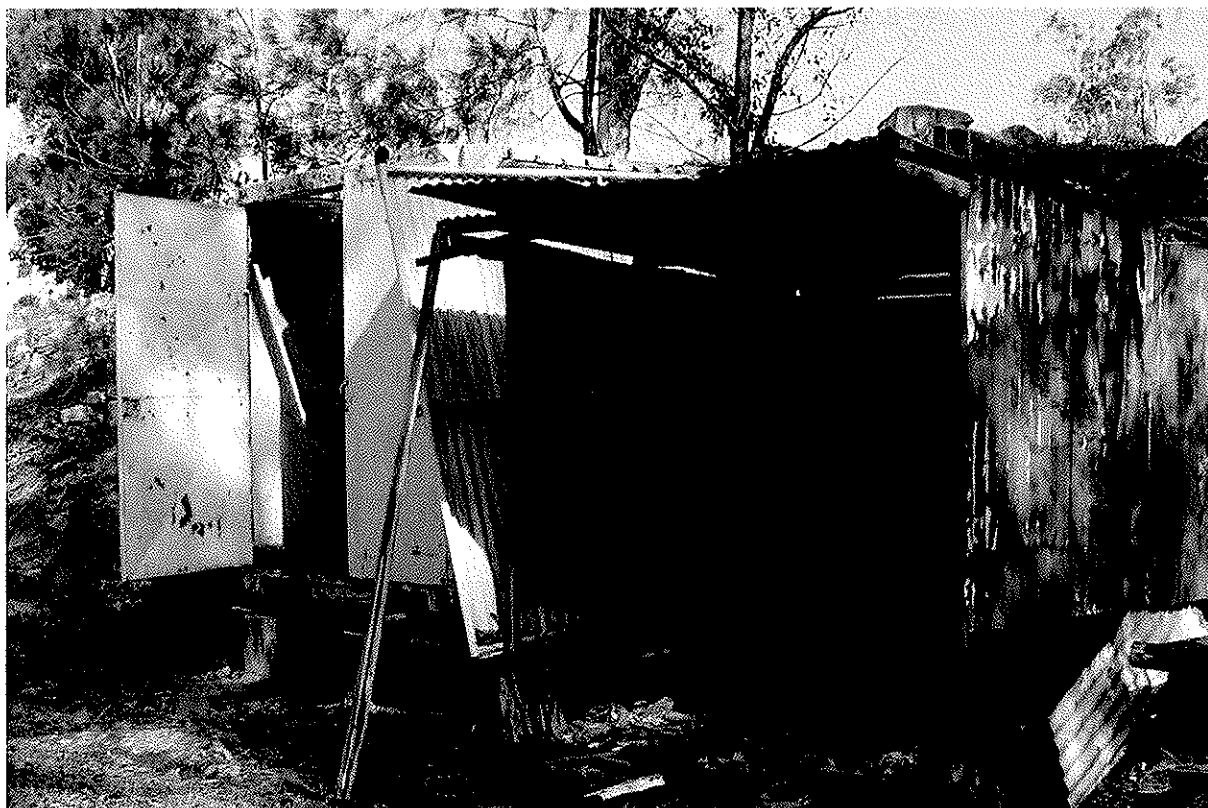


Photo 24 – The derelict shed and mounted shipping container located in the southern portion of the site.



Photo 25 – Stockpiled timber located in the southern portion of the site.



Photo 26 – Stockpiled tree cuttings located in the southern portion of the site.



Photo 27 – View to the west of the pond located in the western portion of the site.

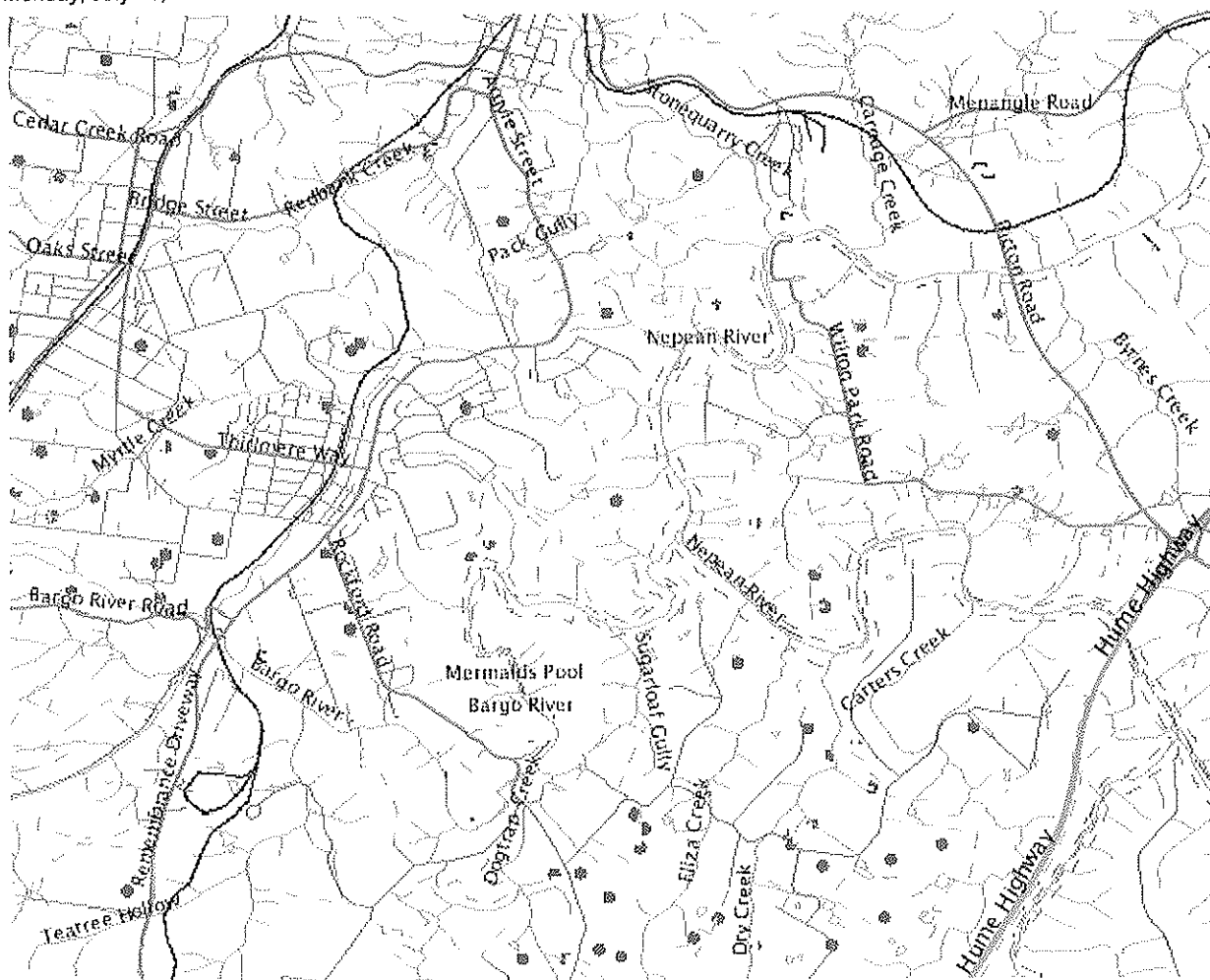
Appendix B

Groundwater Bore Search

Tahmoor Bore Locations

Map created with NSW Natural Resource Atlas - <http://www.nratlas.nsw.gov.au>

Monday, July 26, 2010



0

9 Km

Legend

Symbol

Layer

Custodian

Primary/arterial road

Motorway/freeway

Railway

Runway

Contour

Background

Topographic base map

Groundwater Bores

Groundwater Bores

Major rivers

Major rivers

Cities and large towns

Cities and large towns

Cannot build image from features

Populated places

Populated places

Cannot build image from features

Towns

Towns

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Monday, July 26, 2010

[Print Report](#)

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

Work Requested -- GW008537

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

GROUNDWATER NUMBER GW008537
LIC-NUM
AUTHORISED-PURPOSES
INTENDED-PURPOSES IRRIGATION
WORK-TYPE Bore open thru rock
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD Cable Tool
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1947-01-01
FINAL-DEPTH (metres) 65.50
DRILLED-DEPTH (metres) 0.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY
GWMA
GW-ZONE
STANDING-WATER-LEVEL
SALINITY
YIELD

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 212 - HAWKESBURY RIVER
AREA-DISTRICT
CMA-MAP 9029-4S
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6211214.00
EASTING 277989.00
LATITUDE 34 12' 59"
LONGITUDE 150 35' 24"
GS-MAP 0075C1

AMG-ZONE 56
COORD-SOURCE GD.,ACC.MAP
REMARK

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

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP 245

Licensed [\(top\)](#)

no details

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	-0.20	5.80	152			Suspended in Clamps

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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Work Requested -- GW034687

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

GROUNDWATER NUMBER GW034687
LIC-NUM 10BL027100
AUTHORISED-PURPOSES NOT KNOWN
INTENDED-PURPOSES NOT KNOWN
WORK-TYPE Well
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD (Unknown)
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE
FINAL-DEPTH (metres) 6.00
DRILLED-DEPTH (metres) 0.00
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 212 - HAWKESBURY RIVER
AREA-DISTRICT
CMA-MAP 9029-4S
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6209000.00
EASTING 278221.00
LATITUDE 34 14' 11"
LONGITUDE 150 35' 31"
GS-MAP 0075C1

AMG-ZONE 56
COORD-SOURCE GD.,ACC.MAP
REMARK

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

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP 232

Licensed [\(top\)](#)

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP 232

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

no details

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

no details

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Groundwater Works Summary

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Work Requested -- GW038074

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

GROUNDWATER NUMBER GW038074
LIC-NUM 10BL029771
AUTHORISED-PURPOSES TEST BORE
INTENDED-PURPOSES IRRIGATION
WORK-TYPE Bore
WORK-STATUS Supply Obtained
CONSTRUCTION-METHOD (Unknown)
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE
FINAL-DEPTH (metres) 60.90
DRILLED-DEPTH (metres) 0.00
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 212 - HAWKESBURY RIVER
AREA-DISTRICT
CMA-MAP 9029-4S
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6209215.00
EASTING 278216.00
LATITUDE 34 14' 4"
LONGITUDE 150 35' 31"
GS-MAP 0075C1

AMG-ZONE 56
COORD-SOURCE GD.,ACC.MAP
REMARK

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

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP 232

Licensed [\(top\)](#)

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP 232

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	(Unknown)	0.00	0.00	152		(Unknown)

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

no details

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

no details

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Groundwater Works Summary

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Work Requested -- GW042788

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

GROUNDWATER NUMBER GW042788
LIC-NUM 10BL105286
AUTHORISED-PURPOSES DOMESTIC IRRIGATION STOCK
INTENDED-PURPOSES IRRIGATION
WORK-TYPE Bore open thru rock
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD Cable Tool
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1976-11-01
FINAL-DEPTH (metres) 148.00
DRILLED-DEPTH (metres) 148.00
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 212 - HAWKESBURY RIVER
AREA-DISTRICT
CMA-MAP 9029-4S
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6210315.00
EASTING 280417.00
LATITUDE 34 13' 30"
LONGITUDE 150 36' 58"
GS-MAP 0075C1

AMG-ZONE 56
 COORD-SOURCE GD.,ACC.MAP
 REMARK

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

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP 85

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP NOT AVAILABLE

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	5.80	164			Suspended in Clamps

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
105.00	105.50	0.50	Consolidated	100.00	0.25				(Unknown)
114.00	115.30	1.30	Consolidated	98.00	0.56				(Unknown)
120.00	121.50	1.50	Consolidated	98.00	0.83				(Unknown)
133.00	135.20	2.20	Consolidated	98.00	1.52				(Unknown)

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

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.20	0.20	Topsoil		
0.20	1.40	1.20	Shale Clay		
1.40	5.60	4.20	Sandstone Yellow		
5.60	13.70	8.10	Sandstone Grey		
13.70	34.00	20.30	Sandstone Yellow		
34.00	39.00	5.00	Sandstone		
39.00	62.00	23.00	Sandstone Yellow		
62.00	76.00	14.00	Sandstone Grey		
76.00	105.00	29.00	Sandstone Yellow		

105.00	105.50	0.50	Sandstone White Open Water Supply
105.50	114.00	8.50	Sandstone White
114.00	115.30	1.30	Sandstone White Open Water Supply
115.30	120.00	4.70	Sandstone White
120.00	121.50	1.50	Sandstone White Open Water Supply
121.50	126.00	4.50	Sandstone White
126.00	126.50	0.50	Shale
126.50	133.00	6.50	Sandstone White
133.00	135.30	2.30	Sandstone Grey Open Water Supply
135.30	148.00	12.70	Sandstone Grey

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Work Requested -- GW067606

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

GROUNDWATER NUMBER GW067606
LIC-NUM
AUTHORISED-PURPOSES
INTENDED-PURPOSES DOMESTIC FARMING STOCK
WORK-TYPE Bore
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD Cable Tool
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1989-10-03
FINAL-DEPTH (metres) 150.00
DRILLED-DEPTH (metres) 150.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY
GWMA
GW-ZONE
STANDING-WATER-LEVEL
SALINITY
YIELD

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 212 - HAWKESBURY RIVER
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6212095.00
EASTING 282421.00
LATITUDE 34 12' 34"
LONGITUDE 150 38' 18"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE GD.,ACC.GIS
 REMARK

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

COUNTY CAMDEN
 PARISH WILTON
 PORTION-LOT-DP L5 DP243079

Licensed [\(top\)](#)

no details

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	Galvinised Steel	-0.30	6.20	168			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
98.50	98.80	0.30	Consolidated	98.00		0.30			
140.70	141.90	1.20	Consolidated	94.00		2.50			

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

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.30	0.30			
0.30	4.80	4.50	Shale & Clay		
4.80	13.10	8.30	Grey Sandstone		
13.10	27.40	14.30	Yellow Sandstone		
27.40	35.80	8.40	Brown Sandstone		
35.80	36.10	0.30			
36.10	98.50	62.40	Grey Sandstone		
98.50	98.80	0.30	Grey Sandstone (w.b.)		
98.80	140.70	41.90	Grey Sandstone		
140.70	141.90	1.20	Grey Sandstone (w.b)		
141.90	150.00	8.10	Grey Sandstone		

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Groundwater Works Summary

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Work Requested -- GW102482

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

GROUNDWATER NUMBER GW102482
LIC-NUM 10BL156727
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 1995-01-01
FINAL-DEPTH (metres) 17.00
DRILLED-DEPTH (metres)
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 6212276.00
EASTING 281217.00
LATITUDE 34 12' 27"
LONGITUDE 150 37' 31"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

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

no details

Licensed [\(top\)](#)

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP LOT2 DP234883

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

no details

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

no details

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Groundwater Works Summary

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Work Requested -- GW102483

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

GROUNDWATER NUMBER GW102483
LIC-NUM 10BL156727
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 1995-01-01
FINAL-DEPTH (metres) 21.60
DRILLED-DEPTH (metres)
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 6212193.00
EASTING 280297.00
LATITUDE 34 12' 29"
LONGITUDE 150 36' 55"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

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

no details

Licensed [\(top\)](#)

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP LOT2 DP234883

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

no details

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

no details

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Groundwater Works Summary

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Work Requested -- GW103235

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

GROUNDWATER NUMBER	GW103235
LIC-NUM	10BL160354
AUTHORISED-PURPOSES	DOMESTIC STOCK
INTENDED-PURPOSES	DOMESTIC
WORK-TYPE	Bore
WORK-STATUS	Supply Obtained
CONSTRUCTION-METHOD	(Unknown)
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	1995-09-20
FINAL-DEPTH (metres)	134.00
DRILLED-DEPTH (metres)	134.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	N/A
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	
SALINITY	160.00
YIELD	0.23

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

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	212 - HAWKESBURY RIVER
AREA-DISTRICT	
CMA-MAP	9029-4S
GRID-ZONE	56/1
SCALE	1:25,000
ELEVATION	
ELEVATION-SOURCE	
NORTHING	6208708.00
EASTING	281471.00
LATITUDE	34 14' 23"
LONGITUDE	150 37' 38"
GS-MAP	

AMG-ZONE 56
 COORD-SOURCE
 REMARK

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

COUNTY CAMDEN
 PARISH BARGO
 PORTION-LOT-DP 91//869494

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH BARGO
 PORTION-LOT-DP 91 869494

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	132.00	168.00	138			Down Hole Hammer
1	1	Casing	PVC Class 9	0.01	3.00	150			Driven into Hole; Open End

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
66.00	67.00	1.00			68.00	0.08		1.00	160.00
128.00	129.00	1.00			130.00	0.15		1.00	160.00
138.00	139.00	1.00			140.00	0.08		5.00	160.00
144.00	145.00	1.00			146.00	0.17		5.00	160.00
148.00	149.00	1.00			150.00	0.25		5.00	450.00

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

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.00	1.00	soil		
1.00	2.10	1.10	shales, dry		
2.10	48.00	45.90	sandstone		
48.00	49.10	1.10	shale		
49.10	64.40	15.30	sandstone		

64.40	64.90	0.50	shale
64.90	121.00	56.10	sandstone
121.00	122.00	1.00	shale
122.00	134.00	12.00	sandstone
132.00	150.00	18.00	sandstone
150.00	163.00	13.00	shale
163.00	167.00	4.00	sandstone, fine
167.00	168.00	1.00	shale

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Groundwater Works Summary

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Work Requested -- GW104558

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

GROUNDWATER NUMBER	GW104558
LIC-NUM	10BL160727
AUTHORISED-PURPOSES	DOMESTIC
INTENDED-PURPOSES	DOMESTIC
WORK-TYPE	Bore
WORK-STATUS	Supply Obtained
CONSTRUCTION-METHOD	Rotary
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	2002-12-11
FINAL-DEPTH (metres)	186.00
DRILLED-DEPTH (metres)	186.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	N/A
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	103.00
SALINITY	
YIELD	0.26

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

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	212 - HAWKESBURY RIVER
AREA-DISTRICT	
CMA-MAP	9029-4S
GRID-ZONE	56/1
SCALE	1:25,000
ELEVATION	
ELEVATION-SOURCE	(Unknown)
NORTHING	6211841.00
EASTING	282447.00
LATITUDE	34 12' 42"
LONGITUDE	150 38' 19"
GS-MAP	

AMG-ZONE 56
 COORD-SOURCE
 REMARK

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

COUNTY CAMDEN
 PARISH WILTON
 PORTION-LOT-DP LT8 DP243079

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH WILTON
 PORTION-LOT-DP 8 243079

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	36.00	205			Down Hole Hammer
1		Hole	Hole	36.00	186.00	165			Down Hole Hammer
1	1	Casing	PVC Class 9	-0.50	36.00	160	148		

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
125.00	126.00	1.00		103.00	0.17		126.00	0.50	
140.00	141.00	1.00		103.00	0.16		141.00	0.50	
149.00	150.00	1.00		103.00	0.26		150.00	0.50	

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

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	3.00	3.00	CLAY AND SOIL		
3.00	16.00	13.00	WHITE SANDSTONE		
16.00	18.00	2.00	SANDSTONE 10% SHALE		
18.00	32.00	14.00	YELLOW SANDSTONE		
32.00	33.00	1.00	YELLOW SANDSTONE AND 10%SHALE		
33.00	36.00	3.00	YELLOW SANDSTONE		

36.00	38.00	2.00	YELLOW SANDSTONE AND SHALE
38.00	48.00	10.00	YELLOW SANDSTONE
48.00	49.00	1.00	SHALE AND SANDSTONE
49.00	62.00	13.00	WHITE SANDSTONE
62.00	64.00	2.00	SHALE AND SANDSTONE
64.00	163.00	99.00	WHITE SANDSTONE
163.00	186.00	23.00	WHITE SANDSTONE AND 10%SHALE

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Work Requested -- GW105148

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

GROUNDWATER NUMBER	GW105148
LIC-NUM	10BL157090
AUTHORISED-PURPOSES	DOMESTIC STOCK
INTENDED-PURPOSES	DOMESTIC STOCK
WORK-TYPE	Bore
WORK-STATUS	Supply Obtained
CONSTRUCTION-METHOD	Rotary Air
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	1995-09-21
FINAL-DEPTH (metres)	120.00
DRILLED-DEPTH (metres)	120.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	N/A
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	33.00
SALINITY	250.00
YIELD	0.30

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

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	212 - HAWKESBURY RIVER
AREA-DISTRICT	
CMA-MAP	9029-4S
GRID-ZONE	56/1
SCALE	1:25,000
ELEVATION	
ELEVATION-SOURCE	(Unknown)
NORTHING	6209733.00
EASTING	278006.00
LATITUDE	34 13' 47"
LONGITUDE	150 35' 24"
GS-MAP	

AMG-ZONE 56
 COORD-SOURCE
 REMARK

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

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP LT 2 DP 236262

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP 2 236262

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	210			Down Hole Hammer
1		Hole	Hole	5.40	120.00	158			Down Hole Hammer
1	1	Casing	Steel	-0.50	5.50	168.3	158.7		C: -.1- 5.4m; 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
50.60	51.20	0.60				0.60	54.00	0.25	500.00
83.50	84.80	1.30				0.40	84.00	0.25	330.00
111.30	112.70	1.40				0.50	114.00	0.25	260.00
116.30	117.50	1.20		33.00		0.30	120.00	0.25	250.00

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

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.40	0.40	TOPSOIL		
0.40	3.20	2.80	CLAY		
3.20	19.00	15.80	SANDSTONE	VARIOUS COLORS	

19.00	29.50	10.50	SANDSTONE BROWN M.G,CLAY MATRIX
29.50	35.20	5.70	SANDSTONE GREY,M.G
35.20	36.10	0.90	SILTSTONE/QUARTZ
36.10	38.50	2.40	SANDSTONE, BROWN,QUARTZ MATRIX
38.50	50.60	12.10	SANDSTONE GREY COARSE
50.60	51.20	0.60	WATER BEARING QUARTZ LAYER
51.20	57.00	5.80	SANDSTONE L/GREY,QUARTZ MATRIX
57.00	58.60	1.60	SILTSTONE
58.60	71.50	12.90	SANDSTONE GREY M.G CEMENTED
71.50	71.80	0.30	SILTSTONE
71.80	73.50	1.70	SANDSTONE GREY M.G CEMENTED
73.50	73.90	0.40	WATER BEARING QUARTZ LAYER
73.90	75.50	1.60	SANDSTONE GREY,C.G QUARTZ MATRIX
75.50	83.50	8.00	SANDSTONE LT GREY C.G CEMENTED
83.50	84.80	1.30	WATER BEARING QUARTZ LAYER
84.80	87.80	3.00	SANDSTONE LT GREY C.G CEMENTED
87.80	98.60	10.80	SANDSTONE GREY M.G CEMENTED
98.60	99.80	1.20	SILTSTONE
99.80	111.30	11.50	SANDSTONE GREY M.G CEMENTED
111.30	112.70	1.40	WATER BEARING QUARTZ LAYER
112.70	116.30	3.60	SANDSTONE GREY M.G CEMENTED
116.30	117.50	1.20	WATER BEARING QUARTZ LAYER
117.50	120.00	2.50	SANDSTONE GREY M.G CEMENTED

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Groundwater Works Summary

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Work Requested -- GW105787

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

GROUNDWATER NUMBER	GW105787
LIC-NUM	10BL161740
AUTHORISED-PURPOSES	DOMESTIC STOCK
INTENDED-PURPOSES	DOMESTIC STOCK
WORK-TYPE	Bore
WORK-STATUS	Supply Obtained
CONSTRUCTION-METHOD	Down Hole Hammer
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	2002-12-06
FINAL-DEPTH (metres)	126.00
DRILLED-DEPTH (metres)	126.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	MATHEWS
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	80.00
SALINITY	
YIELD	0.38

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

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	212 - HAWKESBURY RIVER
AREA-DISTRICT	
CMA-MAP	9029-4S
GRID-ZONE	56/1
SCALE	1:25,000
ELEVATION	
ELEVATION-SOURCE	(Unknown)
NORTHING	6209593.00
EASTING	282092.00
LATITUDE	34 13' 55"
LONGITUDE	150 38' 3"
GS-MAP	

AMG-ZONE 56
 COORD-SOURCE GIS - Geographic Information System
 REMARK

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

COUNTY CAMDEN
 PARISH WILTON
 PORTION-LOT-DP 426//1014221

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH WILTON
 PORTION-LOT-DP 426 1014221

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	205			Down Hole Hammer
1		Hole	Hole	6.00	126.00	150			Down Hole Hammer
1	1	Casing	PVC Class 9	-0.30	6.00	161	148		Seated on Bottom; Open End
1		Annulus	Concrete	0.10	6.00	205	150		

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
120.40	121.60	1.20		80.00	0.38			3.00	

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

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.20	0.20	topsoil		
0.20	2.80	2.60	gravel, cemented		
2.80	12.20	9.40	sandstone, coarse grained yellow light		
12.20	64.90	52.70	sandstone, coarse grained grey light		
64.90	87.50	22.60	sandstone, coarse grained yellow darke		
87.50	121.60	34.10	sandstone, coarse grained grey light		

121.60 126.00 4.40

sandstone, fine grained grey dark

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Groundwater Works Summary

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Work Requested -- GW105813

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

GROUNDWATER NUMBER	GW105813
LIC-NUM	10BL161385
AUTHORISED-PURPOSES	DOMESTIC STOCK
INTENDED-PURPOSES	DOMESTIC STOCK
WORK-TYPE	Bore
WORK-STATUS	Supply Obtained
CONSTRUCTION-METHOD	Down Hole Hammer
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	2003-03-04
FINAL-DEPTH (metres)	168.00
DRILLED-DEPTH (metres)	168.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	KOORANA
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	28.00
SALINITY	
YIELD	6.60

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

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	212 - HAWKESBURY RIVER
AREA-DISTRICT	
CMA-MAP	9029-4S
GRID-ZONE	56/1
SCALE	1:25,000
ELEVATION	
ELEVATION-SOURCE	(Unknown)
NORTHING	6213106.00
EASTING	279408.00
LATITUDE	34 11' 59"
LONGITUDE	150 36' 21"
GS-MAP	

AMG-ZONE 56
 COORD-SOURCE GIS - Geographic Information System
 REMARK

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

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP 2//207443

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP 2 207443

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	83.00	171			Down Hole Hammer
1		Hole	Hole	83.00	168.00	140			Down Hole Hammer
1	1	Casing	Steel	-0.30	1.00	168			Riveted and Glued; Driven into Hole; Open End
1	1	Casing	PVC Class 9	-0.30	90.00	140			Riveted and Glued; Driven into Hole; Open End

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
114.00	115.00	1.00				0.06			Good
146.00	147.00	1.00				1.50			Good
160.00	161.00	1.00		28.00		4.50		1.00	Good

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

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	3.00	3.00	clay, dirt		

3.00	32.00	29.00	shale,
32.00	66.00	34.00	sandstone
66.00	72.00	6.00	shale
72.00	84.00	12.00	sandstone
84.00	104.00	20.00	sandstone, shale
104.00	146.00	42.00	sandstone
146.00	168.00	22.00	sandstone, shale

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Groundwater Works Summary

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Work Requested -- GW105884

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

GROUNDWATER NUMBER GW105884
LIC-NUM 10BL161087
AUTHORISED-PURPOSES DOMESTIC STOCK
INTENDED-PURPOSES
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2005-05-09
FINAL-DEPTH (metres)
DRILLED-DEPTH (metres)
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 212 - HAWKESBURY RIVER
AREA-DISTRICT
CMA-MAP 9029-4S
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6210112.00
EASTING 281588.00
LATITUDE 34 13' 38"
LONGITUDE 150 37' 44"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

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

COUNTY CAMDEN
PARISH WILTON
PORTION-LOT-DP 422 1014221

Licensed [\(top\)](#)

COUNTY CAMDEN
PARISH WILTON
PORTION-LOT-DP 422 1014221

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

no details

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

no details

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Groundwater Works Summary

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Work Requested -- GW105944

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

GROUNDWATER NUMBER GW105944
LIC-NUM 10BL163046
AUTHORISED-PURPOSES DOMESTIC STOCK
INTENDED-PURPOSES
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2005-05-20
FINAL-DEPTH (metres)
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY PEGGER & CO PTY LTD
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 212 - HAWKESBURY RIVER
AREA-DISTRICT
CMA-MAP 9029-4S
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6209287.00
EASTING 282182.00
LATITUDE 34 14' 5"
LONGITUDE 150 38' 6"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

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

COUNTY CAMDEN
PARISH WILTON
PORTION-LOT-DP 425 1014221

Licensed [\(top\)](#)

COUNTY CAMDEN
PARISH WILTON
PORTION-LOT-DP 425 1014221

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

no details

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

no details

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Groundwater Works Summary

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Work Requested -- GW109010

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

GROUNDWATER NUMBER	GW109010
LIC-NUM	10BL601785
AUTHORISED-PURPOSES	DOMESTIC STOCK
INTENDED-PURPOSES	DOMESTIC STOCK
WORK-TYPE	Bore
WORK-STATUS	
CONSTRUCTION-METHOD	
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	2008-07-10
FINAL-DEPTH (metres)	169.00
DRILLED-DEPTH (metres)	
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	PESCUD
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	89.00
SALINITY	0.69
YIELD	0.80

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

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	
ELEVATION	
ELEVATION-SOURCE	
NORTHING	6211781.00
EASTING	278173.00
LATITUDE	34 12' 41"
LONGITUDE	150 35' 32"
GS-MAP	

AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A ([top](#))

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP 20//806833

Licensed ([top](#))

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP 20 806833

Water Bearing Zones ([top](#))

no details

Drillers Log ([top](#))

no details

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Groundwater Works Summary

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Work Requested -- GW109224

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

GROUNDWATER NUMBER GW109224
LIC-NUM 10BL164076
AUTHORISED-PURPOSES DOMESTIC STOCK
INTENDED-PURPOSES DOMESTIC STOCK
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2008-08-18
FINAL-DEPTH (metres) 132.00
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY BOISSERY
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 60.00
SALINITY
YIELD 1.00

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6211222.00
EASTING 279140.00
LATITUDE 34 12' 60"
LONGITUDE 150 36' 9"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

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

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP 122//10669

Licensed [\(top\)](#)

COUNTY CAMDEN
PARISH COURIDJAH
PORTION-LOT-DP 122 10669

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

no details

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

no details

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Groundwater Works Summary

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Work Requested -- GW110435

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

GROUNDWATER NUMBER GW110435
LIC-NUM 10BL602501
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Rotary Air
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2008-05-23
FINAL-DEPTH (metres) 100.00
DRILLED-DEPTH (metres) 100.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY TAHMOOR COLLIERY
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 55.00
SALINITY 1000.00
YIELD 0.80

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6209715.00
EASTING 279215.00
LATITUDE 34 13' 49"
LONGITUDE 150 36' 11"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

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

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP C//374621

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP C 374621

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	225			Rotary Air
1		Hole	Hole	4.00	100.00	115			Rotary Air
1	1	Casing	P.V.C.	0.00	4.00	150			Other
1	1	Casing	P.V.C.	0.00	97.00	50			Riveted and Glued; Seated on Bottom PVC Class 18;
1	1	Opening	Slots - Horizontal	97.00	100.00	50			Casing - Machine Slotted; SL: 3mm; A: 1mm
1		Annulus	Waterworn/Rounded	0.00	0.00				Graded; GS: 100- 105mm

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
95.00	96.00	1.00		55.00				1.00	

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

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	2.00	2.00	CLAY		
2.00	3.00	1.00	SHALE		
3.00	5.00	2.00	SANDSTONE,SHALE		
5.00	33.00	28.00	SANDSTONE		
33.00	35.00	2.00	MUDSTONE		
35.00	100.00	65.00	SANDSTONE		

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Groundwater Works Summary

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

Work Requested -- GW110436

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

GROUNDWATER NUMBER	GW110436
LIC-NUM	10BL602502
AUTHORISED-PURPOSES	MONITORING BORE
INTENDED-PURPOSES	MONITORING BORE
WORK-TYPE	Bore
WORK-STATUS	
CONSTRUCTION-METHOD	
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	2008-05-27
FINAL-DEPTH (metres)	105.00
DRILLED-DEPTH (metres)	105.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	TAHMOOR COLLIERY
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	85.00
SALINITY	822.00
YIELD	0.10

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

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	
ELEVATION	
ELEVATION-SOURCE	
NORTHING	6209869.00
EASTING	279363.00
LATITUDE	34 13' 44"
LONGITUDE	150 36' 17"
GS-MAP	

AMG-ZONE 56
 COORD-SOURCE
 REMARK

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

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP 1 1128745

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH COURIDJAH
 PORTION-LOT-DP 1 1128745

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	4.30	225			Rotary Air
1		Hole	Hole	4.30	105.00	115			Down Hole Hammer
1	1	Casing	P.V.C.	0.00	4.30	150			Glued; Other
1	1	Casing	P.V.C.	0.00	102.00	50			Riveted and Glued; Seated on Bottom
1	1	Opening	Slots	102.00	105.00	50			PVC Class 18; Sawn; SL: 3mm; A: 1mm

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
90.00	91.00	1.00		84.35	0.10			0.50	822.00

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

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.00	1.00	TOPSOIL SANDY		
1.00	105.00	104.00	SANDSTONE		

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.

Appendix C

Aerial Photographs



Aerial Photo 1 – Wollongong, Run 4C, 29 June 1969.



Aerial Photo 2 – Wollongong 1:40,000, Run 4, 29 June 1979.



Aerial Photo 3 – Wollongong 1984 1:15,000 Colour, Run 11, 24 October 1984.



Aerial Photo 4 – Wollongong 1:25,000 Approx. Scale, Run 6, 4 January 1994.



Aerial Photo 5 – Wollongong 1:25,000 Approx. Scale, Run 6, 20 December 2005.

Appendix D

DECCW Records

You are here: [Home](#) > [Contaminated land](#) > [Record of EPA notices](#) > Search the record

A | A | 

Search the contaminated land record

Search 1

To narrow your search, enter information into more than one field.

LGA Wollondilly Shire Council

Suburb You may select a suburb

Notice Type You may select a notice type

Name

(site, owner, occupier or notice recipient)

Text of
Notices

Date from:

Date to:

(Enter date as dd/mm/yyyy)

or

[search tips](#)

Search 2

Enter a notice number or area number.

or

Search 3

This searches both the database
and the text of all the notices.
To broaden your search type in
more words.

26 July 2010

[search tips](#)



You are here: [Home](#) > [Contaminated land](#) > [Record of EPA notices](#)

A A

Search results

Your search for: LGA: Wollondilly Shire Council

Matched 1 notice relating to 1 site.

[Search Again](#)

[Refine Search](#)

Suburb	Address	Site Name	Notices related to this site
Maldon	Lot 2 Wilton Park Road	Blue Circle Southern Cement, Maldon	1 current

Page 1 of 1

26 July 2010



You are here: [Home](#) > [Environment protection licences](#) > [POEO Public Register](#) > Search for licences, applications and notices

A | A | A

Search the public register (POEO) for licences, applications or notices

You must enter a value in at least one field.

Name

(can be licence holder, applicant, premises or notice recipient)

Suburb

LGA WOLLONDILLY

Catchment All - or select from list

Activity Type All - or select from list

* indicates activity has been removed from schedule or incorporated into another activity type. See the [Protection of the Environment Operations Amendment \(Scheduled Activities and Waste\) Regulation 2008](#) for further information.

Licence Type All - or select from list

Application Type All - or select from list

Notice Type All - or select from list

[search tips](#)

Available for download

[unlicensed premises still regulated by the DECC](#)

[list of all licences](#)

or

Go directly to a licence, application or notice summary

Document number

26 July 2010

Search Results

Your search for: **LGA - WOLLONDILLY**

matched

32 licences (with applications or notices matching your search)

plus 34 notices (where no licence is available online. [See faq.](#))

[Search again](#)

[Return to previous page](#)

Document number	Name	Address	Status
12498	ALLIED MILLS AUSTRALIA PTY LIMITED licence summary	330 Picton Road MALDON 2571	Issued
421	AMITIE PTY LIMITED licence summary	610 MORETON PARK ROAD MENANGLE 2568	Surrendered
126	BAINES MASONARY BLOCKS PTY LTD licence summary	900 WILTON ROAD APPIN 2560	Issued
4705	BAINES TRANSPORT PTY LTD licence summary	900 WILTON ROAD APPIN 2560	No longer in force
212	BLUE CIRCLE SOUTHERN CEMENT LTD licence summary	40 MALDON BRIDGE ROAD MALDON 2571	Issued
641	BURRAGORANG VALLEY COAL PTY LIMITED licence summary	BURRAGORANG ROAD NATTAI 2570	Issued
7588	CONCRITE PTY LTD licence summary	LOT 11 REDBANK PLACE PICTON 2571	No longer in force
5357	EDL CSM (NSW) PTY LTD licence summary	DOUGLAS PARK DRIVE DOUGLAS PARK 2569	Issued
5482	EDL CSM (NSW) PTY LTD licence summary	NORTHHAMPTON DALE ROAD APPIN 2560	Issued
2504	ENDEAVOUR COAL PTY LIMITED licence summary	DOUGLAS PARK DRIVE DOUGLAS PARK 2569	Issued
2504	ENDEAVOUR COAL PTY LIMITED licence summary	OFF APPIN ROAD APPIN 2560	Issued
2504	ENDEAVOUR COAL PTY LIMITED licence summary	WEDDERBURN ROAD APPIN 2560	Issued
398	ENDEAVOUR COAL PTY LIMITED licence summary	DOUGLAS PARK DRIVE DOUGLAS PARK 2569	Surrendered
758	ENDEAVOUR COAL PTY LIMITED licence summary	OFF APPIN ROAD APPIN 2560	Surrendered
11768	ENVIROGEN PTY LIMITED licence summary	REMEMBRANCE DRIVEWAY TAHMOOR 2573	Issued
12990	ENVIRONMENTAL TREATMENT SOLUTIONS PTY LTD licence summary	Unit 12, 7-10 Technology Drive APPIN 2560	Issued
4142	ERARING ENERGY licence summary	VALVE HOUSE ROAD WARRAGAMBA 2752	Surrendered
42	HANSON CONSTRUCTION MATERIALS PTY LTD licence summary	85 BRIDGE STREET PICTON 2571	No longer in force
12998	HI-QUALITY QUARRY (NSW) PTY LTD licence summary	440 Burragorang Road GLENMORE 2570	Issued
1462	HI-QUALITY QUARRY (NSW) PTY LTD licence summary	NORTONS BASIN ROAD WARRAGAMBA 2752	Issued

1 2 3 4

Search Results

Your search for: **LGA - WOLLONDILLY**

matched

32 licences (with applications or notices matching your search)
plus 34 notices (where no licence is available online. [See faq.](#))

[Search again](#)

[Return to previous page](#)

Document number	Name	Address	Status/Notice type
11636	INGHAMS ENTERPRISES PTY LIMITED licence summary	345 APPIN ROAD APPIN 2560	Issued
1699	INGHAMS ENTERPRISES PTY LIMITED licence summary	ROCKFORD ROAD TAHMOOR 2573	Issued
7604	STATE OF NEW SOUTH WALES (DEPARTMENT OF PRIMARY INDUSTRIES) licence summary	WOODBIDGE ROAD MENANGLE 2568	No longer in force
10555	SYDNEY WATER CORPORATION licence summary	REMEMBRANCE DRIVE PICTON 2571	Issued
11504	SYDNEY WATER CORPORATION licence summary	THE TOWNSHIP OF BELIMBLA PARK 2570	Surrendered
12235	SYDNEY WATER CORPORATION licence summary	including the STP at NORTONS BASIN ROAD WALLACIA 2745	Issued
1778	SYDNEY WATER CORPORATION licence summary	END OF WEIR ROAD WARRAGAMBA 2752	Surrendered
1389	TAHMOOR COAL PTY LTD licence summary	REMEMBRANCE DRIVE TAHMOOR 2573	Issued
2387	THE SCOUT ASSOCIATION OF AUSTRALIA licence summary	BADEN POWELL DRIVE APPIN 2560	Surrendered
3417	TJ & RF FORDHAM PTY LTD licence summary	BURRAGORANG ROAD MOUNT HUNTER 2570	Surrendered
422	WOLLONDILLY ABATTOIRS PTY LIMITED licence summary	48 KOORANA ROAD PICTON 2571	Issued
4390	WOLLONDILLY SHIRE COUNCIL licence summary	WOLLONDILLY SHIRE COUNCIL PICTON 2571	Issued
6061	WOLLONDILLY SHIRE COUNCIL licence summary	ANTHONY ROAD BARGO 2574	Issued
6062	WOLLONDILLY SHIRE COUNCIL licence summary	PRODUCTION AVE WARRAGAMBA 2752	Issued
010374	"BROWNLOW HILL" notice summary	LOOP ROAD THERESA PARK 2570	S 80 Surrender Licence
010369	"GROVE FARM" notice summary	SILVERDALE ROAD WALLACIA 2750	S 80 Surrender Licence
009558	BARGO CONFERENCE CENTRE notice summary	44-46 HAMBRIDGE ROAD BARGO 2574	S 80 Surrender Licence
008945	BORAL RESOURCES (COUNTRY) PTY LIMITED notice summary	LOT 31 WILTON ROAD MALDON 2571	S 80 Surrender Licence
008266	BRIMSTONE COLLIERY notice summary	RIDGE ROAD OAKDALE 2570	S 58 Licence Variation
008537	BRIMSTONE COLLIERY notice summary	RIDGE ROAD OAKDALE 2570	S 58 Licence Variation

1 2 3 4

Search Results

Your search for: **LGA - WOLLONDILLY**

matched

32 licences (with applications or notices matching your search)

plus 34 notices (where no licence is available online. [See faq](#))

[Search again](#)

[Return to previous page](#)

Document number	Name	Address	Notice type
008694	BRIMSTONE COLLIERY notice summary	RIDGE ROAD OAKDALE 2570	S 58 Licence Variation
011189	BRIMSTONE COLLIERY notice summary	RIDGE ROAD OAKDALE 2570	S 79 Revoke Licence
009417	BUXTON PUBLIC SCHOOL notice summary	HASSAL ROAD BUXTON 2571	S 80 Surrender Licence
011097	COUNCIL EFFLUENT PONDS notice summary	CHARLIES POINT ROAD BARGO 2574	S 80 Surrender Licence
010425	DUKE ENERGY INTERNATIONAL - BROUGHTON PASS WEIR notice summary	WILTON ROAD BROUGHTON PASS 2571	S 91 Clean-Up Notice
010760	DUKE ENERGY INTERNATIONAL - BROUGHTON PASS WEIR notice summary	WILTON ROAD BROUGHTON PASS 2571	S 91 Clean-Up Notice
009561	ECONOMY CONCRETE TANKS notice summary	ESTONIAN ROAD THIRLMERE 2572	S 80 Surrender Licence
008936	GOURMET FOODS PTY LTD notice summary	LOT 2 ECONO PLACE SILVERDALE 2752	S 80 Surrender Licence
1001365	HILLCREST PARK PIGGERY notice summary	610 MORETON PARK ROAD MENANGLE 2568	S 58 Licence Variation
010323	INGHAMS ENTERPRISES PTY LIMITED MALDON HATCHERY notice summary	LOT 2, MENANGLE ROAD MALDON 2571	S 80 Surrender Licence
010325	INGHAMS ENTERPRISES PTY LTD notice summary	CROSS STREET TAHMOOR 2573	S 80 Surrender Licence
011098	LOTS 28, 44, 45 AND 61 notice summary	AVOCA ROAD SILVERDALE 2752	S 80 Surrender Licence
010318	MOBIL OIL AUSTRALIA LIMITED notice summary	LOTS 12 - 14 SOUTH WESTERN FREEWAY PHEASANTS NEST 2574	S 80 Surrender Licence
008964	NEPEAN QUARRIES PTY LTD notice summary	LOT 2 WEROMBI ROAD ORANGEVILLE 2570	S 80 Surrender Licence
008937	PICTON VILLAGE MOTEL notice summary	1665 REMBRANCE DRIVEWAY PICTON 2571	S 80 Surrender Licence
009608	S & G WATLING HAULAGE notice summary	110 STEVEYS FOREST ROAD OAKDALE 2570	S 80 Surrender Licence
011113	SILVERDALE CHILD CARE CENTRE notice summary	131 TAYLORS ROAD SILVERDALE 2752	S 80 Surrender Licence
008339	SILVERDALE RIFLE RANGE notice summary	LOT 76 AVOCA ROAD SILVERDALE 2750	S 80 Surrender Licence
011245	SYDNEY SOIL TECHNOLOGY PTY LTD notice summary	250 AVOCA ROAD SILVERDALE 2752	S 80 Surrender Licence
010363	THE OWNERS STRATA PLAN NO 39840 notice summary	5-7 WINPARA PLACE TAHMOOR 2573	S 80 Surrender Licence

[1](#) [2](#) [3](#) [4](#)

You are here: [Home](#) > [Environment protection licences](#) > [POEO Public Register](#) > [Search for licences, applications and notices](#)

A | A | 

Search Results

Your search for: **LGA - WOLLONDILLY**

matched

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plus 34 notices (where no licence is available online. [See faq](#))

[Search again](#)

[Return to previous page](#)

Document number	Name	Address	Notice type
008928	UNIVERSITY OF SYDNEY - CAMDEN CAMPUS notice summary	WEROMBI ROAD CAMDEN 2570	S 80 Surrender Licence
009018	VERNAVILLE PASTORAL CO.VERNAVILLE PIGGERY notice summary	SPRING CREEK ROAD SPRING CREEK 2570	S 80 Surrender Licence
008691	WARRAGAMBA DAM notice summary	- WARRAGAMBA 2752	S 58 Licence Variation
010893	WARRAGAMBA DAM notice summary	- WARRAGAMBA 2752	S 58 Licence Variation
011296	WARRAGAMBA DAM notice summary	- WARRAGAMBA 2752	S 58 Licence Variation
009683	WEST CLIFF COLLIERY notice summary	WEDDERBURN ROAD APPIN 2560	S 58 Licence Variation
010681	WILTON METER STATION notice summary	ASHWOOD ROAD WILTON 2571	S 80 Surrender Licence
011217	WOLLONDILLY COUNCIL WORK DEPOT notice summary	MARGARET STREET PICTON 2571	S 80 Surrender Licence

1 2 3 4

Page 4 of 4

26 July 2010

Appendix E
Title Records

~ Search ~

re River Road Tahmoor
Being Lots A & B in DP 369710
Lots 85 & 86 in DP 751270

Title Tree

A / 369710

B / 369710

85 / 751270

86 / 751270

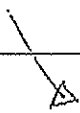


V. 6207 F. 165

V. 6208 F. 14

V. 10441 F. 90

V. 10614 F. 21



V. 2923 F. 87

WJ 13/7/10

Jenners Title Searching Co.

ESTABLISHED 1949

~ Search ~

re River Road Tahmoor
Being Lots A + B in DP 369710

Schedule of Registered Proprietors

rown Grant Alexander Edward Knauer
V. 2923 F. 87 of Myrtle Creek, Pictou
iss 11/3/1919

TA C 479184 Frederick Knauer
Reg 26/10/36 of Tahmoor
(V. 2923 F. 87) Farmer

TA C 867477 James Stone
Reg 30/1/40 of Pictou, Labourer &
(V. 2923 F. 87) Matilda Grace Stone, his wife

~ Search ~

re River Road Tahmoor
Being Lot A in DP 369710

Schedule of Regd Proprietors Contd.

Ltr L 823349 } Caughlan Properties Pty. Limited
Reg 1/5/70
V. 6207 F. 165

Ltr M 903545 } Joan Alice Hightington
Reg 28/9/72 of Camden
V. 6207 F. 165 } Married Woman

Ltr N 307863 }
Reg 9/7/73 Taligna Pty. Limited
V. 6207 F. 165

Ltr S 169363 } Foam Investments Pty.
Reg 20/11/80 Limited
V. 6207 F. 165

Ltr AA 602221 }
Reg 30/4/2004 Tessonian Pty. Limited
A/369-110

WJ 13/7/10.

Jenners Title Searching Co.

ESTABLISHED 1949

~ Search ~

re River Road Tahmoor.
Being Lot 85 in DP 751270

Schedule of Regd Proprietors

Crown Grant The Commercial Banking Company of Sydney
 V. 10441 F. 90 as Mtgc from Robert Glenney Dunk
 28/10/66 & Jennifer May Dunk

Plan L 859931 Robert Glenney Dunk
 Reg 5/6/70 of Tahmoor Coal Mines &
 V. 10441 F. 90 Jennifer May Dunk his wife

Plan N 60535 John Ross Cribb
 Reg 5/2/73 of Cronulla
 V. 10441 F. 90 Company Director

Plan AB 65877
 Reg 3/11/2004 Tessonian Pty. Ltd
 (85/751270)

~ Search ~

re River Road Tahmoor
Being Lot 86 in DP 751270

Schedule of Legal Proprietors Contd.

Town Grant James Stone
J. 10614 F.219 of Rosenfelds
9/8/67 Tahmoor

Fr L 823348 Coughlan Properties
Reg 4/5/70 Pty. Limited
V. 10614 F.219)

Fr M 903545 Joan Alice Highbington
Reg 28/9/72 of Camden
V. 10614 F.219) Married Woman

Fr N 307863
Reg 9/7/73 Saligna Pty. Limited
V. 10614 F.219)

Fr 5169363
Reg 20/11/80 Joam Investments Pty. Limited
V. 10614 F.219)

Fr AA602221
Reg 30/4/2004 Tessonian Pty. Limited
86/751270)



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Jenners Title Searching Co. 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 LPINSII Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: A/369710

SEARCH DATE	TIME	EDITION NO	DATE
13/7/2010	9:39 AM	4	26/9/2007

LAND

LOT A IN DEPOSITED PLAN 369710
LOCAL GOVERNMENT AREA WOLLONDILLY
PARISH OF COURIDJAH COUNTY OF CAMDEN
TITLE DIAGRAM DP369710

FIRST SCHEDULE

TESSONIAN PTY LIMITED

(T AA602221)

SECOND SCHEDULE (3 NOTIFICATIONS)

- 1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
- 2 AA816324 MORTGAGE TO PERMANENT NOMINEES (AUST) LIMITED
AD441563 VARIATION OF MORTGAGE AA816324
- * 3 AF433675 CAVEAT BY JOHN MARTIN CAMILLERI

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

JBS-Tahmoor

PRINTED ON 13/7/2010

*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.



Jenners Title Searching Co.



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Information provided through Tri-Search an approved LPINSH Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: B/369710

SEARCH DATE	TIME	EDITION NO	DATE
13/7/2010	9:38 AM	3	26/9/2007

LAND

LOT B IN DEPOSITED PLAN 369710
LOCAL GOVERNMENT AREA WOLLONDILLY
PARISH OF COURIDJAH COUNTY OF CAMDEN
TITLE DIAGRAM DP369710

FIRST SCHEDULE

TESSONIAN PTY LTD (T AB65877)

SECOND SCHEDULE (3 NOTIFICATIONS)

- 1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
- 2 AB65878 MORTGAGE TO PERMANENT NOMINEES (AUST) LIMITED
AD441549 VARIATION OF MORTGAGE AB65878
- * 3 AF433675 CAVEAT BY JOHN MARTIN CAMILLERI

NOTATIONS

UNREGISTERED DEALINGS: NIL

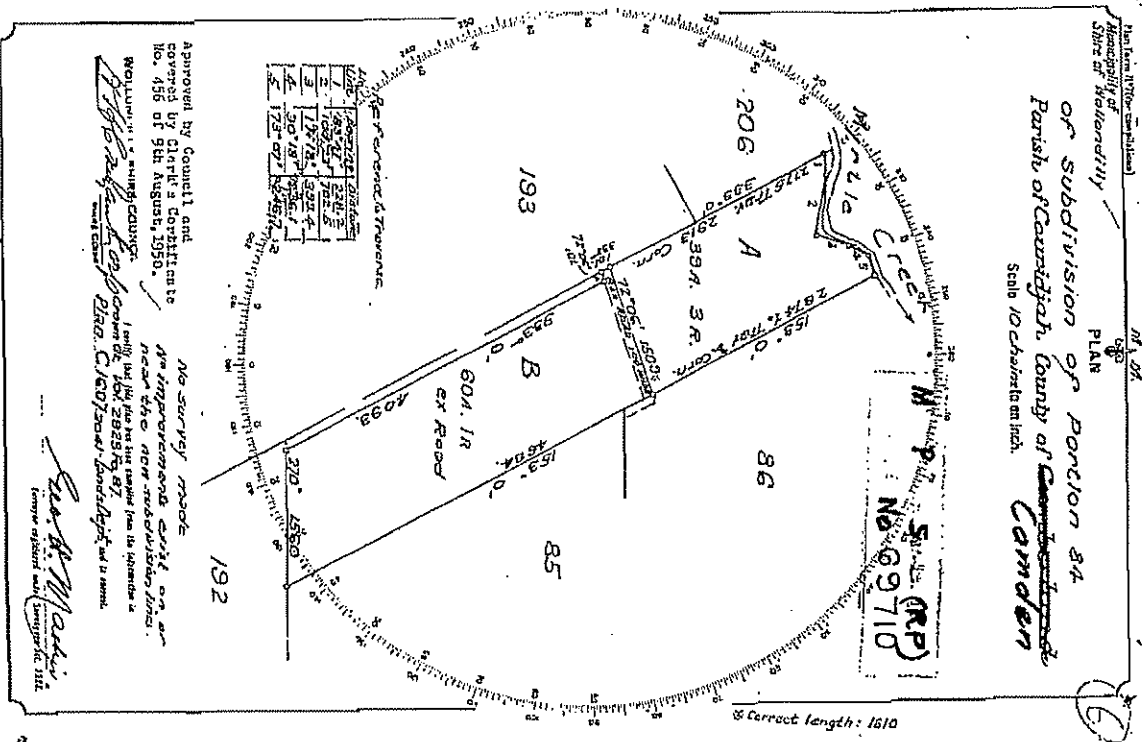
*** END OF SEARCH ***

JBS-Tahmoor

PRINTED ON 13/7/2010

*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.

FR01023 FP369710 F201023
11/50



PX

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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I, Bruce Richard Dwyer, Registrar General for New South Wales, certify that this negative is a photograph made on a permanent record of a document in my custody this 4th day of October, 1978.

CONVERSION TABLE ADDED IN DEPARTMENT OF LANDS

LINKS	FEET
2.5	0.503
10	2.012
20	4.024
30	6.036
40	8.048
50	10.060
60	12.072
70	14.084
80	16.096
90	18.108
100	20.120
110	22.132
120	24.144
130	26.156
140	28.168
150	30.180
160	32.192
170	34.204
180	36.216
190	38.228
200	40.240
210	42.252
220	44.264
230	46.276
240	48.288
250	50.300
260	52.312
270	54.324
280	56.336
290	58.348
300	60.360
310	62.372
320	64.384
330	66.396
340	68.408
350	70.420
360	72.432
370	74.444
380	76.456
390	78.468
400	80.480
410	82.492
420	84.504
430	86.516
440	88.528
450	90.540
460	92.552
470	94.564
480	96.576
490	98.588
500	100.600
510	102.612
520	104.624
530	106.636
540	108.648
550	110.660
560	112.672
570	114.684
580	116.696
590	118.708
600	120.720
610	122.732
620	124.744
630	126.756
640	128.768
650	130.780
660	132.792
670	134.804
680	136.816
690	138.828
700	140.840
710	142.852
720	144.864
730	146.876
740	148.888
750	150.900
760	152.912
770	154.924
780	156.936
790	158.948
800	160.960
810	162.972
820	164.984
830	166.996
840	169.008
850	171.020
860	173.032
870	175.044
880	177.056
890	179.068
900	181.080
910	183.092
920	185.104
930	187.116
940	189.128
950	191.140
960	193.152
970	195.164
980	197.176
990	199.188
1000	201.200



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Information provided through Tri-Search an approved LPINSH Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 85/751270

SEARCH DATE	TIME	EDITION NO	DATE
13/7/2010	9:39 AM	3	26/9/2007

LAND

LOT 85 IN DEPOSITED PLAN 751270
LOCAL GOVERNMENT AREA WOLLONDILLY
PARISH OF COURIDJAH COUNTY OF CAMDEN
(FORMERLY KNOWN AS PORTION 85)
TITLE DIAGRAM CROWN PLAN 1608.2041

FIRST SCHEDULE

TESSONIAN PTY LTD

(T AB65877)

SECOND SCHEDULE (4 NOTIFICATIONS)

- 1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
- 2 EXCEPTING LAND BELOW A DEPTH FROM THE SURFACE OF 15.24 METRES
- 3 AB65878 MORTGAGE TO PERMANENT NOMINEES (AUST) LIMITED
AD441549 VARIATION OF MORTGAGE AB65878
- * 4 AF433675 CAVEAT BY JOHN MARTIN CAMILLERI

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

JBS-Tahmoor

PRINTED ON 13/7/2010

*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.

PLAN OF PORTION 85 County of Camden Parish of Courcyah

Applied for under the 26th Clause of the C. L. Act of 1884 by

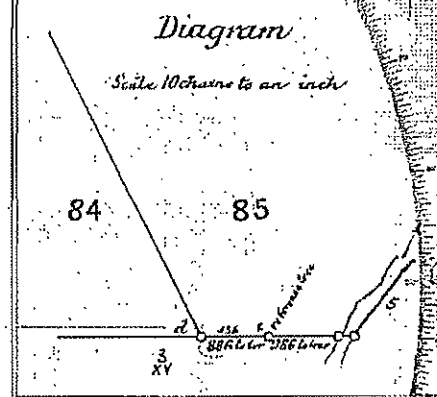
Gottlob Mangold

86/923

CP 85 36th August. Confirmed 9-7-86 for failed vide Liens 13th June 86
 Within State Coal Mine Reserve Proc^d 7th Sep^r 1917. Revalued to a depth of 50 feet - Cgs 21831
 (Sp. L. 43.7. Picton. James Stone & Mahida Grace Stone. Now AC P 48.3 Aug 15th (Convⁿ) Approved Sls. 50/px
 (Now The Commercial Banking Company of Sydney Limited. Sale completed 6/10/67)
 Grant limited to surface and depth of 50 feet.

Original plan indicates
 bank is the portion boundary
 (ADDED FOR MICROFILM PURPOSES)

PLAN MICROFILMED
 NO ADDITIONS OR AMENDMENTS TO BE MADE



Note.
 In the survey of Por 2 (in 1863 by
 J. S. A. Campbell) the N.E. corner
 not found by Mr. Huko evidently
 was marked above the precipice.

Atimuth taken from por. 84

Reference to Corners

Corn	Bearing	From	Side	N ^o on Tree
a	220° 41'	from bark	16	85
b	7° 00'	on rock	85	86
c	195° 01'	gum	46	86
d	103° 32'	Sty bark	59	84

Note. c is a reference line at edge of
 cliff and not a corner

Reference to Traverse

Line	Bearing	Distance
1	140° 55'	670
2	134° 54'	941
3	202° 54'	20147
4	170° 01'	259
5	219° 46'	4182
6	272° 00'	2543

Herewith that I in person made and on the 3rd mo. 86
 employed the survey representation this plan, on which are
 written the bearings and lengths of the lines measured by
 me, and I declare that the survey has been executed in a work-
 manlike manner with the regulations published for the guidance of
 Licensed Surveyors and the practice of the Survey General
 Department.

1608-2041

Amesbury Blake
 Lic^d Surveyor

Scale 20 Chains to an inch
 C 1608-2041
 Made in the New Zealand Survey Office on the 12th March 1886



Jenners Title Searching Co.



Jenners Title Searching Co. 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: 86/751270

SEARCH DATE	TIME	EDITION NO	DATE
13/7/2010	9:39 AM	4	26/9/2007

LAND

LOT 86 IN DEPOSITED PLAN 751270
LOCAL GOVERNMENT AREA WOLLONDILLY
PARISH OF COURIDJAH COUNTY OF CAMDEN
(FORMERLY KNOWN AS PORTION 86)
TITLE DIAGRAM CROWN PLAN 3516.2041

FIRST SCHEDULE

TESSONIAN PTY LIMITED

(T AA602221)

SECOND SCHEDULE (4 NOTIFICATIONS)

- 1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
- 2 EXCEPTING LAND BELOW A DEPTH FROM THE SURFACE OF 15.24 METRES
- 3 AA816324 MORTGAGE TO PERMANENT NOMINEES (AUST) LIMITED
AD441563 VARIATION OF MORTGAGE AA816324
- * 4 AF433675 CAVEAT BY JOHN MARTIN CAMILLERI

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

JBS-Tahmoor

PRINTED ON 13/7/2010

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A.293

Cancel plan C/1605 2011

Within State Coal Mine Reserve. Procl'd 7th Sept 1917.

Revised: 9 4 113 to a depth of 50 feet.

Papers L.B.36,311

L 37/102

PLAN OF PORTION 86 (Remarking)

Parish of Couridjah County of Camden

LAND DISTRICT OF PICTON

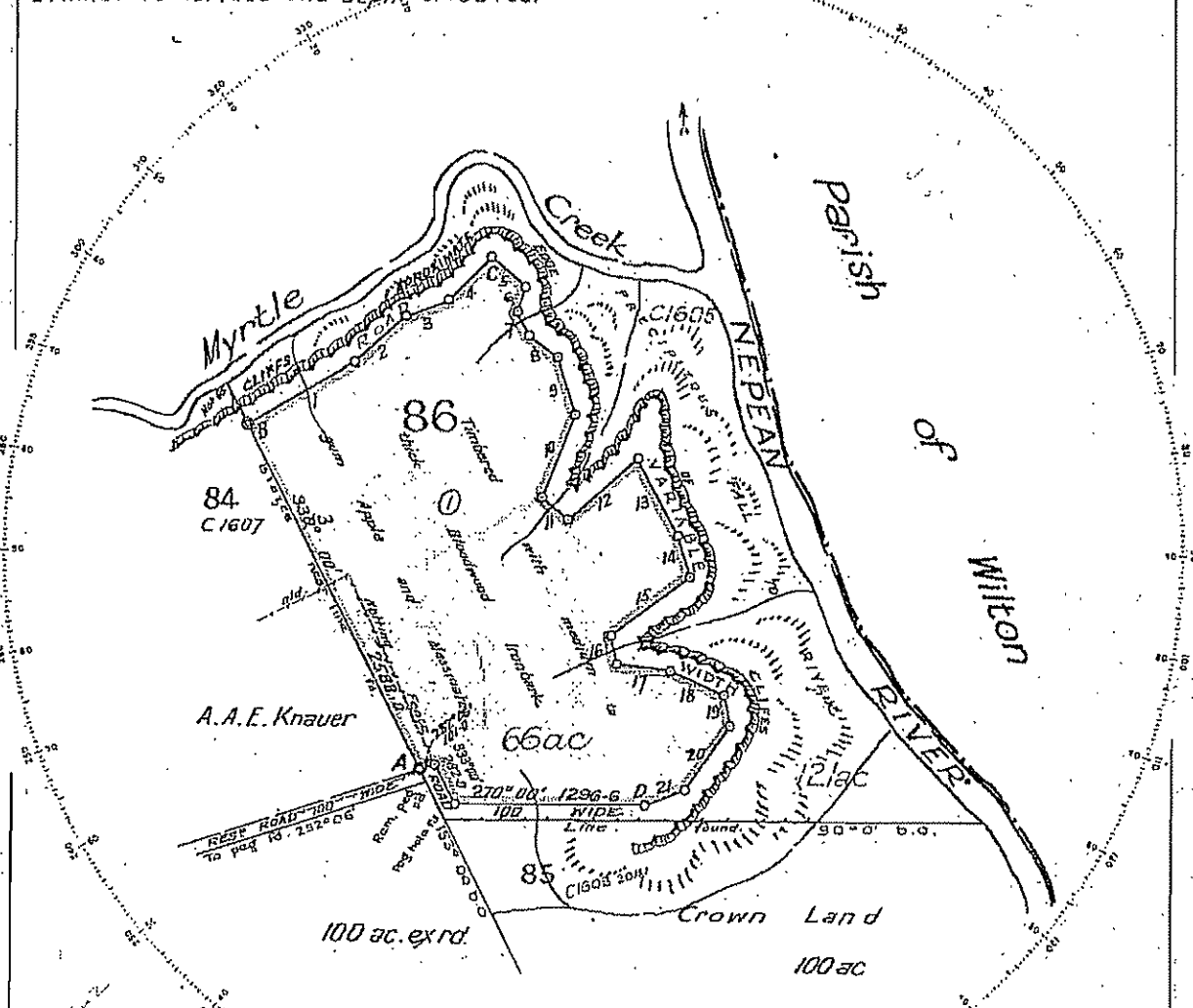
LAND BOARD DISTRICT OF SYDNEY.

WOLLONDILLY SHIRE

Applied for under the 75th Section of the Crown Lands Consolidation Act 1913 by Frederick Knauer

Por. 86: Sp. L. 36-12 Farfield & ...

do Sp. L. 40-2 James Stone ... June 25th (Comm) Sale completed Ten 67-1053 Grant limited to surface and depth of 50 feet



PLAN MICROFILMED

NO ADDITIONS OR AMENDMENTS TO BE MADE

Azimuth taken from Northward by Por. 85

Field Book L.L. 85B Pages. 23 to 26

Reference to Corners

Corner	Bearing	From	Links	N° or Dec
A	96° 06'	Ironbark	37.7	
A	150° 00'	Bottle Charcoal	5' 0	
B	305° 37'	Gum	18.4	
B	333° 00'	Bottle Charcoal	5' 0	
C	161° 04'	Gum	20.1	
D	291° 09'	Ironbark	30.0	

Reference to Traverse

Line	Bearing	Distance
1	63° 44'	857.9
2	48° 01'	456.7
3	53° 21'	298.8
4	53° 10'	419.8
5	120° 33'	300.5
6	127° 43'	177.8
7	162° 23'	188.5
8	187° 23'	455.5
9	162° 21'	537.7
10	201° 10'	233.6
11	131° 12'	532.3
12	121° 27'	523.3
13	161° 55'	823.4
14	233° 34'	185.5
15	163° 31'	463.5
16	112° 28'	192.7
17	170° 04'	548.1
18	214° 51'	301.0
19	217° 50'	

Improvements

3516-2041

Scale 10 Chains to an Inch

Assigned Standard Trace

Cat. No. C3516-2041

I, Thomas Paul Keig
of Sydney

a Surveyor registered under the Surveyors Act, 1929 do hereby solemnly and sincerely declare that the survey represented in this plan has been made by me in accordance with the Survey Practice Regulations 1933 and the special requirements of the Department of Lands was completed on the 27th April 1933, and the reference marks have been placed as shown hereon.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act, 1900.

Surveyor registered under the Surveyors Act, 1929.

Subscribed and declared before me at Cronulla this 21st day of July 1933.

* Strike out when not required.
Transmitted to the District Surveyor with my letter of 22nd July 1933 / N° 122.
Checked and Certified by the District Surveyor on 19th August 1933.
Examined by the District Surveyor on 19th August 1933.
Plan approved by the District Surveyor on 19th August 1933.



Jenners Title Searching Co.



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Information provided through Tri-Search an approved LPINSW Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

13/7/2010 9:39AM

FOLIO: A/369710

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 6207 FOL 165

Recorded	Number	Type of Instrument	C.T. Issue
2/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
13/11/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
31/10/2003	AA118037	CAVEAT	
27/4/2004	AA590041	APPLN FOR REPLACEMENT CT	EDITION 1
30/4/2004	AA602220	WITHDRAWAL OF CAVEAT	
30/4/2004	AA602221	TRANSFER	EDITION 2
22/7/2004	AA816324	MORTGAGE	EDITION 3
26/9/2007	AD441563	VARIATION OF MORTGAGE	EDITION 4
15/4/2010	AF433675	CAVEAT	

*** END OF SEARCH ***

JBS-Tahmoor

PRINTED ON 13/7/2010

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201.

Appn. No.

Reference to Grant

Vol. 2923 Fol. 87

New South Wales.

[CERTIFICATE OF TITLE]

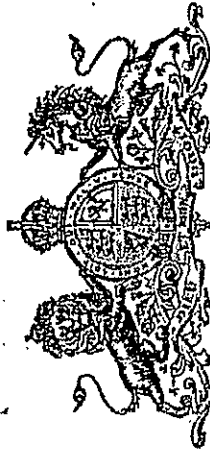
JOINT TENANCY

ORDER NO. F. 201024

RESIDUE AFTER TRANSFER NO. F. 201023
REGISTER BOOK

6207 165

Vol. Fol.

S
G.R.M.

CANCELLED W
ON ISSUE OF NEW FOLIO A/369710

JAMES STONE of PICTON, Labourer, and MARILDA GRACE STONE, his wife, by virtue of Crown Grant Volume 2923 Folio 87 now surrendered as to Residue after Transfer No. F201023 are now the proprietors of an Estate in Fee Simple as Joint Tenants subject nevertheless to the reservations and conditions, if any, contained in the Grant hereinafter referred to, and also subject to such encumbrances, liens, and interests as are notified hereon, in That piece of land situated in the Shire of Wollondilly Parish of Courtajah, and County of Camden containing Thirty nine acres three roods or thereabouts as shown in the plan hereon and therein edged red being Lot A in plan annexed to the said Instrument of Transfer No. F201023 and being part of Portion B4 originally granted to Albert Alexander Edward Knauer by Crown Grant dated the 11th day of March, 1919 Volume 2923 Folio 87.

369710

In witness whereof I have hereunto signed my name and affixed my Seal, this Twenty-seventh day of October, 1950.

Signed in the presence of



Registrar-General.

Joan Alice Hershington of Camden, Married
Woman do

now the registered proprietor of the land within described.

See TRANSFER No. 11903545 dated 27 July 1972

Entered 28th September 1972

J. J. J. J.
REGISTRAR GENERAL

11903546 -- MORTGAGE dated 27th July 1972
to Frank Noel Hammond Grace McKee and
Patricia Margaret McKee

Entered 28th September 1972

J. J. J. J.
REGISTRAR GENERAL

MORTGAGE No. 11903546 has been discharged.

See 11903547 Entered 27 July 1973

J. J. J. J.
REGISTRAR GENERAL

Solignum Pty Limited

now the registered proprietor of the land within described.

HEATHFIELD PROPERTY
Limited
Bathurst 21-1-1980

J. J. J. J.
REGISTRAR GENERAL

TRANSFERS 5 GRANT TO BATHURST
SEA Limited
Bathurst 20-11-1980

J. J. J. J.
REGISTRAR GENERAL

5163 5169364 Mortgage V258900.
Variation Registered 3-5-1984.

J. J. J. J.
REGISTRAR GENERAL

V258902.
V258901 Mortgage to Tricontinental
Finance Corporation Limited. Registered
3-5-1984.

J. J. J. J.
REGISTRAR GENERAL

11903546
X 250646
15. 12. 1981

J. J. J. J.
REGISTRAR GENERAL



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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

13/7/2010 9:40AM

FOLIO: B/369710

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 6208 FOL 14

Recorded	Number	Type of Instrument	C.T. Issue
2/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
'11/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
31/10/2003	AA118038	CAVEAT	
3/11/2004	AB65875	WITHDRAWAL OF CAVEAT	
3/11/2004	AB65876	DISCHARGE OF MORTGAGE	
3/11/2004	AB65877	TRANSFER	
3/11/2004	AB65878	MORTGAGE	
3/11/2004	AB65879	MORTGAGE	EDITION 1
1/6/2005	AB519309	DISCHARGE OF MORTGAGE	EDITION 2
26/9/2007	AD441549	VARIATION OF MORTGAGE	EDITION 3
15/4/2010	AF433675	CAVEAT	

*** END OF SEARCH ***

JBS-Tahmoor

PRINTED ON 13/7/2010

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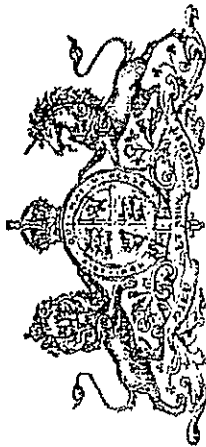
201.

Appn. No.

Reference to Grant

Vol. 2923 Vol. 87

New South Wales.



[CERTIFICATE OF TITLE.]

41371-1 3.30

JOINT TENANCY

Register Book.

6208

Vol. 14

Fol.

S

6208-14-14

B/367710

CN13.200

ERIC CORROON GLENACROSS GRANT of Tahmoor, Clerk and MIA ENICE GRANT, his wife, Transferees under Instrument of Transfer

No. F201023 are now the proprietors of an Estate in Fee Simple as Joint Tenants, subject nevertheless to the reservations and conditions, if any, contained in the Grant hereinafter referred to, and also subject to such encumbrances, liens, and interests as are notified hereon, in that piece of land situated in the Shire of Wollondilly Parish of Couridjah, and County of Camden containing Sixty acres one rood or thereabouts as shown in the plan hereon and therein edged red being Lot B in plan annexed to the said Instrument of Transfer No. F201023 and being part of Portion 84 originally granted to Albert Alexander Edward Kauer by Crown Grant dated the 11th day of March, 1915 Volume 2923 Folio 87. Excepting out of the said piece of land the road coloured brown in the plan hereon the area of which is not included in the above stated area of 60 acres 1 rood.

In witness whereof I have hereunto signed my name and affixed my Seal, this

Twenty-seventh day of October

1910.

Signed in the presence of

[Signature]

[Signature]

Registrar-General.



Robert Tate

No. 4. 1937. MONDAY and 17.6 May 1937
 10. Landa Store of Labrador (Landed)
 'Landa' 6
 Entered 6th June 1937
Anderson
 REGISTRAR GENERAL

MORTGAGE No. L 570112 has been discharged.
 See 'N. C. S. H.' Entered 'Libraries' 1922

REGISTRAR GENERAL

Philip Reas Prob. of Insolvency, Company
 Director of
 170-18000 No. N60535 Date 11/14/1997
 98-23
 RECEIVED GENERAL

No. N 60836P MORTG. IT OR + ^{HQ.} Winnipeg 1972
to Commenced with I & J deign Bank
Quarterly

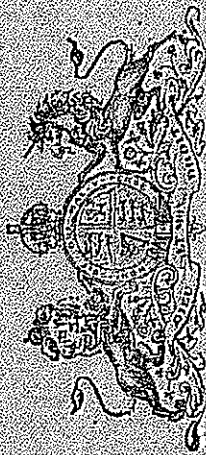
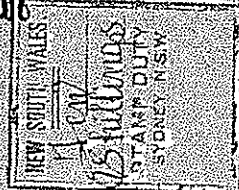
C.P.

Since 1 Jan, '85

No. 1918/3837

State of New South Wales.

[LAND GRANT.]



REGISTER BOOK,

Vol. 2923 For 87

CANCELLED

GRANT OF LAND PURCHASED BY CONDITIONAL SALE.

C. P. 85.2

Section

GEORGE E., by the Grace of God, of the United Kingdom of Great Britain and Ireland, and of the British Dominions beyond the Seas, King, Defender of the Faith, Emperor of India.

DO ALL to whom these Presents shall come, Writing:—

Whereas Albert Alexander Edward Knave of Myrtle Creek Station

in Our State of New South Wales claims to be entitled to the Parcel of Land hereinafter described in virtue of a Conditional Purchase of the same applied for on the 14th day of August 1885

under the Provisions of the Crown Lands Act of 1884 and a certificate of compliance with the conditions applicable to such purchase has been issued And Whereas the sum of one hundred pounds Sterling being the purchase money payable for the said Land has been duly paid into the Office of the Treasurer of Our said State And all things required by law to be done to entitle the said Albert Alexander Edward Knave

to a grant of the fee simple of the said Land Subject to the Reservations and Exceptions hereinafter contained have been done and performed Now Know Ye That for and in consideration of the said sum for and on Our behalf well and truly paid into the Treasury of Our said State before these Presents are issued and of all and singular the premises We HAVE GRANTED and for Us Our Heirs and Successors DO HEREBY GRANT unto the said Albert Alexander Edward Knave Esq

Heirs and Assigns Subject to the Reservations and Exceptions hereinafter contained And THAT Piece or Parcel of Land in Our said State containing by admeasurement one hundred acres be the same more or less situated in the county of Camden and Parish of Larriwayah

Section 84

Commencing in the right bank of Myrtle Creek at the Western corner of Section eighty six of one hundred and twenty one acres and bounded thence on the north East by the said Section

REGORDED and ENROLLED in the Registrar General's Office, at Sydney, in New South

Wales, this

25th day of March

1919

W. Williams

Registrar General.

No. C 479185 APPLICATION BY TRANSMISSION
Frederick Weaver of Johnson Farm
is the registered
Proprietor of the Land within described in pursuance of the above
Application Produced 13th October 1936 and
entered 26th October 1936
at 4 o'clock in the afternoon
W. Williams
REGISTRAR GENERAL

No. C 479185 CAVEAT
by the Registrar General
Produced 13th October 1936
entered 26th October 1936
at 4 o'clock in the afternoon
W. Williams
REGISTRAR GENERAL

The within Caveat No. C 479185 is hereby withdrawn
Dated 20th January 1940
W. Williams
REGISTRAR GENERAL

No. C 461477 TRANSFER dated 12th December 1939
from the said *Frederick Weaver to James Steen of
Folton, Weaver and Charles Grace Stone Esq
High Street, London*
Produced 19th January 1940 and entered 20th January 1940
at 12th o'clock in the noon
W. Williams



Jenners Title Searching Co.



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

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

13/7/2010 9:40AM

FOLIO: 85/751270

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 10441 FOL 90

Recorded	Number	Type of Instrument	C.T. Issue
3/12/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
/2/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
11/8/1998	5188657	DEPARTMENTAL DEALING	
31/10/2003	AA118038	CAVEAT	
3/11/2004	AB65875	WITHDRAWAL OF CAVEAT	
3/11/2004	AB65876	DISCHARGE OF MORTGAGE	
3/11/2004	AB65877	TRANSFER	
3/11/2004	AB65878	MORTGAGE	
3/11/2004	AB65879	MORTGAGE	EDITION 1
1/6/2005	AB519309	DISCHARGE OF MORTGAGE	EDITION 2
26/9/2007	AD441549	VARIATION OF MORTGAGE	EDITION 3
15/4/2010	AF433675	CAVEAT	

*** END OF SEARCH ***

JBS-Tahmoor

PRINTED ON 13/7/2010

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GRANT OF LAND

Vol. 10441
RegisteredFol. 90
28-11-1968

Registrar General.

CANCELLED

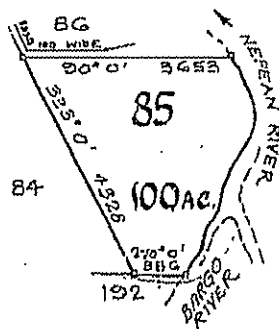
WE HEREBY the GOVERNOR, by the Order of God of the United Kingdom
after Heinous and Treacherous Queen, Head of the Commonwealth, Defender of the Faith:-
To All to whom these Presents shall come, Greetings:-

SEE AUTO FOLIO

Whereas the COMMERCIAL BANKING COMPANY OF SYDNEY LIMITED (hereinafter called the GRANTOR) is the holder of Additional Conditional Purchase No. 1948/3 in the Land District of Ficton in Our State of New South Wales comprising the land hereinafter described and intended to be hereby granted limited to the surface thereof and to a depth of fifty feet below such surface which holding was acquired by way of conversion of a Special Lease not being a Special Lease granted over an expired Conditional Lease the holder of which had failed to apply for extension of the term AND WHEREAS the sum of sixty six pounds thirteen shillings and four pence being the purchase money payable for the said land has been duly paid and all things required by law to be done to entitle the GRANTEE to a Grant of the fee simple of the said Land subject to the Reservations Exceptions and Conditions hereinafter contained have been done and performed NOW THESE PRESENTS WITNESS That in consideration of the premises WE DO HEREBY GRANT unto the GRANTEE Subject to the Reservations Exceptions and Conditions hereinafter contained ALL THAT parcel of land in Our said State containing by admeasurement one hundred acres be the same more or less situated in the County of Camden Parish of Conridjah Section 85 as shown in plan catalogued No. C.7608-2041 in the Department of Lands

Attention is directed to the provisions of Section 272 of the Crown Lands Consolidation Act, 1913, as amended relating to restrictions on transfer.

Attention is directed to the notification in the Government Gazette dated 11th May 1923 whereby the Crown Land comprised in the bed of the Bargo River and the Hepburn River has been reserved from Sale or Lease, and to the provisions of Section 188 of the Crown Lands Consolidation Act, 1913.



Scale
0 5 10 20 40 CHAINS

GRM.

As per Plan hereon (SAVING EXCEPTING AND RESERVING unto Us Our Heirs and Successors all that part of the said land which lies at a depth greater than fifty feet below the surface thereof) While all the Rights and Appurtenances whatsoever thereto belonging To Hold unto the GRANTEE in fee simple
Provided Nevertheless And We do HEREBY Reserve And Except unto Us Our Heirs and Successors all minerals whether the said land contains with full power and authority for Us Our Heirs and Successors and such person or persons as shall from time to time be authorized by Us or Them to enter upon the said land and to search for and remove the said minerals And also all such parts and so much of the said land as may hereafter be required for public ways or over and through the same to be cut out by Our Governor for the time being of Our said State or some person by him authorized in that respect with full power for Us Our Heirs and Successors and for Our Governor as aforesaid by such person or persons as shall be by Us Themselves or him authorized in that behalf to make and conduct all such public ways And the right of full and free ingress egress and regress into out of and upon the said land for the several purposes aforesaid or any of them Provided Further And it is Expressly Declared that mining operations may have been and may be carried on upon and in the land below the land hereby granted and the lands adjoining the land hereby granted and the land below the same and minerals may have been and may be removed therefrom and that these presents are made upon and subject to the condition that the GRANTEE or its assigns in title shall not be entitled to make or prosecute any claim for damages or take any proceedings either by way of injunction or otherwise against Us Our Heirs or Successors or the Government of Our State of New South Wales or any person or persons under any Mining Act or Acts of Our said State or his or their executors administrators or assigns for or in respect of any damages or loss occasioned by the letting down shafts or lateral movement of the land hereby granted or otherwise howsoever by reason of the following acts and matters that is to say by reason of Us Our Heirs or Successors in the Government of Our said State or any person on Our State or his or their executors administrators or assigns as aforesaid and his or their executors administrators and assigns to from time to time let down without payment of any compensation whatsoever any part of the land hereby granted and/or of the surface thereof: In Testimony Whereof We have caused this Our Grant to be Signed with the Seal of Our said State.

Witness Our Governor of Our State of New South Wales and his Dependencies in the Commonwealth of Australia, at Sydney in Our said State, this twenty eighth day of October in the fifteenth year of Our Reign and in the year of Our Lord one Thousand nine hundred and sixty six

A. R. Butler
Governor

SCHEDULE OF REGISTERED PROPRIETORS

SCHEDULE OF REGISTERED PROPRIETORS					
REGISTERED PROPRIETOR	INSURUMENT		DATE	ENTERED	Signature of Registered Owner
	NATURE	NUMBER			
Robert E. Harnay, Clerk of, Johnson, Smith & Co. and Company, Inc. Harnay is the Clerk of the Court	Shareholder	18599317-1-11-70	5-4-1975		Johnson
John Ross Caldwell, President, Company, Director	Trans. for	18599317-1-11-70	5-4-1975		Johnson
John Ross Caldwell					

SECRET

~~SEE AUTO FOLDER~~

SCHEDULE OF ENCUMBRANCES ETC.

[illegible]

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

K 533121

RG 3/27

DEC 13 10 00 1966



Fees—
Entry
Endorsements

\$7.00 to collect

13/12/66

\$5.00 paid 18/12/66

**CAVEAT BY THE REGISTRAR GENERAL FORBIDDING REGISTRATION
OF DEALING WITH ESTATE OR INTEREST**

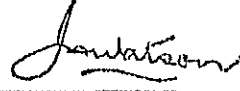
(REAL PROPERTY ACT, 1900)

I, THE REGISTRAR GENERAL OF NEW SOUTH WALES
forbid the Registration of any dealing affecting the land
comprised in the Crown Grant, Vol. 10441

Fol. 90

not consistent with the powers of the registered proprietor
as Mortgagee from Robert Glenroy Dunk and Jennifer Mary Dunk
as shown on transfer dated 17th August 1962 and registered
No. 863 Book 7636

DATED this 13th day of December 1966


Registrar General

K 533121

No. _____ Cavity _____

THE REGISTRAR GENERAL

Cavator

Checked <i>[initials]</i>	Particulars entered in Register Book 13. 12 1966
Signed <i>[initials]</i>	at <i>2 pm</i> <i>[Signature]</i> Registrar General.



13.12.66

TELEPHONE ADDRESS
LANDLINE SYDNEY
TELEPHONE 254 1 1784



BRIDGE STREET, SYDNEY

15 NOV 1966

ADDRESS ONLY TO THE UNDER SECRETARY FOR LANDS
Box 19, G.P.O.,
SYDNEY, N.S.W.

AND QUOTE Tenure 64/6737

D. 13
156 602

The Registrar General,
Prince Albert Road,
SYDNEY

Grant No. 65/2543.....SUBJECT: Issue of Crown Grant - Mortgage.

Portion..... With reference to the Deed of Grant
particularised in the margin hereof, which was
Parish..... forwarded to the Stamp Office on the.....

County Camden..... 8th November 1966
It appears that the Grantee holds the land as
Mortgagee from

Name of Grantee

The Commercial Banking Company
of Sydney Limited..... Robert Glenray Dunk and Jennifer May Dunk.....

as shown on transfer dated 17.8.62..... and
registered No. 683..... Book 2536..... and it is
requested that you enter on the said grant, before
delivering same, a caveat forbidding the registration
of any dealing except in accordance with the powers of
the grantee as a mortgagee as provided by Regulation
222A under the Crown Lands Consolidation Act, 1913.

R. L. SINCLAIR,
Under Secretary.

Per:



10441-90

B



Jenners Title Searching Co.

LP On-Line

Jenners Title Searching Co. hereby certifies that the information contained in this document has been provided electronically by the Registrar General.

Information provided through Tri-Search an approved LPLNSH Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

13/7/2010 9:40AM

FOLIO: 86/751270

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 10614 FOL 219

Recorded	Number	Type of Instrument	C.T. Issue
3/12/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
/2/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
31/10/2003	AA118037	CAVEAT	
27/4/2004	AA590041	APPLN FOR REPLACEMENT CT	EDITION 1
30/4/2004	AA602220	WITHDRAWAL OF CAVEAT	
30/4/2004	AA602221	TRANSFER	EDITION 2
22/7/2004	AA816324	MORTGAGE	EDITION 3
26/9/2007	AD441563	VARIATION OF MORTGAGE	EDITION 4
15/4/2010	AF433675	CAVEAT	

*** END OF SEARCH ***

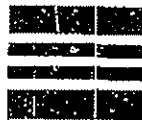
JBS-Tahmoor

PRINTED ON 13/7/2010

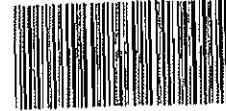
*ANY ENTRIES PRECEDED BY AN ASTERISK DO NOT APPEAR ON THE CURRENT EDITION OF THE CERTIFICATE OF TITLE. WARNING: THE INFORMATION APPEARING UNDER NOTATIONS HAS NOT BEEN FORMALLY RECORDED IN THE REGISTER.

No. 1967/907

NEW SOUTH WALES

Three
dollars
STAMP DUTY
SYDNEY, N.S.W.

New South Wales



10614

Vol. 10614
Registered

Fol. 219

24-8-1967

Registrar General.

GRANT OF LAND PURCHASED BY CONDITIONAL SALE CANCELLED

C.P. 1942/1
PICTON

WHEREAS the SEEDING, by the Grace of God at the United Kingdom, Australia and her
other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith:-
To All in whom their Descendants shall come, Greetings:-

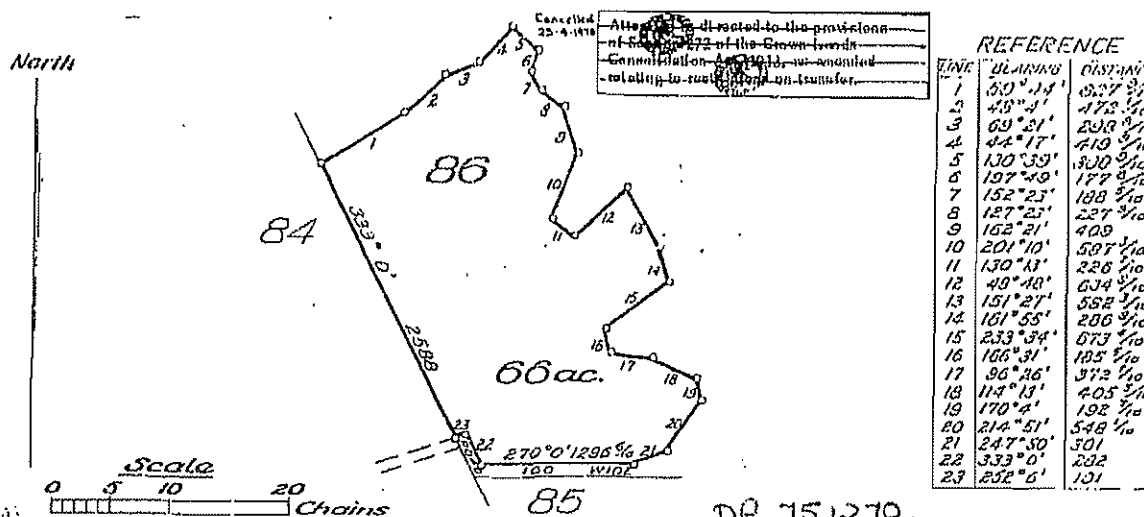
SEE AUTO FOLIO

Whereas JAMES STONE of "Rosenfeld" Tahmoor in Our State of New South Wales

(hereinafter called the GRANTEE) is the holder of Original Conditional Purchase No. 1942/1 in the Land District of Picton comprising the land hereinafter described and intended to be hereby granted limited to the surface thereof and to a depth of fifty feet below such surface which holding was applied for after the first day of February 1909 AND WHEREAS the sum of one hundred and thirty two dollars

being the purchase money payable for the said land has been duly paid And all things required by law to be done to entitle the GRANTEE to a Grant of the fee simple of the said Land subject to the Reservations Exceptions and Conditions hereinafter contained have been done and performed NOW THESE PRESENTS WITNESS That in consideration of the premises WE DO HEREBY GRANT unto the GRANTEE Subject to the Reservations Exceptions and Conditions hereinafter contained ALL THAT parcel of land containing by measurement sixty six acres

be the same more or less situated in the County of Camden Parish of Couridjah Portion 86 as shown in plan catalogued No. C. 3516-2041 in the Department of Lands



As per Plan hereon SAVING AND EXCEPTING unto Us Our Heirs and Successors all that part of the said land which lies at a depth greater than fifty feet below the surface thereof To Hold unto the GRANTEE in fee simple

Provided Nevertheless AND WE DO ALSO HEREBY RESERVE AND EXCEPT unto Us Our Heirs and Successors all minerals which the land hereby granted contains with full power and authority for Us Our Heirs and Successors and such person or persons as shall from time to time be authorised by Us or Them to enter upon the land hereby granted and to search for mine dig and remove the said minerals And also all such parts and so much of the land hereby granted as may hereafter be required for public ways in over and through the same to be set out by Our Governor for the time being of Our said State or some person by him authorised in that respect with full power for Us Our Heirs and Successors and for Our Governor as aforesaid by such person or persons as shall be by Us Them or him authorised in that behalf to make and conduct all such public ways And the right of full and free ingress egress and regress into out of and upon the land hereby granted for the several purposes aforesaid or any of them Provided Further AND IT IS EXPRESSLY DECLARED that mining operations may have been and may be carried on upon and in the land below the land hereby granted and the lands adjoining the land hereby granted and the land below the same and metals and minerals may have been and may be removed therefrom and that these presents are made upon and subject to the condition that neither the GRANTEE nor his assigns in title shall be entitled to make or prosecute any claim for damages or take any proceedings either by way of injunction or otherwise against Us Our Heirs or Successors or the Government of Our said State or any lessee or lessees under any Mining Act or Acts of Our said State or his or their executors administrators or assigns for or in respect of any damage or loss occasioned by the letting down subsidence or lateral movement of the land hereby granted or otherwise howsoever by reason of the following acts and matters that is to say by reason of Us Our Heirs or Successors or the Government of Our said State or any person on Our Their or its behalf or any lessee or lessees as aforesaid or his or their executors administrators or assigns having worked or now or hereafter working any mines or having carried on or now or hereafter carrying on mining operations or having searched for worked won or removed or now or hereafter searching for working winning or removing any metals or minerals under in or from the land below the land hereby granted or on in under or from any other lands situated laterally to the land hereby granted and the land below the same and whether on or below the surface of such other lands Provided Lastly AND WE DO HEREBY EXPRESSLY RESERVE unto Us Our Heirs and Successors the liberty and authority by reason of the acts and matters aforesaid or in the course thereof for Us Our Heirs and Successors and the Government of Our said State and any person on Our Their or its behalf and any lessee or lessees as aforesaid and his or their executors administrators and assigns to from time to time let down without payment of any compensation whatsoever any part of the land hereby granted and/or of the surface thereof in Testimony Whereof We have caused this Our Grant to be sealed with the Seal of Our said State

Witness Our Governor of Our State of New South Wales and its Dependencies in the Commonwealth of Australia, at Sydney in Our said State, this ninth day of August in the sixteenth year of Our Reign and in the year of Our Lord one Thousand nine hundred and sixty seven

James

A. R. Butler
Governor

ON HEREON

219

10614

(Page 1) Vol.

Req: C086940
Doc: CT 10614-219
Prt: 13-Jul-2010

PERSONS ARE CAUTIONED AGAINST ALTERING OI

Appendix F
Council Records



**PLANNING CERTIFICATE UNDER SECTION
149(2) & (5)
ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979**

APPLICANT: Ms C Roberts
128 O'Riordan Street
MASCOT NSW 2020

Planning Certificate No.: 20100969
Receipt No.: 161494
Issue Date: 19 July 2010
Applicant's Reference: Tahmoor
Property No.: 9734

DESCRIPTION OF PROPERTY

Address: 165 River Road TAHMOOR 2573
Land Description: Lot: 86 DP: 751270

Notes:

The following prescribed matters may apply to the land to which this certificate relates.

Where this certificate refers to a specific allotment (or allotments) within a strata plan, the certificate is issued for the whole of the land within the strata plan, not just the specific allotment(s) referred to, and any information contained in the certificate may relate to the whole, or any part, of the strata plan.

The following information is provided pursuant to Section 149(2) of the Environmental Planning and Assessment Act 1979 as prescribed by Schedule 4 of the Environmental Planning and Assessment Regulation 2000 and is applicable as at the date of this certificate.

Information provided in this certificate should be interpreted in conjunction with the relevant plans, policies and documents held at Council. In order to obtain copies of these documents you may purchase them from Council's Administration Centre at 62-64 Menangle Street, Picton or view free of charge on Council's Website www.wollondilly.nsw.gov.au.

1. NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPS

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

Wollondilly Local Environmental Plan 1991.

Sydney Regional Environmental Plan No 20 - Hawkesbury-Nepean River (No 2 - 1997)

Sydney Regional Environmental Plan No 9 Extractive Industries (No 2 - 1995)

State Environmental Planning Policy No 1 - Development Standards

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

State Environmental Planning Policy No 4 - Development without Consent and Miscellaneous Complying Development

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

State Environmental Planning Policy No 6 - Number of Storeys in a Building

State Environmental Planning Policy No 21 - Caravan Parks

State Environmental Planning Policy No 22 - Shops and Commercial Premises

State Environmental Planning Policy No 30 - Intensive Agriculture

State Environmental Planning Policy No 33 - Hazardous and Offensive Development

State Environmental Planning Policy No 44 - Koala Habitat Protection
(Note: Excludes land dedicated or reserved as National Park)

State Environmental Planning Policy No 50 - Canal Estate Development

State Environmental Planning Policy No 55 - Remediation of Land

State Environmental Planning Policy No 64 - Advertising and Signage

State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development

State Environmental Planning Policy (Major Projects) 2005

State Environmental Planning Policy (Temporary Structures) 2007

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Repeal of Concurrence and Referral Provisions) 2008

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

State Environmental Planning Policy No 62 - Sustainable Aquaculture

State Environmental Planning Policy No 70 - Affordable Housing (Revised Schemes)

State Environmental Planning Policy (Affordable Rental Housing) 2009

- (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 Wollondilly Local Environmental Plan 1991 (Amendment No 29 - Dual occupancies) applies to the land and has been placed on public exhibition.

DRAFT WOLLONDILLY LOCAL ENVIRONMENTAL PLAN 2009 has been placed on public exhibition. The draft plan proposes to replace Wollondilly Local Environmental Plan 1991 in accordance with a Standard Instrument (LEP Template) as required for all Councils by the NSW Department of Planning. The proposed zoning of the land and certain changes proposed under the draft plan are outlined in this certificate as required. Further information can be obtained from Council's Strategic Planning Department.

Draft State Environmental Planning Policy (Application of Development Standards) 2004

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

Development Control Plan No 7 - Off Street Car Parking

Development Control Plan No 21 - Earth Dams

Development Control Plan No 36 - Development in Rural Areas

Development Control Plan No 42 - Bed and Breakfast Establishments

Development Control Plan No 46 - Management of Contaminated Lands

Development Control Plan No 47 - Exempt and Complying Development

Development Control Plan No 54 - Telecommunications and Radio Communications

Development Control Plan - Notification and Advertising of Development Proposals

Development Control Plan - Agricultural Lands

Development Control Plan - Poultry

Development Control Plan No 19 - Keeping of Dogs for Commercial Purposes

- (4) 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) that includes the land in any zone (however described):

WOLLONDILLY LOCAL ENVIRONMENTAL PLAN 1991

- (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or "Heritage Area") or by reference to a number (such as "Zone No 2 (a)");

Zone No 1(a2) (Rural "A2" Zone).

- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent:

Agriculture (other than intensive livestock keeping establishments).

- (c) the purposes for which the instrument provides that development may

not be carried out within the zone except with development consent:

Any purpose other than a purpose included in Item (b) or (d).

- (d) the purposes for which the instrument provides that development is prohibited within the zone:

Abattoirs; amusement centres; boarding-houses; car repair stations; commercial premises; granny flats; industries (other than extractive, offensive, hazardous or rural industries); motor showrooms; multiple dwellings; plant and equipment hire; service stations; shops (other than general stores and produce stores).

- (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling house on the land and, if so, the minimum land dimensions so fixed,

Wollondilly Local Environmental Plan 1991 does not contain any development standards that fix minimum land dimensions for the erection of a dwelling house on the land.

- (f) whether the land includes or comprises critical habitat,

None known

- (g) whether the land is in a conservation area (however described),

The land is not within a conservation area under Wollondilly Local Environmental Plan 1991.

- (h) whether an item of environmental heritage (however described) is situated on the land.

The land does not contain an item of environmental heritage under Wollondilly Local Environmental Plan 1991.

DRAFT WOLLONDILLY LOCAL ENVIRONMENTAL PLAN 2009

- (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or "Heritage Area") or by reference to a number (such as "Zone No 2 (a)"),

Zone RU2 Rural Landscape.

- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent:

Bushfire hazard reduction work; Extensive agriculture; Flood mitigation works; Home occupations.

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,

Agriculture; Air transport facilities; Bed and breakfast accommodation; Biosolid waste application; Boat repair facilities; Boat sheds; Cellar door premises; Cemeteries; Community facilities; Crematoriums; Depots; Dual occupancies (attached); Dwelling houses; Educational establishments; Electricity generating works; Emergency services facilities; Environmental facilities; Environmental protection works; Extractive industries; Farm buildings; Farm stay accommodation; Forestry; Freight transport facilities; Funeral chapels; Funeral homes; Group homes; Home-based child care; Home business; Home industries; Home occupation (sex services); Hospitals; Information and education facilities; Landscape and garden supplies; Mining; Mortuaries; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Research stations; Restriction facilities; Roads; Roadside stalls; Rural industries; Rural supplies; Rural worker's dwellings; Secondary dwellings; Sewerage systems; Signage; Transport depots; Veterinary hospitals; Waste or resource management facilities; Water recreation structures; Water supply systems.

- (d) the purposes for which the instrument provides that development is prohibited within the zone,

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

Heliports; Stock and saleyards; Turf farming.

- (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling house on the land and, if so, the minimum land dimensions so fixed,

Draft Wollondilly Local Environmental Plan 2009 proposes development standards that fix minimum land dimensions for the erection of a dwelling house on this land under clause 7.6 as follows:

Consent may be granted to the erection of a single dwelling on vacant land only if the land is:

- (i) A lot created in accordance with clause 4.1 of the draft plan, or
- (ii) A lot in existence prior to the day on which the Plan commences, being a lot on which a single dwelling could lawfully have been erected immediately before that day.

Reference must be made to clause 7.6 of the draft plan for further information.

Draft Wollondilly Local Environmental Plan 2009 proposes development standards that fix minimum land dimensions for the erection of a dwelling house on this land as follows:

A dwelling cannot be erected on any lot created under clause 4.2 of the draft plan (ie: lots less than the minimum allotment size allowed for subdivision which have only been created for the purposes of primary production).

Reference must be made to clause 4.2 of the draft plan for further information.

- (f) whether the land includes or comprises critical habitat,

None known

(g) whether the land is in a conservation area (however described),

The land is not located within a proposed Heritage Conservation Area as provided by clause 5.10 and Schedule 5 of Draft Wollondilly Local Environmental Plan 2009.

(h) whether an item of environmental heritage (however described) is situated on the land.

This land does not contain an item of environmental heritage as provided by clause 5.10 and Schedule 5 of Draft Wollondilly Local Environmental Plan 2009.

3. COMPLYING DEVELOPMENT

- (1) Whether or not 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 clause 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.
- (2) If complying development may not be carried out on that land because of the provisions of clause 1.19 of that Policy, the reasons why it may not be carried out under that clause.

GENERAL HOUSING CODE

Complying development under the General Housing Code in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 MAY NOT be carried out on the land, unless the development is only the demolition or removal of a dwelling house, the demolition of ancillary development, or the erection of a swimming pool, fence or retaining wall. The land is identified as bush fire prone land.

HOUSING INTERNAL ALTERATIONS CODE

Complying development MAY be carried out on the land under the Housing Internal Alterations Code in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

GENERAL COMMERCIAL AND INDUSTRIAL CODE

Complying development MAY be carried out on the land under the General Commercial and Industrial Code in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

SUBDIVISIONS CODE

Complying development MAY be carried out on the land under the Subdivisions Code in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

4. COASTAL PROTECTION

Whether or not the land is affected by the operation of section 38 or 39 of the *Coastal Protection Act 1979*, but only to the extent that the council has been notified by the Department of Services, Technology and Administration.

No

5. MINE SUBSIDENCE

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*.

The land is within a proclaimed Mine Subsidence District under the Mine Subsidence Compensation Act 1961. The approval of the Mine Subsidence Board is required for all subdivision and building, except for certain minor structures. Surface development controls are in place to prevent damage from old, current or future mining. It is strongly recommended prospective purchasers consult with the Mine Subsidence Board regarding mine subsidence and any surface development guidelines. The Board can assist with information about mine subsidence and advise whether existing structures comply with the requirements of the Act

6. ROAD WIDENING AND ROAD REALIGNMENT

Whether or not the land is affected by any road widening or road realignment under:

- (a) Division 2 or Part 3 of the *Roads Act* 1993, or
- (b) Any environmental planning instrument, or
- (c) Any resolution of the council.

No

7. COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

Whether or not the land is affected by a policy:

- (a) Adopted by the council, or
- (b) Adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,

that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

The Council has adopted, by resolution dated 9 August 1999, a policy concerning contaminated land. That policy applies to the land to which this certificate relates and will restrict development of the land if the circumstances set out in the policy prevail. A copy of the policy is available at the Council.

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.

No

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

No

- (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.

Wollondilly Local Environmental Plan 1991 does not provide for the acquisition of the subject land by a public authority, as referred to in section 27 of the Act.

Draft Wollondilly Local Environmental Plan 2009 does not provide for the acquisition of the subject land by a public authority, as referred to in section 27 of the Act.

9. CONTRIBUTIONS PLANS

The name of each contributions plan applying to the land.

Wollondilly Development Contributions Plan, 2005.

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.

The land is not biodiversity certified land (within the meaning of Part 7AA of the *Threatened Species Conservation Act 1995*).

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).

Council has not been notified by the Director-General of the Department of Environment, Climate Change and Water of any biobanking agreement approved under the *Threatened Species Conservation Act 1995* for this land.

11. BUSH FIRE PRONE LAND

If any of the land is bush fire prone land (as defined in the Act), a statement that all or as the case may be, some of the land is bush fire prone land.

If none of the land is bush fire prone land, a statement to that effect.

The land is partially bush fire prone land as shown in Council's records. Further details of any applicable restrictions on development of the land may be obtained on application to Council.

12. PROPERTY VEGETATION PLANS

Whether or not the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under the Act).

Council has not been notified of any such plan that affects this land.

13. ORDER 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 the council has been notified of the order).

No

14. DIRECTIONS UNDER PART 3A

If there is 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 does not have effect, a statement to that effect identifying the provision that does not have effect.

No

15. SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR SENIORS HOUSING

If the land is land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:

- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
 - (i) the period for which the certificate is current, and
 - (ii) that a copy may be obtained from the head office of the Department of Planning, and

There is not a current site compatibility certificate (seniors housing) as described that applies to this land.

- (b) a statement setting out 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.

There are currently no conditions of consent relating to a development application for seniors housing that apply to the land.

16. SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

A statement of whether there is a valid site compatibility certificate (infrastructure), of which the Council is aware, in respect of proposed development on the land and, if there is a certificate, that statement is to include:

- (a) the period for which the certificate is valid, and
- (b) that a copy may be obtained from the head office of the Department of Planning.

There is not a valid site compatibility certificate (infrastructure) as described that applies to this land.

17. SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

- (1) A statement of whether there is a current site compatibility certificate (affordable rental housing), of which the Council is aware, in respect of proposed development on the land and, if there is a certificate, that statement is to include:

- (a) the period for which the certificate is current, and
 - (b) that a copy may be obtained from the head office of the Department of Planning

There is not a current site compatibility certificate (affordable rental housing) as described that applies to this land.

- (2) A statement setting out any terms of a kind referred to in clause 17 (1) or 37 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

There are currently no conditions of consent relating to a development application for affordable rental housing that apply to the land.

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) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,

No.

- (b) that the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

No.

- (c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,

No.

- (d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

No.

- (e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

No.

THE FOLLOWING ADDITIONAL INFORMATION IS PROVIDED UNDER:

SECTION 149(5) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

For the purposes of Section 149(5), the following information is provided in relation to the subject property:

1. The subject land is not affected by a Foreshore Building Line.
2. Any enquiries relating to whether or not the land has frontage to a classified road or a controlled access road should be referred directly to the RTA on 02 4221 2495.

3. **SECOND SYDNEY AIRPORT PROPOSAL.**

In November 1996 the Commonwealth Government released details of five airport options being considered for the development of a second major airport for Sydney at either Badgerys Creek or the Holsworthy Military Area. In September 1997, the Government abandoned the Holsworthy option and announced that the Draft Environmental Impact Statement would concentrate on Badgerys Creek. The Government also released the Draft Environmental Impact Statement Summary, which gives an indication of the impact of the proposal on the local environment. Information on the proposal and the Summary of the Draft Environmental Impact Statement can be obtained from the Federal Department of Transport.

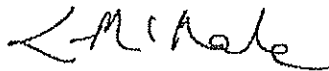
4. Other Matters (if applicable).

DRAFT WOLLONDILLY DEVELOPMENT CONTROL PLAN 2009

Draft Wollondilly Development Control Plan 2009 has been placed on public exhibition. The draft plan proposes to replace all current Development Control Plans and Policies applying to the land. It has been prepared in conjunction with Draft Wollondilly Local Environmental Plan 2009 which is also on public exhibition. Further information can be obtained from Council's website or by contacting Council's Strategic Planning Department or Customer Service Centre.

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 that Act.

In respect of matters beyond the control and/or responsibility of Council, information provided is provided only to the extent that Council has been so notified by the relevant Authorities or Departments, which have responsibility for the administration of the particular status referred to.

A handwritten signature in black ink, appearing to read 'L. McMahon', written in a cursive style.

L McMahon
GENERAL MANAGER

Any request for further information in connection with the above should be directed to Council's Duty Planner on (02) 4677 1100.

NOTICE TO PURCHASERS OF RURAL LAND

Wollondilly Shire Council supports the rights of persons in rural areas of the Shire to undertake and pursue agricultural production activities that are consistent with land capability and use reasonable and practical measures to avoid environmental harm and minimise impact to adjoining land users. Intending purchasers are advised that agricultural production can include the following activities that may have implications for occupiers and prospective purchasers of rural land:

Use of agricultural machinery (tractors, chainsaws, motorbikes)

Use of bird-scare devices

Intensive livestock production (cattle feedlots, poultry farms, piggeries, restricted dairies)

Operation of rural industries (packing sheds, abattoirs, stock and sale yards, sawmills)

Vegetation clearing

Grazing of livestock

Crop and fodder production

Soil cultivation

Crop harvesting

Use of firearms

Bushfire hazard reduction burning

Construction of firebreaks

Earthworks (construction of dams, drains, contour banks, access roads and tracks)

Fencing

Pumping and irrigation

Use of pesticides and herbicides

Spreading of manure, compost and treated effluent

Fertiliser usage

Slashing and mowing of grass

Production of silage

Re-vegetation activities (planting trees and shrubs)

Agroforestry

Livestock droving on roads

This is not an exhaustive list and intending purchasers of rural land should assess surrounding agricultural land uses and the impact these activities may have when being pursued in close proximity their proposed purchase. If you think these types of activities will affect your ability to live in a rural locality then intending purchasers are advised to reconsider their purchase and seek independent advice.

This notice is not intended to affect the rights of individuals to take action under the common law or legislation and is provided for information purposes only.



**PLANNING CERTIFICATE UNDER SECTION
149(2) & (5)
ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979**

APPLICANT: Ms C Roberts
128 O'Riordan Street
MASCOT NSW 2020

Planning Certificate No.: 20100968
Receipt No.: 161494
Issue Date: 19 July 2010
Applicant's Reference: Tahmoor
Property No.: 15488

DESCRIPTION OF PROPERTY

Address: River Road TAHMOOR 2573
Land Description: Lot: 85 DP: 751270

Notes:

The following prescribed matters may apply to the land to which this certificate relates.

Where this certificate refers to a specific allotment (or allotments) within a strata plan, the certificate is issued for the whole of the land within the strata plan, not just the specific allotment(s) referred to, and any information contained in the certificate may relate to the whole, or any part, of the strata plan.

The following information is provided pursuant to Section 149(2) of the Environmental Planning and Assessment Act 1979 as prescribed by Schedule 4 of the Environmental Planning and Assessment Regulation 2000 and is applicable as at the date of this certificate.

Information provided in this certificate should be interpreted in conjunction with the relevant plans, policies and documents held at Council. In order to obtain copies of these documents you may purchase them from Council's Administration Centre at 62-64 Menangle Street, Picton or view free of charge on Council's Website www.wollondilly.nsw.gov.au.

1. NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPS

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

Wollondilly Local Environmental Plan 1991.

Sydney Regional Environmental Plan No 20 - Hawkesbury-Nepean River (No 2 - 1997)

Sydney Regional Environmental Plan No 9 Extractive Industries (No 2 - 1995)

State Environmental Planning Policy No 1 - Development Standards

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

State Environmental Planning Policy No 4 - Development without Consent and Miscellaneous Complying Development

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

State Environmental Planning Policy No 6 - Number of Storeys in a Building

State Environmental Planning Policy No 21 - Caravan Parks

State Environmental Planning Policy No 22 - Shops and Commercial Premises

State Environmental Planning Policy No 30 - Intensive Agriculture

State Environmental Planning Policy No 33 - Hazardous and Offensive Development

State Environmental Planning Policy No 44 - Koala Habitat Protection
(Note: Excludes land dedicated or reserved as National Park)

State Environmental Planning Policy No 50 - Canal Estate Development

State Environmental Planning Policy No 55 - Remediation of Land

State Environmental Planning Policy No 64 - Advertising and Signage

State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development

State Environmental Planning Policy (Major Projects) 2005

State Environmental Planning Policy (Temporary Structures) 2007

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy No 32 - Urban Consolidation (Redevelopment of Urban Land)

State Environmental Planning Policy (Repeal of Concurrence and Referral Provisions) 2008

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

State Environmental Planning Policy No 62 - Sustainable Aquaculture

State Environmental Planning Policy No 70 - Affordable Housing (Revised Schemes)

State Environmental Planning Policy (Affordable Rental Housing) 2009

- (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 Wollondilly Local Environmental Plan 1991 (Amendment No 29 - Dual occupancies) applies to the land and has been placed on public exhibition.

DRAFT WOLLONDILLY LOCAL ENVIRONMENTAL PLAN 2009 has been placed on public exhibition. The draft plan proposes to replace Wollondilly Local Environmental Plan 1991 in accordance with a Standard Instrument (LEP Template) as required for all Councils by the NSW Department of Planning. The proposed zoning of the land and certain changes proposed under the draft plan are outlined in this certificate as required. Further information can be obtained from Council's Strategic Planning Department.

Draft State Environmental Planning Policy (Application of Development Standards) 2004

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

Development Control Plan No 7 - Off Street Car Parking

Development Control Plan No 21 - Earth Dams

Development Control Plan No 36 - Development in Rural Areas

Development Control Plan No 42 - Bed and Breakfast Establishments

Development Control Plan No 46 - Management of Contaminated Lands

Development Control Plan No 47 - Exempt and Complying Development

Development Control Plan No 54 - Telecommunications and Radio Communications

Development Control Plan - Notification and Advertising of Development Proposals

Development Control Plan - Agricultural Lands

Development Control Plan - Poultry

Development Control Plan No 19 - Keeping of Dogs for Commercial Purposes

- (4) 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) that includes the land in any zone (however described):

WOLLONDILLY LOCAL ENVIRONMENTAL PLAN 1991

- (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or "Heritage Area") or by reference to a number (such as "Zone No 2 (a)");

Zone No 9(d) (Open Space Reservation Zone).

- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent:

Public parks; public recreation.

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent:

Agriculture; drainage; forestry; land filling operations; recreation areas; roads; telecommunications facilities; utility installations (other than generating works).

- (d) the purposes for which the instrument provides that development is prohibited within the zone:

Any purpose other than a purpose included in Item 2 or 3.

- (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or "Heritage Area") or by reference to a number (such as "Zone No 2 (a)");

Zone No 1(a2) (Rural "A2" Zone).

- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent:

Agriculture (other than intensive livestock keeping establishments).

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent:

Any purpose other than a purpose included in Item (b) or (d).

- (d) the purposes for which the instrument provides that development is prohibited within the zone:

Abattoirs; amusement centres; boarding-houses; car repair stations; commercial premises; granny flats; industries (other than extractive, offensive, hazardous or rural industries); motor showrooms; multiple dwellings; plant and equipment hire; service stations; shops (other than general stores and produce stores).

- (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling house on the land and, if so, the minimum land dimensions so fixed,

Wollondilly Local Environmental Plan 1991 does not contain any development standards that fix minimum land dimensions for the erection of a dwelling house on the land.

- (f) whether the land includes or comprises critical habitat,

None known

- (g) whether the land is in a conservation area (however described),

The land is not within a conservation area under Wollondilly Local Environmental Plan 1991.

- (h) whether an item of environmental heritage (however described) is situated on the land.

The land does not contain an item of environmental heritage under Wollondilly Local Environmental Plan 1991.

DRAFT WOLLONDILLY LOCAL ENVIRONMENTAL PLAN 2009

- (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or "Heritage Area") or by reference to a number (such as "Zone No 2 (a)"),

Zone RU2 Rural Landscape.

- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent:

Bushfire hazard reduction work; Extensive agriculture; Flood mitigation works; Home occupations.

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,

Agriculture; Air transport facilities; Bed and breakfast accommodation; Biosolid waste application; Boat repair facilities; Boat sheds; Cellar door premises; Cemeteries; Community facilities; Crematoriums; Depots; Dual occupancies (attached); Dwelling houses; Educational establishments; Electricity generating works; Emergency services facilities; Environmental facilities; Environmental protection works; Extractive industries; Farm buildings; Farm stay accommodation; Forestry; Freight transport facilities; Funeral chapels; Funeral homes; Group homes; Home-based child care; Home business; Home industries; Home occupation (sex services); Hospitals; Information and education facilities; Landscape and garden supplies; Mining; Mortuaries; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Research stations; Restriction facilities; Roads; Roadside stalls; Rural industries; Rural supplies; Rural worker's dwellings; Secondary dwellings; Sewerage systems; Signage; Transport depots; Veterinary hospitals; Waste or resource management facilities; Water recreation structures; Water supply systems.

- (d) the purposes for which the instrument provides that development is prohibited within the zone,

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

Heliports; Stock and saleyards; Turf farming.

- (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or "Heritage Area") or by reference to a number (such as "Zone No 2 (a)"),

Zone E2 Environmental Conservation.

- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent:

Bushfire hazard reduction works; Flood mitigation works.

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,

Electricity generating works; Environmental facilities; Environmental protection works; Information and education facilities; Natural water based aquaculture; Roads; Sewerage systems; Water recreation structures; Water supply systems.

- (d) the purposes for which the instrument provides that development is prohibited within the zone,

Business premises; Hotel or motel accommodation; Industries; Multi dwelling housing; Recreation facilities (major); Residential flat buildings; Retail premises; Seniors housing; Service stations; Warehouse or distribution centres; Water recycling facilities.

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

- (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling house on the land and, if so, the minimum land dimensions so fixed,

Draft Wollondilly Local Environmental Plan 2009 proposes development standards that fix minimum land dimensions for the erection of a dwelling house on this land under clause 7.6 as follows:

Consent may be granted to the erection of a single dwelling on vacant land only if the land is:

- (i) A lot created in accordance with clause 4.1 of the draft plan, or
- (ii) A lot in existence prior to the day on which the Plan commences, being a lot on which a single dwelling could lawfully have been erected immediately before that day.

Reference must be made to clause 7.6 of the draft plan for further information.

Draft Wollondilly Local Environmental Plan 2009 proposes development standards that fix minimum land dimensions for the erection of a dwelling house on this land as follows:

A dwelling cannot be erected on any lot created under clause 4.2 of the draft plan (ie: lots less than the minimum allotment size allowed for subdivision which have only been created for the purposes of primary production).

Reference must be made to clause 4.2 of the draft plan for further information.

- (f) whether the land includes or comprises critical habitat,

None known

- (g) whether the land is in a conservation area (however described),

The land is not located within a proposed Heritage Conservation Area as provided by clause 5.10 and Schedule 5 of Draft Wollondilly Local Environmental Plan 2009.

- (h) whether an item of environmental heritage (however described) is situated on the land.

This land does not contain an item of environmental heritage as provided by clause 5.10 and Schedule 5 of Draft Wollondilly Local Environmental Plan 2009.

3. COMPLYING DEVELOPMENT

- (1) Whether or not 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 clause 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.
- (2) If complying development may not be carried out on that land because of the provisions of clause 1.19 of that Policy, the reasons why it may not be carried out under that clause.

GENERAL HOUSING CODE

Complying development under the General Housing Code in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 MAY NOT be carried out on the land. The land is identified as land reserved for a public purpose in an environmental planning instrument.

Complying development under the General Housing Code in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 MAY NOT be carried out on the land, unless the development is only the demolition or removal of a dwelling house, the demolition of ancillary development, or the erection of a swimming pool, fence or retaining wall. The land is identified as bush fire prone land.

HOUSING INTERNAL ALTERATIONS CODE

Complying development MAY be carried out on the land under the Housing Internal Alterations Code in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

GENERAL COMMERCIAL AND INDUSTRIAL CODE

Complying development MAY be carried out on the land under the General Commercial and Industrial Code in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

SUBDIVISIONS CODE

Complying development MAY be carried out on the land under the Subdivisions Code in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

4. COASTAL PROTECTION

Whether or not the land is affected by the operation of section 38 or 39 of the *Coastal Protection Act 1979*, but only to the extent that the council has been notified by the Department of Services, Technology and Administration.

No

5. MINE SUBSIDENCE

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*.

The land is within a proclaimed Mine Subsidence District under the Mine Subsidence Compensation Act 1961. The approval of the Mine Subsidence Board is required for all subdivision and building, except for certain minor structures. Surface development controls are in place to prevent damage from old, current or future mining. It is strongly recommended prospective purchasers consult with the Mine Subsidence Board regarding mine subsidence and any surface development guidelines. The Board can assist with information about mine subsidence and advise whether existing structures comply with the requirements of the Act

6. ROAD WIDENING AND ROAD REALIGNMENT

Whether or not the land is affected by any road widening or road realignment under:

- (a) Division 2 or Part 3 of the *Roads Act* 1993, or
- (b) Any environmental planning instrument, or
- (c) Any resolution of the council.

No

7. COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

Whether or not the land is affected by a policy:

- (a) Adopted by the council, or
- (b) Adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,

that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

The Council has adopted, by resolution dated 9 August 1999, a policy concerning contaminated land. That policy applies to the land to which this certificate relates and will restrict development of the land if the circumstances set out in the policy prevail. A copy of the policy is available at the Council.

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.

No

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

No

- (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.

Wollondilly Local Environmental Plan 1991 provides for acquisition of the subject land by a public authority as referred to in section 27 of the Act.

Draft Wollondilly Local Environmental Plan 2009 does not provide for the acquisition of the subject land by a public authority, as referred to in section 27 of the Act.

9. CONTRIBUTIONS PLANS

The name of each contributions plan applying to the land.

Wollondilly Development Contributions Plan, 2005.

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.

The land is not biodiversity certified land (within the meaning of Part 7AA of the *Threatened Species Conservation Act 1995*).

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).

Council has not been notified by the Director-General of the Department of Environment, Climate Change and Water of any biobanking agreement approved under the *Threatened Species Conservation Act 1995* for this land.

11. BUSH FIRE PRONE LAND

If any of the land is bush fire prone land (as defined in the Act), a statement that all or as the case may be, some of the land is bush fire prone land.

If none of the land is bush fire prone land, a statement to that effect.

The land is partially bush fire prone land as shown in Council's records. Further details of any applicable restrictions on development of the land may be obtained on application to Council.

12. PROPERTY VEGETATION PLANS

Whether or not the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under the Act).

Council has not been notified of any such plan that affects this land.

13. ORDER 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 the council has been notified of the order).

No

14. DIRECTIONS UNDER PART 3A

If there is 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 does not have effect, a statement to that effect identifying the provision that does not have effect.

No

15. SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR SENIORS HOUSING

If the land is land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:

- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
 - (i) the period for which the certificate is current, and
 - (ii) that a copy may be obtained from the head office of the Department of Planning, and

There is not a current site compatibility certificate (seniors housing) as described that applies to this land.

- (b) a statement setting out 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.

There are currently no conditions of consent relating to a development application for seniors housing that apply to the land.

16. SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

A statement of whether there is a valid site compatibility certificate (infrastructure), of which the Council is aware, in respect of proposed development on the land and, if there is a certificate, that statement is to include:

- (a) the period for which the certificate is valid, and
- (b) that a copy may be obtained from the head office of the Department of Planning.

There is not a valid site compatibility certificate (infrastructure) as described that applies to this land.

17. SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

- (1) A statement of whether there is a current site compatibility certificate (affordable rental housing), of which the Council is aware, in respect of proposed development on the land and, if there is a certificate, that statement is to include:

- (a) the period for which the certificate is current, and
 - (b) that a copy may be obtained from the head office of the Department of Planning

There is not a current site compatibility certificate (affordable rental housing) as described that applies to this land.

- (2) A statement setting out any terms of a kind referred to in clause 17 (1) or 37 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

There are currently no conditions of consent relating to a development application for affordable rental housing that apply to the land.

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) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,

No.

- (b) that the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

No.

- (c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,

No.

- (d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

No.

- (e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

No.
