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REPORT
on
DETAILED CONTAMINATION ASSESSMENT

CUMBERLAND NEWSPAPERS REDEVELOPMENT – SITE A
142 – 154 MACQUARIE STREET
PARRAMATTA

Prepared for
NEWS LIMITED

Project 71682
July 2010

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The Association of Consulting Engineers Australia

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PMO
Project 71682
22 July 2010

REPORT ON DETAILED CONTAMINATION ASSESSMENT
CUMBERLAND NEWSPAPERS REDEVELOPMENT – SITE A
142 – 154 MACQUARIE STREET, PARRAMATTA

1. INTRODUCTION

This report outlines the results of a detailed contamination assessment undertaken for the proposed redevelopment of a portion of the Cumberland Newspapers site at 142 – 154 Macquarie Street, Parramatta. The work was commissioned by EGO Group, architects, on behalf of News Limited.

The first stage of the redevelopment project (Site A) involves the construction of a four storey commercial building on the northern portion of the Cumberland Newspapers site. Basement levels are not proposed. The development works need to be designed to protect numerous archaeological preservation zones which exist on the site.

Contamination assessment was undertaken to:

- Assess the general levels of contamination resulting from past and present activities on the site;
- Assess the potential for migration of contamination from the site by looking at the leachability of contaminants within the soils and the groundwater regime;
- Assess the suitability of the site for the intended commercial land use; and
- Provide recommendations for remediation works, if required.

The overall approach for contamination assessment included a review of available site records including historical title deed information, the contaminated land public register, historical aerial photographs, licensed groundwater bore records and WorkCover NSW dangerous goods licence information. Following a review of this information, the assessment was continued by drilling boreholes, installing groundwater monitoring wells, subsurface sampling, laboratory analysis and interpretation of the results. Details of the field work and laboratory testing are given in this report, as well as comments on the issues outlined above.

This report has not been prepared specifically for site audit purposes. A geotechnical investigation and acid sulphate soil assessment were undertaken concurrently and are reported separately.

2. SITE DESCRIPTION

The Site A development site is located in the northern portion of the Cumberland Newspapers facility and is approximately 3,200 m^2 in area. The site is relatively flat with surface levels varying between RL 6.7 and RL 7.0. It is bounded by George Street to the north, the Albion Hotel to the east, editorial offices and former printing facilities to the south, and Argus Lane to the west. The Parramatta River is located on the northern side of George Street approximately 70 m from the site.

At the time of the investigation the site was being used as an employee carpark and was generally sealed with asphalt. A small garden and grassed area was located in the central-western section of the carpark. The northern portion of the site is understood to be underlain by footings and artefacts associated with original European colonisation of the area.

Underground storage tanks (USTs) are understood to have been located to the west of the existing printing facility and to the south of the western corner of the proposed development site. These USTs are understood to have stored petroleum and mineral spirits/heating oil and evidence suggests they were decommissioned prior to 2000.

The site is part of Lot 11 DP 790287 in the Parish of St John, County of Cumberland although it appears that it was formerly made up of smaller lots that have since been consolidated. A site location plan is shown on Drawing E1 in Appendix A.

3. REGIONAL GEOLOGY

The *Sydney 1:100 000 Geological Series Sheet* indicates that the site is underlain by Ashfield Shale which comprises black to dark grey shale and laminite. A boundary with alluvial and estuarine sediment associated with the Parramatta River is shown to the east of the site,

4. SCOPE OF WORKS

The scope of the contamination assessment was as follows:

- Obtain and review site history information including historical title deed information, the contaminated land public register, historical aerial photographs, licensed groundwater bore records and WorkCover NSW dangerous goods licence information;
- Drill ten (10) boreholes to a depth of at least 0.5 m into natural soil or prior refusal. Collect soil samples from the filling and natural material in the bores, and upon signs of obvious contamination;
- Install two (2) groundwater monitoring wells on the site to enable groundwater samples to be collected and depth measurements to be made;
- Screen soil samples with a calibrated photoionisation detector (PID) to assess the presence of volatile organic compounds;
- Conduct laboratory analysis on selected soil samples in a NATA accredited analytical laboratory for the following range of potential contaminants:
    - Priority heavy metals (As, Cd, Cr, Cu, Pb, Hg, Ni & Zn);
    - Total Petroleum Hydrocarbons (TPH);

  - Monocyclic Aromatic Hydrocarbons (Benzene, Toluene, Ethylbenzene and Xylene – BTEX);
  - Polycyclic Aromatic Hydrocarbons (PAH);
  - Organochlorine Pesticides (OCP);
  - Organophosphorus Pesticides (OPP);
  - Polychlorinated Biphenyls (PCB);
  - Phenols; and
  - Asbestos.
- Conduct leachability testing for selected contaminants in selected soil samples using the Toxicity Characteristics Leaching Procedure (TCLP).
- Conduct laboratory analysis on groundwater samples in a NATA accredited analytical laboratory for the following range of potential contaminants:
  - Priority heavy metals (As, Cd, Cr, Cu, Pb, Hg, Ni & Zn);
  - Hardness;
  - Total Petroleum Hydrocarbons (TPH);
  - Monocyclic Aromatic Hydrocarbons (Benzene, Toluene, Ethylbenzene and Xylene – BTEX);
  - Polycyclic Aromatic Hydrocarbons (PAH);
  - Volatile Organic Compounds (VOC);
  - Organochlorine Pesticides (OCP);
  - Organophosphorus Pesticides (OPP);
  - Polychlorinated Biphenyls (PCB); and
  - Phenols.
- Provide a contamination assessment report which comments on the recorded levels of contamination in the soils on the site, the potential for contamination migration, the suitability of the site for the proposed development, and recommended follow up action;
- Provide provisional in situ waste classification advice; and

- Store remaining soil and groundwater samples not analysed for a period of one month pending the need for further analysis.

5. SITE HISTORY

5.1 Historical Land Uses

The title deed records indicate that the lots which now comprise the northern portion of Lot 11 DP 790287 (i.e. the Site A development area) were owned by various individuals from 1909. Cumberland Newspapers Limited (a News Limited company) took ownership of these lots over the period 1955 to 1969. The title deeds provide little information as to the former land uses but it is assumed that the lots were used for residential purposes until they became the commercial facility that exists on site today.

The lots to the south of the Site A development area were also owned by various individuals until Cumberland Newspapers Limited took ownership between 1951 and 1956. The land uses on these sites where improvements were made are likely to have been similar to those lots along the George Street frontage.

Extracts from the title deed records are provided in Appendix B.

5.2 Contaminated Land Public Register

A search undertaken on 2 July 2010 indicated that the development site is not on the Public Register of Notices issued under the *Contaminated Land Management Act 1997*. The search results for the Parramatta City Council area are attached in Appendix B as confirmation of this status.

5.3 Aerial Photographs

A review of available aerial photographs from 1928, 1930, 1951, 1961, 1970, 1982, 1986, 1991, 2002 and 2008 was undertaken to evaluate the land-use patterns on the site. Site details observed in the aerial photographs are provided in Table 1.

Table 1 – Site Details from Aerial Photographs

Year	Details
1928	Numerous small building along the George Street frontage. A few small outbuildings at the rear of these lots. The large block to the south of Site A appears vacant apart from a small building along the Argus Lane frontage. Buildings in the south-eastern portion of the site between the Albion Hotel and Macquarie Street fronting Macarthur Street.
1930	No change since 1928.
1951	A clearer photograph showing closely spaced buildings (residential?) along George Street. No change to the large lot to the south of Site A. Several buildings in the south-eastern corner of the site have been demolished.
1961	No change to the northern area of the site. A large commercial building covers the majority of the area to the south. The existing buildings in the south-eastern corner have now all been demolished. A smaller commercial building is located to the south of the Albion Hotel and an open hardstand area exists at the intersection of Macquarie Street and Macarthur Street.
1970	Three small buildings remain in the north-western corner of the site but the other former buildings along George Street have been demolished. This area is now used as a carpark. No change on the remainder of the site.
1982	Only two buildings remain in the north-western corner of the site. No change on the remainder of the site.
1986	Only one building remains in the north-western corner of the site. No change on the remainder of the site.
1991	No change to the buildings on the site. The roof of the large commercial building fronting Macquarie Street appears to have been replaced since the previous photo.
2002	The small building in the north-western corner of the site has been demolished. No change on the remainder of the site.
2008	The site appears as it did at the time of the field work for the current assessment.

Scanned images of the aerial photographs are provided in Appendix B.

5.4 Groundwater Bore Search

A search of licensed groundwater bores in the Parramatta area indicated that licensed groundwater wells are not located within the development site. The nearest well is located near the intersection of Hassall Street and Gregory Place about 500 m to the south-east. The search information is attached in Appendix B.

5.5 WorkCover NSW Dangerous Goods Licenses

An application for information on dangerous goods licenses issued for the development site was made to WorkCover NSW on 31 March 2010. The information supplied by WorkCover NSW indicates that three USTs were located on the site. The tank details are as follows:

- 20,000 L underground petroleum storage tank;
- 5,000 L underground petroleum storage tank; and
- 5,000 L underground heating oil storage tank (which was possibly originally used to store kerosene or similar mineral spirit).

A sketch shows the tanks as being in the carpark area to the west of the former printing building located to the south-west of the Site A development area (i.e. not on the site of the current assessment but up-gradient with respect to probable groundwater flow direction). Correspondence from Cumberland Newspapers to WorkCover NSW on 7 November 2000 indicates that the three tanks had been decommissioned "to the Australian Standards" although it is unclear whether the tanks were removed or filled with inert material. The state of the tanks at the time of decommission is also unclear.

The information obtained from WorkCover NSW is included in Appendix B.

6. SELECTED COMPARATIVE GUIDELINES

The proposed development is for commercial purposes. The relevant soil assessment criteria for the site are the Health-based Investigation Levels (Column 4) as specified in *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme,* (Department of Environment and Conservation NSW, 2006). The provisional Phytotoxicity-based Investigation Levels (Column 5) are considered irrelevant for the site.

Assessment criteria for petroleum hydrocarbons are the Threshold Concentration for Sensitive Site Land Use – Soils, specified in *Contaminated Sites: Guidelines for Assessing Service Station Sites,* (NSW EPA, 1994).

Assessment criteria for groundwater contamination are the 95% level of protection of species values for freshwater outlined in *Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000* produced by the Australian and New Zealand Environment and Conservation Council (ANZECC).

The site assessment criteria are shown in the relevant tables in Appendix D.

7. DATA QUALITY OBJECTIVES

The investigation procedures have been devised in general accordance with the seven-step data quality objective (DQO) process outlined in Australian Standard AS 4482.1 – 2005 *Guide to the investigation and sampling of sites with potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds*. The DQO process is outlined below.

(a) State the Problem

The site is to be redeveloped for commercial purposes. The aim of the current assessment is to provide an indication of the suitability of the site for the proposed development and, on the basis of the investigation findings, provide advice on what future works may be required.

(b) Identify the Decision

Ten boreholes were drilled to collect soil samples from the site. The number of sampling points was determined from *Contaminated Sites: Sampling Design Guidelines* (EPA NSW, 1995) which suggests a minimum of ten sampling points for a site with an area of 3,200 m^2. The sampling points were set out to cover the site in a rough grid pattern, with recognition of the fact that the south-western portion of the site has the potential to be contaminated with hydrocarbons from the former USTs.

One groundwater monitoring well was installed near the south-western corner of the site (near the former USTs) and one monitoring well was installed in the north-eastern corner of the site which appears to be the down-gradient groundwater area on the site.

The suite of contaminants tested is outlined in Section 4 of this report. This suite of contaminants was devised to detect the presence of heavy metals, hydrocarbons, polychlorinated biphenyls and phenol which could be present due to the activities on the site. Analysis for pesticides was undertaken due to the presence of filling and the possible use of such chemicals on the site in the past. Analysis for asbestos was undertaken due to the presence of filling and the possibility of asbestos debris remaining on the site from previous demolition activities.

The comparative guidelines were selected on the basis of the proposed land use and are outlined in Section 6 of this report.

(c) Identify Inputs to the Decision

The primary inputs in assessing the presence of contamination on the site are:

- Areas of potential contamination based on historical uses of the site;
- Field observations;
- Laboratory test results; and
- Published guidelines appropriate for the proposed commercial land use.

(d) Define the Boundary of the Assessment

The boundary of the assessment is defined as the northern portion of Lot 11 DP 790287 in the Parish of St John, County of Cumberland which forms the Site A development area as shown on Drawing E1 in Appendix A.

(e) Develop a Decision Rule

The decision rule is based on the following documents:

- Department of Environment and Climate Change (2006) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme* (Column 4 – Health-based investigation levels for commercial and industrial premises (NEHF F)); and
- NSW EPA (1994) *Contaminated Sites: Guidelines for Assessing Service Station Sites*.
- ANZECC (2000) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality.*

(f) Specify Acceptable Limits on Decision Errors

Appropriate quality assurance and quality control measures were incorporated into the sampling and testing regime to ensure the quality of the assessment data. These measures are outlined in Appendix F of this report.

(g) Optimise the Design for Obtaining Data

The sampling locations were selected to provide appropriate coverage of the site including the south-western corner which is closest to the location of the former USTs. The sampling points are shown in Drawing E1 in Appendix A. The procedures for collecting samples were to be in general accordance with DECCW guidelines and industry best-practice. A NATA accredited analytical laboratory was used to analyse soil and groundwater samples.

A number of data quality indicators (DQIs) were established to verify that the quality of the investigation data is acceptable. Table 2 summarises how the DQIs are assessed.

Table 2 – Data Quality Indicators and Evaluation Procedures

Data Quality Indicator	Evaluation Procedure
Documentation completeness	Completion of field and laboratory documentation including chain of custody sheets and borehole logs.
Data completeness	A review of site history to support the current analytical regime. Analysis of appropriate contaminants. Analysis of appropriate soil horizons. Analysis of groundwater samples. Analysis of appropriate samples for QA/QC purposes.
Data comparability	Use of NATA accredited analytical methods. Use of consistent sampling techniques. Use of disposable/decontaminated sampling equipment. Use of suitable field sample storage techniques.
Data representativeness	Sampling from locations spaced on accessible areas on the site in order to obtain an objective measure of contamination on the site.
Precision and accuracy for sampling and analysis	Use of NATA accredited analytical methods. Achievement of suitable results in QA/QC criteria.

The DQIs for sampling and analysis were achieved and the quality of the data satisfactorily meets the objectives of the current assessment.

8. FIELD WORK PROCEDURES

The field work included drilling ten boreholes (BH1 to BH10) to depths of 1.5 m to 12.75 m using a truck-mounted Scout drilling rig. The bores were commenced using solid flight augers to drill through the overburden filling and soils. Samples were collected from the tip of the auger at regular depth intervals. The bores were then continued for geotechnical investigation and acid sulphate soil assessment purposes.

Bores BH4 and BH5 were converted into groundwater monitoring wells at the completion of drilling. This involved backfilling the bores to an appropriate depth, installation of Class 18 uPVC screen across the apparent groundwater surface and uPVC casing above the screen, installation of a gravel filter-pack around the screen, provision of a bentonite-pellet plug above the filter, backfilling of the cased portion of the well with soil cuttings and installation of a steel gatic-cover flush with the ground surface.

The ground surface levels at the test locations were measured relative to Australian Height Datum (AHD) using an automatic level.

The locations of the boreholes are shown on Drawing E1 in Appendix A.

Soil sampling for contamination assessment purposes was performed in general accordance with the standard sampling procedures outlined in the *DP Field Procedures Manual*. All sampling data were recorded on chain of custody information sheets. The sampling generally included:

- Soil sampling using disposable and/or decontaminated equipment;
- Placement of samples into laboratory prepared jars and immediate capping;
- Labelling of sample containers with individual and unique markings including project number, sample location, sample depth and date of sampling; and
- Storage of sample containers in a cooled, insulated and sealed container for transport to the laboratory.

Groundwater sampling was performed in general accordance with the standard sampling procedures outlined in the *DP Field Procedures Manual*. All sampling data were recorded on chain of custody information sheets. The sampling generally included:

- Groundwater sampling using a low-flow pump that had been decontaminated using a phosphate-free detergent and demineralised water;
- Placement of samples into laboratory prepared and preserved bottles and immediate capping;
- Labelling of sample containers with individual and unique markings including project number, sample location and date of sampling; and
- Storage of sample containers in a cooled, insulated and sealed container for transport to the laboratory.

9. RESULTS OF ASSESSMENT

9.1 Field Work Results

The subsurface conditions encountered in the boreholes are presented in the borehole logs in Appendix C, together with notes defining descriptive terms and classification methods. The boreholes encountered:

- **FILLING –** asphalt and roadbase gravel pavement materials to depths of 0.12 m to 0.75 m. Sand and clayey sand with brick, ash, grass, metal, glass, ceramics and clay to depths of 0.6 m to 1.75 m. Filling was not encountered below the pavement materials in bores BH4, BH6 and BH7.
- **ALLUVIUM –** loose, medium dense and dense sand and clayey sand, and stiff and very stiff sandy clay and clay to depths of 5.0 m to 8.5 m.
- **RESIDUAL SOIL –** stiff, very stiff and hard silty clay and shaly clay with some ironstone bands to depths of 8.5 m to 9.7 m in bores BH5, BH7 and BH8.
- **BEDROCK –** extremely low and very low strength laminite/siltstone from depths of 5.0 m to 9.7 m, grading to medium, high and very high strength laminite to the base of the bores at 8.8 m to 12.75 m depth.

Free groundwater was observed in the eight deeper bores between RL 0.9 and RL 3.6. Free groundwater was measured in the groundwater monitoring wells installed in BH4 and BH5 at RL 1.6 and RL 2.7 respectively, approximately 1 month after installation. Inferred contours indicating the apparent groundwater surface based on the levels in the wells and the levels at which groundwater was encountered in the other bores during drilling is shown in Drawing E2 in Appendix A.

Groundwater appears to flow in an easterly and north-easterly direction.

9.2 Total Photoionisable Compounds Results

Replicate soil samples collected from the boreholes were stored under ambient temperatures before screening for Total Photoionisable Compounds (TOPIC) using a calibrated Photoionisation Detector (PID). The results of the screening are shown on the borehole logs in Appendix C. The PID readings were all very low.

A calibration certificate for the PID is included in Appendix G.

9.3 Analytical Results for Soil and Groundwater Samples

Envirolab Services Pty Ltd was commissioned to undertake analysis of the soil and groundwater samples. A tabulated summary of the results of the soil analysis is provided in Table D1 in Appendix D. The results of leachability analysis on selected samples are shown in Table D2 and the results of the water analysis are shown in Table D3, both also included in Appendix D. The detailed analytical results, sample receipts and chain of custody documentation are included in Appendix E.

9.4 Field and Laboratory Quality Control Procedures

The field and laboratory QA/QC procedures adopted for the assessment are described in Appendix F.

10. DISCUSSION OF RESULTS

10.1 Soil Contamination

Twenty-two (22) soil samples (including two QA/QC replicates) were selectively analysed from ten (10) test locations on the site. Thirteen of these samples were obtained from the filling profile and nine samples from the natural alluvium.

One sample of filling (BH5/1.0 m) had a lead concentration equal to the HIL for commercial land use (1,500 mg/kg). The average lead concentration of all samples of filling tested was 344 mg/kg, the standard deviation was 385 mg/kg (i.e. <50% of the HIL) and the 95% upper confidence limit (UCL) was 621 mg/kg (i.e. below the HIL). The lead concentrations therefore fall within the adopted assessment criteria. All other contaminants identified in the soil samples were well below the HILs adopted for the site.

Leachability testing of the sample from BH5/1.0 m indicated that the leachable concentration of lead was relatively low (0.9 mg/L). The average leachable concentration of lead in five samples tested was 0.2 mg/L. The PAHs were non-leachable.

Selected soil samples tested from the boreholes closest to the former USTs (i.e. BH5 and BH6) exhibited slightly elevated concentrations of PAHs but were still well below the adopted comparative guidelines. TPH and BTEX were not detected in the samples. Leachability testing indicated that the PAHs in the sample from BH5 were non-leachable and it is therefore considered that the source of the PAHs is more likely to be ash in the sample rather than petroleum hydrocarbons. The slightly elevated concentrations of other heavy metals suggest that the source of contamination may be an old battery or other similar inclusion in the filling.

Asbestos was not observed in the boreholes and was not detected in the samples analysed in the laboratory. It should be noted, however, that the filling present on the site did contain building rubble and it is known that former buildings (possibly containing asbestos materials) have been demolished in areas of the site in the past. The commercial buildings to the south of Site A are also likely to contain asbestos, although assessment of these buildings was outside the scope of the current commission. The possibility of the presence of asbestos on the site should therefore not be discounted.

On the basis of the contamination assessment of the soils on the site, it is considered that the site is suitable for the proposed commercial development.

10.2 Groundwater Contamination

Groundwater samples were collected from two monitoring wells (GW4 and GW5) installed on the site as part of the current assessment. GW4 was installed in the north-eastern (presumed down-gradient) corner of the site and GW5 was installed close to and notionally down-gradient to the former USTs which are located outside the assessed-site boundary.

The samples contained concentrations of several heavy metals (i.e. Cu, Pb and Zn) above the 95% level of protection of species in freshwater adopted for the site (refer to Table D3 in Appendix D). However, testing indicated that the groundwater was hard to extremely hard (i.e. 139 and 370 mg$CaCO^3$/L) and therefore adjustment of the adopted levels is warranted. The heavy metal concentrations were considered acceptable when taking water hardness (hardness modified trigger values or HMTV in Table D3) into account. The concentrations of the other contaminants tested were below the detection limits and adopted assessment criteria. Phase separated hydrocarbons were not observed in either of the groundwater monitoring wells.

Dewatering of the site will not be required for the proposed development. On the basis of the contamination assessment of the groundwater on the site, it is considered that the groundwater quality should not affect the suitability of the site for the proposed development and similarly the risk of off-site migration of contamination is minimal.

10.3 Provisional In Situ Waste Classification

The filling was assessed with reference to the *Waste Classification Guidelines* produced by the Department of Environment and Climate Change (DECC, April 2008). The guidelines require waste to be assessed using the following six step process:

1. Determine if the waste is Special Waste;
2. Determine if the waste is Liquid Waste;
3. Determine if the waste has been pre-classified;
4. Determine if the waste is Hazardous Waste;
5. Undertake chemical assessment and compare results with the specified total and leachable contaminant concentration thresholds; and

6. Determine if the waste is Putrescible.

The laboratory analysis indicated that asbestos was not present in the soil samples tested. The soil samples did not contain clinical waste or tyres and therefore the soils on the site cannot be classified as Special Waste.

The samples analysed were not in liquid form and therefore could not be described as Liquid Waste.

The DECC has pre-classified glass, plastic, rubber, bricks, concrete, building and demolition waste, and asphalt waste as general solid waste (non-putrescible). Although several samples contained inclusions of some of these materials, they were generally within a soil matrix and therefore further assessment was warranted.

The thirteen samples of filling analysed (Table D1 in Appendix D) did not possess any obvious hazardous characteristics and could not be described as hazardous waste prior to chemical analysis. All samples analysed were assessed on a visual and tactile basis as being incapable of significant biological transformation and are therefore considered to be non-putrescible.

The total concentrations in the samples tested were compared to the threshold criteria provided in the waste classification guidelines. Several samples had elevated total concentrations of lead, nickel and/or PAHs and therefore leachability analysis was undertaken on selected samples (Table D2 in Appendix D). The samples of filling tested could be provisionally classified as *General Solid Waste (non-putrescible)* based on both the total and leachable contaminant concentrations.

The underlying soils and bedrock may be able to be described as virgin excavated natural material (VENM) upon excavation if the materials are not mixed with filling or other contaminating substances. The majority of spoil on the site is expected to be the result of piling operations in which mixing of filling and natural materials is somewhat inevitable. It is therefore recommended that all waste should be disposed of as *General Solid Waste (non-putrescible)* at a landfill facility that is licensed to receive this category of waste.

11. CONCLUSIONS AND RECOMMENDATIONS

The site history information obtained during the contamination assessment indicated several USTs were formerly located to the south-west of and outside the Site A area. Numerous buildings have been demolished on the site in the past which also indicates the possibility of asbestos being present. No other indications of potentially contaminating activities were obtained from historical information.

The twenty-two soil samples analysed from the ten test locations exhibited contaminant concentrations within the adopted assessment criteria for the site. Asbestos was not observed in the boreholes nor detected in the laboratory samples analysed, although the possibility of asbestos being present on the site should not be discounted. On the basis of the contamination assessment, the soils on the site are considered suitable for the proposed development.

Groundwater samples were collected from two monitoring wells on the site and analysed for a range of potential contaminants. The samples contained concentrations of copper, lead and zinc above the 95% level of protection of freshwater species. However, the samples also exhibited considerable hardness and the metal concentrations are considered acceptable when the trigger values are adjusted for hardness. On the basis of the contamination assessment, the groundwater quality should not affect the suitability of the site for the proposed development, or pose a significant risk to the off-site environment.

The filling on the site has been provisionally classified as General Solid Waste (non-putrescible) in accordance with current waste classification guidelines. Although the underlying materials could possibly be described as VENM if assessed during construction, mixing of the filling and soils during piling works is inevitable and all material should therefore be disposed of at a landfill facility licensed to receive General Solid Waste (non-putrescible).

12. LIMITATIONS OF THIS REPORT

The scope of the site assessment activities and consulting services performed by DP were limited to those outlined in our proposal dated 15 March 2010 which was accepted by News Limited.

DPs assessment is based upon the results of a limited site investigation and the restricted program of surface and subsurface sampling, screening and laboratory testing which was undertaken. DP cannot provide unqualified warranties nor assumes any liability for site conditions not observed, or accessible, during the time of the investigations. This includes areas on the site that were inaccessible due to archaeological constraints.

Despite all reasonable care and diligence, the ground conditions encountered and concentrations of contaminants measured may not be representative of conditions between the sample locations. In addition, site characteristics may change at any time in response to variations in natural conditions and other events such as spillages of contaminating substances. These changes may occur subsequent to DPs investigation and assessment.

This report, its associated documentation and the information herein have been prepared solely for the use of News Limited. Any reliance assumed by third parties on this report shall be at such parties' own risk. Any ensuing liability resulting from use of the report by third parties cannot be transferred to DP.

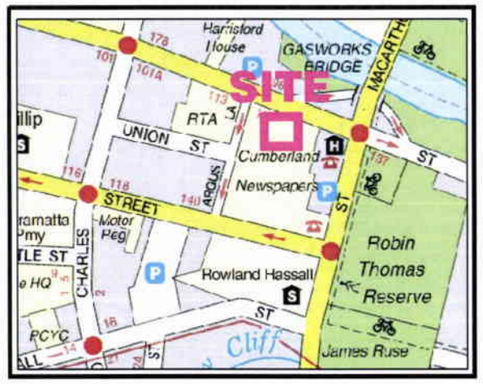
DOUGLAS PARTNERS PTY LTD

Reviewed by

Peter Oitmaa
Senior Associate

J M Nash
Principal

APPENDIX A
Drawings



LOCALITY PLAN

LEGEND

TEST BORE LOCATION

GW GROUNDWATER MONITORING WELL

Douglas Partners *Geotechnics · Environment · Groundwater*	CLIENT: News Limited			TITLE: **Borehole Locations** **Cumberland Newspapers Redevelopment** **142-154 Macquarie Street, PARRAMATTA**	PROJECT No: 71682
	DRAWN BY: PSCH	SCALE: As shown	OFFICE: Sydney		DRAWING No: E1
	APPROVED BY:		DATE: 16.6.2010		REVISION: A

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LEGEND

- TEST BORE LOCATION
- INFERRED CONTOUR (AHD)

Douglas Partners
Geotechnics · Environment · Groundwater

CLIENT: News Limited		
DRAWN BY: PSCH	SCALE: As shown	OFFICE: Sydney
APPROVED BY: RLO		DATE: 16.6.2010

TITLE: **Contours Showing Groundwater Surface**
Cumberland Newspapers Redevelopment
142-154 Macquarie Street, PARRAMATTA

PROJECT No:	71682
DRAWING No:	E2
REVISION:	A

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APPENDIX B
Historical Information

Service First Registration Pty Ltd

ACN: 108 037 029
Ph: 02 9233 1314
Fax: 9233 2878

Suite 102, Level 1, 64 Castlereagh Street
Sydney 2000
PO Box 1539 Sydney 2000
DX 189 Sydney

Summary of Owners Report

LPMA
Sydney

Deeds Branch

Re: - 142 to 154 Macquarie Street, Parramatta

Description: - Lot 11 D.P. 790287

As regards the part marked (1) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
21.12.1909 (1909 to 1920)	Theresa Stapleton (Married Woman)	Vol 1745 Fol 183 now Vol 2978 Fol 195
25.10.1920 (1920 to 1970)	John Thomas Stapleton (Storekeepers Assistant)	Vol 2978 Fol 195 now Vol 7340 Fol 242
21.02.1969 (1969 to 1970)	Douglas Sinclair Harris (Public Accountant)	Vol 7340 Fol 242
28.03.1969 (1969 to date)	# Cumberland Newspapers Pty Limited (# Now Cumberland Printers Pty Limited	Vol 7340 Fol 242 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (2) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
21.12.1909 (1909 to 1920)	Theresa Stapleton (Married Woman)	Vol 1745 Fol 183 now Vol 2978 Fol 195
25.10.1920 (1920 to 1956)	John Thomas Stapleton (Storekeepers Assistant)	Vol 2978 Fol 195 now Vol 3133 Fol 167
09.08.1955 (1955 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 3133 Fol 167 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (3) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
21.12.1909 (1909 to 1948)	Theresa Stapleton (Married Woman)	Vol 1745 Fol 183 Now Vol 3133 Fol 186
02.07.1948 (1948 to 1949)	John Thomas Stapleton (Estate Agent) Lily Frances Lynch (Married Woman) (Transmission Application not investigated)	Vol 3133 Fol 186
18.05.1949 (1949 to 1956)	John Thomas Lynch (Estate Agent)	Vol 3133 Fol 186 now Vol 6124 Fol 97
10.12.1956 (1956 to 1961)	Fanny Kathleen Manning (Spinster)	Vol 6124 Fol 97 now Vol 7341 Fol 105
10.11.1960 (1960 to 1961)	Clare Annie Bradbury (Married Woman) (Transmission Application not investigated)	Vol 7341 Fol 105

Service First Registration Pty Ltd
ACN: 108 037 029
Ph: 02 9233 1314
Fax: 9233 2878
Suite 102, Level 1, 64 Castlereagh Street
Sydney 2000
PO Box 1539 Sydney 2000
DX 189 Sydney

As regards the part marked (3) on the attached cadastre - continued

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
26.12.1961 (1961 to 1965)	Gordon Hugh Fraser (Real Estate Agent)	Vol 7341 Fol 105
09.04.1965 (1965 to 1969)	Peter Nicolapoulos (Machinist) Tasia Nicolapoulos (Married Woman)	Vol 7341 Fol 105
04.02.1969 (1969 to 1969)	Douglas Sinclair Harris (Chartered Secretary)	Vol 7341 Fol 105
06.03.1969 (1969 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 7341 Fol 105 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (4) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
21.12.1909 (1909 to 1948)	Theresa Stapleton (Married Woman)	Vol 1745 Fol 183 Now Vol 3133 Fol 186
02.07.1948 (1948 to 1949)	John Thomas Stapleton (Estate Agent) Lily Frances Lynch (Married Woman) (Transmission Application not investigated)	Vol 3133 Fol 186
18.05.1949 (1949 to 1955)	John Thomas Stapleton (Estate Agent)	Vol 3133 Fol 186 now Vol 6124 Fol 97
09.08.1955 (1955 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 6124 Fol 97 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (5) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
21.12.1909 (1909 to 1948)	Theresa Stapleton (Married Woman)	Vol 1745 Fol 183 Now Vol 3133 Fol 186
02.07.1948 (1948 to 1949)	John Thomas Stapleton (Estate Agent) Lily Frances Lynch (Married Woman) (Transmission Application not investigated)	Vol 3133 Fol 186
18.05.1949 (1949 to 1959)	Lily Frances Lynch (Married Woman)	Vol 3133 Fol 186 now Vol 6919 Fol 82
23.01.1958 (1958 to 1969)	Marie Theresa Threlfo (Married Woman)	Vol 6919 Fol 82
05.03.1969 (1969 to 1969)	Douglas Sinclair Harris (Chartered Secretary)	Vol 6919 Fol 82
25.03.1969 (1969 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 6919 Fol 82 now 11/790287

# Denotes Current Registered Proprietor

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Sydney 2000
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DX 189 Sydney

As regards the part marked (6) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
21.12.1909 (1909 to 1919)	Theresa Stapleton (Married Woman)	Vol 1745 Fol 183
26.08.1919 (1919 to 1922)	Frank Tasman O'Brien (Clicker)	Vol 1745 Fol 183 now Vol 2978 Fol 130
20.09.1922 (1922 to 1967)	Therese Gertrude O'Brien (Widow) (Now Therese Gertrude McGrath, Married Woman) (Transmission Application not investigated)	Vol 2978 Fol 130 now Vol 6934 Fol 231
09.05.1967 (1967 to 1969)	Periklis Makris (Fitter) Nicky Makris (Married Woman)	Vol 6934 Fol 231
17.01.1969 (1969 to 1969)	Ross Bingham Shackell (Chartered Accountant)	Vol 6934 Fol 231
06.03.1969 (1969 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 6934 Fol 231 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (7) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
07.08.1928 (1928 to 1948)	Theresa Stapleton (Married Woman)	Book 1504 No. 949 now Vol 4468 Fol 8
07.02.1948 (1948 to 1949)	John Thomas Stapleton (Estate Agent) Lily Frances Lynch (Married Woman) (Transmission Application not investigated)	Vol 4468 Fol 8
18.05.1949 (1949 to 1959)	John Thomas Stapleton (Estate Agent)	Vol 4468 Fol 8 now Vol 6124 Fol 97
23.12.1959 (1959 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 4468 Fol 8 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (8) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
03.02.1928 (1928 to 1959)	John Thomas Stapleton (Estate Agent)	Book 1502 No. 19 now Vol 7340 Fol 243
23.12.1959 (1959 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 7340 Fol 243 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (9) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
01.12.1920 (1920 to 1948)	Theresa Stapleton (Draper)	Vol 3133 Fol 187 now Vol 4278 Fol 61
07.02.1948 (1948 to 1949)	John Thomas Stapleton (Estate Agent) Lily Frances Lynch (Married Woman) (Transmission Application not investigated)	Vol 4278 Fol 61

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As regards the part marked (9) on the attached cadastre - continued

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
18.05.1949 (1949 to 1951)	Lily Frances Lynch (Married Woman)	Vol 4278 Fol 61 now Vol 6124 Fol 98
16.05.1951 (1951 to 1967)	George Vincent Lynch (Carpenter)	Vol 6124 Fol 98 now Vol 6380 Fol 238
14.09.1967 (1967 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 6380 Fol 238 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (10) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
03.04.1929 (1929 to 1933)	Charles Augustus Mack (Engineer)	Vol 4263 Fol 205
07.02.1933 (1933 to 1938)	Permanent Trustee Company of New South Wales Limited	Vol 4263 Fol 205
16.05.1938 (1938 to 1956)	John Thomas Stapleton (Estate Agent)	Vol 4263 Fol 205 now Vol 4958 Fol 184
05.04.1956 (1956 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 4958 Fol 184 now 11/790287

# Denotes Current Registered Proprietor

As regards the parts marked (11 and 12) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
03.04.1929 (1929 to 1933)	Charles Augustus Mack (Engineer)	Vol 4263 Fol 205
07.02.1933 (1933 to 1938)	Permanent Trustee Company of New South Wales Limited	Vol 4263 Fol 205
16.05.1938 (1938 to 1951 as regards parcel 11) (1938 to 1955 as regards parcel 12)	John Thomas Stapleton (Estate Agent)	Vol 4263 Fol 205
22.01.1951 (1951 to date) as regards parcel 11)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 4263 Fol 205 now 11/790287
09.08.1955 (1955 to date as regards parcel 12)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 4263 Fol 205 now 11/790287

# Denotes Current Registered Proprietor

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Suite 102, Level 1, 64 Castlereagh Street
Sydney 2000
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As regards the parts marked (13 & 14) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
03.04.1929 (1929 to 1930)	Charles Augustus Mack (Engineer)	Vol 4263 Fol 206
15.04.1930 (1930 to 1951 as regards parcel 13) (1930 to 1955 as regards parcel 14)	John Thomas Stapleton (Estate Agent)	Vol 4263 Fol 206
22.01.1951 (1951 to date) as regards parcel 13)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 4263 Fol 206 now 11/790287
09.08.1955 (1955 to date as regards parcel 14)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 4263 Fol 206 now 11/790287

# Denotes Current Registered Proprietor

As regards the parts marked (15 and 16) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
01.12.1920 (1920 to 1929)	Theresa Stapleton (Married Woman)	Vol 3133 Fol 187
06.04.1929 (1930 to 1951 as regards parcel 15) (1930 to 1955 as regards parcel 16)	John Thomas Stapleton (Estate Agent)	Vol 3133 Fol 187 now Vol 4278 Fol 59
22.01.1951 (1951 to date) as regards parcel 15)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 4278 Fol 59 now 11/790287
09.08.1955 (1955 to date as regards parcel 16)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 4278 Fol 59 now 11/790287

# Denotes Current Registered Proprietor

As regards the parts marked (17) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
21.12.1909 (1909 to 1919)	Theresa Stapleton (Married Woman)	Vol 1745 Fol 183
26.08.1919 (1919 to 1922)	Frank Tasman O'Brien (Clicker)	Vol 1745 Fol 183 now Vol 2978 Fol 130
20.09.1922 (1922 to 1951)	Therese Gertrude O'Brien (Widow) (Now Therese Gertrude McGrath, Married Woman) (Transmission Application not investigated)	Vol 2978 Fol 130
01.04.1951 (1951 to 1956)	John Thomas Stapleton (Estate Agent)	Vol 2978 Fol 130 now Vol 6880 Fol 125
09.08.1956 (1956 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 6880 Fol 125 now 11/790287

# Denotes Current Registered Proprietor

Service First Registration Pty Ltd

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Sydney 2000
PO Box 1539 Sydney 2000
DX 189 Sydney

As regards the part marked (18) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
07.08.1928 (1928 to 1948)	Theresa Stapleton (Married Woman)	Book 1504 No. 949 now Vol 4468 Fol 8
07.02.1948 (1948 to 1949)	John Thomas Stapleton (Estate Agent) Lily Frances Lynch (Married Woman) (Transmission Application not investigated)	Vol 4468 Fol 8
18.05.1949 (1949 to 1955)	John Thomas Stapleton (Estate Agent)	Vol 4468 Fol 8 now Vol 6124 Fol 97
09.08.1955 (1955 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 6124 Fol 97 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (19) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
03.02.1928 (1928 to 1955)	John Thomas Stapleton (Estate Agent)	Book 1502 No. 19 now Vol 4666 Fol 246
09.08.1955 (1955 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 4666 Fol 246 now 11/790287

# Denotes Current Registered Proprietor

As regards the part marked (20) on the attached cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
18.05.1949 (1949 to 1949)	Lily Frances Lynch (Married Woman)	Vol 4278 Fol 61
16.05.1951 (1951 to 1955)	John Thomas Stapleton (Estate Agent)	Vol 4278 Fol 61 now Vol 6124 Fol 97
09.08.1955 (1955 to date)	Cumberland Newspapers Limited (# now Cumberland Printers Pty Limited)	Vol 6124 Fol 97 now 11/790287

# Denotes Current Registered Proprietor

Yours Sincerely
Drew Fallon
19 April 2010

Email: grolly1@bigpond.net.au

Department of Lands
Reliable from the ground up

Cadastral Records Enquiry Report

Ref : surv:scim-grollm

Requested Parcel : Lot 11 DP 790287

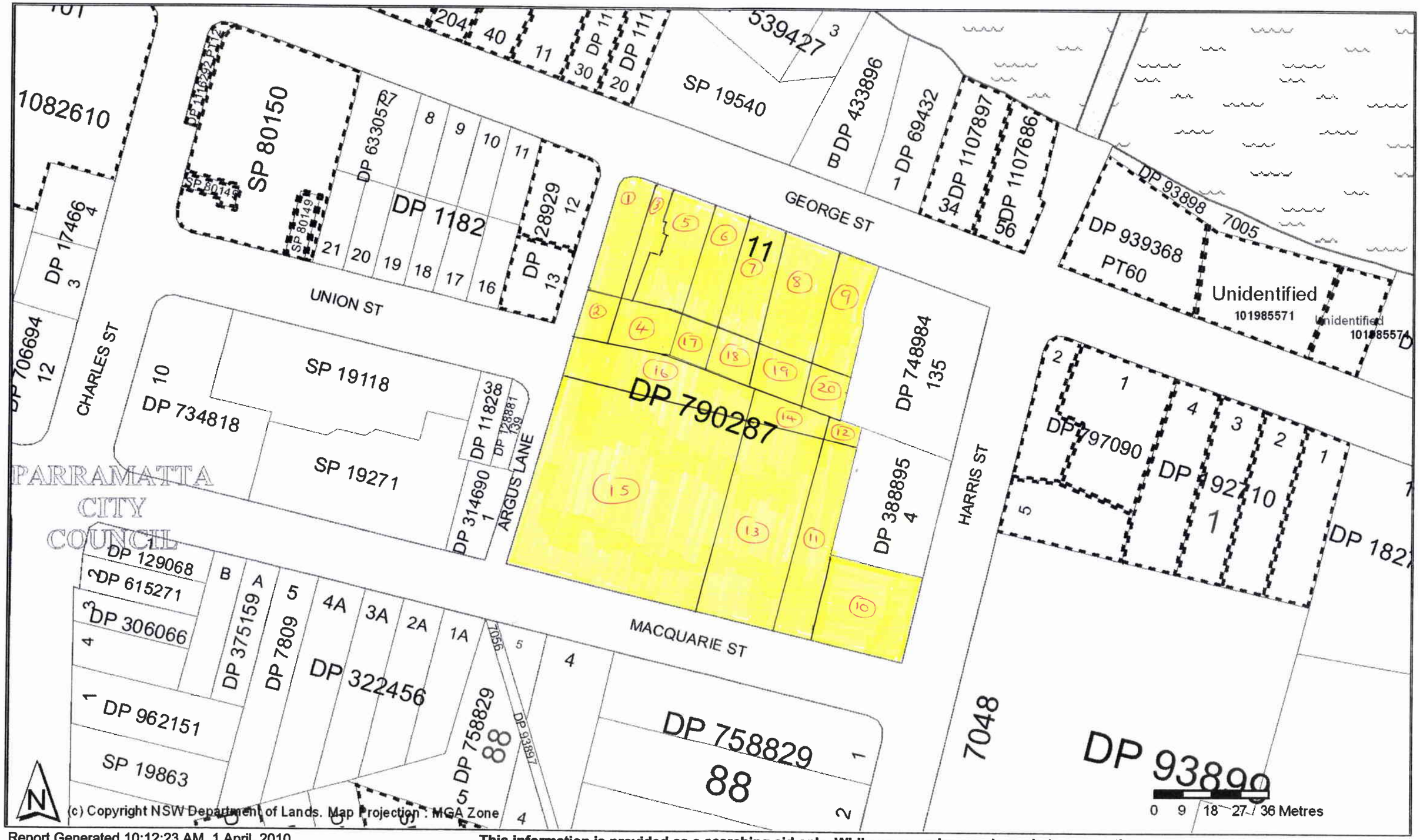
Identified Parcel : Lot 11 DP 790287

Locality : PARRAMATTA

LGA : PARRAMATTA

Parish : ST JOHN

County : CUMBERLAND



Report Generated 10:12:23 AM, 1 April, 2010

This information is provided as a searching aid only. While every endeavour is made to ensure the current cadastral pattern is accurately reflected, the Registrar General cannot guarantee the information provided. For all ACTIVITY PRIOR to SEPT 2002 you must refer to the RGs Charting and Reference Maps.

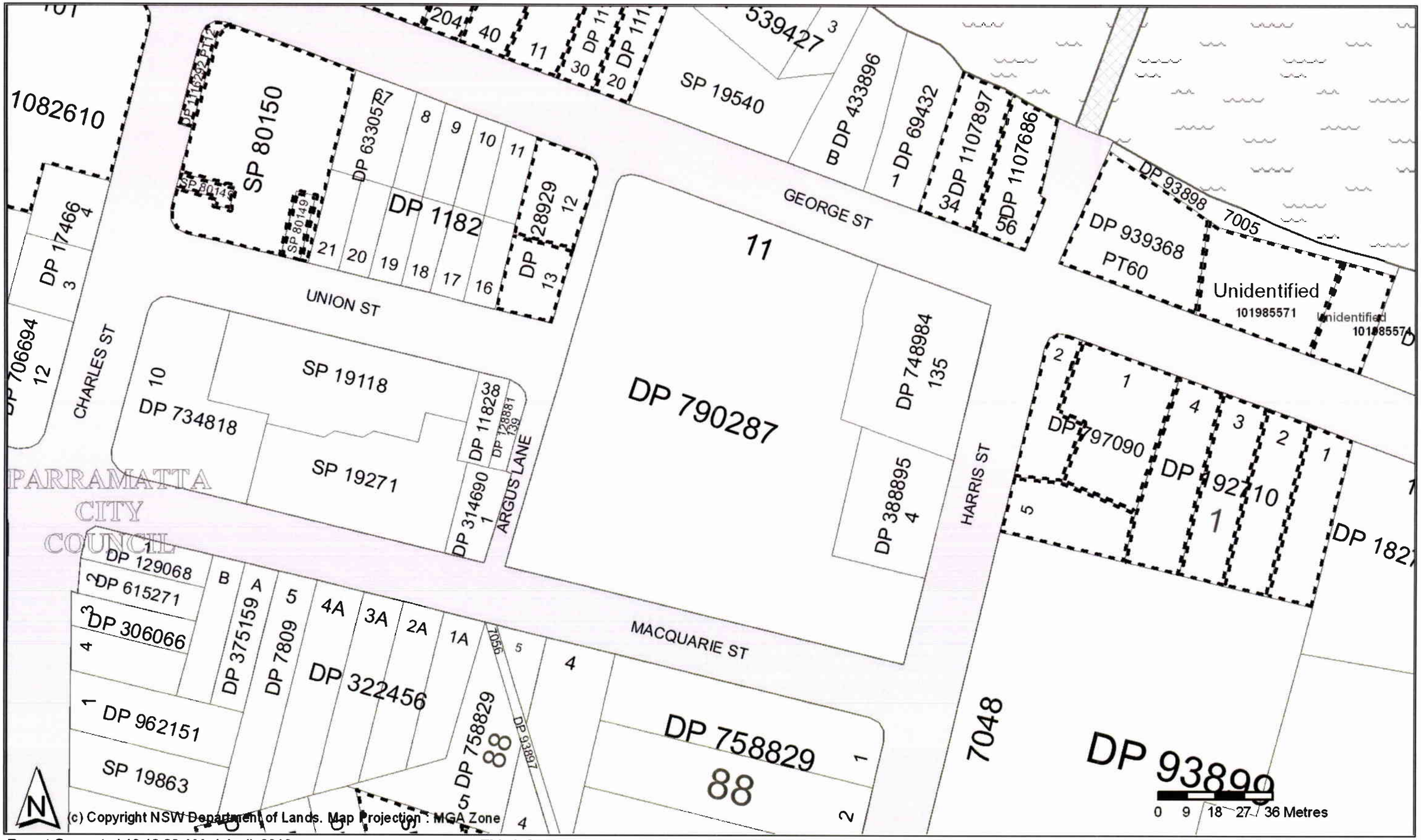
Department of Lands
Reliable from the ground up

Cadastral Records Enquiry Report

Ref : surv:scim-grollm

Requested Parcel : Lot 11 DP 790287 — **Identified Parcel :** Lot 11 DP 790287

Locality : PARRAMATTA — **LGA :** PARRAMATTA — **Parish :** ST JOHN — **County :** CUMBERLAND



Report Generated 10:12:23 AM, 1 April, 2010

This information is provided as a searching aid only. While every endeavour is made to ensure the current cadastral pattern is accurately reflected, the Registrar General cannot guarantee the information provided. For all ACTIVITY PRIOR to SEPT 2002 you must refer to the RGs Charting and Reference Maps.

Department of Lands
Reliable from the ground up

Cadastral Records Enquiry Report

Ref : surv:scim-grollm

Requested Parcel : Lot 11 DP 790287 **Identified Parcel :** Lot 11 DP 790287

Locality : PARRAMATTA **LGA :** PARRAMATTA **Parish :** ST JOHN **County :** CUMBERLAND

	Status	Surv/Comp	Purpose
DP128928			
Lot(s): 1			
DP390897	HISTORICAL	SURVEY	UNRESEARCHED
DP128929			
Lot(s): 12, 13			
DP350377	HISTORICAL	COMPILATION	UNRESEARCHED
DP192710			
Lot(s): 1, 2, 5 Section : 1			
CA103110 (LOTS 1,2,5 SECTION 1 DP192710)			
Lot(s): 3, 4 Section : 1			
CA105525 (LOTS 3,4 SECTION 1 DP192710)			
DP797090			
Lot(s): 1, 2			
DP1096545	REGISTERED	COMPILATION	DEPARTMENTAL
NSW GAZ 10-03-2006 Folio : 1365			
ACQUIRED FOR THE PURPOSES OF OPEN SPACE: SEE AC203091			
DP939368			
Lot(s): 60			
CA132397 - PENDING			
DP1055253			
Lot(s): 100			
DP241	HISTORICAL	COMPILATION	UNRESEARCHED
DP7809	HISTORICAL	SURVEY	UNRESEARCHED
DP1082194			
Lot(s): 201, 204			
DP128208	HISTORICAL	COMPILATION	DEPARTMENTAL
DP419172	HISTORICAL	SURVEY	UNRESEARCHED
DP607818	HISTORICAL	SURVEY	OLD SYSTEM CONVERSION
DP608152	HISTORICAL	SURVEY	OLD SYSTEM CONVERSION
DP1052493	REGISTERED	SURVEY	CONSOLIDATION
DP1079331	REGISTERED	SURVEY	EASEMENT
SP74916	REGISTERED	COMPILATION	STRATA PLAN
Lot(s): 204			
SP74915	PRE-EXAM	COMPILATION	STRATA PLAN
Lot(s): 201			
SP74911	PRE-EXAM	COMPILATION	STRATA PLAN
DP1082610			
Lot(s): 101			
DP17466	HISTORICAL	SURVEY	UNRESEARCHED
DP80558	HISTORICAL	SURVEY	UNRESEARCHED
DP108376	HISTORICAL	COMPILATION	UNRESEARCHED
DP334573	HISTORICAL	SURVEY	UNRESEARCHED
DP594023	HISTORICAL	COMPILATION	SUBDIVISION
DP1102976	REGISTERED	SURVEY	EASEMENT
DP1107686			
Lot(s): 56			
CA103363 - LOT 56 DP1107686			
CA103597 - LOT 34 DP1107897			
DP1107897			
Lot(s): 34			
CA103597 - LOT 34 DP1107897			
DP1115358			
Lot(s): 11			
DP337507	HISTORICAL	SURVEY	UNRESEARCHED
DP1003950	REGISTERED	SURVEY	REDEFINITION
DP1064898	REGISTERED	SURVEY	RESUMPTION OR ACQUISITION
DP1115360			
Lot(s): 20			
DP376287	HISTORICAL	COMPILATION	UNRESEARCHED
DP1003950	REGISTERED	SURVEY	REDEFINITION
DP1064898	REGISTERED	SURVEY	RESUMPTION OR ACQUISITION

Caution: For all **ACTIVITY PRIOR to SEPT 2002** you must refer to the RGs Charting and Reference Maps.

Department of Lands
Reliable from the ground up

Cadastral Records Enquiry Report

Ref : surv:scim-grollm

Requested Parcel : Lot 11 DP 790287 **Identified Parcel :** Lot 11 DP 790287

Locality : PARRAMATTA **LGA :** PARRAMATTA **Parish :** ST JOHN **County :** CUMBERLAND

	Status	Surv/Comp	Purpose
DP1115363			
Lot(s): 40			
DP59495	HISTORICAL	SURVEY	UNRESEARCHED
DP1064898	REGISTERED	SURVEY	RESUMPTION OR ACQUISITION
DP1115365			
Lot(s): 30			
DP337507	HISTORICAL	SURVEY	UNRESEARCHED
DP1064898	REGISTERED	SURVEY	RESUMPTION OR ACQUISITION
DP1116292			
Lot(s): 12			
DP1182	HISTORICAL	COMPILATION	UNRESEARCHED
DP628861	HISTORICAL	COMPILATION	CONSOLIDATION
DP801388	HISTORICAL	COMPILATION	SUBDIVISION
DP971715	HISTORICAL	COMPILATION	UNRESEARCHED
DP1046112	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1112030	REGISTERED	SURVEY	CONSOLIDATION
SP68569			
DP241	HISTORICAL	COMPILATION	UNRESEARCHED
DP390896	HISTORICAL	COMPILATION	UNRESEARCHED
DP1027682	REGISTERED	SURVEY	CONSOLIDATION
SP70733			
DP241	HISTORICAL	COMPILATION	UNRESEARCHED
DP1031891	REGISTERED	SURVEY	REDEFINITION
SP68569	REGISTERED	COMPILATION	STRATA PLAN
SP80149			
DP1182	HISTORICAL	COMPILATION	UNRESEARCHED
DP628861	HISTORICAL	COMPILATION	CONSOLIDATION
DP801388	HISTORICAL	COMPILATION	SUBDIVISION
DP971715	HISTORICAL	COMPILATION	UNRESEARCHED
DP1046112	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1112030	REGISTERED	SURVEY	CONSOLIDATION
DP1116292	REGISTERED	SURVEY	SUBDIVISION
SP80150			
DP1182	HISTORICAL	COMPILATION	UNRESEARCHED
DP628861	HISTORICAL	COMPILATION	CONSOLIDATION
DP801388	HISTORICAL	COMPILATION	SUBDIVISION
DP971715	HISTORICAL	COMPILATION	UNRESEARCHED
DP1046112	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1112030	REGISTERED	SURVEY	CONSOLIDATION
DP1116292	REGISTERED	SURVEY	SUBDIVISION
SP83360	UNREGISTERED	COMPILATION	STRATA SUBDIVISION PLAN
Unidentified			
Polygon Id(s): 101985571, 101985574			
CA132397 - PENDING			

Caution: For all **ACTIVITY PRIOR to SEPT 2002** you must refer to the RGs Charting and Reference Maps.

Department of Lands
Reliable from the ground up

Cadastral Records Enquiry Report

Ref : surv:scim-grollm

Requested Parcel : Lot 11 DP 790287 **Identified Parcel :** Lot 11 DP 790287

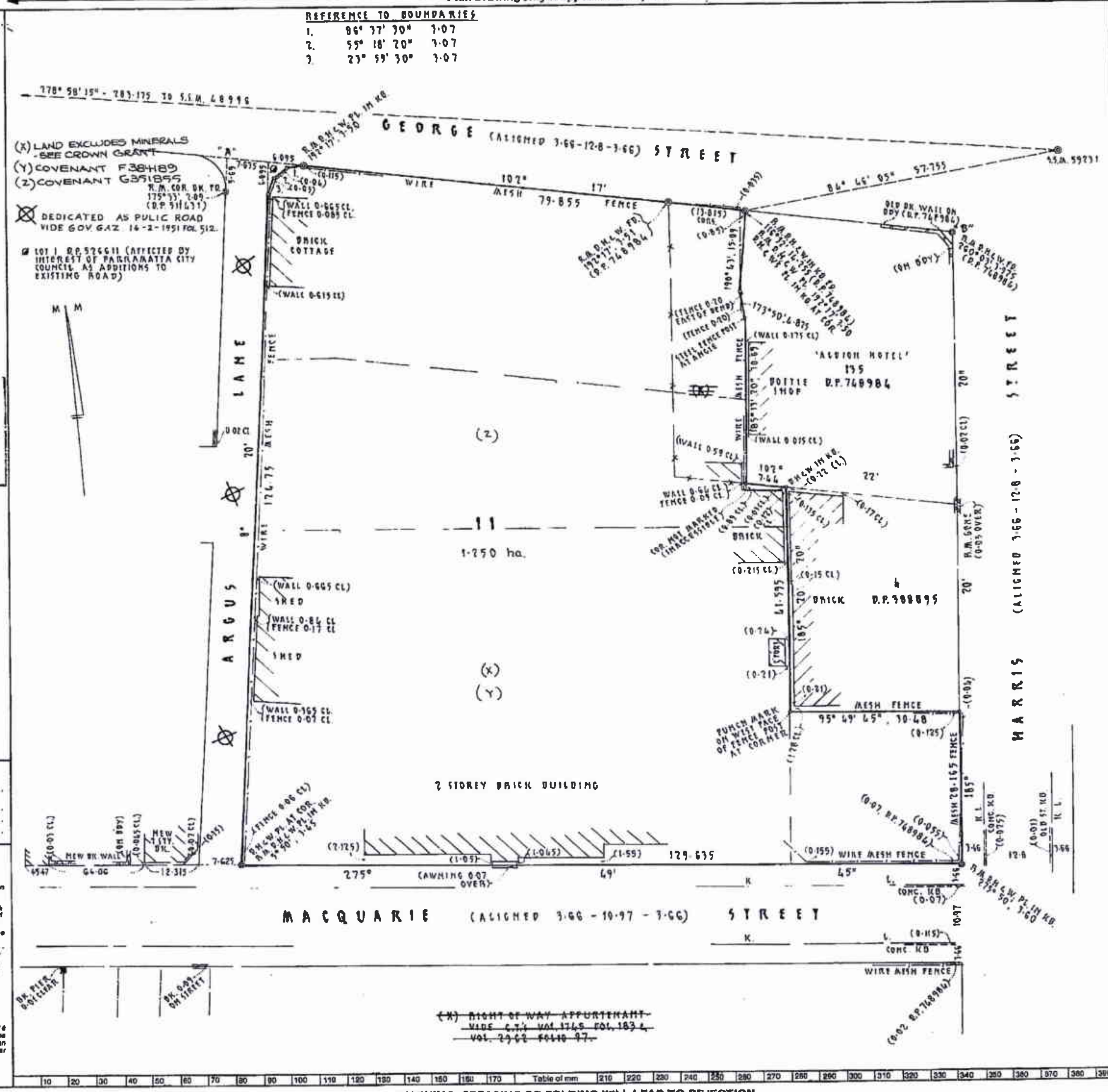
Locality : PARRAMATTA **LGA :** PARRAMATTA **Parish :** ST JOHN **County :** CUMBERLAND

Plan	Surv/Comp	Purpose
DP1182	COMPILATION	UNRESEARCHED
DP7809	SURVEY	UNRESEARCHED
DP17466	SURVEY	UNRESEARCHED
DP69432	SURVEY	UNRESEARCHED
DP93897	COMPILATION	DEPARTMENTAL
DP93898	COMPILATION	DEPARTMENTAL
DP93899	COMPILATION	DEPARTMENTAL
DP128847	COMPILATION	DEPARTMENTAL
DP128881	COMPILATION	DEPARTMENTAL
DP128928	COMPILATION	DEPARTMENTAL
DP128929	COMPILATION	DEPARTMENTAL
DP129068	COMPILATION	DEPARTMENTAL
DP182726	SURVEY	UNRESEARCHED
DP192710	COMPILATION	UNRESEARCHED
DP306066	COMPILATION	UNRESEARCHED
DP314690	COMPILATION	UNRESEARCHED
DP322456	COMPILATION	UNRESEARCHED
DP375159	COMPILATION	UNRESEARCHED
DP388895	SURVEY	UNRESEARCHED
DP390897	SURVEY	UNRESEARCHED
DP433896	SURVEY	UNRESEARCHED
DP449406	COMPILATION	UNRESEARCHED
DP539427	SURVEY	SUBDIVISION
DP615271	SURVEY	SUBDIVISION
DP633057	SURVEY	CONSOLIDATION
DP706341	SURVEY	REDEFINITION
DP706694	SURVEY	SUBDIVISION
DP734818	SURVEY	CONSOLIDATION
DP748984	SURVEY	CONSOLIDATION
DP758829	COMPILATION	CROWN ADMIN NO.
DP790287	SURVEY	CONSOLIDATION
DP797090	COMPILATION	DEPARTMENTAL
DP939368	COMPILATION	UNRESEARCHED
DP962151	COMPILATION	UNRESEARCHED
DP939368	COMPILATION	UNRESEARCHED
DP962151	COMPILATION	UNRESEARCHED
DP1055253	SURVEY	SUBDIVISION
DP1082194	SURVEY	SUBDIVISION
DP1082194	SURVEY	BUILDING STRATUM SUBDIVISION
DP1082610	SURVEY	CONSOLIDATION
DP1107686	COMPILATION	LIMITED FOLIO CREATION
DP1107897	COMPILATION	LIMITED FOLIO CREATION
DP1115358	SURVEY	RESUMPTION OR ACQUISITION
DP1115360	SURVEY	RESUMPTION OR ACQUISITION
DP1115363	SURVEY	RESUMPTION OR ACQUISITION
DP1115365	SURVEY	RESUMPTION OR ACQUISITION
DP1116292	SURVEY	SUBDIVISION
SP19041	COMPILATION	STRATA PLAN
SP19118	COMPILATION	STRATA PLAN
SP19271	COMPILATION	STRATA PLAN
SP19540	COMPILATION	STRATA PLAN
SP19863	COMPILATION	STRATA PLAN
SP68569	COMPILATION	STRATA PLAN
SP70733	COMPILATION	STRATA PLAN
SP80149	COMPILATION	PART STRATA
SP80150	COMPILATION	PART STRATA

PLAN FORM 2

SIGNATURE AND SEALS ONLY.

Plan Drawing only to appear in this space



*OFFICE USE ONLY

DP 790287

Registered: 98 11.5.1990

C.A. NO. 32/5187 OF 14-6-1989

Title System: TORRENS

Purpose: CONSOLIDATION

Ref. Map: U0052-414*

Last Plan: DP'S 108201, 115985, 337665, 372524, 388895, 433897

PLAN OF CONSOLIDATION OF LOT 1 D.P. 372524, LOT 3 D.P. 388895; LOTS 7 & 8 D.P. 108201, LOT B D.P. 433897, LOT 1 D.P. 115985, LOTS 5 & 6 D.P. 108201, LOT AA D.P. 433897, LOT B D.P. 337665

Lengths are in metres. Reduction Ratio 1: 500

~~Mun./Shire~~ City: PARRAMATTA

Locality: PARRAMATTA

Parish: ST. JOHN

County: CUMBERLAND

~~This is sheet 1 of my plan in ...... sheets.~~
(Delete if inapplicable)

I, WILLIAM JAMES CLOUSTON DIVE of P.O. BOX 645 TURRAMURRA 2074 a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made in accordance with the Survey Practice Regulations, 1933 and any special requirements of the Department of Lands, and was completed on 20/4/89

Signature ......
Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth: A - B
Insert date of survey

Plans used in preparation of survey/compilation:
D.P.s 768984, 661770, 526611, 372524, 388895, 108201, 433897, 115985, 433897, 337665, 62175.

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

Crown Lands Office Approval

PLAN APPROVED ......
Authorized Officer
Land District ......
Paper No. ......
Field Book ...... pages ......

Council Clerk's Certificate

I hereby certify that —

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

~~*(b) the requirements of section 340 of the † Metropolitan Water, Sewerage and Drainage Act, 1924, as amended; † Hunter District Water, Sewerage and Drainage Act, 1938, as amended~~

have been complied with by the applicant in relation to the proposed CONSOLIDATED LOT
(insert "new road", "subdivision" or "consolidated lot") set out herein.

Subdivision No. ......
Date ......
(Signature) ......
Council Clerk
Council File No. ......

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.
† Delete if inapplicable.

SURVEYOR'S REFERENCE: 2738

10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	Table of mm	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

10	20	30	40	50	60	70 Table of mm	110	120	130	140

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 14th May, 1990

644909 1 "A"

Plan Form No. 2 (for Deposited Plan)

FP 108201

City
Municipality of Parramatta
Shire of

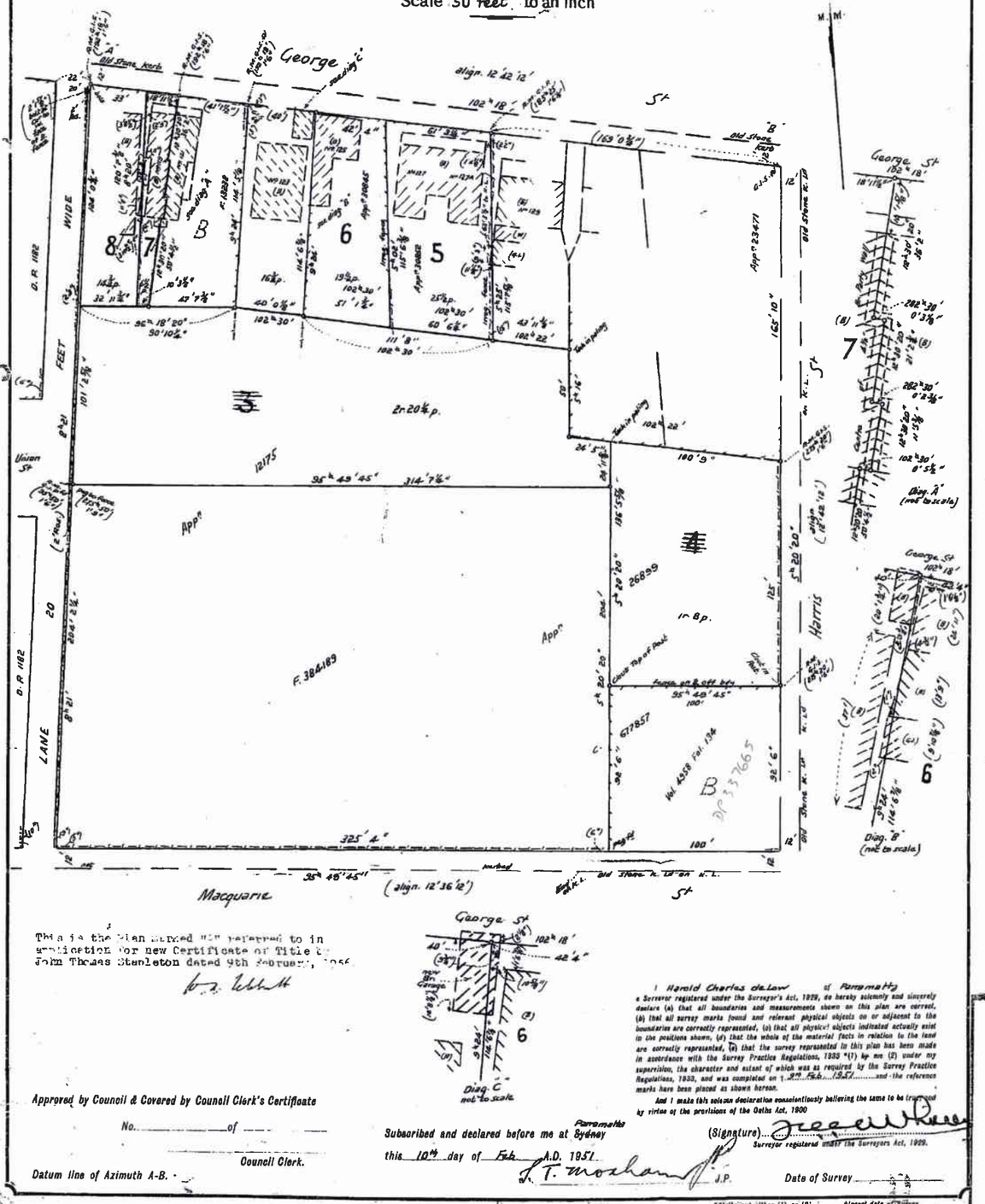
— PLAN —

— of subdivision of land —

In Certs. of Title Vol. 3133 Fol. 167 Vol. 4666 Fol. 246 Vol. 6124 Fol. 97
& parts of Certs. of Title Vol. 2978 Fol. 130 Vol. 4263 Fols. 205 & 206 & Vol. 4278 Fol. 59

PARISH OF ST JOHN COUNTY OF CUMBERLAND

Scale 50 feet to an inch



This is the plan marked "A" referred to in application for new Certificate of Title to John Thomas Stapleton dated 9th February, 1956

I Harold Charles de Law of Parramatta a Surveyor registered under the Surveyor's Act, 1929, do hereby solemnly and sincerely declare (a) that all boundaries and measurements shown on this plan are correct, (b) that all survey marks found and relevant physical objects on or adjacent to the boundaries are correctly represented, (c) that all physical objects indicated actually exist in the positions shown, (d) that the whole of the material facts in relation to the land are correctly represented, (e) that the survey represented in this plan has been made in accordance with the Survey Practice Regulations, 1933 *(1) by me (2) under my supervision, the character and extent of which was as required by the Survey Practice Regulations, 1933, and was completed on 1st Feb. 1951 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 Oaths Act, 1900

Approved by Council & Covered by Council Clerk's Certificate

No. of

Council Clerk.

Subscribed and declared before me at Parramatta Sydney

this 10th day of Feb A.D. 1951

J.P.

(Signature)

Surveyor registered under the Surveyors Act, 1929.

Datum line of Azimuth A-B.

Date of Survey

*Strike out either (1) or (2) †Insert date of Survey.

1399/24,1544

Copy of plan filed as 45286 L

I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 10th day of September, 1980

AMENDMENTS AND/OR ADDITIONS MOVED ON PLAN IN REGISTRAR GENERAL'S OFFICE.

CONVERSION TABLE ADDED IN DEPARTMENT OF LANDS

DP 108201 CONTINUED

FEET	INCHES	METRES
101	2 5/8	30.851
111	8	34.036
114	5 1/8	34.877
114	6 7/8	34.922
115	6 3/8	35.214
115	7 5/8	35.246
120	7 3/8	36.763
120	7 5/8	36.770
124	0 3/4	37.814
125	-	38.100
136	5 5/8	41.596
165	10	50.546
169	0 3/4	51.530
204	-	62.179
204	2 1/4	62.236
314	7 1/4	95.891
325	4	99.162
1000	-	304.800

AC	RD	P	SQ M
-	-	6 1/2	166.4
-	-	14 3/4	373.1
-	-	16 3/4	423.7
-	-	19 1/2	493.2
-	-	22.02	556.9
-	-	25 1/2	645
-	1	8	1214
-	2	20 1/4	2536

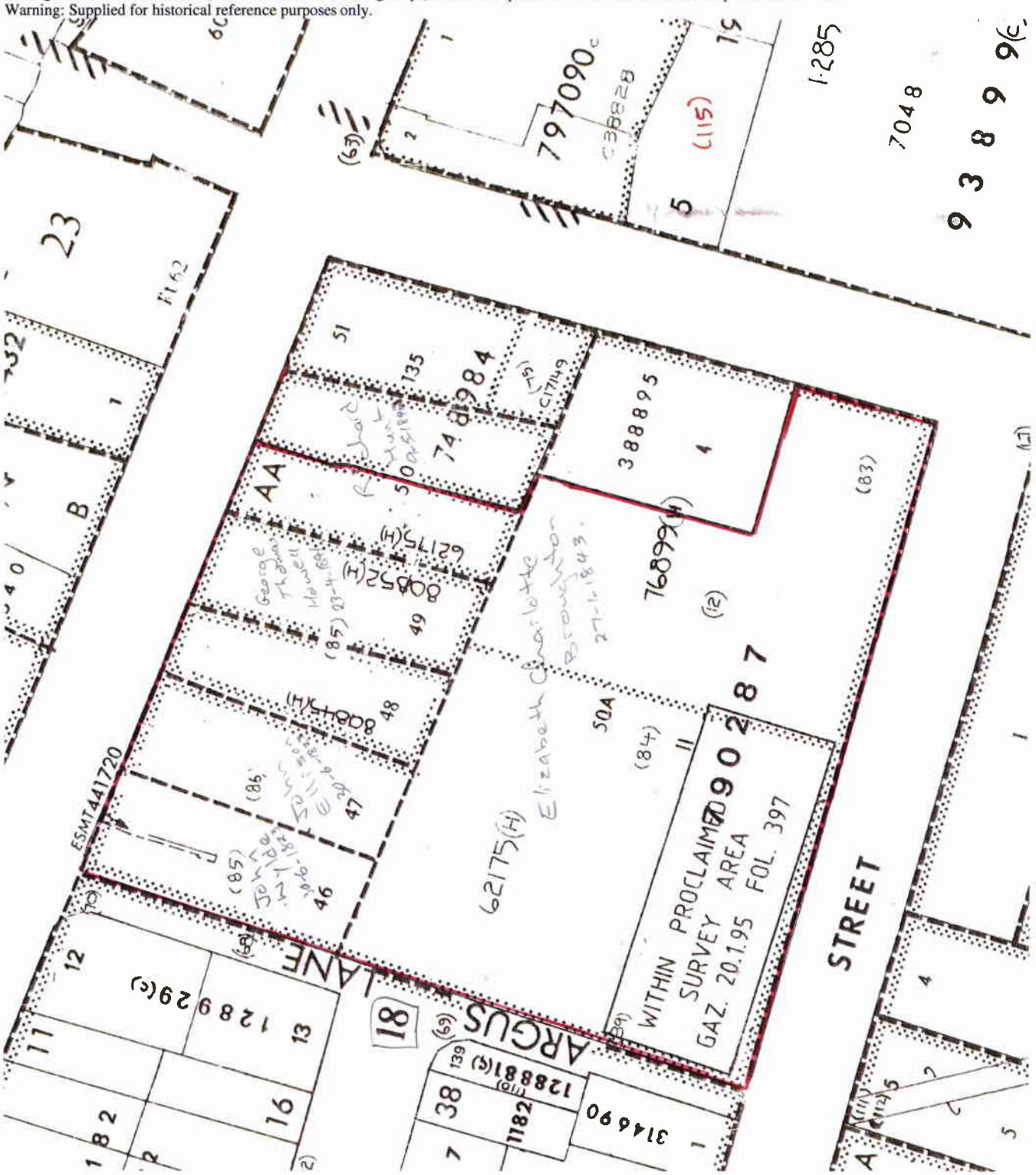
AC	RD	P	HA
5	1	8	2.145

CONVERSION TABLE ADDED IN DEPARTMENT OF LANDS

DP 108201

FEET	INCHES	METRES
-	1	0.025
-	2	0.051
-	2 1/8	0.054
-	2 3/8	0.060
-	3	0.076
-	3 1/8	0.079
-	4 1/2	0.114
-	4 3/4	0.121
-	5	0.127
-	5 1/2	0.140
-	6	0.152
-	8	0.203
-	9	0.229
-	9 3/4	0.248
-	10	0.254
-	10 5/8	0.270
-	11	0.279
-	11 1/8	0.283
1	-	0.305
1	3	0.381
1	6	0.457
1	6 1/8	0.460
1	9	0.533
1	11 1/8	0.587
1	11 7/8	0.606
2	-	0.610
2	1 1/2	0.648
2	1 5/8	0.651
2	2	0.660
2	2 3/8	0.686
2	8 1/2	0.826
2	9	0.838
2	9 3/4	0.857
3	8 1/2	1.130
3	10 1/2	1.181
3	3	2.819
9	10 7/8	3.019
10	1 5/8	3.089
10	3 1/8	3.127
11	5 3/8	3.169
11	-	3.632
12	9	3.658
13	8 1/2	4.191
16	8	5.093
18	-	5.486
18	11 1/2	5.779
20	-	6.096
20	1 3/4	6.140
21	2 3/4	6.471
22	-	6.706
24	5	7.442
24	11	7.595
24	11 5/8	7.610
32	9	9.982
32	11 3/4	10.052
33	-	10.058
36	-	10.973
36	2	11.024
37	-	11.278
40	-	11.192
40	0 1/8	12.195
41	1 1/2	12.535
42	4	12.802
42	9	12.935
43	11 3/8	13.395
67	7 3/8	14.513
50	-	15.240
50	4 1/2	15.354
51	1 3/4	15.589
60	6 1/4	18.447
61	3 1/4	18.675
63	3 1/2	19.291
90	10 1/4	27.692
92	6	28.194
100	-	30.480
100	9	30.709

Staff: grollm /Doc: U0052-414 (CMA Sheet-LTO Charting Maps) /Rev: 17 Sep 2007 /Prt: 30 Mar 2010 8:0 /Seq: 1 of 2 /Src: Pixel
Warning: Supplied for historical reference purposes only.



Title Search

LEAP Searching
An Approved LPI NSW
Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 11/790287

SEARCH DATE	TIME	EDITION NO	DATE
31/3/2010	7:57 AM	4	22/4/1993

LAND

LOT 11 IN DEPOSITED PLAN 790287
AT PARRAMATTA
LOCAL GOVERNMENT AREA PARRAMATTA
PARISH OF ST JOHN COUNTY OF CUMBERLAND
TITLE DIAGRAM DP790287

FIRST SCHEDULE

CUMBERLAND PRINTERS PTY. LIMITED (CN E764737)

SECOND SCHEDULE (9 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 LAND EXCLUDES MINERALS AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN THE TITLE DIAGRAM-SEE CROWN GRANT
3 F384189 COVENANT AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM.
4 G351855 COVENANT AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM.
5 H678027 MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA AFFECTING THE PART FORMERLY IN B/337665
6 H678028 MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA AFFECTING THE PART FORMERLY IN 3/388895
7 H748622 MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA AFFECTING THE PART FORMERLY IN 5/108201 AND 6/108201
8 H784203 MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA AFFECTING THE PART FORMERLY IN 1/372524
9 I259047 EASEMENT FOR ELECTRICITY PURPOSES 5 WIDE AFFECTING PART OF THE LAND WITHIN DESCRIBED SHOWN SO BURDENED IN DP 646633

NOTATIONS

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

*** END OF SEARCH ***

df PRINTED ON 31/3/2010

* 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. Leap Searching hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 92B(2) of the Real Property Act.

Historical Title

LEAP Searching
An Approved LPI NSW
Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
31/3/2010 7:58AM

FOLIO: 11/790287

First Title(s): OLD SYSTEM
Prior Title(s): 5-7/108201 1/115985
B/337665 1/372524
3/388895 B/433897
AA/433897 VOL 7340 FOL 242

Recorded	Number	Type of Instrument	C.T. Issue
23/5/1990	DP790287	DEPOSITED PLAN	FOLIO CREATED EDITION 1
1/9/1992	DP646633	DEPOSITED PLAN	
9/10/1992	E764737	CHANGE OF NAME	EDITION 2
4/1/1993	I19963	DEPARTMENTAL DEALING	EDITION 3
22/4/1993	I259047	GRANT OF EASEMENT	EDITION 4

*** END OF SEARCH ***

df PRINTED ON 31/3/2010

PHOTO 1: Aerial photograph from 1928

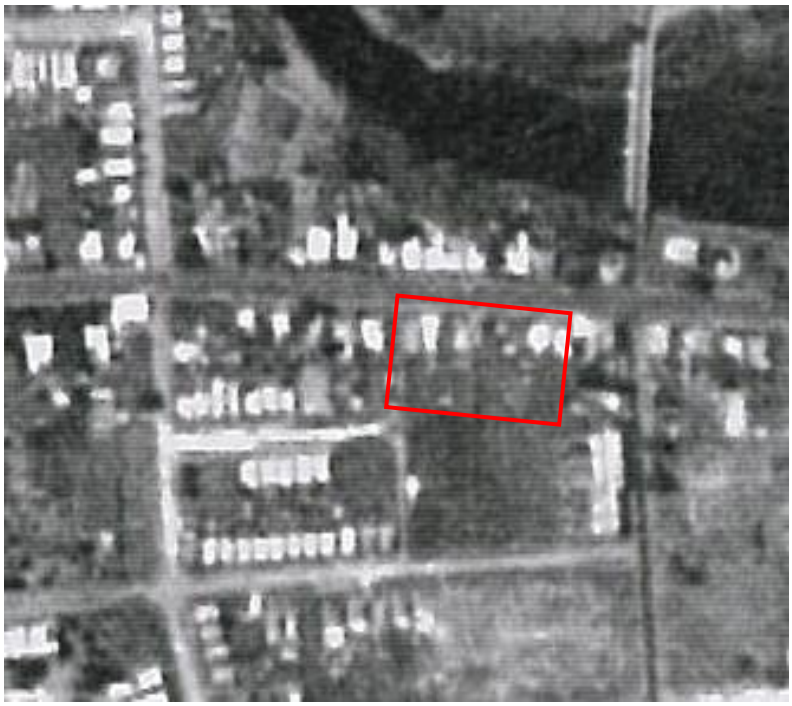


PHOTO 2: Aerial photograph from 1930

PHOTO 3: Aerial photograph from 1951

PHOTO 4: Aerial photograph from 1961

PHOTO 5: Aerial photograph from 1970

PHOTO 6: Aerial photograph from 1982

PHOTO 7: Aerial photograph from 1986

PHOTO 8: Aerial photograph from 1991

PHOTO 9: Aerial photograph from 2002

PHOTO 10: Aerial photograph from 2008

Environment, Climate Change & Water

You are here: Home > Contaminated land > Record of EPA notices

A A

Search results

Your search for: LGA: Parramatta City Council

Matched 45 notices relating to 12 sites.

Search Again | Refine Search

Suburb	Address	Site Name	Notices related to this site
Camellia	12 Grand Avenue	12 Grand Avenue, Camellia	2 current
Camellia	37 Grand Avenue	37 Grand Avenue, Camellia	2 current
Camellia	39 Grand Avenue	39 Grand Avenue, Camellia	3 current and 1 former
Camellia	6-10 Grand Avenue	Akzo Chemicals	5 current and 4 former
Camellia	14 Grand Avenue	Hymix	1 current and 2 former
Camellia	1 Grand Avenue	James Hardie Asbestos Factory	1 former
Camellia	41 Grand Avenue	Sydney Water	3 former
Granville	2B Factory Street	Ajax Battery Factory	1 current and 2 former
Granville	2 Blaxcell Street	Shore Petroleum	4 current
Rosehill	Devon/Colquhoun Street	James Hardie Landfill	4 current and 6 former
Rosehill	2 Ritchie Street	Pentecostal Church	1 current and 1 former
Rydalmere	1 Alan Street	Rheem Rydalmere	2 current

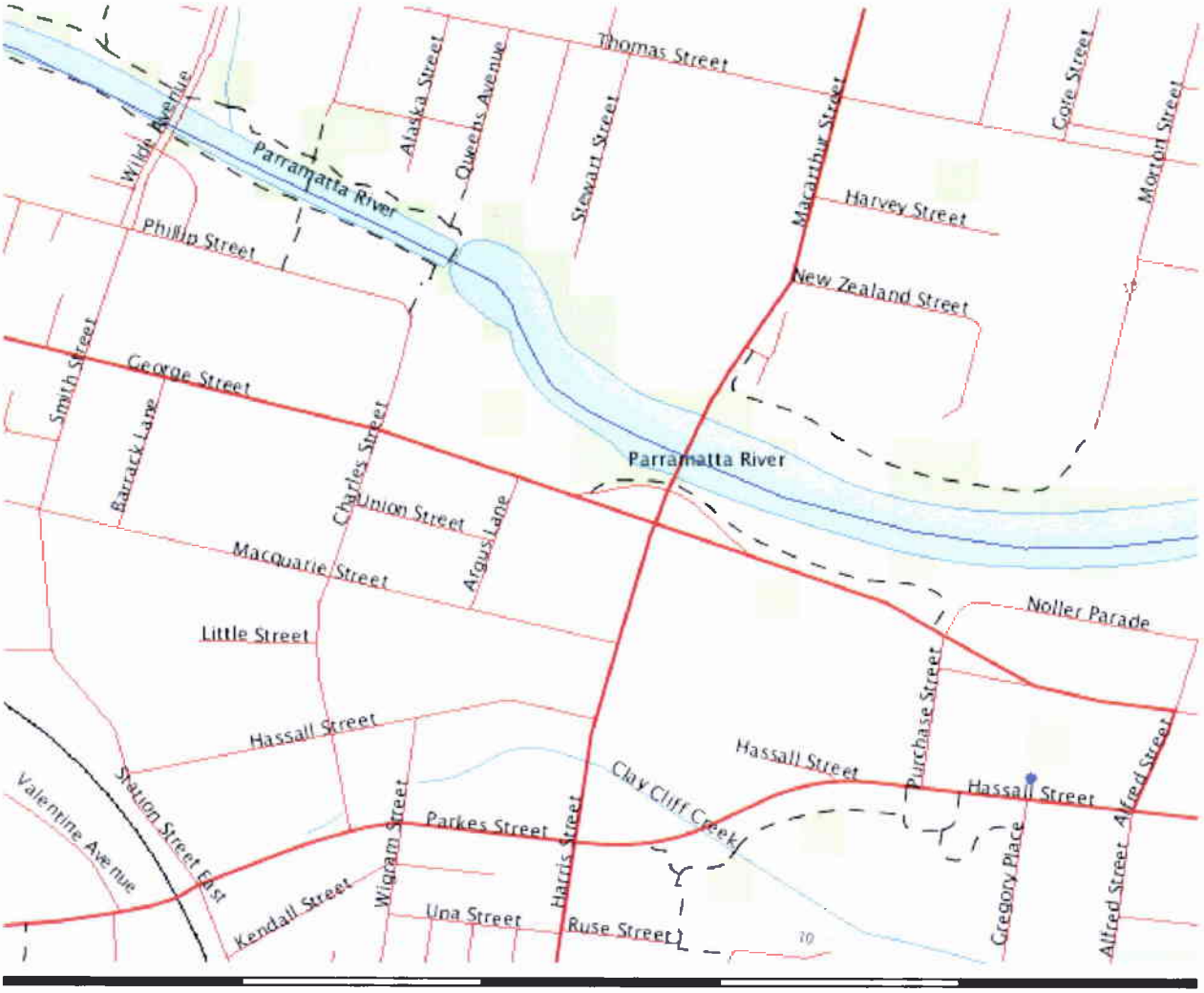
Page 1 of 1

2 July 2010

Parramatta

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

Tuesday, July 20, 2010



0 1 Km

Legend

Symbol	Layer	Custodian
	Cities and large towns renderImage: Cannot build image from features	
Cowra	Populated places renderImage: Cannot build image from features	
	Towns	
	Groundwater Bores	
	Catchment Management Authority boundaries	
	Major rivers	
	Topographic base map	

WorkCover NEW SOUTH WALES

Our Ref: D10/042352
Your Ref: Peter Oitmaa

6 April 2010

Attention: Peter Oitmaa
Douglas Partners Pty Limited
PO Box 472
WEST RYDE NSW 1685

Dear Peter,

Re Site: 42-154 Macquarie Street, Parramatta NSW

I refer to your site search request received on 31st March 2010 requesting information on a Licence to Keep Dangerous Goods on the above site.

Enclosed are copies of the documents that WorkCover NSW holds on Dangerous Goods Licence, 35/016006 relating to the storage of dangerous goods at the above-mentioned premises, as listed on the Stored Chemical Information Database (SCID).

If you have any further queries, please contact WorkCover's Dangerous Goods Licensing staff on (02) 4321 5500.

Yours sincerely

Diana Hayes
Senior Licensing Officer
Dangerous Goods Team

Licence No. 35/016006

** REMINDER NOTICE **
APPLICATION FOR RENEWAL
OF LICENCE TO KEEP DANGEROUS GOODS

ISSUED UNDER AND SUBJECT TO THE PROVISIONS OF THE DANGEROUS GOODS ACT, 1975 AND REGULATION THEREUNDER

DECLARATION: Please renew licence number 35/016006 to 2005/2006 . I confirm that all the licence details shown below are correct (amend if necessary).

Mark Tripet (Signature) for: NATIONWIDE NEWS P/L

MARK TRIPET (Please print name)

18/1/05. (Date signed)

*THIS **SIGNED** DECLARATION SHOULD BE **RETURNED TO:***

WorkCover New South Wales
Dangerous Goods Licensing Section
Locked Bag 2906
LISAROW NSW 2252

Enquiries: **ph (02) 4321 5500**
fax (02) 9287 5500

Details of licence on 4 January 2005

Licence Number 35/016006 **Expiry Date** 18/11/2004 **No. of Depots** 1

Licensee NATIONWIDE NEWS P/L ACN 008 438 828 ✓
CUMBERLAND NEWSPAPERS

Postal Address: CUMBERLAND NEWSPAPERS 142-154 MACQUARIE ST PARRAMATTA NSW 2150

Licensee Contact ~~DAVE HARD~~ JON VIDAM Ph. 02 9689 5522 ✓ Fax. 02 9689 5521 ✓

Premises Licensed to Keep Dangerous Goods
NATIONWIDE NEWS P/L CUMBERLAND NEWSPAPERS
142-154 MACQUARIE ST PARRAMATTA 2150

Nature of Site PUBLISHING

Major Supplier of Dangerous Goods AGL

Emergency Contact for this Site ~~DAVE HARD~~ A/H 9904 0451 Ph. 02 9689 5522
JON VIDAM A/H 0412 741 441

Site staffing 16 HRS 5 DAYS

Details of Depots

Depot No.	Depot Type	Goods Stored in Depot	Qty
CNG	ABOVE-GROUND TANK	Class 2.1	150 M3
	UN 1971 METHANE, COMPRESSED		150 M3

FORM DG10

Luu, Binh

From: Brown, Vince [BrownV@cng.newsltd.com.au]
Sent: Tuesday, 7 November 2000 10:19
To: scid@workcover.nsw.gov.au
Cc: Sultana, Frank
Subject: Renewal of Licence No: 35/016006

Importance: High


jftaylor1.bmp


jftaylor2.bmp

7 November 2000

WORKCOVER NSW,
SCIENTIFIC SERVICES BRANCH
G.P.O. BOX 5364,
SYDNEY NSW 2001
E-mail: scid@workcover.nsw.gov.au

Attention: Kham Sirimanotham

RE: RENEWAL OF LICENCE No: 35/016006 388

The above licence is due for renewal on November 19, 2000 and would like to have the following amendments made to it.

I wish to advise that 3 underground storage tanks (1 x 20,000 litres, 1 x 5000 litres that held petrol and 1 x 5000 litres that held heating oil) have been abandoned.

This abandonment was completed by John F. Taylor Pty Ltd to the Australian Standards. An attachment of their statement is below.

Two of our three forklifts were converted to Natural gas which created a reduction in the use and storage of LPG. The LPG Cylinder Store, presently holding 5 x 18kg cylinders, will also be abandoned as the last forklift is converted to natural gas.

We have had installed a Natural Gas storage unit (UN1971, Class 2.1), see AGL's correspondence to Workcover on May 30, 2000 regarding the Application for Licence to Keep Dangerous Goods (amendment) for Nationwide News Pty Ltd, trading as Cumberland Newspapers, 142-154 Macquarie Street, Parramatta.

Please note that the our ABN is 98 008 438 828.

Vince Brown
Works, Newsprint/Purchasing Manager
e-mail: brownv@cng.newsltd.com.au
(02) 9689 5522, fax 9689 5521

AGL

AGL Gas Networks

30 May 2000

The Chief Inspector of Dangerous Goods
WorkCover NSW
Chemical Safety Unit
GPO Box 5364
SYDNEY, NSW 2001

Dear Sir,

Re: CUMBERLAND NEWSPAPERS
142 - 154 Macquarie Street, Parramatta
Application for Licence to Keep Dangerous Goods (amendment)

Attached is the amendment to the Application for License to Keep Dangerous Goods at the above premises. A natural gas compressor with storage (Depot CNG) will be added to the existing LPG1 depot. The LPG1 depot will be removed in the future, when all forklifts have been converted to compressed natural gas forklifts.

The depot PGIIa underground tank and depot PGIIb underground tank will be decommissioned prior to the installation of the CNG depot.

The site drawing of the natural gas refuelling station was certified by our consultant, S.C. Gall. This natural gas station complied with the requirements of NSW Dangerous Goods Act & Regulations, Australian Standard AS/NZS 2403.3.4 and Australian Gas Association Codes AG901 and AG601.

Yours faithfully,

Hendra Satyo
NGV Project Engineer

AGL Gas Networks Limited ACN 003 004 322
18 Huntley Street Alexandria NSW 2015
Telephone 02 9565 7178 Facsimile 02 9565 7047 or 02 9565 7050

Application for Licence to Keep Dangerous Goods

WorkCover NEW SOUTH WALES

Application for ☐ new licence ☑ amendment ☐ transfer ☐ renewal of expired licence

PART A – Applicant and site information

1 Name of applicant | ACN

NATIONWIDE NEWS P/L | 008 438 828

2 Postal address of applicant | Suburb/Town | Postcode

142-154 MACQUARIE ST | PARRAMATTA | 2150

3 Trading name or site occupier's name

CUMBERLAND NEWSPAPERS

4 Contact for licence inquiries

Phone | Fax | Name

9689 5500 | 9689 5277 | VINCE BROWN

5 Previous licence number (if known) 35/ 016006

6 Previous occupier (if known) N/A

7 Site to be licensed

No | Street

142-154 | MACQUARIE ST

Suburb / Town | Postcode

PARRAMATTA | 2150

8 Main business of site PUBLISHING

9 Site staffing: Hours per day 16 Days per week 5

10 Emergency contact

Phone | Name

~~VINCE BROWN~~ 9689 5522 | VINCE BROWN

11 Major supplier of dangerous goods × BOC

12 If a new site or for amendments to depots

Plan stamped by: Name of Accredited Consultant | Date stamped

S.C. GALL | 21/05/00

I certify that the details in this application (including any accompanying computer disk) are correct and cover all licensable quantities of dangerous goods kept on the premises.

13 Signature of applicant | Date

× [signature] | 26-5-2000

Please send your application, marked CONFIDENTIAL, to:
Dangerous Goods Licensing, Level 3, Locked Bag 10, Clarence Street,

PART C – Dangerous Goods Storage *Complete one section per depot.*

If you have more depots than the space provided, photocopy sufficient sheets first.

Depot Number	Type of depot	Depot Class	Maximum storage capacity
LPG 1	Cylinder store	2.1	150 kg

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m³
1075	Petroleum Gases, Liquefied	2.1		LPG	150	kg

Depot Number	Type of depot	Depot Class	Maximum storage capacity
CNG	COMPRESSED Natural Gas (Methane)	2.1	150 m³

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m³
1971	Compressed Natural Gas (Methane)	2.1		Natural Gas	150	m³

Depot Number	Type of depot	Depot Class	Maximum storage capacity

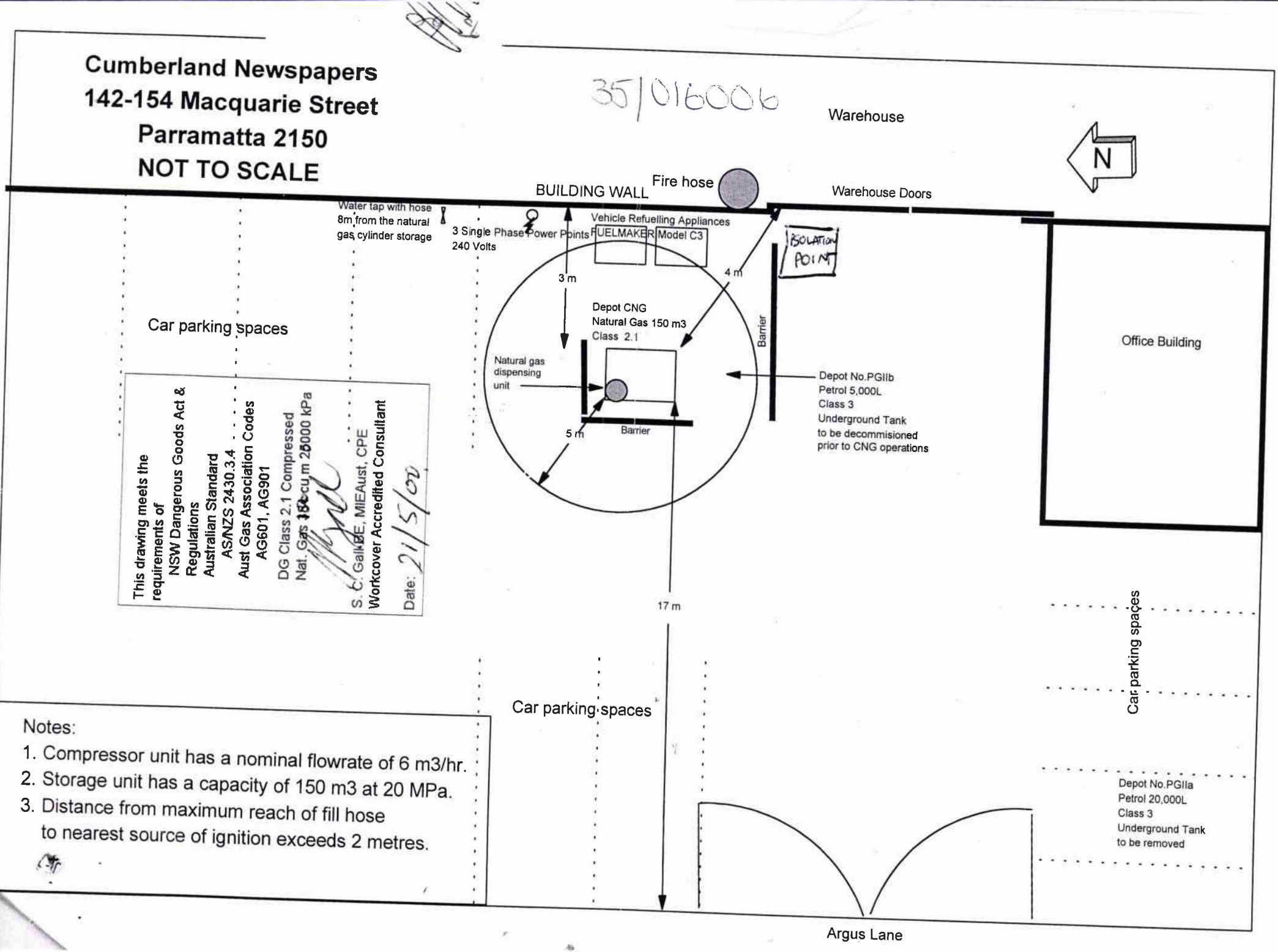
UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m³

Depot Number	Type of depot	Depot Class	Maximum storage capacity

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m³

Cumberland Newspapers
142-154 Macquarie Street
Parramatta 2150
NOT TO SCALE

35/016006



This drawing meets the requirements of
NSW Dangerous Goods Act & Regulations
Australian Standard AS/NZS 2430.3.4
Aust Gas Association Codes AG601, AG901
DG Class 2.1 Compressed Nat. Gas 150 cu.m 25000 kPa

S. C. Gall BE, MIEAust, CPE
Workcover Accredited Consultant

Date: 21/5/02

Notes:
1. Compressor unit has a nominal flowrate of 6 m3/hr.
2. Storage unit has a capacity of 150 m3 at 20 MPa.
3. Distance from maximum reach of fill hose to nearest source of ignition exceeds 2 metres.

CHEMICAL STORAGE

THE NEW SOUTH WALES GOVERNMENT
Putting people first by managing better

PART A

SCIENTIFIC SERVICES BRANCH
20 JUL 1993
DANGEROUS GOODS

WORKCOVER AUTHORITY

LICENCE TO KEEP DANGEROUS GOODS

(Dangerous Goods Act 1975)

Application for new licence, amendment or transfer

Expiry 20-11-96 1/5 CSD 26-7-93

1. Name of applicant | ACN

NATIONWIDE NEWS PTY.LTD.	008.438.828

2. Site to be licensed

No	Street
142-154	MACQUARIE STREET,

* send O/C tank ltr with licence

Suburb/Town	Postcode
PARRAMATTA	2150

3. Previous licence number (if known) 35/016006

4. Nature of site NEWSPAPER PUBLISHERS * 2672

DATA
21 SEP 1994
E

5. Emergency contact on site:

Phone	Name
* 689.5500	* VINCE BROWN

6. Site staffing: Hours per day * 16 Days per week * 5

7. Major supplier of dangerous goods ~~ROHAN PETROLEUM~~ * Unknown
Not a primary supplier of petrol

8. If new site or significant modification

Plan stamped by:	Accredited consultant's name:	Date stamped
	-----	----

9. Number of dangerous goods depots at site 2

10. Trading name or occupier's name

CUMBERLAND NEWSPAPERS

11. Postal address of applicant

	Suburb/Town	Postcode
P.O. BOX 211	PARRAMATTA	2150

12. Contact for licence enquiries:

Phone	Fax	Name
689.5500	* 689.5277	VINCE BROWN

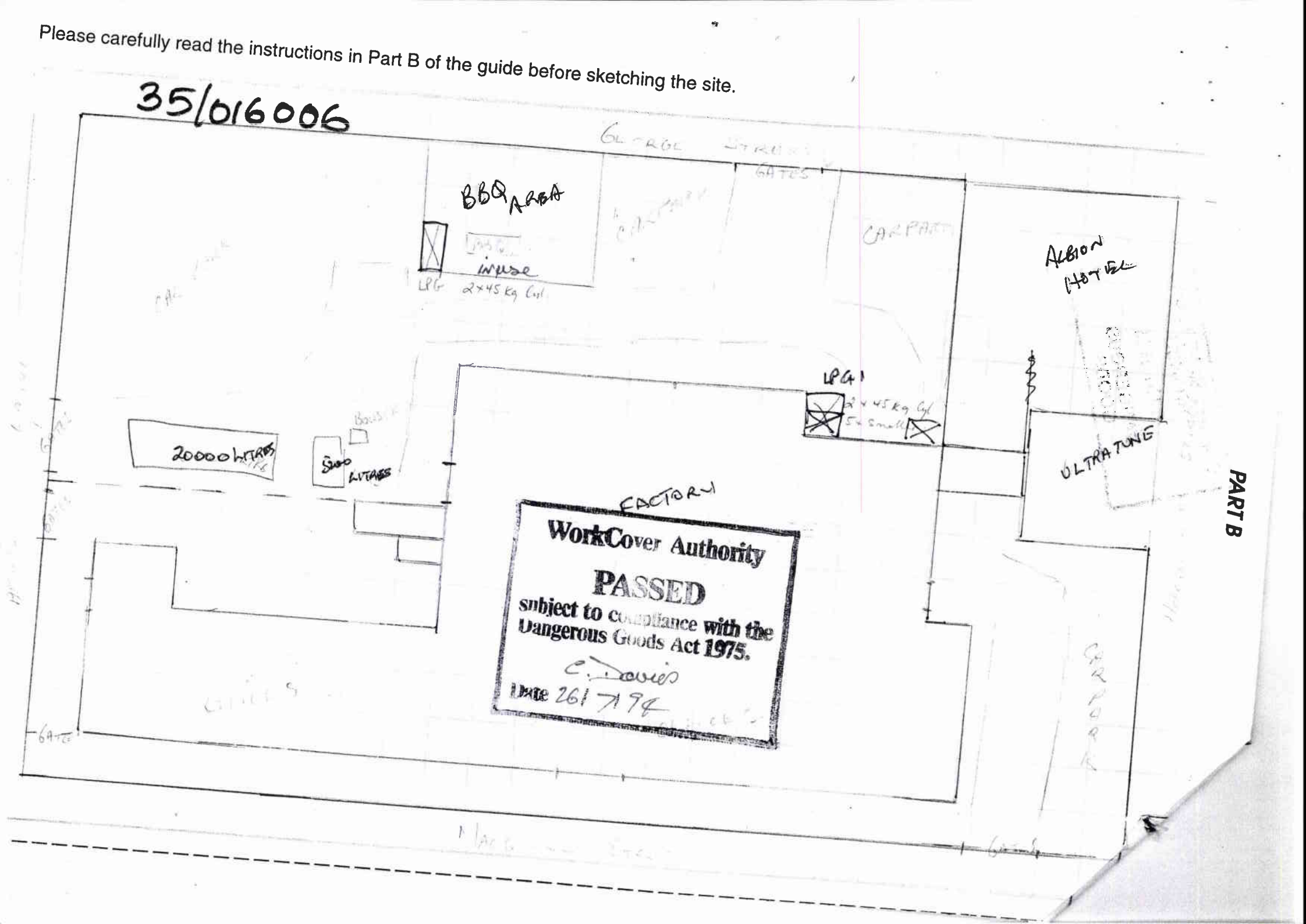
I certify that the details contained in this application (or the accompanying computer disk) are true and correct

13. Signature of applicant [signature] Date 14-7-93

Please complete attached site sketch, depot listing and check sheet

20/10/94

Please carefully read the instructions in Part B of the guide before sketching the site.



CHEMICAL STORAGE

Complete 1 section per depot

If you have more depots than the space provided, photocopy sufficient sheets first.

Depot number	Type of depot	Class	Licensed maximum storage capacity
PGII a	UNDERGROUND TANK	CLASS 3	20,000 LTR.

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³
1203	~~ROHAN~~ PETROL~~EUM~~				~~PETROL~~	20,000	L

Depot number	Type of depot	Class	Licensed maximum storage capacity
PGII b	UNDERGROUND TANK	CLASS 3	5,000 LTR

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³
1203	~~ROHAN~~ PETROL~~EUM~~				~~PETROL~~	5,000	L

Depot number	Type of depot	Class	Licensed maximum storage capacity
LPG 1	AOD cylinder ~~depot~~ Store	2.1	200kgs. ~~400L~~

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³
1075	Petroleum Gas ~~LPG~~	2.1			LPGas	100	kg.

Depot number	Type of depot	Class	Licensed maximum storage capacity

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³

CUMBERLAND NEWSPAPER GROUP

A DIVISION OF NATIONWIDE NEWS PTY.LTD. ACN 008.438.828

26 October 1994

The Chief Inspector of Dangerous Goods,
Workcover Authority,
Chemical Safety Unit,
Locked Bag 10 Clarence Street,
SYDNEY. NSW 2000

Dear Sir,

Re: Underground Tank - Licence 35/016006

Referring to your letter dated 20th October, 1994 the above tank was found to be faulty, was emptied, dug out by the oil company (Caltex) on 19th January, 1991 and disposed of by that company.

We apologise for the oversight in not notifying your department of this change.

Yours faithfully,

VINCE BROWN
Works Manager

142-154 Macquarie Street, PARRAMATTA. 2150
Phone: (02)689.5500 Fax: (02)689.5521

WorkCover Authority
Chemical Safety Unit
Locked Bag 10, P O CLARENCE ST NSW 2000
Ph. (02) 370 5191 OR (02) 370 5192
Fax (02) 370 6105

Licensee

CUMBERLAND NEWSPAPERS ~~P/L~~ a DIVISION OF
. NATIONWIDE NEWS PTY LTD.
BOX 211 P O
PARRAMATTA 2150

30 OCT 1992

Dear Sir/Madam,

RE **APPLICATION FOR RENEWAL** OF LICENCE FOR THE KEEPING OF DANGEROUS GOODS

Our records indicate you hold licence number 35/016006 for keeping dangerous goods at 142 MACQUARIE ST PARRAMATTA 2150.

Details of depots at site.

Depot No.	Depot type	Goods stored in depot	Quantity kg/litres/no.
1	UNDERGROUND TANK	FLAMMABLE LIQUIDS	5 000
2	ROOFED STORE	FLAMMABLE LIQUIDS	4 000
3	UNDERGROUND TANK	FLAMMABLE LIQUIDS	20 000
4	UNDERGROUND TANK	FLAMMABLE LIQUIDS	20 000

This licence is now due for renewal. **If you are keeping these dangerous goods at the site mentioned you need TO RENEW YOUR LICENCE.** Please carefully check the details shown in this letter and make any required corrections. Then, **SIGN and DATE** the declaration below and return this letter to the WorkCover Authority, Chemical Safety Unit. Fees for these licences have been abolished. DO NOT SEND ANY MONIES.

Declaration: *Please renew this licence to 15/11/93. I certify that the licence details shown in this letter are correct.*

..... VINCE BROWN 11:11:92

(Signature) *(Please print name)* *(Date signed)*

If renewal of the licence is not required. Please provide the Chemical Safety Unit with a signed statement giving the reason why it is not to be renewed. If you have sold/vacated the site please provide the name and address of the new owner/occupier so we may contact them.

Yours faithfully

Chief Inspector of Dangerous Goods.

Page 1.

Register No. 10660

INFLAMMABLE LIQUID ACT, 1915 (AS AMENDED)

Application for Registration of Premises or Store Licence under Division B or for the transfer alteration or amendment of any such Registration or Licence, for the keeping of Inflammable Liquid and/or Dangerous Goods, in accordance with the provisions of the Inflammable Liquid Act, 1915 (as amended), for the ensuing year.

(N.C.S)

DIRECTIONS

1. Applications must be forwarded to the Chief Inspector of Inflammable Liquid, Explosives Department, Box R.216, Royal Exchange Sydney, N.S.W. 2000 and must be accompanied by the prescribed fee, as set out hereunder:

Registration of Premises (Fee $3.00 p.a.) – For quantities not exceeding 300 gallons of mineral oil and 100 gallons of mineral spirit, if kept together; or 800 gallons of mineral oil and 100 gallons of mineral spirit, if kept separate depots; or 500 gallons of mineral spirit, if kept in an underground tank depot; or 800 gallons of mineral oil and 500 gallons of mineral spirit, if mineral spirit is kept in an underground tank depot.

In addition to, or in lieu of the above, similar quantities of Dangerous Goods of Classes 1 and 2 may be kept under the like conditions; reading Dangerous Goods of Class 1 for the words Mineral Spirit and Dangerous Goods of Class 2 for the words Mineral Oil.

Store License, Div. A (Fee, $6.50 p.a.) – For quantities in excess of those stated above, but not exceeding 4,000 gallons mineral oil and/or mineral spirit, and/or Dangerous Goods of Classes 1, 2 and 9.

Store License, Div. B (Fee, See Regulation 7) – For quantities exceeding 4,000 gallons of mineral spirit, and/or dangerous goods of Classes 1 and 2, and/or dangerous goods of Class 3.

For the keeping of Dangerous Goods of Classes 3 and/or 4. ($15.00 p.a.).

Fees for the keeping of inflammable liquid and dangerous goods in excess of the above stated quantities and also for Liquid Petroleum Gas storage are set out in Regulation 7.

amend B/6006 (11)

1. Name of occupier including full christian names. Cheque $2-00 Rct No 5657	CUMBERLAND NEWSPAPERS PTY. LTD.
2. Trading Name (if any)	
3. Locality of the premises in which the depot or depots are situated	No. or Name 142 Street MACQUARIE ST Town PARRAMATTA
4. Postal address	as above Postcode 2150
5. Occupation	Printing
6. Nature of premises (dwelling, garage etc.)	Printing works

7. Particulars of construction of depots and maximum quantities of inflammable liquid and/or Dangerous Goods to be kept at any one time.

~~PLEASE ATTACH PLAN OF PREMISES~~

Depot No.	Construction of depots*			Inflammable liquid		Dangerous goods					
	Walls	Roof	Floor	Mineral spirit gallons	Mineral oil gallons	Class 1 gallons	Class 2 gallons	Class 3 lb	Class 4 cu ft	Class 5A water gal	Class 9 gallons
1	Underground Tank			5000							
2	—	—		1000							
3	—	—		1000							
4	Fibro	Fibro	Concrete		880						
5											
6											
7											
8											
9											
10											

PUBLIC REVENUE A/C
CHQ $2.00
11/3/71
(Date)
Receipt No. 8341

* If product is kept in tanks describe depots as underground or aboveground tanks

CUMBERLAND NEWSPAPERS PTY. LIMITED

Signature of applicant Keith Hall Secretary

Date of application 9/3/ , 1971

CERTIFICATE OF INSPECTION

EQUIPMENT REQUIRED

	Product	Single/Dual	Manual/Meter	No.	Tanks	No.
1.					Single	1
2.					Dual	
3.						

ELECTRIC METER PUMPS: SPECIAL DETAILS

Is electrical power connected? A.C. or D.C. Voltage (Refer to Switchboard).

Distance from Pump to Switchboard

Is power available at pump? (Conversion Manual to Meter)

NOTE: G.E. assumes obligation to CONNECT to switchboard only: Be certain client understands meter pump CANNOT BE INSTALLED UNLESS SWITCHBOARD CAPACITY IS SUFFICIENT. Each pump whether single or dual must have its own circuit fuse: Single 4½ Amps. — Dual 9 Amps.

Be certain client understands HE must arrange for any necessary adjustments to the switchboard.

GENERAL DETAILS

Distance from Pump Block to Tank/s 30' Distance from Tank/s to Fill Point/s above Gr

(Explosives Regulations provide that the Fill Point cannot be inside a building or within 5 feet of a doorway or window.)

Distance from Tank/s to Nearest Wall 40 Height of Wall 15'

Will Tank/s be inside Building? No If so, under what surface (wood, concrete, etc.)? —

If Tank/s to be outside building describe present surface (Earth, Concrete, gravel, etc.) tank.

Excavation for Tank/s — Describe type of soil (sand, clay, rock, etc.) road base Sand

If local labour available for excavations (Country Only) state contractor's name and address

LOCAL COUNCIL REQUIREMENTS

Name of Municipality

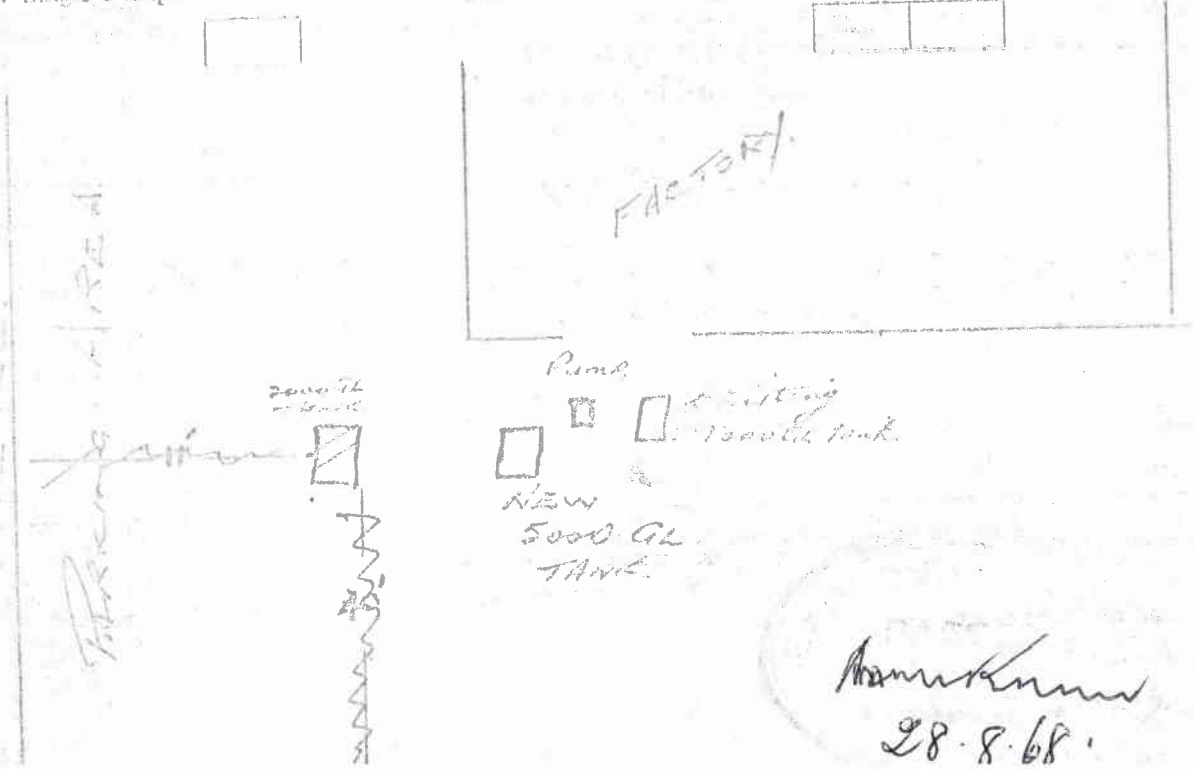
Has Council Permit been obtained?

Are there any special council requirements?

Prepare below Sketch Plan of Driveway Area showing details of Pump, Tank and Fill Point including location of othe Company Pumps in relation to the Building. Frontages of property, distance between pumps, width of driveways, etc., t be included.

Show Single Pumps

Dual Pumps



28.8.68.

Register No. _____

INFLAMMABLE LIQUID ACT, 1915 (AS AMENDED)

Application for Registration of Premises or Store License under Division A or for the transfer, alteration or amendment of any such Registration or License, for the keeping of Inflammable Liquid and/or Dangerous Goods, in accordance with the provisions of the Inflammable Liquid Act, 1915 (as amended), for the ensuing year.

EXPLANATORY

Inflammable Liquid—

Mineral Oil—includes kerosene, mineral turpentine and white spirit (for cleaning), and compositions containing same.
Mineral Spirit—includes petrol, benzene, benzolene, benzol and naphtha, and compositions containing same.

Dangerous Goods—

H.C.S.

Class 1.—Acetone, amyl acetate, butyl acetate, carbon bisulphide; any combination of substances of an inflammable character suitable for use as an industrial solvent and having a true flashing point of less than 73 degrees Fahrenheit.

Class 2.—Nitro-cellulose (also known as "pyroxylin" and "collodion cotton") moistened with an alcohol, butyl alcohol (also known as "butanol"), methylated spirits, vegetable turpentine; and any liquid or solid containing methylated spirits, having a true flashing point of less than 150 degrees Fahrenheit.

Class 3.—Nitro-cellulose product.

AMENDMENT A16006.
Issued to 19/11/68.

Class 4.—Compressed or dissolved acetylene contained in a porous substance.

DIRECTIONS

1. Applications must be forwarded to the Chief Inspector of Inflammable Liquid, Explosives Department, Department of Mines, Sydney, and must be accompanied by the prescribed fee, as set out hereunder:-

Registration of Premises (Fee $ 3.00 p.a.)—For quantities not exceeding 300 gallons of mineral oil and 100 gallons of mineral spirit, if kept together; or 800 gallons of mineral oil and 100 gallons of mineral spirit, if kept in separate depots; or 500 gallons of mineral spirit, if kept in an underground tank depot; or 800 gallons of mineral oil and 500 gallons of mineral spirit, if mineral spirit is kept in an underground tank depot.

In addition to, or in lieu of the above, similar quantities of Dangerous Goods of Classes 1 and 2 may be kept under the like conditions; reading Dangerous Goods of Class 1 for the words Mineral Spirit and Dangerous Goods of Class 2 for the words Mineral Oil.

Store License, Div. A (Fee, $ 6.50 p.a.)—For quantities in excess of those stated above, but not exceeding 4,000 gallons mineral oil and/or mineral spirit, and/or Dangerous Goods of Classes 1 and 2.

Store License, Div. B (Fees, See Regulation 7).—For quantities exceeding 4,000 gallons of mineral and/or mineral spirit, and/or dangerous goods of Classes 1 and 2, and/or dangerous goods of Class 3.
For the keeping of Dangerous Goods of Classes 3 and/or 4. ($ 15.00 p.a.)

2. The certificate of inspection at foot hereof must be signed by an Inspector under the Inflammable Liquid Act, 1915 (as amended), or Police Officer, or other officer duly authorised in that behalf, and where the premises are situated outside the Metropolitan Area of Sydney, it is requested that such certificate be obtained prior to forwarding application.

1. Name in full of occupier: CUMBERLAND NEWSPAPERS Pty Ltd.

2. Occupation: Printers

3. Locality of the premises in which the depot or depots are situated:
No. or Name: 142
Street: MacQUARIE ST
Town: PARRAMATTA

4. Nature of premises (Dwelling, Garage, Store, etc.): Newspaper printers

5. Will mineral spirit be kept in a prescribed underground tank depot? Yes.

Cheque $2-00 19/11

6. Particulars of construction of depots and maximum quantities of inflammable liquid and/or Dangerous Goods to be kept at any one time.

Depot No.	Construction of Depots: Walls	Roof	Floor	Inflammable Liquid: Mineral Spirit Gallons	Mineral Oil Gallons	Dangerous Goods: Class 1 Gallons	Class 2 Gallons	Class 3 lb.	Class 4 cub. ft.
1	Underground Tank.			1000					
2	Fibro	Fibro	Earth		880				
3									
4									
5									
6									
7									
8								20/2/67	
9									5576.
10									

PUBLIC REVENUE A/c.
Mkg 2-00
(Date)
Receipt No.

COMBERLAND NEWSPAPERS PTY. LIMITED

Signature of Applicant: [signature] Secretary

Date of Application: 19-12-1967

Postal Address: P.O. BOX 211 PARRAMATTA 2150

CERTIFICATE OF INSPECTION

I, A. Leonard Bigelow, being an Inspector under the Inflammable

FORM B

Register No. 16186

INFLAMMABLE LIQUID ACT, 1915 (AS AMENDED)

Application for Registration of Premises or Store License under Division A or for the transfer, alteration or amendment of any such Registration or License, for the keeping of Inflammable Liquid and/or Dangerous Goods, in accordance with the provisions of the Inflammable Liquid Act, 1915 (as amended), for the ensuing year.

EXPLANATORY

Inflammable Liquid—

Mineral Oil—includes kerosene, mineral turpentine and white spirit (for cleaning), and compositions containing same.
Mineral Spirit—includes petrol, benzene, benzolene, benzol and naphtha, and compositions containing same.

Dangerous Goods—

Class 1.—Acetone, amyl acetate, butyl acetate, carbon bisulphide; any combination of substances of an inflammable character suitable for use as an industrial solvent and having a true flashing point of less than 73 degrees Fahrenheit.

Class 2.—Nitro-cellulose (also known as "pyroxylin" and "collodion cotton") moistened with an alcohol, butyl alcohol (also known as "butanol"), methylated spirits, vegetable turpentine; and any liquid or solid containing methylated spirits, having a true flashing point of less than 150 degrees Fahrenheit.

Class 3.—Nitro-cellulose product.

Class 4.—Compressed or dissolved acetylene contained in a porous substance.

new license

DIRECTIONS

1. Applications must be forwarded to the Chief Inspector of Inflammable Liquid, Explosives Department, 2nd Floor, 82 Pitt Street, Sydney (Box 48, G.P.O.), and must be accompanied by the prescribed fee, as set out hereunder:—

Registration of Premises (Fee £1 10s. 0d. p.a.).—For quantities not exceeding 300 gallons of mineral oil and 100 gallons of mineral spirit, if kept together; or 800 gallons of mineral oil and 100 gallons of mineral spirit, if kept in separate depots; or 500 gallons of mineral spirit, if kept in an underground tank depot; or 800 gallons of mineral oil and 500 gallons of mineral spirit, if mineral spirit is kept in an underground tank depot.

In addition to, or in lieu of the above, similar quantities of Dangerous Goods of Classes 1 and 2 may be kept under the like conditions; reading Dangerous Goods of Class 1 for the words Mineral Spirit and Dangerous Goods of Class 2 for the words Mineral Oil.

Store License, Div. A (Fee, £3 5s. 0d. p.a.).—For quantities in excess of those stated above, but not exceeding 4,000 gallons mineral oil and/or mineral spirit, and/or Dangerous Goods of Classes 1 and 2.

Store License, Div. B (Fees, See Regulation 7).—For quantities exceeding 4,000 gallons of mineral and/or mineral spirit, and/or dangerous goods of Classes 1 and 2, and/or dangerous goods of Class 3.
For the keeping of Dangerous Goods of Classes 3 and/or 4. **(£7 10s. 0d. p.a.).**

2. The certificate of inspection at foot hereof must be signed by an Inspector under the Inflammable Liquid Act, 1915 (as amended), or Police Officer, or other officer duly authorised in that behalf, and where the premises are situated outside the Metropolitan Area of Sydney, it is requested that such certificate be obtained prior to forwarding application.

1. Name in full of occupier	Cumberland Newspapers Pty Ltd.
2. Occupation	Printers
3. Locality of the premises in which the depot or depots are situated ...	No. or Name 142
	Street Mary Ewans St.
	Town Parramatta
4. Nature of premises (Dwelling, Garage, Store, etc.)	Printing Plant.
5. Will mineral spirit be kept in a prescribed underground tank depot?	Yes.

19/11

6. Particulars of construction of depots and maximum quantities of inflammable liquid and/or Dangerous Goods to be kept at any one time.

Depot No.	Construction of Depots			Inflammable Liquid		Dangerous Goods			
	Walls	Roof	Floor	Mineral Spirit Gallons	Mineral Oil Gallons	Class 1 Gallons	Class 2 Gallons	Class 3 lb.	Class 4 cub. ft.
1	Underground Tank.			1000					
2									
3							Chg		65/-
4									
5							Public Relations Account (Date)		25/11/65
6									
7							Receipt No.		3455
8									
9									
10									

CUMBERLAND NEWSPAPERS PTY. LIMITED

Signature of Applicant ... Secretary

Date of Application 19/11/65 19

Postal Address P. O. Box 211 Parramatta.

CERTIFICATE OF INSPECTION

I, Albert Leonard Barker being an Inspector under the Inflammable

CUMBERLAND NEWSPAPER PTY LTD
142 MACQUARIE ST PARRAMATTA.

APPENDIX C
Notes Relating to this Report
Field Work Results

Douglas Partners
Geotechnics · Environment · Groundwater

NOTES RELATING TO THIS REPORT

Introduction

These notes have been provided to amplify the geotechnical report in regard to classification methods, specialist field procedures and certain matters relating to the Discussion and Comments section. Not all, of course, are necessarily relevant to all reports.

Geotechnical reports are based on information gained from limited subsurface test boring and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Description and Classification Methods

The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726, Geotechnical Site Investigations Code. In general, descriptions cover the following properties - strength or density, colour, structure, soil or rock type and inclusions.

Soil types are described according to the predominating particle size, qualified by the grading of other particles present (eg. sandy clay) on the following bases:

Soil Classification	Particle Size
Clay	less than 0.002 mm
Silt	0.002 to 0.06 mm
Sand	0.06 to 2.00 mm
Gravel	2.00 to 60.00 mm

Cohesive soils are classified on the basis of strength either by laboratory testing or engineering examination. The strength terms are defined as follows.

Classification	Undrained Shear Strength kPa
Very soft	less than 12
Soft	12—25
Firm	25—50
Stiff	50—100
Very stiff	100—200
Hard	Greater than 200

Non-cohesive soils are classified on the basis of relative density, generally from the results of standard penetration tests (SPT) or Dutch cone penetrometer tests (CPT) as below:

Relative Density	SPT "N" Value (blows/300 mm)	CPT Cone Value (q_c — MPa)
Very loose	less than 5	less than 2
Loose	5—10	2—5
Medium dense	10—30	5—15
Dense	30—50	15—25
Very dense	greater than 50	greater than 25

Rock types are classified by their geological names. Where relevant, further information regarding rock classification is given on the following sheet.

Sampling

Sampling is carried out during drilling to allow engineering examination (and laboratory testing where required) of the soil or rock.

Disturbed samples taken during drilling provide information on colour, type, inclusions and, depending upon the degree of disturbance, some information on strength and structure.

Undisturbed samples are taken by pushing a thin-walled sample tube into the soil and withdrawing with a sample of the soil in a relatively undisturbed state. Such samples yield information on structure and strength, and are necessary for laboratory determination of shear strength and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

Details of the type and method of sampling are given in the report.

Drilling Methods.

The following is a brief summary of drilling methods currently adopted by the Company and some comments on their use and application.

Test Pits — these are excavated with a backhoe or a tracked excavator, allowing close examination of the in-situ soils if it is safe to descent into the pit. The depth of penetration is limited to about 3 m for a backhoe and up to 6 m for an excavator. A potential disadvantage is the disturbance caused by the excavation.

Large Diameter Auger (eg. Pengo) — the hole is advanced by a rotating plate or short spiral auger, generally 300 mm or larger in diameter. The cuttings are returned to the surface at intervals (generally of not more than 0.5 m) and are disturbed but usually unchanged in moisture content. Identification of soil strata is generally much more reliable than with continuous spiral flight augers, and is usually supplemented by occasional undisturbed tube sampling.

Continuous Sample Drilling — the hole is advanced by pushing a 100 mm diameter socket into the ground and withdrawing it at intervals to extrude the sample. This is the most reliable method of drilling in soils, since moisture content is unchanged and soil structure, strength, etc. is only marginally affected.

Continuous Spiral Flight Augers — the hole is advanced using 90—115 mm diameter continuous spiral flight augers which are withdrawn at intervals to allow

sampling or in-situ testing. This is a relatively economical means of drilling in clays and in sands above the water table. Samples are returned to the surface, or may be collected after withdrawal of the auger flights, but they are very disturbed and may be contaminated. Information from the drilling (as distinct from specific sampling by SPTs or undisturbed samples) is of relatively lower reliability, due to remoulding, contamination or softening of samples by ground water.

Non-core Rotary Drilling — the hole is advanced by a rotary bit, with water being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be determined from the cuttings, together with some information from 'feel' and rate of penetration.

Rotary Mud Drilling — similar to rotary drilling, but using drilling mud as a circulating fluid. The mud tends to mask the cuttings and reliable identification is again only possible from separate intact sampling (eg. from SPT).

Continuous Core Drilling — a continuous core sample is obtained using a diamond-tipped core barrel, usually 50 mm internal diameter. Provided full core recovery is achieved (which is not always possible in very weak rocks and granular soils), this technique provides a very reliable (but relatively expensive) method of investigation.

Standard Penetration Tests

Standard penetration tests (abbreviated as SPT) are used mainly in non-cohesive soils, but occasionally also in cohesive soils as a means of determining density or strength and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289, "Methods of Testing Soils for Engineering Purposes" — Test 6.3.1.

The test is carried out in a borehole by driving a 50 mm diameter split sample tube under the impact of a 63 kg hammer with a free fall of 760 mm. It is normal for the tube to be driven in three successive 150 mm increments and the 'N' value is taken as the number of blows for the last 300 mm. In dense sands, very hard clays or weak rock, the full 450 mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form.

- In the case where full penetration is obtained with successive blow counts for each 150 mm of say 4, 6 and 7

  as 4, 6, 7
  N = 13

- In the case where the test is discontinued short of full penetration, say after 15 blows for the first 150 mm and 30 blows for the next 40 mm

  as 15, 30/40 mm.

The results of the tests can be related empirically to the engineering properties of the soil.

Occasionally, the test method is used to obtain samples in 50 mm diameter thin walled sample tubes in clays. In such circumstances, the test results are shown on the borelogs in brackets.

Cone Penetrometer Testing and Interpretation

Cone penetrometer testing (sometimes referred to as Dutch cone — abbreviated as CPT) described in this report has been carried out using an electrical friction cone penetrometer. The test is described in Australian Standard 1289, Test 6.4.1.

In the tests, a 35 mm diameter rod with a cone-tipped end is pushed continuously into the soil, the reaction being provided by a specially designed truck or rig which is fitted with an hydraulic ram system. Measurements are made of the end bearing resistance on the cone and the friction resistance on a separate 130 mm long sleeve, immediately behind the cone. Transducers in the tip of the assembly are connected by electrical wires passing through the centre of the push rods to an amplifier and recorder unit mounted on the control truck.

As penetration occurs (at a rate of approximately 20 mm per second) the information is plotted on a computer screen and at the end of the test is stored on the computer for later plotting of the results.

The information provided on the plotted results comprises: —

- Cone resistance — the actual end bearing force divided by the cross sectional area of the cone — expressed in MPa.
- Sleeve friction — the frictional force on the sleeve divided by the surface area — expressed in kPa.
- Friction ratio — the ratio of sleeve friction to cone resistance, expressed in percent.

There are two scales available for measurement of cone resistance. The lower scale (0—5 MPa) is used in very soft soils where increased sensitivity is required and is shown in the graphs as a dotted line. The main scale (0—50 MPa) is less sensitive and is shown as a full line.

The ratios of the sleeve friction to cone resistance will vary with the type of soil encountered, with higher relative friction in clays than in sands. Friction ratios of 1%—2% are commonly encountered in sands and very soft clays rising to 4%—10% in stiff clays.

In sands, the relationship between cone resistance and SPT value is commonly in the range:—

q_c (MPa) = (0.4 to 0.6) N (blows per 300 mm)

In clays, the relationship between undrained shear strength and cone resistance is commonly in the range:—

q_c = (12 to 18) c_u

Interpretation of CPT values can also be made to allow estimation of modulus or compressibility values to allow calculation of foundation settlements.

Inferred stratification as shown on the attached reports is assessed from the cone and friction traces and from experience and information from nearby boreholes, etc. This information is presented for general guidance, but must be regarded as being to some extent interpretive. The test method provides a continuous profile of engineering properties, and where precise information on

soil classification is required, direct drilling and sampling may be preferable.

Hand Penetrometers

Hand penetrometer tests are carried out by driving a rod into the ground with a falling weight hammer and measuring the blows for successive 150 mm increments of penetration. Normally, there is a depth limitation of 1.2 m but this may be extended in certain conditions by the use of extension rods.

Two relatively similar tests are used.

- Perth sand penetrometer — a 16 mm diameter flat-ended rod is driven with a 9 kg hammer, dropping 600 mm (AS 1289, Test 6.3.3). This test was developed for testing the density of sands (originating in Perth) and is mainly used in granular soils and filling.
- Cone penetrometer (sometimes known as the Scala Penetrometer) — a 16 mm rod with a 20 mm diameter cone end is driven with a 9 kg hammer dropping 510 mm (AS 1289, Test 6.3.2). The test was developed initially for pavement subgrade investigations, and published correlations of the test results with California bearing ratio have been published by various Road Authorities.

Laboratory Testing

Laboratory testing is carried out in accordance with Australian Standard 1289 "Methods of Testing Soil for Engineering Purposes". Details of the test procedure used are given on the individual report forms.

Bore Logs

The bore logs presented herein are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable, or possible to justify on economic grounds. In any case, the boreholes represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes, the frequency of sampling and the possibility of other than 'straight line' variations between the boreholes.

Ground Water

Where ground water levels are measured in boreholes, there are several potential problems;

- In low permeability soils, ground water although present, may enter the hole slowly or perhaps not at all during the time it is left open.
- A localised perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report.
- The use of water or mud as a drilling fluid will mask any ground water inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water observations are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Engineering Reports

Engineering reports are prepared by qualified personnel and are based on the information obtained and on current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal (eg. a three storey building), the information and interpretation may not be relevant if the design proposal is changed (eg. to a twenty storey building). If this happens, the Company will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface condition, discussion of geotechnical aspects and recommendations or suggestions for design and construction. However, the Company cannot always anticipate or assume responsibility for:

- unexpected variations in ground conditions — the potential for this will depend partly on bore spacing and sampling frequency
- changes in policy or interpretation of policy by statutory authorities
- the actions of contractors responding to commercial pressures.

If these occur, the Company will be pleased to assist with investigation or advice to resolve the matter.

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, the Company requests that it immediately be notified. Most problems are much more readily resolved when conditions are exposed than at some later stage, well after the event.

Reproduction of Information for Contractual Purposes

Attention is drawn to the document "Guidelines for the Provision of Geotechnical Information in Tender Documents", published by the Institution of Engineers,

Australia. Where information obtained from this investigation is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. The Company would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The Company will always be pleased to provide engineering inspection services for geotechnical aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 7.0 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 1
PROJECT No: 71682
DATE: 28/5/2010
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
	0.12	BITUMINOUS CONCRETE							A			PID=1ppm
	0.2	ROADBASE GRAVEL										
	0.6	FILLING - dark grey to black, fine to medium grained, sand filling							A			PID=1ppm
		SAND - loose then medium dense, brown, medium grained sand, moist							A*			PID=1ppm
									S			2,3,3 N = 6
	2.8	SAND - medium dense, light grey brown to orange brown, medium grained sand, moist							S			5,6,6 N = 12
		3.45m: wet				▼						
									S			9,13,14 N = 27
	5.0	LAMINITE/SILTSTONE - extremely low to very low strength, grey laminite/siltstone						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes or joints dipping 0°- 10°				
	5.8								S			9,20/60mm refusal
	6.1	LAMINITE - medium strength, moderately weathered, fragmented, brown laminite						5.8-6.1m: fragmented & slightly ironstained				PL(A) = 0.4MPa
		LAMINITE - high and high to very high strength, fresh stained then fresh, slightly fractured, light grey to grey laminite with approximately 40% fine grained sandstone laminations						6.28-6.97m: (x6) B0°, ironstained				PL(A) = 2.7MPa
									C	100	78	
								7.51m: J55°, rough				PL(A) = 3.9MPa
								8.21m: J30°, rough				
								8.39m: B5°, clay smear				
								8.5-8.55m: micro faults				PL(A) = 2.1MPa
								8.63m: J0°, smooth, slickensided				
	8.85	Bore discontinued at 8.85m										

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 5.8m

TYPE OF BORING: Solid flight auger to 5.5m; Rotary to 5.8m; NMLC-Coring to 8.85m

WATER OBSERVATIONS: Free groundwater observed at 3.45m whilst augering

REMARKS: *Denotes field duplicate DUP4 collected

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RWD
Date: 22.7.10

Douglas Partners
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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.7 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 2
PROJECT No: 71682
DATE: 1/6/2010
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
	0.1	TOPSOIL - dark grey, silty clay topsoil with some grass rootlets							A			PID=1ppm
	0.6	FILLING - dark grey, fine to medium grained, sand filling with some brick fragments							A			PID=1ppm
		SAND - medium dense, light grey brown, fine to medium grained sand, moist							A			PID=1ppm
									S			5,5,6 N = 11
	2.9	SANDY CLAY - very stiff, grey brown, fine to medium grained sandy clay, moist							S			4,8,14 N = 22
		From 4.3m: wet				▼						
	5.5	LAMINITE/SILTSTONE - extremely low to very low strength, dark grey laminite/siltstone						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes or joints dipping 0°- 10°	S			9,18,10/20mm refusal
	5.85	LAMINITE - medium then high strength, highly to moderately then moderately weathered, fragmented to highly fractured and fractured, grey brown laminite with approximately 30% fine grained sandstone laminations. Some very low strength bands						5.85-6.12m: fragmented into 0.01-0.02mm intervals, B0°, ironstained & clay smear 6.12-6.36m: (x6) B0°, ironstained, clay smear 6.36m: J35°, ironstained, rough 6.41m: J35°, rough 6.51m: B10°, ironstained 6.55m: J25°- 45°, curved, ironstained, rough 6.63m: B5°, ironstained 6.7-6.79m: fragmented 6.79m: J40°, rough, undulating 6.85m: J0°, ironstained 7.08m: J15°, rough 7.25m: J60°, rough 7.44m: J35°, silica	C	100	59	PL(A) = 0.6MPa PL(A) = 1.4MPa PL(A) = 3.7MPa PL(A) = 2MPa
	6.8	LAMINITE - high and high to very high strength, fresh, slightly fractured and unbroken, light grey to grey laminite with approximately 40% fine grained sandstone laminations						8.73m: J70°, rough				
	8.8	Bore discontinued at 8.8m										

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 5.85m
TYPE OF BORING: Solid flight auger to 5.5m; Rotary to 5.85m; NMLC-Coring to 8.80m
WATER OBSERVATIONS: Free groundwater observed at 4.3m whilst augering
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RW
Date: 22-7-10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.7 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 3
PROJECT No: 71682
DATE: 2/6/2010
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Type	Core Rec. %	RQD %	Test Results & Comments
	0.06	BITUMINOUS CONCRETE							A			PID=1ppm
	0.16	ROADBASE GRAVEL										
		FILLING - grey brown, fine to medium grained, sand filling with some brick fragments and a trace of ash							A			PID=1ppm
									A			PID=1ppm
	1.25	SAND - loose, light grey, fine to medium grained sand, moist							S			0,1,1 N = 2
	2.2	CLAYEY SAND - medium dense, grey brown to red brown, fine to medium grained clayey sand, moist							S			5,11,15 N = 26
	4.24	SAND - medium dense then dense, light grey, fine to medium grained sand, moist						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes or joints dipping 0°- 10°	S			5,6,6 N = 12
	5.75	CLAYEY SAND - dense, brown, fine to medium grained clayey sand, wet				▼			S			12,13,25 N = 38
	6.0											
	6.28	LAMINITE/SILTSTONE - extremely low strength, dark grey laminite with ironstone band						6.28m: B0°, clay band 6.33-6.51m: (x5) B0°, clay veneer 6.6m: B0°, 5mm clay 6.73m: J10°, rough 6.82m: J15°, rough 6.98m: J40°, rough 7.05-7.36m: (x6) B0°, ironstained 7.54m: B0°, 2mm clay, ironstained 7.68m: B0°, 5mm clay 8.05m: J35°, ironstained, rough 8.2m: J50°, smooth, concave 8.3m: J70°, rough 8.4m: J35°, rough 8.88m: J65°, rough	C	100	65	PL(A) = 0.4MPa
		LAMINITE - medium strength, moderately weathered then fresh stained, fractured, grey brown laminite with approximately 30% fine grained sandstone laminations										PL(A) = 1.7MPa
	7.38											
		LAMINITE - high then high to very high strength, fresh stained then fresh, slightly fractured, light grey to grey, laminite with approximately 40% fine grained sandstone laminations										PL(A) = 2.3MPa
												PL(A) = 3.5MPa
	9.25	Bore discontinued at 9.25m										

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 6.2m
TYPE OF BORING: Solid flight auger to 5.5m; Rotary to 6.2m; NMLC-Coring to 9.25m
WATER OBSERVATIONS: Free groundwater observed at 5.85m whilst augering
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RJO
Date 22.7.10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.8 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 4
PROJECT No: 71682
DATE: 31/5/2010
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
	0.03	BITUMINOUS CONCRETE							A			PID=1ppm
	0.25	ROADBASE GRAVEL										
		CLAYEY SAND - loose, orange brown to red brown, fine to medium grained, clayey sand, moist							A			PID=1ppm
									A			PID=1ppm
									S			3,3,4 N = 7
	2.0	SAND - medium dense, brown, fine to medium grained sand with some silt and clay, moist							S			3,4,7 N = 11
	3.75	SAND - medium dense, brown, medium grained sand, moist							S			6,10,12 N = 22
	5.0	SAND - medium dense, light brown, fine to medium grained sand with some clay, wet							S			9,9,14 N = 23
	6.9	LAMINITE/SILTSTONE - extremely low strength, grey brown laminite/siltstone						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes or joints dipping 0°- 10°				
	7.2	LAMINITE/SILTSTONE - extremely low then extremely to very low strength, extremely to highly weathered, light grey brown laminite/siltstone							C	100	0	pp = 200kPa
	8.7	LAMINITE - low then medium strength, moderately weathered, highly fractured to fractured, grey brown laminite with approximately 30% fine grained sandstone laminations						8.31-8.69m: (x4) B10°-25°, ironstained, clay bands 8.8m: J55°- 85°, stepped 8.89m: B10°, 25mm clay 8.89-9.15m: fragmented into 0.02mm intervals, ironstained	C	100	0	pp = 280kPa
	9.15	LAMINITE - description next page						9.29-9.65m: (x3) B0°, ironstained	C	100	87	PL(A) = 0.8MPa PL(A) = 1.5MPa

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 7.2m
TYPE OF BORING: Solid flight auger to 7.0m; Rotary to 7.2m; NMLC-Coring to 11.75m
WATER OBSERVATIONS: Free groundwater observed at 5.0m whilst augering
REMARKS: Class 18 uPVC groundwater monitoring well installed in borehole

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RW
Date: 22-7-10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.8 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 4
PROJECT No: 71682
DATE: 31/5/2010
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low / Very Low / Low / Medium / High / Very High / Ex High)	Water	Fracture Spacing (m) (0.01 0.05 0.10 0.50 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
-4	11	LAMINITE - high strength, fresh, slightly fractured then unbroken, light grey to grey laminite with approximately 30% fine grained sandstone laminations *(continued)*						10.65-10.9m: J75°- 85°, slightly curved, rough	C	100	87	PL(A) = 2.2MPa
-5	11.75	Bore discontinued at 11.75m										PL(A) = 2.2MPa
	12											
-6	13											
-7	14											
-8	15											
-9	16											
-10	17											
-11	18											
-12	19											
-13												

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 7.2m
TYPE OF BORING: Solid flight auger to 7.0m; Rotary to 7.2m; NMLC-Coring to 11.75m
WATER OBSERVATIONS: Free groundwater observed at 5.0m whilst augering
REMARKS: Class 18 uPVC groundwater monitoring well installed in borehole

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RLO
Date: 22.7.10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 7.0 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 5
PROJECT No: 71682
DATE: 31/5 - 1/6/2010
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
		BITUMINOUS CONCRETE							A			PID=1ppm
	0.4	FILLING - dark grey, sand filling with some brick, grass fragments, ash and metal							A			PID=1ppm
									A			PID=1ppm
	1.25	CLAYEY SAND - loose, brown, fine to medium grained, clayey sand, moist							S			1,1,2 N = 3
	2.0	SAND - medium dense, red brown, fine to medium grained sand with a trace of silt and clay, moist							S			6,9,13 N = 22
	4.2	CLAYEY SAND - medium dense, light grey brown and orange brown, fine to medium grained clayey sand, moist to wet				▼			S			6,7,12 N = 19
	5.75	SHALY CLAY - stiff, light grey to dark grey, shaly clay, wet							S			4,8,12 N = 20
								Note: Unless otherwise stated, rock is fractured along rough planar bedding planes or joints dipping 0°- 10°	S			3,4,7 N = 11
	8.5 8.6	LAMINITE - very low strength, grey laminite						8.6-9.15m: (x10) B0°, clay veneer				PL(A) = 0.4MPa
	9.8	LAMINITE - medium strength, fresh, fractured to slightly fractured, dark grey laminite with approximately 20% fine grained sandstone laminations						9.22m: J80°, rough 9.36m: B0°, 2mm clay 9.53m: J85°, rough 9.67m: J35°, rough	C	100	88	PL(A) = 0.4MPa
		LAMINITE - description next page										

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 8.6m
TYPE OF BORING: Solid flight auger to 5.5m; Rotary to 8.6m; NMLC-Coring to 11.65m
WATER OBSERVATIONS: Free groundwater observed at 4.35m whilst augering
REMARKS: Class 18 uPVC groundwater monitoring well installed in borehole

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RW
Date: 22-7-10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 7.0 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 5
PROJECT No: 71682
DATE: 31/5 - 1/6/2010
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
-4	11	LAMINITE - high strength, fresh, slightly fractured, light grey to grey laminite with approximately 30% fine grained sandstone laminations *(continued)*						10m: J85°, rough 10.08m: J60°, stepped, rough 10.16m: J45°, rough 10.6m: J35°, rough 10.8m: (x2) J35°, 75°, rough 11m: J90°, rough	C	100	88	PL(A) = 2MPa
	11.65											PL(A) = 1.7MPa
-5	12	Bore discontinued at 11.65m										
-6	13											
-7	14											
-8	15											
-9	16											
-10	17											
-11	18											
-12	19											

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 8.6m
TYPE OF BORING: Solid flight auger to 5.5m; Rotary to 8.6m; NMLC-Coring to 11.65m
WATER OBSERVATIONS: Free groundwater observed at 4.35m whilst augering
REMARKS: Class 18 uPVC groundwater monitoring well installed in borehole

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RWO
Date: 22.7.10

Douglas Partners
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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.9 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 6
PROJECT No: 71682
DATE: 25/5/2010
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
	0.04	BITUMINOUS CONCRETE										
	0.12	ROADBASE GRAVEL										
		SAND - medium dense, brown, fine to medium grained sand, moist							A			PID=1ppm
									A			PID=1ppm
									A*			PID=1ppm
									S			4,4,4 N = 8
									A			
									S			5,9,13 N = 22
		4.4m: light brown sand, wet				▼			S			9,5,6 N = 11
	5.2	CLAYEY SAND - medium dense, light grey to grey, fine to medium grained clayey sand, wet							S			3,4,5 N = 9
	6.5	SAND - medium dense then loose, grey, medium grained sand with a trace of clay, wet						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes or joints dipping 0°- 10°	S			2,2,4 N = 6
	7.5	LAMINITE - very low strength, grey brown laminite										
	7.7	LAMINITE - medium strength, moderately weathered then fresh, fragmented to fractured, grey brown laminite with approximately 30% fine grained sandstone laminations. Some extremely low strength bands						7.7-7.9m: (x5) B0°, clay smear, ironstained 7.9-8.0m: fragmented clay band 8.0-8.26m: fragmented into 0.02mm intervals, ironstained 8.12m: J70° 8.18m: J70°, rough 8.26m: B0°, 3mm clay 8.33m: J45°- 90°, curved, rough 8.38-8.44m: fragmented 8.44-8.59m: (x3) B0°- 5°, clay smear 8.59m: B0°, 15mm clay bands	C	100	0	PL(A) = 0.4MPa PL(A) = 0.7MPa
	8.85	LAMINITE - high strength, fresh, slightly fractured and unbroken, light grey to grey, laminite with approximately 30% fine grained sandstone laminations							C	100	100	PL(A) = 1.8MPa

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 7.7m
TYPE OF BORING: Solid flight auger to 7.0m; Rotary to 7.7m; NMLC-Coring to 10.75m
WATER OBSERVATIONS: Free groundwater observed at 4.4m whilst augering
REMARKS: *Denotes duplicate DUP2 collected

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RWD
Date: 22.7.10

Douglas Partners
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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.9 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 6
PROJECT No: 71682
DATE: 25/5/2010
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
-4	10.75	LAMINITE - high strength, fresh, slightly fractured and unbroken, light grey to grey, laminite with approximately 30% fine grained sandstone laminations *(continued)*						8.7m: J, subvertical, rough 8.89m: B0°, ironstained 8.89-10.06m: unbroken (x11) drilling induced breaks 10.06m: J15°, rough 10.06-10.75m: (x10) drilling induced breaks	C	100	100	PL(A) = 2.9MPa
		Bore discontinued at 10.75m										
-5	11											
-6	12											
-7	13											
-8	14											
-9	15											
-10	16											
-11	17											
-12	18											
-13	19											

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 7.7m
TYPE OF BORING: Solid flight auger to 7.0m; Rotary to 7.7m; NMLC-Coring to 10.75m
WATER OBSERVATIONS: Free groundwater observed at 4.4m whilst augering
REMARKS: *Denotes duplicate DUP2 collected

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RLO
Date: 22-7-10

Douglas Partners
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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.9 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 7
PROJECT No: 71682
DATE: 25 - 27/5/2010
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
	0.13	BITUMINOUS CONCRETE										
	0.25	ROADBASE GRAVEL										
		SAND - loose, brown, fine to medium grained sand, moist							A			PID=1ppm
									A			PID=1ppm
									A			PID=1ppm
									S			2,2,3 N = 5
	2.25	SAND - medium dense, orange brown, medium grained sand, moist							S			3,5,12 N = 17
	3.75	CLAYEY SAND - medium dense, grey brown, fine to medium grained, clayey sand, moist							S			5,6,6 N = 12
	4.7	CLAY - stiff, dark grey clay with some fine grained sand, wet							S			5,6,6 N = 12
	6.75	SAND - brown, medium to coarse grained sand, wet										
	7.3	SHALY CLAY - very stiff to hard, grey brown, shaly clay with ironstone band (possibly extremely weathered rock)						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes or joints dipping 0°- 10°				
	9.15	LAMINITE - very low strength, grey laminite							S			9,20/60mm refusal
	9.4	LAMINITE/SILTSTONE - extremely low to very low strength, extremely to highly weathered, grey brown						9.4-9.93m: extremely low strength band 9.93-10.1m: fragmented	C	100	52	
	9.93											

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 9.4m
TYPE OF BORING: Solid flight auger to 7.0m; Rotary to 9.4m; NMLC-Coring to 12.05m
WATER OBSERVATIONS: Free groundwater observed at 4.7m whilst augering
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U_x	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RWO
Date: 22.7.10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.9 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 7
PROJECT No: 71682
DATE: 25 - 27/5/2010
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
		laminite/siltstone										
-4	11	LAMINITE - medium then high strength, moderately weathered then fresh, slightly fractured and unbroken, light grey brown then light grey to grey, laminite with approximately 30% fine grained sandstone lamination *(continued)*						10.15m: B0°, 10mm rock fragments 10.2m: B0°, clay smear 10.28m: J, subvertical, rough	C	100	52	PL(A) = 0.8MPa PL(A) = 2.8MPa
-5	12							11.7m: J45°, rough	C	100	100	PL(A) = 1.8MPa PL(A) = 2MPa
	12.05	Bore discontinued at 12.05m										
-6	13											
-7	14											
-8	15											
-9	16											
-10	17											
-11	18											
-12	19											
-13												

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 9.4m
TYPE OF BORING: Solid flight auger to 7.0m; Rotary to 9.4m; NMLC-Coring to 12.05m
WATER OBSERVATIONS: Free groundwater observed at 4.7m whilst augering
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: PWD
Date: 22.7.10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.9 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 8
PROJECT No: 71682
DATE: 27 - 28/5/2010
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
		BITUMINOUS CONCRETE										
	0.25	ROADBASE GRAVEL							A			PID=1ppm
									A			PID=1ppm
	0.75	FILLING - poorly compacted, dark grey brown, clayey sand filling							A			PID=1ppm
									S			2,2,2 N = 4
	1.75	SAND - loose, light brown to yellow brown, fine to medium grained sand, moist							S			2,3,3 N = 6
	3.5	CLAYEY SAND - medium dense, light grey brown, fine to medium grained, clayey sand, moist to wet							S			6,7,7 N = 14
	4.25	SAND - medium dense, light grey, fine to medium grained sand, moist							S			3,5,8 N = 13
	4.75	CLAYEY SAND - medium dense, light grey brown, fine to medium grained, clayey sand, moist to wet							S			2,7,11 N = 18
	6.0	SANDY CLAY - very stiff, yellow brown and light grey, sandy clay, wet							S			7,13,18 N = 31
	8.5	SILTY CLAY - hard, grey brown, silty clay with some ironstone bands (possibly extremely low strength laminite)						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes or joints dipping 0°- 10°				
	9.7	LAMINITE - description next page						9.71 & 9.85m: (x3) B0°, ironstained	C	100	97	PL(A) = 1.7MPa

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 9.7m
TYPE OF BORING: Solid flight auger to 7.0m; Rotary to 9.7m; NMLC-Coring to 12.75m
WATER OBSERVATIONS: Free groundwater observed at 5.65m whilst augering
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RWO
Date: 22.7.10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.9 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 8
PROJECT No: 71682
DATE: 27 - 28/5/2010
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low / Very Low / Low / Medium / High / Very High / Ex High)	Water	Fracture Spacing (m) (0.01 0.05 0.10 0.50 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
-4	11	LAMINITE - high strength, fresh stained then fresh, slightly fractured and unbroken, light grey to grey, laminite with approximately 40% fine grained sandstone laminations *(continued)*							C	100	97	PL(A) = 1.8MPa
-5	12							11.32m: B0°, 5mm crushed rock fragment 11.55m: J35°, rough 11.85m: J30°, rough, 10mm crushed rock 11.89m: B0°, clay veneer	C	100	97	PL(A) = 2.3MPa PL(A) = 2.6MPa
-6	12.75	Bore discontinued at 12.75m										
-7	13											
-8	14											
-9	15											
-10	16											
-11	17											
-12	18											
-13	19											

RIG: Scout 2 **DRILLER:** JS **LOGGED:** SI **CASING:** HQ to 9.7m
TYPE OF BORING: Solid flight auger to 7.0m; Rotary to 9.7m; NMLC-Coring to 12.75m
WATER OBSERVATIONS: Free groundwater observed at 5.65m whilst augering
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RJO
Date: 22-7-10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 7.1 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 9
PROJECT No: 71682
DATE: 28/5/2010
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
	0.08	BITUMINOUS CONCRETE							A			PID=1ppm
	0.14	ROADBASE GRAVEL										
		FILLING - dark grey to black, fine to medium grained, sand filling with glass and ceramics, moist							A			PID=1ppm
	0.75	SAND - red and yellow brown, medium grained sand, moist							A			PID=1ppm
	1.5	Bore discontinued at 1.5m										

RIG: Scout 2
DRILLER: JS
LOGGED: PMO
CASING: Uncased
TYPE OF BORING: Solid flight auger to 1.5m
WATER OBSERVATIONS: No free groundwater observed whilst augering
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RLO
Date: 22.7.10

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BOREHOLE LOG

CLIENT: News Limited
PROJECT: Cumberland Newspapers Redevelopment
LOCATION: 142-154 Macquarie Street, Parramatta

SURFACE LEVEL: 6.8 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 10
PROJECT No: 71682
DATE: 2/6/2010
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
	0.05	BITUMINOUS CONCRETE							A			PID=1ppm
	0.2	ROADBASE GRAVEL										
	0.6	FILLING - dark brown, sand filling with brick and some clay, moist							A			PID=1ppm
	1.2	FILLING - dark brown to black, sand filling with some ash, brick and clay, moist							A			PID=1ppm
	1.75	SAND - light to dark grey, medium grained sand with some silt, moist							A			PID=1ppm
	2.0	SAND - light brown and red brown, medium grained sand with clay, moist										
		Bore discontinued at 2.0m										

RIG: Scout 2 **DRILLER:** JS **LOGGED:** PMO **CASING:** Uncased
TYPE OF BORING: Solid flight auger to 2.0m
WATER OBSERVATIONS: No free groundwater observed whilst augering
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U,	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▼ Water level

CHECKED
Initials: RWD
Date: 22.7.10

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APPENDIX D
Summary of Analytical Results

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TABLE D1 - SOIL SAMPLES

Sample	Depth (m)	Total Concentrations																						
		B	T	E	X	C_6-C_9	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total PAH	B(a)P	OCP	OPP	PCB	Phenol	Asbestos	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
		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	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Filling																								
BH1	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	1.7	0.2	<0.1	<0.1	<0.1	<5.0	N	4	<0.5	18	140	380	0.2	27	1700
BH2	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	110	<100	35.5	3.5	<0.1	<0.1	<0.1	<5.0	N	4	<0.5	11	44	520	0.5	12	110
BH3	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	110	<100	40.6	4.3	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	7	23	140	0.1	14	79
BH3	1.0	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	<0.1	<0.1	<0.1	<5.0	N	4	<0.5	18	20	210	0.4	4	15
BH5	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	32.9	2.7	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	10	28	320	0.2	13	150
BH5	1.0	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	4.3	0.4	<0.1	<0.1	<0.1	<5.0	N	36	1.4	40	270	1500	14	32	1800
BH6	0.1	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	0.9	0.1	<0.1	<0.1	<0.1	<5.0	N	9	<0.5	10	47	570	0.6	32	63
BH7	0.1	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	1.9	0.1	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	10	49	100	<0.10	52	73
BH8	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	11	68	5	<0.10	82	41
BH8	1.0	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	1.4	0.1	<0.1	<0.1	<0.1	<5.0	N	28	<0.5	5	12	170	0.1	3	87
BH9	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	3	4	61	<0.10	2	14
BH10	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	8	9	240	0.1	4	38
BH10	1.0	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	2.2	0.2	<0.1	<0.1	<0.1	<5.0	N	4	<0.5	12	31	260	0.1	5	220
Natural Soil																								
BH1	1.0	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	3	4	9	<0.10	3	7
BH4	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	0.7	0.09	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	5	10	37	0.2	5	34
BH4	1.0	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	6	5	10	<0.10	3	11
BH6	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	2	3	6	0.1	2	6
BH6	1.0	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	0.3	0.06	<0.1	<0.1	<0.1	<5.0	N	5	<0.5	4	8	90	0.1	4	150
BH7	0.5	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	4.5	0.40	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	7	170	170	0.1	24	110
BH9	1.0	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	3	3	13	<0.10	2	7
QA/QC Samples																								
Dup2	BH6/1.0 m	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	0.7	0.06	<0.1	<0.1	<0.1	<5.0	N	6	<0.5	4	10	67	1	4	150
Dup4	BH1/1.0 m	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	<0.1	<0.1	<0.1	<5.0	N	<4.0	<0.5	3	3	7	<0.10	2	6
SPIKE	28/05/2010	91%	93%	91%	92%/91%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLANK	28/05/2010	<0.5	<0.5	<1.0	<2.0	<25	<50	<100	<100	<0.2	<0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Guideline																								
HIL Commercial/Industrial[1]		-	-	-	-	-	-			100	5	-	-	50	42500	-	500	100	500	5000	1500	75	3000	35000
Sensitive Land Use[2]		1	1.4	3.1	14	65	1000			-	-	-	-	-	-	-	-	-	-	-	-	-		-

Notes:	[1] Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (2nd Edition, 2006)
	[2] Contaminated Sites: Guidelines for Assessing Service Station Sites (1994)
	B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; PAH = Polycyclic Aromatic Hydrocarbons; B(a)P = Benzo(a)pyrene; OCP = Organochlorine pesticides; OPP = Organophosphorus Pesticides; PCB = Polychlorinated biphenyls; As = Arsenic; Cd = Cadmium; Cr = Chromium;
	Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; N/A = Not analysed

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TABLE D2 - SOIL SAMPLES

Sample	Depth (m)	Leachable Concentrations									
		Total PAH	B(a)P	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Toxicity Characteristics Leaching Procedure											
BH1	0.5	-	-	-	-	-	-	0.10	-	-	-
BH2	0.5	<0.002	<0.001	-	-	-	-	0.07	-	-	-
BH3	0.5	<0.002	<0.001	-	-	-	-	-	-	-	-
BH5	0.5	<0.002	<0.001	-	-	-	-	0.07	-	-	-
BH5	1.0	-	-	-	-	-	-	0.90	0.001	-	-
BH6	0.1	-	-	-	-	-	-	0.03	-	-	-
BH7	0.1	-	-	-	-	-	-	-	0.060	-	-
BH8	0.5	-	-	-	-	-	-	-	0.100	-	-

Notes: PAH = Polycyclic Aromatic Hydrocarbons; B(a)P = Benzo(a)pyrene; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; N/A = Not analysed

TABLE D3 - GROUNDWATER SAMPLES

Sample	Date	Total Concentrations																					
		B	T	E	X	C_6-C_9	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total PAH	B(a)P	OCP	OPP	PCB	Phenol	Total VOC	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	Hardness
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
Groundwater																									
GW4	2/07/2010	<10	<10	<10	<20	<100	-	-	-	-	-	-	-	-	-	<100	-	-	-	-	-	-	-	-	-
GW4	15/07/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.1	<1	2	<1	<0.5	4	27	370
GW5	2/07/2010	<10	<10	<10	<20	<100	<50	<100	<100	<2	<1	<0.2	<0.2	<2	<50	<100	<1	0.2	1	8	6	<0.5	3	12	139
QA/QC Samples																									
Rins2	2/06/2010	<1	<1	<1	<2	<10	<50	<100	<100	<2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rins4	2/07/2010	<1	<1	<1	<2	<10	<50	<100	<100	<2	<1	-	-	-	-	<100	<1	<0.1	<1	<1	<1	<0.5	<1	<1	-
Guideline																									
95% Protection Freshwater[1]		950	-	-	550	-	-			-	-	0.7	0.8	-	320	7000	24	0.2	1	1.4	3.4	0.6	11	8	-
Fresh ecosystems[2]		300	300	140	380	-	-			3	-	-	-	-	50	-	-	-	-	-	1 to 5	-	-	-	-
HMTV for Hard Water[1]		-	-	-	-	-	-			-	-	-	-	-	-	-	-	0.8	3.5	5.2	23.8	-	40.5	29.5	-
HMTV for Ext. Hard Water[1]		-	-	-	-	-	-			-	-	-	-	-	-	-	-	1.9	7.8	11.8	82.6	-	93.1	67.7	-
95% Protection Marine[1]		700	-	-	-	-	-			-	-	-	-	-	400	2000	-	5.5	4.4	1.3	4.4	0.4	70	15	-
Marine ecosystems[2]		300	-	-	380	-	-			3	-	-	-	-	50	-	-	-	-	-	5	-	-	-	-

Notes:
[1] Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000)
[2] Contaminated Sites: Guidelines for Assessing Service Station Sites (1994)
B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; PAH = Polycyclic Aromatic Hydrocarbons; B(a)P = Benzo(a)pyrene; OCP = Organochlorine pesticides; OPP = Organophosphorus Pesticides; PCB = Polychlorinated biphenyls; VOC = Volatile Organochlorines; As = Arsenic; Cd = Cadmium; Cr = Chromium;
Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; Hardness = mgCaCO3/L; N/A = Not analysed; HMTV = hardness modified trigger value for metals; All metals outlined above are DISSOLVED concentrations

APPENDIX E
Detailed Analytical Results

Envirolab Services Pty Ltd
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CERTIFICATE OF ANALYSIS 41928

Client:
Douglas Partners
96 Hermitage Rd
West Ryde
NSW 2114

Attention: Peter Oitmaa

Sample log in details:

Your Reference:	**71682, Parramatta**
No. of samples:	24 Soils, 1 Water
Date samples received:	07/06/10
Date completed instructions received:	07/06/10

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by:	15/06/10
Date of Preliminary Report:	Not Issued
Issue Date:	15/06/10

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Tests not covered by NATA are denoted with *.

Results Approved By:

Rhian Morgan
Metals Supervisor

Jacinta Hurst
Laboratory Manager

M. Mansfield
Matt Mansfield
Approved Signatory

vTPH & BTEX in Soil						
Our Reference:	UNITS	41928-1	41928-2	41928-3	41928-4	41928-5
Your Reference	----------	BH1/0.5	BH1/1.0	BH2/0.5	BH3/0.5	BH3/1.0
Date Sampled	----------	28/05/2010	28/05/2010	1/06/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
vTPH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
m+p-xylene	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Surrogate aaa-Trifluorotoluene	%	73	121	120	81	127

vTPH & BTEX in Soil						
Our Reference:	UNITS	41928-6	41928-7	41928-8	41928-9	41928-10
Your Reference	----------	BH4/0.5	BH4/1.0	BH5/0.5	BH5/1.0	BH6/0.1
Date Sampled	----------	31/05/2010	31/05/2010	31/05/2010	31/05/2010	25/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
vTPH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
m+p-xylene	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Surrogate aaa-Trifluorotoluene	%	72	84	87	122	116

vTPH & BTEX in Soil						
Our Reference:	UNITS	41928-11	41928-12	41928-13	41928-14	41928-15
Your Reference	----------	BH6/0.5	BH6/1.0	BH7/0.1	BH7/0.5	BH8/0.5
Date Sampled	----------	25/05/2010	25/05/2010	25/05/2010	25/05/2010	27/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
vTPH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
m+p-xylene	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Surrogate aaa-Trifluorotoluene	%	120	125	134	124	126

vTPH & BTEX in Soil						
Our Reference:	UNITS	41928-16	41928-17	41928-18	41928-19	41928-20
Your Reference	----------	BH8/1.0	BH9/0.5	BH9/1.0	BH10/0.5	BH10/1.0
Date Sampled	----------	27/05/2010	28/05/2010	28/05/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
vTPH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
m+p-xylene	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Surrogate aaa-Trifluorotoluene	%	122	120	115	115	121

vTPH & BTEX in Soil					
Our Reference:	UNITS	41928-21	41928-22	41928-23	41928-24
Your Reference	----------	Dup2	Dup4	Blank	Spike
Date Sampled	----------	28/05/2010	25/05/2010	28/05/2010	28/05/2010
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	9/6/2010	9/6/2010	9/6/2010
vTPH C_6 - C_9	mg/kg	<25	<25	<25	[NA]
Benzene	mg/kg	<0.5	<0.5	<0.5	91%
Toluene	mg/kg	<0.5	<0.5	<0.5	93%
Ethylbenzene	mg/kg	<1.0	<1.0	<1.0	91%
m+p-xylene	mg/kg	<2.0	<2.0	<2.0	92%
o-Xylene	mg/kg	<1.0	<1.0	<1.0	91%
Surrogate aaa-Trifluorotoluene	%	119	120	125	105

sTPH in Soil (C10-C36)						
Our Reference:	UNITS	41928-1	41928-2	41928-3	41928-4	41928-5
Your Reference	----------	BH1/0.5	BH1/1.0	BH2/0.5	BH3/0.5	BH3/1.0
Date Sampled	----------	28/05/2010	28/05/2010	1/06/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
TPH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TPH C_{15} - C_{28}	mg/kg	<100	<100	110	110	<100
TPH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	87	82	86	85	84

sTPH in Soil (C10-C36)						
Our Reference:	UNITS	41928-6	41928-7	41928-8	41928-9	41928-10
Your Reference	----------	BH4/0.5	BH4/1.0	BH5/0.5	BH5/1.0	BH6/0.1
Date Sampled	----------	31/05/2010	31/05/2010	31/05/2010	31/05/2010	25/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
TPH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TPH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TPH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	89	76	81	75	74

sTPH in Soil (C10-C36)						
Our Reference:	UNITS	41928-11	41928-12	41928-13	41928-14	41928-15
Your Reference	----------	BH6/0.5	BH6/1.0	BH7/0.1	BH7/0.5	BH8/0.5
Date Sampled	----------	25/05/2010	25/05/2010	25/05/2010	25/05/2010	27/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
TPH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TPH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TPH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	76	81	76	75	78

sTPH in Soil (C10-C36)						
Our Reference:	UNITS	41928-16	41928-17	41928-18	41928-19	41928-20
Your Reference	----------	BH8/1.0	BH9/0.5	BH9/1.0	BH10/0.5	BH10/1.0
Date Sampled	----------	27/05/2010	28/05/2010	28/05/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
TPH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TPH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TPH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	79	78	73	77	73

sTPH in Soil (C10-C36) Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-21 Dup2 28/05/2010 Soil	41928-22 Dup4 25/05/2010 Soil	41928-23 Blank 28/05/2010 Soil
Date extracted	-	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010
TPH C_{10} - C_{14}	mg/kg	<50	<50	<50
TPH C_{15} - C_{28}	mg/kg	<100	<100	<100
TPH C_{29} - C_{36}	mg/kg	<100	<100	<100
Surrogate o-Terphenyl	%	76	78	80

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-1 BH1/0.5 28/05/2010 Soil	41928-2 BH1/1.0 28/05/2010 Soil	41928-3 BH2/0.5 1/06/2010 Soil	41928-4 BH3/0.5 2/06/2010 Soil	41928-5 BH3/1.0 2/06/2010 Soil
Date extracted	-	09/06/2010	09/06/2010	09/06/2010	09/06/2010	09/06/2010
Date analysed	-	09/06/2010	09/06/2010	09/06/2010	09/06/2010	09/06/2010
Naphthalene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	0.6	0.6	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	0.1	0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	3.2	3.5	<0.1
Anthracene	mg/kg	<0.1	<0.1	0.5	0.6	<0.1
Fluoranthene	mg/kg	0.3	<0.1	7.3	7.6	<0.1
Pyrene	mg/kg	0.3	<0.1	6.6	7.1	<0.1
Benzo(a)anthracene	mg/kg	0.2	<0.1	2.8	3.3	<0.1
Chrysene	mg/kg	0.2	<0.1	2.8	3.5	<0.1
Benzo(b+k)fluoranthene	mg/kg	0.3	<0.2	4.9	6.1	<0.2
Benzo(a)pyrene	mg/kg	0.2	<0.05	3.5	4.3	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	1.5	1.8	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.3	0.4	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1	<0.1	1.4	1.6	<0.1
Surrogate p-Terphenyl-d_{14}	%	108	108	109	109	110

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-6 BH4/0.5 31/05/2010 Soil	41928-7 BH4/1.0 31/05/2010 Soil	41928-8 BH5/0.5 31/05/2010 Soil	41928-9 BH5/1.0 31/05/2010 Soil	41928-10 BH6/0.1 25/05/2010 Soil
Date extracted	-	09/06/2010	09/06/2010	09/06/2010	09/06/2010	09/06/2010
Date analysed	-	09/06/2010	09/06/2010	09/06/2010	09/06/2010	09/06/2010
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	4.6	0.4	<0.1
Anthracene	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	6.7	0.8	0.2
Pyrene	mg/kg	0.2	<0.1	5.9	0.8	0.2
Benzo(a)anthracene	mg/kg	<0.1	<0.1	2.7	0.4	0.1
Chrysene	mg/kg	0.1	<0.1	2.7	0.4	0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	4.0	0.7	0.2
Benzo(a)pyrene	mg/kg	0.09	<0.05	2.7	0.4	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	1.0	0.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.9	0.2	<0.1
Surrogate p-Terphenyl-d_{14}	%	108	107	111	112	114

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-11 BH6/0.5 25/05/2010 Soil	41928-12 BH6/1.0 25/05/2010 Soil	41928-13 BH7/0.1 25/05/2010 Soil	41928-14 BH7/0.5 25/05/2010 Soil	41928-15 BH8/0.5 27/05/2010 Soil
Date extracted	-	09/06/2010	09/06/2010	09/06/2010	09/06/2010	09/06/2010
Date analysed	-	09/06/2010	09/06/2010	09/06/2010	09/06/2010	09/06/2010
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.3	0.4	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.1	0.4	0.9	<0.1
Pyrene	mg/kg	<0.1	0.1	0.4	0.9	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.2	0.4	<0.1
Chrysene	mg/kg	<0.1	<0.1	0.2	0.5	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	0.3	0.7	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.06	0.1	0.4	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Surrogate p-Terphenyl-d_{14}	%	109	107	110	108	110

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-16 BH8/1.0 27/05/2010 Soil	41928-17 BH9/0.5 28/05/2010 Soil	41928-18 BH9/1.0 28/05/2010 Soil	41928-19 BH10/0.5 2/06/2010 Soil	41928-20 BH10/1.0 2/06/2010 Soil
Date extracted	-	09/06/2010	09/06/2010	09/06/2010	09/06/2010	09/06/2010
Date analysed	-	09/06/2010	09/06/2010	09/06/2010	09/06/2010	09/06/2010
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	<0.1	<0.1	0.3
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.3	<0.1	<0.1	<0.1	0.5
Pyrene	mg/kg	0.3	<0.1	<0.1	<0.1	0.4
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	0.2
Chrysene	mg/kg	0.2	<0.1	<0.1	<0.1	0.2
Benzo(b+k)fluoranthene	mg/kg	0.2	<0.2	<0.2	<0.2	0.4
Benzo(a)pyrene	mg/kg	0.1	<0.05	<0.05	<0.05	0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d_{14}	%	108	111	109	105	107

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-21 Dup2 28/05/2010 Soil	41928-22 Dup4 25/05/2010 Soil	41928-23 Blank 28/05/2010 Soil
Date extracted	-	09/06/2010	09/06/2010	09/06/2010
Date analysed	-	09/06/2010	09/06/2010	09/06/2010
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	<0.1
Pyrene	mg/kg	0.2	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.06	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d_{14}	%	113	107	117

Organochlorine Pesticides in soil						
Our Reference:	UNITS	41928-1	41928-2	41928-3	41928-4	41928-5
Your Reference	----------	BH1/0.5	BH1/1.0	BH2/0.5	BH3/0.5	BH3/1.0
Date Sampled	----------	28/05/2010	28/05/2010	1/06/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	98	98	99	98

Organochlorine Pesticides in soil						
Our Reference:	UNITS	41928-6	41928-7	41928-8	41928-9	41928-10
Your Reference	----------	BH4/0.5	BH4/1.0	BH5/0.5	BH5/1.0	BH6/0.1
Date Sampled	----------	31/05/2010	31/05/2010	31/05/2010	31/05/2010	25/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	101	97	99	96	101

Organochlorine Pesticides in soil						
Our Reference:	UNITS	41928-11	41928-12	41928-13	41928-14	41928-15
Your Reference	----------	BH6/0.5	BH6/1.0	BH7/0.1	BH7/0.5	BH8/0.5
Date Sampled	----------	25/05/2010	25/05/2010	25/05/2010	25/05/2010	27/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	97	98	98	94

Organochlorine Pesticides in soil						
Our Reference:	UNITS	41928-16	41928-17	41928-18	41928-19	41928-20
Your Reference	----------	BH8/1.0	BH9/0.5	BH9/1.0	BH10/0.5	BH10/1.0
Date Sampled	----------	27/05/2010	28/05/2010	28/05/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	97	100	93	98	99

Organochlorine Pesticides in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-21 Dup2 28/05/2010 Soil	41928-22 Dup4 25/05/2010 Soil
Date extracted	-	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010
HCB	mg/kg	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	96	98

Organophosphorus Pesticides						
Our Reference:	UNITS	41928-1	41928-2	41928-3	41928-4	41928-5
Your Reference	----------	BH1/0.5	BH1/1.0	BH2/0.5	BH3/0.5	BH3/1.0
Date Sampled	----------	28/05/2010	28/05/2010	1/06/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	98	98	99	98

Organophosphorus Pesticides						
Our Reference:	UNITS	41928-6	41928-7	41928-8	41928-9	41928-10
Your Reference	----------	BH4/0.5	BH4/1.0	BH5/0.5	BH5/1.0	BH6/0.1
Date Sampled	----------	31/05/2010	31/05/2010	31/05/2010	31/05/2010	25/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	101	97	99	96	101

Organophosphorus Pesticides						
Our Reference:	UNITS	41928-11	41928-12	41928-13	41928-14	41928-15
Your Reference	----------	BH6/0.5	BH6/1.0	BH7/0.1	BH7/0.5	BH8/0.5
Date Sampled	----------	25/05/2010	25/05/2010	25/05/2010	25/05/2010	27/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	97	98	98	94

Organophosphorus Pesticides						
Our Reference:	UNITS	41928-16	41928-17	41928-18	41928-19	41928-20
Your Reference	----------	BH8/1.0	BH9/0.5	BH9/1.0	BH10/0.5	BH10/1.0
Date Sampled	----------	27/05/2010	28/05/2010	28/05/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	97	100	93	98	99

Organophosphorus Pesticides Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-21 Dup2 28/05/2010 Soil	41928-22 Dup4 25/05/2010 Soil
Date extracted	-	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010
Diazinon	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	96	98

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-1 BH1/0.5 28/05/2010 Soil	41928-2 BH1/1.0 28/05/2010 Soil	41928-3 BH2/0.5 1/06/2010 Soil	41928-4 BH3/0.5 2/06/2010 Soil	41928-5 BH3/1.0 2/06/2010 Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	98	98	99	98

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-6 BH4/0.5 31/05/2010 Soil	41928-7 BH4/1.0 31/05/2010 Soil	41928-8 BH5/0.5 31/05/2010 Soil	41928-9 BH5/1.0 31/05/2010 Soil	41928-10 BH6/0.1 25/05/2010 Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	101	97	99	96	101

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-11 BH6/0.5 25/05/2010 Soil	41928-12 BH6/1.0 25/05/2010 Soil	41928-13 BH7/0.1 25/05/2010 Soil	41928-14 BH7/0.5 25/05/2010 Soil	41928-15 BH8/0.5 27/05/2010 Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	97	98	98	94

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-16 BH8/1.0 27/05/2010 Soil	41928-17 BH9/0.5 28/05/2010 Soil	41928-18 BH9/1.0 28/05/2010 Soil	41928-19 BH10/0.5 2/06/2010 Soil	41928-20 BH10/1.0 2/06/2010 Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010	10/06/2010	10/06/2010	10/06/2010
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	97	100	93	98	99

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-21 Dup2 28/05/2010 Soil	41928-22 Dup4 25/05/2010 Soil
Date extracted	-	08/06/2010	08/06/2010
Date analysed	-	10/06/2010	10/06/2010
Arochlor 1016	mg/kg	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	96	98

Total Phenolics in Soil						
Our Reference:	UNITS	41928-1	41928-2	41928-3	41928-4	41928-5
Your Reference	----------	BH1/0.5	BH1/1.0	BH2/0.5	BH3/0.5	BH3/1.0
Date Sampled	----------	28/05/2010	28/05/2010	1/06/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Total Phenolics (as Phenol)	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0

Total Phenolics in Soil						
Our Reference:	UNITS	41928-6	41928-7	41928-8	41928-9	41928-10
Your Reference	----------	BH4/0.5	BH4/1.0	BH5/0.5	BH5/1.0	BH6/0.1
Date Sampled	----------	31/05/2010	31/05/2010	31/05/2010	31/05/2010	25/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Total Phenolics (as Phenol)	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0

Total Phenolics in Soil						
Our Reference:	UNITS	41928-11	41928-12	41928-13	41928-14	41928-15
Your Reference	----------	BH6/0.5	BH6/1.0	BH7/0.1	BH7/0.5	BH8/0.5
Date Sampled	----------	25/05/2010	25/05/2010	25/05/2010	25/05/2010	27/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Total Phenolics (as Phenol)	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0

Total Phenolics in Soil						
Our Reference:	UNITS	41928-16	41928-17	41928-18	41928-19	41928-20
Your Reference	----------	BH8/1.0	BH9/0.5	BH9/1.0	BH10/0.5	BH10/1.0
Date Sampled	----------	27/05/2010	28/05/2010	28/05/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Total Phenolics (as Phenol)	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0

Total Phenolics in Soil			
Our Reference:	UNITS	41928-21	41928-22
Your Reference	----------	Dup2	Dup4
Date Sampled	----------	28/05/2010	25/05/2010
Type of sample		Soil	Soil
Date extracted	-	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010
Total Phenolics (as Phenol)	mg/kg	<5.0	<5.0

Acid Extractable metals in soil						
Our Reference:	UNITS	41928-1	41928-2	41928-3	41928-4	41928-5
Your Reference	----------	BH1/0.5	BH1/1.0	BH2/0.5	BH3/0.5	BH3/1.0
Date Sampled	----------	28/05/2010	28/05/2010	1/06/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Arsenic	mg/kg	4	<4	4	<4	4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	18	3	11	7	18
Copper	mg/kg	140	4	44	23	20
Lead	mg/kg	380	9	520	140	210
Mercury	mg/kg	0.2	<0.1	0.5	0.1	0.4
Nickel	mg/kg	27	3	12	14	4
Zinc	mg/kg	1,700	7	110	79	15

Acid Extractable metals in soil						
Our Reference:	UNITS	41928-6	41928-7	41928-8	41928-9	41928-10
Your Reference	----------	BH4/0.5	BH4/1.0	BH5/0.5	BH5/1.0	BH6/0.1
Date Sampled	----------	31/05/2010	31/05/2010	31/05/2010	31/05/2010	25/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Arsenic	mg/kg	<4	<4	<4	36	9
Cadmium	mg/kg	<0.5	<0.5	<0.5	1.4	<0.5
Chromium	mg/kg	5	6	10	40	10
Copper	mg/kg	10	5	28	270	47
Lead	mg/kg	37	10	320	1,500	570
Mercury	mg/kg	0.2	<0.1	0.2	14	0.6
Nickel	mg/kg	5	3	13	32	32
Zinc	mg/kg	34	11	150	1,800	63

Acid Extractable metals in soil						
Our Reference:	UNITS	41928-11	41928-12	41928-13	41928-14	41928-15
Your Reference	----------	BH6/0.5	BH6/1.0	BH7/0.1	BH7/0.5	BH8/0.5
Date Sampled	----------	25/05/2010	25/05/2010	25/05/2010	25/05/2010	27/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Arsenic	mg/kg	<4	5	<4	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	2	4	10	7	11
Copper	mg/kg	3	8	49	170	68
Lead	mg/kg	6	90	100	170	5
Mercury	mg/kg	0.1	0.1	<0.1	0.1	<0.1
Nickel	mg/kg	2	4	52	24	82
Zinc	mg/kg	6	150	73	110	41

Acid Extractable metals in soil						
Our Reference:	UNITS	41928-16	41928-17	41928-18	41928-19	41928-20
Your Reference	----------	BH8/1.0	BH9/0.5	BH9/1.0	BH10/0.5	BH10/1.0
Date Sampled	----------	27/05/2010	28/05/2010	28/05/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010	08/06/2010	08/06/2010	08/06/2010
Arsenic	mg/kg	28	<4	<4	<4	4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	5	3	3	8	12
Copper	mg/kg	12	4	3	9	31
Lead	mg/kg	170	61	13	240	260
Mercury	mg/kg	0.1	<0.1	<0.1	0.1	0.1
Nickel	mg/kg	3	2	2	4	5
Zinc	mg/kg	87	14	7	38	220

Acid Extractable metals in soil			
Our Reference:	UNITS	41928-21	41928-22
Your Reference	----------	Dup2	Dup4
Date Sampled	----------	28/05/2010	25/05/2010
Type of sample		Soil	Soil
Date digested	-	08/06/2010	08/06/2010
Date analysed	-	08/06/2010	08/06/2010
Arsenic	mg/kg	6	<4
Cadmium	mg/kg	<0.5	<0.5
Chromium	mg/kg	4	3
Copper	mg/kg	10	3
Lead	mg/kg	67	7
Mercury	mg/kg	1.0	<0.1
Nickel	mg/kg	4	2
Zinc	mg/kg	150	6

Moisture						
Our Reference:	UNITS	41928-1	41928-2	41928-3	41928-4	41928-5
Your Reference	----------	BH1/0.5	BH1/1.0	BH2/0.5	BH3/0.5	BH3/1.0
Date Sampled	----------	28/05/2010	28/05/2010	1/06/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Moisture	%	7.9	3.7	14	10	12

Moisture						
Our Reference:	UNITS	41928-6	41928-7	41928-8	41928-9	41928-10
Your Reference	----------	BH4/0.5	BH4/1.0	BH5/0.5	BH5/1.0	BH6/0.1
Date Sampled	----------	31/05/2010	31/05/2010	31/05/2010	31/05/2010	25/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Moisture	%	6.5	7.7	11	12	14

Moisture						
Our Reference:	UNITS	41928-11	41928-12	41928-13	41928-14	41928-15
Your Reference	----------	BH6/0.5	BH6/1.0	BH7/0.1	BH7/0.5	BH8/0.5
Date Sampled	----------	25/05/2010	25/05/2010	25/05/2010	25/05/2010	27/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Moisture	%	3.9	5.6	8.3	6.8	4.6

Moisture						
Our Reference:	UNITS	41928-16	41928-17	41928-18	41928-19	41928-20
Your Reference	----------	BH8/1.0	BH9/0.5	BH9/1.0	BH10/0.5	BH10/1.0
Date Sampled	----------	27/05/2010	28/05/2010	28/05/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010	8/6/2010	8/6/2010
Moisture	%	7.0	4.7	4.3	8.7	11

Moisture				
Our Reference:	UNITS	41928-21	41928-22	41928-23
Your Reference	----------	Dup2	Dup4	Blank
Date Sampled	----------	28/05/2010	25/05/2010	28/05/2010
Type of sample		Soil	Soil	Soil
Date prepared	-	8/6/2010	8/6/2010	8/6/2010
Date analysed	-	8/6/2010	8/6/2010	8/6/2010
Moisture	%	8.0	3.6	0.10

Asbestos ID - soils						
Our Reference:	UNITS	41928-1	41928-3	41928-4	41928-5	41928-8
Your Reference	----------	BH1/0.5	BH2/0.5	BH3/0.5	BH3/1.0	BH5/0.5
Date Sampled	----------	28/05/2010	1/06/2010	2/06/2010	2/06/2010	31/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10/6/2010	10/6/2010	10/6/2010	10/6/2010	10/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils						
Our Reference:	UNITS	41928-9	41928-10	41928-13	41928-15	41928-16
Your Reference	----------	BH5/1.0	BH6/0.1	BH7/0.1	BH8/0.5	BH8/1.0
Date Sampled	----------	31/05/2010	25/05/2010	25/05/2010	27/05/2010	27/05/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10/6/2010	10/6/2010	10/6/2010	10/6/2010	10/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils				
Our Reference:	UNITS	41928-17	41928-19	41928-20
Your Reference	----------	BH9/0.5	BH10/0.5	BH10/1.0
Date Sampled	----------	28/05/2010	2/06/2010	2/06/2010
Type of sample		Soil	Soil	Soil
Date analysed	-	10/6/2010	10/6/2010	10/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

vTPH & BTEX in Water		
Our Reference:	UNITS	41928-25
Your Reference	----------	Rins 2
Date Sampled	----------	2/06/2010
Type of sample		Water
Date extracted	-	9/6/2010
Date analysed	-	9/6/2010
TPH C_6 - C_9	µg/L	<10
Benzene	µg/L	<1.0
Toluene	µg/L	<1.0
Ethylbenzene	µg/L	<1.0
m+p-xylene	µg/L	<2.0
o-xylene	µg/L	<1.0
Surrogate Dibromofluoromethane	%	103
Surrogate toluene-d8	%	90
Surrogate 4-BFB	%	94

sTPH in Water (C10-C36)		
Our Reference:	UNITS	41928-25
Your Reference	----------	Rins 2
Date Sampled	----------	2/06/2010
Type of sample		Water
Date extracted	-	8/6/2010
Date analysed	-	8/6/2010
TPH C_{10} - C_{14}	µg/L	<50
TPH C_{15} - C_{28}	µg/L	<100
TPH C_{29} - C_{36}	µg/L	<100
Surrogate o-Terphenyl	%	107

PAHs in Water		
Our Reference:	UNITS	41928-25
Your Reference	----------	Rins 2
Date Sampled	----------	2/06/2010
Type of sample		Water
Date extracted	-	08/06/2010
Date analysed	-	08/06/2010
Naphthalene	µg/L	<1
Acenaphthylene	µg/L	<1
Acenaphthene	µg/L	<1
Fluorene	µg/L	<1
Phenanthrene	µg/L	<1
Anthracene	µg/L	<1
Fluoranthene	µg/L	<1
Pyrene	µg/L	<1
Benzo(a)anthracene	µg/L	<1
Chrysene	µg/L	<1
Benzo(b+k)fluoranthene	µg/L	<2
Benzo(a)pyrene	µg/L	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1
Dibenzo(a,h)anthracene	µg/L	<1
Benzo(g,h,i)perylene	µg/L	<1
Surrogate p-Terphenyl-d_{14}	%	108

Method ID	Methodology Summary
GC.16	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
GC.3	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
GC.12 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
GC-5	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
GC.8	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
GC-6	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
LAB.30	Total Phenolics - determined colorimetrically following disitillation.
Metals.20 ICP-AES	Determination of various metals by ICP-AES.
Metals.21 CV-AAS	Determination of Mercury by Cold Vapour AAS.
LAB.8	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
ASB.1	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.

QUALITY CONTROL vTPH & BTEX in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			8/6/2010	41928-1	8/6/2010 || 8/6/2010	LCS-1	8/6/2010
Date analysed	-			9/6/2010	41928-1	8/6/2010 || 8/6/2010	LCS-1	9/6/2010
vTPH C_6 - C_9	mg/kg	25	GC.16	<25	41928-1	<25 || <25	LCS-1	104%
Benzene	mg/kg	0.5	GC.16	<0.5	41928-1	<0.5 || <0.5	LCS-1	107%
Toluene	mg/kg	0.5	GC.16	<0.5	41928-1	<0.5 || <0.5	LCS-1	99%
Ethylbenzene	mg/kg	1	GC.16	<1.0	41928-1	<1.0 || <1.0	LCS-1	102%
m+p-xylene	mg/kg	2	GC.16	<2.0	41928-1	<2.0 || <2.0	LCS-1	106%
o-Xylene	mg/kg	1	GC.16	<1.0	41928-1	<1.0 || <1.0	LCS-1	110%
Surrogate aaa-Trifluorotoluene	%		GC.16	119	41928-1	73 || 130 || RPD: 56	LCS-1	128%

QUALITY CONTROL sTPH in Soil (C10-C36)	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			8/6/2010	41928-1	8/6/2010 || 8/6/2010	LCS-1	8/6/2010
Date analysed	-			8/6/2010	41928-1	8/6/2010 || 8/6/2010	LCS-1	8/6/2010
TPH C_{10} - C_{14}	mg/kg	50	GC.3	<50	41928-1	<50 || <50	LCS-1	83%
TPH C_{15} - C_{28}	mg/kg	100	GC.3	<100	41928-1	<100 || <100	LCS-1	102%
TPH C_{29} - C_{36}	mg/kg	100	GC.3	<100	41928-1	<100 || <100	LCS-1	100%
Surrogate o-Terphenyl	%		GC.3	78	41928-1	87 || 81 || RPD: 7	LCS-1	77%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			09/06/2010	41928-1	09/06/2010 || 09/06/2010	LCS-1	09/06/2010
Date analysed	-			09/06/2010	41928-1	09/06/2010 || 09/06/2010	LCS-1	09/06/2010
Naphthalene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	<0.1 || <0.1	LCS-1	89%
Acenaphthylene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	<0.1 || <0.1	LCS-1	94%
Phenanthrene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	0.1 || 0.1 || RPD: 0	LCS-1	94%
Anthracene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	0.3 || 0.3 || RPD: 0	LCS-1	91%
Pyrene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	0.3 || 0.4 || RPD: 29	LCS-1	96%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Benzo(a)anthracene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	0.2 || 0.2 || RPD: 0	[NR]	[NR]
Chrysene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	0.2 || 0.2 || RPD: 0	LCS-1	105%
Benzo(b+k)fluoranthene	mg/kg	0.2	GC.12 subset	<0.2	41928-1	0.3 || 0.4 || RPD: 29	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	GC.12 subset	<0.05	41928-1	0.2 || 0.2 || RPD: 0	LCS-1	95%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	<0.1 || 0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	GC.12 subset	<0.1	41928-1	0.1 || 0.1 || RPD: 0	[NR]	[NR]
Surrogate p-Terphenyl-d_{14}	%		GC.12 subset	105	41928-1	108 || 111 || RPD: 3	LCS-1	105%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			08/06/2010	41928-1	08/06/2010 || 08/06/2010	LCS-1	08/06/2010
Date analysed	-			10/06/2010	41928-1	10/06/2010 || 10/06/2010	LCS-1	10/06/2010
HCB	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	104%
gamma-BHC	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	115%
Heptachlor	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	100%
delta-BHC	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	99%
Heptachlor Epoxide	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	107%
gamma-Chlordane	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	116%
Dieldrin	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	111%
Endrin	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	106%
pp-DDD	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	125%
Endosulfan II	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	LCS-1	95%
Methoxychlor	mg/kg	0.1	GC-5	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Surrogate TCLMX	%		GC-5	93	41928-1	95 || 97 || RPD: 2	LCS-1	93%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			08/06/2010	41928-1	08/06/2010 || 08/06/2010	LCS-1	08/06/2010
Date analysed	-			10/06/2010	41928-1	10/06/2010 || 10/06/2010	LCS-1	10/06/2010
Diazinon	mg/kg	0.1	GC.8	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Dimethoate	mg/kg	0.1	GC.8	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	0.1	GC.8	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Ronnel	mg/kg	0.1	GC.8	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	0.1	GC.8	<0.1	41928-1	<0.1 || <0.1	LCS-1	105%
Fenitrothion	mg/kg	0.1	GC.8	<0.1	41928-1	<0.1 || <0.1	LCS-1	102%
Bromophos-ethyl	mg/kg	0.1	GC.8	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	GC.8	<0.1	41928-1	<0.1 || <0.1	LCS-1	108%
Surrogate TCLMX	%		GC.8	93	41928-1	95 || 97 || RPD: 2	LCS-1	96%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			08/06/2010	41928-1	08/06/2010 || 08/06/2010	LCS-1	08/06/2010
Date analysed	-			10/06/2010	41928-1	10/06/2010 || 10/06/2010	LCS-1	10/06/2010
Arochlor 1016	mg/kg	0.1	GC-6	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	GC-6	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	GC-6	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	GC-6	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	GC-6	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	GC-6	<0.1	41928-1	<0.1 || <0.1	LCS-1	111%
Arochlor 1260	mg/kg	0.1	GC-6	<0.1	41928-1	<0.1 || <0.1	[NR]	[NR]
Surrogate TCLMX	%		GC-6	93	41928-1	95 || 97 || RPD: 2	LCS-1	102%

QUALITY CONTROL Total Phenolics in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			08/06/2010	41928-1	08/06/2010 || 08/06/2010	LCS-1	08/06/2010
Date analysed	-			08/06/2010	41928-1	08/06/2010 || 08/06/2010	LCS-1	08/06/2010
Total Phenolics (as Phenol)	mg/kg	5	LAB.30	<5.0	41928-1	<5.0 || <5.0	LCS-1	97%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date digested	-			08/06/2010	41928-1	08/06/2010 || 08/06/2010	LCS-5	08/06/2010
Date analysed	-			08/06/2010	41928-1	08/06/2010 || 08/06/2010	LCS-5	08/06/2010
Arsenic	mg/kg	4	Metals.20 ICP-AES	<4	41928-1	4 || 4 || RPD: 0	LCS-5	97%
Cadmium	mg/kg	0.5	Metals.20 ICP-AES	<0.5	41928-1	<0.5 || <0.5	LCS-5	100%
Chromium	mg/kg	1	Metals.20 ICP-AES	<1	41928-1	18 || 20 || RPD: 11	LCS-5	102%
Copper	mg/kg	1	Metals.20 ICP-AES	<1	41928-1	140 || 160 || RPD: 13	LCS-5	102%
Lead	mg/kg	1	Metals.20 ICP-AES	<1	41928-1	380 || 400 || RPD: 5	LCS-5	99%
Mercury	mg/kg	0.1	Metals.21 CV-AAS	<0.1	41928-1	0.2 || 0.2 || RPD: 0	LCS-5	100%
Nickel	mg/kg	1	Metals.20 ICP-AES	<1	41928-1	27 || 19 || RPD: 35	LCS-5	103%
Zinc	mg/kg	1	Metals.20 ICP-AES	<1	41928-1	1700 || 2000 || RPD: 16	LCS-5	102%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			8/6/2010
Date analysed	-			8/6/2010
Moisture	%	0.1	LAB.8	<0.10

QUALITY CONTROL Asbestos ID - soils	UNITS	PQL	METHOD	Blank
Date analysed	-			[NT]

QUALITY CONTROL vTPH & BTEX in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			9/6/2010	[NT]	[NT]	LCS-W1	9/6/2010
Date analysed	-			9/6/2010	[NT]	[NT]	LCS-W1	9/6/2010
TPH C_6 - C_9	µg/L	10	GC.16	<10	[NT]	[NT]	LCS-W1	112%
Benzene	µg/L	1	GC.16	<1.0	[NT]	[NT]	LCS-W1	121%
Toluene	µg/L	1	GC.16	<1.0	[NT]	[NT]	LCS-W1	110%
Ethylbenzene	µg/L	1	GC.16	<1.0	[NT]	[NT]	LCS-W1	109%
m+p-xylene	µg/L	2	GC.16	<2.0	[NT]	[NT]	LCS-W1	111%
o-xylene	µg/L	1	GC.16	<1.0	[NT]	[NT]	LCS-W1	111%

QUALITY CONTROL vTPH & BTEX in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Surrogate Dibromofluoromethane	%		GC.16	104	[NT]	[NT]	LCS-W1	125%
Surrogate toluene-d8	%		GC.16	90	[NT]	[NT]	LCS-W1	91%
Surrogate 4-BFB	%		GC.16	90	[NT]	[NT]	LCS-W1	99%

QUALITY CONTROL sTPH in Water (C10-C36)	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			8/6/2010	[NT]	[NT]	LCS-W1	8/6/2010
Date analysed	-			8/6/2010	[NT]	[NT]	LCS-W1	8/6/2010
TPH C_{10} - C_{14}	µg/L	50	GC.3	<50	[NT]	[NT]	LCS-W1	90%
TPH C_{15} - C_{28}	µg/L	100	GC.3	<100	[NT]	[NT]	LCS-W1	135%
TPH C_{29} - C_{36}	µg/L	100	GC.3	<100	[NT]	[NT]	LCS-W1	107%
Surrogate o-Terphenyl	%		GC.3	114	[NT]	[NT]	LCS-W1	118%

QUALITY CONTROL PAHs in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			08/06/2010	[NT]	[NT]	LCS-W1	08/06/2010
Date analysed	-			08/06/2010	[NT]	[NT]	LCS-W1	08/06/2010
Naphthalene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W1	86%
Acenaphthylene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W1	95%
Phenanthrene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W1	94%
Anthracene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W1	91%
Pyrene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W1	97%
Benzo(a)anthracene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W1	101%
Benzo(b+k)fluoranthene	µg/L	2	GC.12 subset	<2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W1	101%

QUALITY CONTROL PAHs in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Indeno(1,2,3-c,d)pyrene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d_{14}	%		GC.12 subset	103	[NT]	[NT]	LCS-W1	109%

QUALITY CONTROL vTPH & BTEX in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-11	8/6/2010 || 8/6/2010	LCS-2	8/6/2010
Date analysed	-	41928-11	8/6/2010 || 8/6/2010	LCS-2	9/6/2010
vTPH C_6 - C_9	mg/kg	41928-11	<25 || <25	LCS-2	90%
Benzene	mg/kg	41928-11	<0.5 || <0.5	LCS-2	94%
Toluene	mg/kg	41928-11	<0.5 || <0.5	LCS-2	86%
Ethylbenzene	mg/kg	41928-11	<1.0 || <1.0	LCS-2	87%
m+p-xylene	mg/kg	41928-11	<2.0 || <2.0	LCS-2	91%
o-Xylene	mg/kg	41928-11	<1.0 || <1.0	LCS-2	93%
Surrogate aaa-Trifluorotoluene	%	41928-11	120 || 127 || RPD: 6	LCS-2	111%

QUALITY CONTROL sTPH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-11	8/6/2010 || 8/6/2010	LCS-2	8/6/2010
Date analysed	-	41928-11	8/6/2010 || 8/6/2010	LCS-2	8/6/2010
TPH C_{10} - C_{14}	mg/kg	41928-11	<50 || <50	LCS-2	84%
TPH C_{15} - C_{28}	mg/kg	41928-11	<100 || <100	LCS-2	100%
TPH C_{29} - C_{36}	mg/kg	41928-11	<100 || <100	LCS-2	98%
Surrogate o-Terphenyl	%	41928-11	76 || 76 || RPD: 0	LCS-2	75%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-11	09/06/2010 || 09/06/2010	LCS-2	09/06/2010
Date analysed	-	41928-11	09/06/2010 || 09/06/2010	LCS-2	09/06/2010
Naphthalene	mg/kg	41928-11	<0.1 || <0.1	LCS-2	90%
Acenaphthylene	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	41928-11	<0.1 || <0.1	LCS-2	98%
Phenanthrene	mg/kg	41928-11	<0.1 || <0.1	LCS-2	93%
Anthracene	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	41928-11	<0.1 || <0.1	LCS-2	91%
Pyrene	mg/kg	41928-11	<0.1 || <0.1	LCS-2	95%
Benzo(a)anthracene	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	41928-11	<0.1 || <0.1	LCS-2	104%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(b+k)fluoranthene	mg/kg	41928-11	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	41928-11	<0.05 || <0.05	LCS-2	109%
Indeno(1,2,3-c,d)pyrene	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d_{14}	%	41928-11	109 || 107 || RPD: 2	LCS-2	97%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-11	08/06/2010 || 08/06/2010	LCS-2	08/06/2010
Date analysed	-	41928-11	10/06/2010 || 10/06/2010	LCS-2	10/06/2010
HCB	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	41928-11	<0.1 || <0.1	LCS-2	107%
gamma-BHC	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
beta-BHC	mg/kg	41928-11	<0.1 || <0.1	LCS-2	110%
Heptachlor	mg/kg	41928-11	<0.1 || <0.1	LCS-2	109%
delta-BHC	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Aldrin	mg/kg	41928-11	<0.1 || <0.1	LCS-2	104%
Heptachlor Epoxide	mg/kg	41928-11	<0.1 || <0.1	LCS-2	112%
gamma-Chlordane	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Endosulfan I	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
pp-DDE	mg/kg	41928-11	<0.1 || <0.1	LCS-2	112%
Dieldrin	mg/kg	41928-11	<0.1 || <0.1	LCS-2	117%
Endrin	mg/kg	41928-11	<0.1 || <0.1	LCS-2	112%
pp-DDD	mg/kg	41928-11	<0.1 || <0.1	LCS-2	120%
Endosulfan II	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
pp-DDT	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	41928-11	<0.1 || <0.1	LCS-2	105%
Methoxychlor	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Surrogate TCLMX	%	41928-11	95 || 96 || RPD: 1	LCS-2	95%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-11	08/06/2010 || 08/06/2010	LCS-2	08/06/2010
Date analysed	-	41928-11	10/06/2010 || 10/06/2010	LCS-2	10/06/2010
Diazinon	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Dimethoate	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Ronnel	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	41928-11	<0.1 || <0.1	LCS-2	110%
Fenitrothion	mg/kg	41928-11	<0.1 || <0.1	LCS-2	100%
Bromophos-ethyl	mg/kg	41928-11	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	41928-11	<0.1 || <0.1	LCS-2	105%
Surrogate TCLMX	%	41928-11	95 || 96 || RPD: 1	LCS-2	100%
QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-21	08/06/2010 || 08/06/2010	LCS-2	08/06/2010
Date analysed	-	41928-21	10/06/2010 || 10/06/2010	LCS-2	10/06/2010
Arochlor 1016	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	41928-21	<0.1 || <0.1	LCS-2	110%
Arochlor 1260	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Surrogate TCLMX	%	41928-21	96 || 99 || RPD: 3	LCS-2	97%
QUALITY CONTROL Total Phenolics in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-11	08/06/2010 || 08/06/2010	LCS-2	08/06/2010
Date analysed	-	41928-11	08/06/2010 || 08/06/2010	LCS-2	08/06/2010
Total Phenolics (as Phenol)	mg/kg	41928-11	<5.0 || <5.0	LCS-2	92%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	41928-11	08/06/2010 || 08/06/2010	LCS-6	08/06/2010
Date analysed	-	41928-11	08/06/2010 || 08/06/2010	LCS-6	08/06/2010
Arsenic	mg/kg	41928-11	<4 || <4	LCS-6	98%
Cadmium	mg/kg	41928-11	<0.5 || <0.5	LCS-6	100%
Chromium	mg/kg	41928-11	2 || 2 || RPD: 0	LCS-6	103%
Copper	mg/kg	41928-11	3 || 3 || RPD: 0	LCS-6	103%
Lead	mg/kg	41928-11	6 || 6 || RPD: 0	LCS-6	99%
Mercury	mg/kg	41928-11	0.1 || <0.1	LCS-6	100%
Nickel	mg/kg	41928-11	2 || 2 || RPD: 0	LCS-6	104%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Zinc	mg/kg	41928-11	6 || 6 || RPD: 0	LCS-6	103%
QUALITY CONTROL vTPH & BTEX in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-21	8/6/2010 || 8/6/2010	41928-2	8/6/2010
Date analysed	-	41928-21	8/6/2010 || 8/6/2010	41928-2	9/6/2010
vTPH C_6 - C_9	mg/kg	41928-21	<25 || <25	41928-2	85%
Benzene	mg/kg	41928-21	<0.5 || <0.5	41928-2	61%
Toluene	mg/kg	41928-21	<0.5 || <0.5	41928-2	89%
Ethylbenzene	mg/kg	41928-21	<1.0 || <1.0	41928-2	89%
m+p-xylene	mg/kg	41928-21	<2.0 || <2.0	41928-2	92%
o-Xylene	mg/kg	41928-21	<1.0 || <1.0	41928-2	95%
Surrogate aaa-Trifluorotoluene	%	41928-21	119 || 120 || RPD: 1	41928-2	124%
QUALITY CONTROL sTPH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-21	8/6/2010 || 8/6/2010	41928-2	8/6/2010
Date analysed	-	41928-21	8/6/2010 || 8/6/2010	41928-2	8/6/2010
TPH C_{10} - C_{14}	mg/kg	41928-21	<50 || <50	41928-2	91%
TPH C_{15} - C_{28}	mg/kg	41928-21	<100 || <100	41928-2	106%
TPH C_{29} - C_{36}	mg/kg	41928-21	<100 || <100	41928-2	107%
Surrogate o-Terphenyl	%	41928-21	76 || 75 || RPD: 1	41928-2	83%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-21	09/06/2010 || 09/06/2010	41928-2	09/06/2010
Date analysed	-	41928-21	09/06/2010 || 09/06/2010	41928-2	09/06/2010
Naphthalene	mg/kg	41928-21	<0.1 || <0.1	41928-2	83%
Acenaphthylene	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	41928-21	<0.1 || <0.1	41928-2	99%
Phenanthrene	mg/kg	41928-21	0.1 || <0.1	41928-2	97%
Anthracene	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	41928-21	0.2 || <0.1	41928-2	95%
Pyrene	mg/kg	41928-21	0.2 || <0.1	41928-2	100%
Benzo(a)anthracene	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	41928-21	0.1 || <0.1	41928-2	107%
Benzo(b+k)fluoranthene	mg/kg	41928-21	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	41928-21	0.06 || <0.05	41928-2	104%
Indeno(1,2,3-c,d)pyrene	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Surrogate p-Terphenyl-d_{14}	%	41928-21	113 || 104 || RPD: 8	41928-2	106%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-21	08/06/2010 || 08/06/2010	41928-2	08/06/2010
Date analysed	-	41928-21	10/06/2010 || 10/06/2010	41928-2	10/06/2010
HCB	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	41928-21	<0.1 || <0.1	41928-2	108%
gamma-BHC	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
beta-BHC	mg/kg	41928-21	<0.1 || <0.1	41928-2	117%
Heptachlor	mg/kg	41928-21	<0.1 || <0.1	41928-2	97%
delta-BHC	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Aldrin	mg/kg	41928-21	<0.1 || <0.1	41928-2	102%
Heptachlor Epoxide	mg/kg	41928-21	<0.1 || <0.1	41928-2	111%
gamma-Chlordane	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Endosulfan I	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
pp-DDE	mg/kg	41928-21	<0.1 || <0.1	41928-2	120%
Dieldrin	mg/kg	41928-21	<0.1 || <0.1	41928-2	115%
Endrin	mg/kg	41928-21	<0.1 || <0.1	41928-2	108%
pp-DDD	mg/kg	41928-21	<0.1 || <0.1	41928-2	131%
Endosulfan II	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
pp-DDT	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	41928-21	<0.1 || <0.1	41928-2	100%
Methoxychlor	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Surrogate TCLMX	%	41928-21	96 || 99 || RPD: 3	41928-2	96%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-21	08/06/2010 || 08/06/2010	41928-2	08/06/2010
Date analysed	-	41928-21	10/06/2010 || 10/06/2010	41928-2	10/06/2010
Diazinon	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Dimethoate	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Ronnel	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	41928-21	<0.1 || <0.1	41928-2	107%
Fenitrothion	mg/kg	41928-21	<0.1 || <0.1	41928-2	102%
Bromophos-ethyl	mg/kg	41928-21	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	41928-21	<0.1 || <0.1	41928-2	109%
Surrogate TCLMX	%	41928-21	96 || 99 || RPD: 3	41928-2	99%
QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	41928-2	08/06/2010
Date analysed	-	[NT]	[NT]	41928-2	10/06/2010
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	41928-2	112%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	41928-2	99%
QUALITY CONTROL Total Phenolics in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	41928-21	08/06/2010 || 08/06/2010	41928-2	08/06/2010
Date analysed	-	41928-21	08/06/2010 || 08/06/2010	41928-2	08/06/2010
Total Phenolics (as Phenol)	mg/kg	41928-21	<5.0 || <5.0	41928-2	76%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	41928-21	08/06/2010 || 08/06/2010	41928-2	08/06/2010
Date analysed	-	41928-21	08/06/2010 || 08/06/2010	41928-2	08/06/2010
Arsenic	mg/kg	41928-21	6 || 5 || RPD: 18	41928-2	100%
Cadmium	mg/kg	41928-21	<0.5 || <0.5	41928-2	99%
Chromium	mg/kg	41928-21	4 || 3 || RPD: 29	41928-2	104%
Copper	mg/kg	41928-21	10 || 7 || RPD: 35	41928-2	105%
Lead	mg/kg	41928-21	67 || 61 || RPD: 9	41928-2	102%
Mercury	mg/kg	41928-21	1.0 || 0.1 || RPD: 164	41928-2	100%
Nickel	mg/kg	41928-21	4 || 3 || RPD: 29	41928-2	100%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Zinc	mg/kg	41928-21	150 || 140 || RPD: 7	41928-2	100%
QUALITY CONTROL vTPH & BTEX in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	41928-22	8/6/2010
Date analysed	-	[NT]	[NT]	41928-22	9/6/2010
vTPH C_6 - C_9	mg/kg	[NT]	[NT]	41928-22	98%
Benzene	mg/kg	[NT]	[NT]	41928-22	100%
Toluene	mg/kg	[NT]	[NT]	41928-22	94%
Ethylbenzene	mg/kg	[NT]	[NT]	41928-22	96%
m+p-xylene	mg/kg	[NT]	[NT]	41928-22	100%
o-Xylene	mg/kg	[NT]	[NT]	41928-22	103%
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	41928-22	120%
QUALITY CONTROL sTPH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	41928-22	8/6/2010
Date analysed	-	[NT]	[NT]	41928-22	8/6/2010
TPH C_{10} - C_{14}	mg/kg	[NT]	[NT]	41928-22	83%
TPH C_{15} - C_{28}	mg/kg	[NT]	[NT]	41928-22	100%
TPH C_{29} - C_{36}	mg/kg	[NT]	[NT]	41928-22	101%
Surrogate o-Terphenyl	%	[NT]	[NT]	41928-22	75%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	41928-22	09/06/2010
Date analysed	-	[NT]	[NT]	41928-22	09/06/2010
Naphthalene	mg/kg	[NT]	[NT]	41928-22	90%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	41928-22	98%
Phenanthrene	mg/kg	[NT]	[NT]	41928-22	98%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	41928-22	96%
Pyrene	mg/kg	[NT]	[NT]	41928-22	101%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	41928-22	110%
Benzo(b+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	41928-22	93%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Surrogate p-Terphenyl-d_{14}	%	[NT]	[NT]	41928-22	107%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	41928-22	08/06/2010
Date analysed	-	[NT]	[NT]	41928-22	10/06/2010
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	41928-22	113%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	41928-22	115%
Heptachlor	mg/kg	[NT]	[NT]	41928-22	116%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	41928-22	109%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	41928-22	118%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	41928-22	117%
Dieldrin	mg/kg	[NT]	[NT]	41928-22	122%
Endrin	mg/kg	[NT]	[NT]	41928-22	118%
pp-DDD	mg/kg	[NT]	[NT]	41928-22	126%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	41928-22	115%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	41928-22	99%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	41928-22	08/06/2010
Date analysed	-	[NT]	[NT]	41928-22	10/06/2010
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	41928-22	114%
Fenitrothion	mg/kg	[NT]	[NT]	41928-22	105%
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	41928-22	111%
Surrogate TCLMX	%	[NT]	[NT]	41928-22	102%
QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	41928-22	08/06/2010
Date analysed	-	[NT]	[NT]	41928-22	10/06/2010
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	41928-22	117%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	41928-22	102%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	41928-22	08/06/2010
Date analysed	-	[NT]	[NT]	41928-22	08/06/2010
Arsenic	mg/kg	[NT]	[NT]	41928-22	99%
Cadmium	mg/kg	[NT]	[NT]	41928-22	99%
Chromium	mg/kg	[NT]	[NT]	41928-22	104%
Copper	mg/kg	[NT]	[NT]	41928-22	107%
Lead	mg/kg	[NT]	[NT]	41928-22	99%
Mercury	mg/kg	[NT]	[NT]	41928-22	102%
Nickel	mg/kg	[NT]	[NT]	41928-22	103%
Zinc	mg/kg	[NT]	[NT]	41928-22	102%

Report Comments:

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample.
Envirolab recommends supplying 30-40g of sample in it's own container.
Asbestos was analysed by Approved Identifier: Matt Mansfield
Asbestos was authorised by Approved Signatory: Matt Mansfield
INS: Insufficient sample for this test NT: Not tested PQL: Practical Quantitation Limit <: Less than >: Greater than
RPD: Relative Percent Difference NA: Test not required LCS: Laboratory Control Sample NR: Not requested

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria:

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the sample batch were within laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable. Surrogates: 60-140% is acceptable for general organics and 10-140% for

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SAMPLE RECEIPT ADVICE

Client:

Douglas Partners
96 Hermitage Rd
West Ryde NSW 2114

ph: 02 9809 0666
Fax: 02 9809 4095

Attention: Peter Oitmaa

Sample log in details:

Your reference:	**71682, Parramatta**
Envirolab Reference:	**41928**
Date received:	07/06/10
Date results expected to be reported:	**15/06/10**

Samples received in appropriate condition for analysis:	YES
No. of samples provided	24 Soils, 1 Water
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice Pack

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: PARRAMATTA
Project No: 71682 Sampler: PMO/AP
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STANDARD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: 8 Metals (As, Cd, Cr, Cu, Pb, Hg, Zn, Ni)	BTEX/ TPH	PAH	OCP/ OPP	PCB	Phenols	Asbestos	TCLP (Metals/ PAH)	Notes
BH1	0.5	1	28.5	S	Jar							✓		
BH1	1.0	2	28.5											
BH2	0.5	3	1.6									✓		
BH3	0.5	4	2.6									✓		
BH3	1.0	5	2.6									✓		
BH4	0.5	6	31.5											
BH4	1.0	7	31.5											
BH5	0.5	8	31.5									✓		
BH5	1.0	9	31.5									✓		
BH6	0.1	10	25.5									✓		
BH6	0.5	11	25.5											
BH6	1.0	12	25.5											

Notes:
Security: Intact/Broken/None
Cooling: Ice/Icepack
Temp: Cool/Ambient
Received by:
Time received:
Date received:
Job No:

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: 9910 6200

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: 9910 6200

Job No: 41928
Date received: 7/6/10
Time received: 5pm
Received by: JMC
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 7/6 1300 hrs	Received By:	Date & Time:	7/6/10
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:	

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CHAIN OF CUSTODY

Project Name: PARRAMATTA
Project No: 71682 Sampler: PMO/AF
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STANDARD Lab Quote No. .....

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: 8 Metals (As, Cd, Cr, Cu, Pb, Hg, Zn, Ni)	BTEX/ TPH	PAH	OCP/ OPP	PCB	Phenols	Asbestos	TCLP (Metals/ PAH)	Notes
BH7	0.1	13	25.5	S	Jar							✓		
BH7	0.5	14	25.5											
BH8	0.5	15	27.5									✓		
BH8	1.0	16	27.5									✓		
BH9	0.5	17	28.5									✓		
BH9	1.0	18	28.5											
BH10	0.5	19	2.6									✓		
BH10	1.0	20	2.6									✓		
DUP2	N/A	21	28.5											
DUP4	N/A	22	25.5											
BLANK	N/A	23	28.5											
SPIKE	N/A	24	28.5											
RINS2	N/A	25	2.6	W	Bottles									

Lab Report No. .....
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 7/6 1300hrs	Received By:	Date & Time:	
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:	

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS 41928-A

Client:
Douglas Partners
96 Hermitage Rd
West Ryde
NSW 2114

Attention: Peter Oitmaa

Sample log in details:

Your Reference:	**71682, Parramatta**
No. of samples:	Additional Testing on 8 Soils
Date samples received:	07/06/10
Date completed instructions received:	17/06/10

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by:	24/06/10
Date of Preliminary Report:	Not Issued
Issue Date:	22/06/10

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Tests not covered by NATA are denoted with *.

Results Approved By:

Jacinta Hurst
Laboratory Manager

Nancy Zhang
Chemist

ACCREDITED FOR TECHNICAL COMPETENCE

Metals in TCLP USEPA1311 Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-A-1 BH1/0.5 28/05/2010 Soil	41928-A-3 BH2/0.5 1/06/2010 Soil	41928-A-4 BH3/0.5 2/06/2010 Soil	41928-A-8 BH5/0.5 31/05/2010 Soil	41928-A-9 BH5/1.0 31/05/2010 Soil
Date extracted	-	21/6/2010	21/6/2010	21/6/2010	21/6/2010	21/6/2010
Date analysed	-	21/6/2010	21/6/2010	[NA]	21/6/2010	21/6/2010
pH of soil for fluid# determ.	pH units	8.70	9.10	9.40	9.10	9.30
pH of soil for fluid # determ. (acid)	pH units	1.30	1.40	1.40	1.60	1.50
Extraction fluid used	-	1	1	1	1	1
pH of final Leachate	pH units	6.20	5.80	6.40	6.40	6.30
Lead in TCLP	mg/L	0.1	0.07	[NA]	0.07	0.9
Mercury in TCLP	mg/L	[NA]	[NA]	[NA]	[NA]	0.0010

Metals in TCLP USEPA1311 Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	41928-A-10 BH6/0.1 25/05/2010 Soil	41928-A-13 BH7/0.1 25/05/2010 Soil	41928-A-15 BH8/0.5 27/05/2010 Soil
Date extracted	-	21/6/2010	21/6/2010	21/6/2010
Date analysed	-	21/6/2010	21/6/2010	21/6/2010
pH of soil for fluid# determ.	pH units	9.70	9.90	9.70
pH of soil for fluid # determ. (acid)	pH units	1.40	1.30	1.30
Extraction fluid used	-	1	1	1
pH of final Leachate	pH units	6.00	5.10	5.20
Lead in TCLP	mg/L	0.03	[NA]	[NA]
Nickel in TCLP	mg/L	[NA]	0.06	0.1

PAHs in TCLP (USEPA 1311)				
Our Reference:	UNITS	41928-A-3	41928-A-4	41928-A-8
Your Reference	----------	BH2/0.5	BH3/0.5	BH5/0.5
Date Sampled	----------	1/06/2010	2/06/2010	31/05/2010
Type of sample		Soil	Soil	Soil
Date extracted	-	18/06/2010	18/06/2010	18/06/2010
Date analysed	-	19/06/2010	19/06/2010	19/06/2010
Naphthalene in TCLP	mg/L	<0.001	<0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	<0.001	<0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	<0.001	<0.001
Anthracene in TCLP	mg/L	<0.001	<0.001	<0.001
Fluoranthene in TCLP	mg/L	<0.001	<0.001	<0.001
Pyrene in TCLP	mg/L	<0.001	<0.001	<0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001
Benzo(b+k)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001
Surrogate p-Terphenyl-d_{14}	%	78	79	139

Method ID	Methodology Summary
LAB.4	Toxicity Characteristic Leaching Procedure (TCLP).
EXTRACT.7	Toxicity Characteristic Leaching Procedure (TCLP).
LAB.1	pH - Measured using pH meter and electrode in accordance with APHA 20th ED, 4500-H+.
Metals.20 ICP-AES	Determination of various metals by ICP-AES.
Metals.21 CV-AAS	Determination of Mercury by Cold Vapour AAS.
GC.12 subset	Leachates are extracted with Dichloromethane and analysed by GC-MS.
GC.12 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
GC.12	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.

QUALITY CONTROL Metals in TCLP USEPA1311	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			21/6/2010	[NT]	[NT]	LCS-1	21/6/2010
Date analysed	-			21/6/2010	[NT]	[NT]	LCS-1	21/6/2010
Lead in TCLP	mg/L	0.03	Metals.20 ICP-AES	<0.03	[NT]	[NT]	LCS-1	90%
Mercury in TCLP	mg/L	0.0005	Metals.21 CV-AAS	<0.0005	[NT]	[NT]	LCS-1	118%
Nickel in TCLP	mg/L	0.02	Metals.20 ICP-AES	<0.02	[NT]	[NT]	LCS-1	91%

QUALITY CONTROL PAHs in TCLP (USEPA 1311)	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			18/06/2010	[NT]	[NT]	LCS-W2	18/06/2010
Date analysed	-			18/06/2010	[NT]	[NT]	LCS-W2	18/06/2010
Naphthalene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	LCS-W2	99%
Acenaphthylene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Acenaphthene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Fluorene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	LCS-W2	102%
Phenanthrene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	LCS-W2	103%
Anthracene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Fluoranthene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	LCS-W2	105%
Pyrene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	LCS-W2	110%
Benzo(a)anthracene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Chrysene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	LCS-W2	107%
Benzo(b+k)fluoranthene in TCLP	mg/L	0.002	GC.12 subset	<0.002	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	LCS-W2	122%
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	GC.12 subset	<0.001	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL PAHs in TCLP (USEPA 1311)	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Surrogate p-Terphenyl-d_{14}	%		GC.12	75	[NT]	[NT]	LCS-W2	74%

Report Comments:

Asbestos was analysed by Approved Identifier: Not applicable for this job
Asbestos was authorised by Approved Signatory: Not applicable for this job
INS: Insufficient sample for this test NT: Not tested PQL: Practical Quantitation Limit <: Less than >: Greater than
RPD: Relative Percent Difference NA: Test not required LCS: Laboratory Control Sample NR: Not requested

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria:

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the sample batch were within laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable. Surrogates: 60-140% is acceptable for general organics and 10-140% for

Envirolab Ref: 41928A
Due: 24/6/10
std TIA.

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Project Name: Parramatta
Project No: 71682 Sampler: PMO
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std. Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: TCLP PAHs	TCLP Pb	TCLP Hg	TCLP Ni					Notes
BH2	0.5	3	1/6	S	Jar	✓	✓							
BH3	0.5	4	2/6			✓								
BH5	0.5	8	31/5			✓	✓							
BH1	0.5	1	28/5				✓							
BH5	1.0	9	31/5				✓	✓						
BH6	0.1	10	25/5				✓							
BH7	0.1	13	25/5						✓					
BH8	0.5	15	27/5						✓					

Samples already at ELS.

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095
Relinquished by: PMO Signed: Date & Time: 1100hrs 17/6 Received By: Date & Time: 17/6/10
Relinquished by: Signed: Date & Time: Received By: Date & Time:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS 42964

Client:
Douglas Partners
96 Hermitage Rd
West Ryde
NSW 2114

Attention: Peter Oitmaa

Sample log in details:

Your Reference:	**71682, Cumberland Newspapers Redevelop**
No. of samples:	3 Waters
Date samples received:	02/07/10
Date completed instructions received:	02/07/10

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by:	9/07/10
Date of Preliminary Report:	Not Issued
Issue Date:	9/07/10

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Results Approved By:

Sandra Taylor
Senior Organic Chemist

Rhian Morgan
Metals Supervisor

Nick Sarlamis
Inorganics Supervisor

VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	42964-1 GW4 2/07/2010 Water	42964-2 GW5 2/07/2010 Water	42964-3 RINS4 2/07/2010 Water
Date extracted	-	08/07/2010	08/07/2010	08/07/2010
Date analysed	-	08/07/2010	08/07/2010	08/07/2010
Dichlorodifluoromethane	µg/L	<100	<100	<10
Chloromethane	µg/L	<100	<100	<10
Vinyl Chloride	µg/L	<100	<100	<10
Bromomethane	µg/L	<100	<100	<10
Chloroethane	µg/L	<100	<100	<10
Trichlorofluoromethane	µg/L	<100	<100	<10
1,1-Dichloroethene	µg/L	<10	<10	<1.0
Trans-1,2-dichloroethene	µg/L	<10	<10	<1.0
1,1-dichloroethane	µg/L	<10	<10	<1.0
Cis-1,2-dichloroethene	µg/L	<10	<10	<1.0
Bromochloromethane	µg/L	<10	<10	<1.0
Chloroform	µg/L	<10	12	<1.0
2,2-dichloropropane	µg/L	<10	<10	<1.0
1,2-dichloroethane	µg/L	<10	<10	<1.0
1,1,1-trichloroethane	µg/L	<10	<10	<1.0
1,1-dichloropropene	µg/L	<10	<10	<1.0
Cyclohexane	µg/L	<10	<10	<1.0
Carbon tetrachloride	µg/L	<10	<10	<1.0
Benzene	µg/L	<10	<10	<1.0
Dibromomethane	µg/L	<10	<10	<1.0
1,2-dichloropropane	µg/L	<10	<10	<1.0
Trichloroethene	µg/L	<10	<10	<1.0
Bromodichloromethane	µg/L	<10	<10	<1.0
trans-1,3-dichloropropene	µg/L	<10	<10	<1.0
cis-1,3-dichloropropene	µg/L	<10	<10	<1.0
1,1,2-trichloroethane	µg/L	<10	<10	<1.0
Toluene	µg/L	<10	<10	<1.0
1,3-dichloropropane	µg/L	<10	<10	<1.0
Dibromochloromethane	µg/L	<10	<10	<1.0
1,2-dibromoethane	µg/L	<10	<10	<1.0
Tetrachloroethene	µg/L	<10	<10	<1.0
1,1,1,2-tetrachloroethane	µg/L	<10	<10	<1.0
Chlorobenzene	µg/L	<10	<10	<1.0
Ethylbenzene	µg/L	<10	<10	<1.0
Bromoform	µg/L	<10	<10	<1.0
m+p-xylene	µg/L	<20	<20	<2.0
Styrene	µg/L	<10	<10	<1.0
1,1,2,2-tetrachloroethane	µg/L	<10	<10	<1.0

VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	42964-1 GW4 2/07/2010 Water	42964-2 GW5 2/07/2010 Water	42964-3 RINS4 2/07/2010 Water
o-xylene	µg/L	<10	<10	<1.0
1,2,3-trichloropropane	µg/L	<10	<10	<1.0
Isopropylbenzene	µg/L	<10	<10	<1.0
Bromobenzene	µg/L	<10	<10	<1.0
n-propyl benzene	µg/L	<10	<10	<1.0
2-chlorotoluene	µg/L	<10	<10	<1.0
4-chlorotoluene	µg/L	<10	<10	<1.0
1,3,5-trimethyl benzene	µg/L	<10	<10	<1.0
Tert-butyl benzene	µg/L	<10	<10	<1.0
1,2,4-trimethyl benzene	µg/L	<10	<10	<1.0
1,3-dichlorobenzene	µg/L	<10	<10	<1.0
Sec-butyl benzene	µg/L	<10	<10	<1.0
1,4-dichlorobenzene	µg/L	<10	<10	<1.0
4-isopropyl toluene	µg/L	<10	<10	<1.0
1,2-dichlorobenzene	µg/L	<10	<10	<1.0
n-butyl benzene	µg/L	<10	<10	<1.0
1,2-dibromo-3-chloropropane	µg/L	<10	<10	<1.0
1,2,4-trichlorobenzene	µg/L	<10	<10	<1.0
Hexachlorobutadiene	µg/L	<10	<10	<1.0
1,2,3-trichlorobenzene	µg/L	<10	<10	<1.0
Surrogate Dibromofluoromethane	%	125	124	121
Surrogate toluene-d8	%	80	66	86
Surrogate 4-BFB	%	103	102	103

vTPH & BTEX in Water Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	42964-1 GW4 2/07/2010 Water	42964-2 GW5 2/07/2010 Water	42964-3 RINS4 2/07/2010 Water
Date extracted	-	08/07/2010	08/07/2010	08/07/2010
Date analysed	-	08/07/2010	08/07/2010	08/07/2010
TPH C_6 - C_9	µg/L	<100	<100	<10
Benzene	µg/L	<10	<10	<1.0
Toluene	µg/L	<10	<10	<1.0
Ethylbenzene	µg/L	<10	<10	<1.0
m+p-xylene	µg/L	<20	<20	<2.0
o-xylene	µg/L	<10	<10	<1.0
Surrogate Dibromofluoromethane	%	125	124	121
Surrogate toluene-d8	%	80	66	86
Surrogate 4-BFB	%	103	102	103

sTPH in Water (C10-C36) Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ---------- 	42964-2 GW5 2/07/2010 Water	42964-3 RINS4 2/07/2010 Water
Date extracted	-	6/7/2010	6/7/2010
Date analysed	-	6/7/2010	6/7/2010
TPH C_{10} - C_{14}	µg/L	<50	<50
TPH C_{15} - C_{28}	µg/L	<100	<100
TPH C_{29} - C_{36}	µg/L	<100	<100
Surrogate o-Terphenyl	%	110	112

PAHs in Water Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	42964-2 GW5 2/07/2010 Water	42964-3 RINS4 2/07/2010 Water
Date extracted	-	06/07/2010	06/07/2010
Date analysed	-	07/07/2010	07/07/2010
Naphthalene	µg/L	<1	<1
Acenaphthylene	µg/L	<1	<1
Acenaphthene	µg/L	<1	<1
Fluorene	µg/L	<1	<1
Phenanthrene	µg/L	<1	<1
Anthracene	µg/L	<1	<1
Fluoranthene	µg/L	<1	<1
Pyrene	µg/L	<1	<1
Benzo(a)anthracene	µg/L	<1	<1
Chrysene	µg/L	<1	<1
Benzo(b+k)fluoranthene	µg/L	<2	<2
Benzo(a)pyrene	µg/L	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1
Surrogate p-Terphenyl-d_{14}	%	130	133

OCP in water		
Our Reference:	UNITS	42964-2
Your Reference	----------	GW5
Date Sampled	----------	2/07/2010
Type of sample		Water
Date extracted	-	6/7/2010
Date analysed	-	6/7/2010
HCB	µg/L	<0.2
alpha-BHC	µg/L	<0.2
gamma-BHC	µg/L	<0.2
beta-BHC	µg/L	<0.2
Heptachlor	µg/L	<0.2
delta-BHC	µg/L	<0.2
Aldrin	µg/L	<0.2
Heptachlor Epoxide	µg/L	<0.2
gamma-Chlordane	µg/L	<0.2
alpha-Chlordane	µg/L	<0.2
Endosulfan I	µg/L	<0.2
pp-DDE	µg/L	<0.2
Dieldrin	µg/L	<0.2
Endrin	µg/L	<0.2
pp-DDD	µg/L	<0.2
Endosulfan II	µg/L	<0.2
pp-DDT	µg/L	<0.2
Endrin Aldehyde	µg/L	<0.2
Endosulfan Sulphate	µg/L	<0.2
Methoxychlor	µg/L	<0.2
Surrogate TCLMX	%	101

OP Pesticides in water		
Our Reference:	UNITS	42964-2
Your Reference	----------	GW5
Date Sampled	----------	2/07/2010
Type of sample		Water
Date extracted	-	6/7/2010
Date analysed	-	6/7/2010
Diazinon	µg/L	<0.2
Dimethoate	µg/L	<0.2
Chlorpyriphos-methyl	µg/L	<0.2
Ronnel	µg/L	<0.2
Chlorpyriphos	µg/L	<0.2
Fenitrothion	µg/L	<0.2
Bromophos ethyl	µg/L	<0.2
Ethion	µg/L	<0.2
Surrogate TCLMX	%	101

PCBs in Water		
Our Reference:	UNITS	42964-2
Your Reference	----------	GW5
Date Sampled	----------	2/07/2010
Type of sample		Water
Date extracted	-	6/7/2010
Date analysed	-	6/7/2010
Arochlor 1016	µg/L	<2
Arochlor 1221*	µg/L	<2
Arochlor 1232	µg/L	<2
Arochlor 1242	µg/L	<2
Arochlor 1248	µg/L	<2
Arochlor 1254	µg/L	<2
Arochlor 1260	µg/L	<2
Surrogate TCLMX	%	101

Total Phenolics in Water		
Our Reference:	UNITS	42964-2
Your Reference	----------	GW5
Date Sampled	----------	2/07/2010
Type of sample		Water
Date extracted	-	6/7/2010
Date analysed	-	6/7/2010
Total Phenolics (as Phenol)	mg/L	<0.050

HM in water - dissolved Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	42964-2 GW5 2/07/2010 Water	42964-3 RINS4 2/07/2010 Water
Date prepared	-	08/07/2010	08/07/2010
Date analysed	-	09/07/2010	09/07/2010
Arsenic-Dissolved	µg/L	<1	<1
Cadmium-Dissolved	µg/L	0.2	<0.1
Chromium-Dissolved	µg/L	1	<1
Copper-Dissolved	µg/L	8	<1
Lead-Dissolved	µg/L	6	<1
Mercury-Dissolved	µg/L	<0.5	<0.5
Nickel-Dissolved	µg/L	3	<1
Zinc-Dissolved	µg/L	12	<1

Method ID	Methodology Summary
GC.13	Water samples are analysed directly by purge and trap GC-MS.
GC.16	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
GC.3	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
GC.12 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
GC-5	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
GC.8	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
GC-6	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
LAB.30	Total Phenolics - determined colorimetrically following disitillation.
Metals.22 ICP-MS	Determination of various metals by ICP-MS.
Metals.21 CV-AAS	Determination of Mercury by Cold Vapour AAS.

QUALITY CONTROL VOCs in water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			08/07/2010	[NT]	[NT]	LCS-W1	08/07/2010
Date analysed	-			08/07/2010	[NT]	[NT]	LCS-W1	08/07/2010
Dichlorodifluoromethane	µg/L	10	GC.13	<10	[NT]	[NT]	[NR]	[NR]
Chloromethane	µg/L	10	GC.13	<10	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	µg/L	10	GC.13	<10	[NT]	[NT]	[NR]	[NR]
Bromomethane	µg/L	10	GC.13	<10	[NT]	[NT]	[NR]	[NR]
Chloroethane	µg/L	10	GC.13	<10	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	µg/L	10	GC.13	<10	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Trans-1,2-dichloroethene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	LCS-W1	107%
Cis-1,2-dichloroethene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Chloroform	µg/L	1	GC.13	<1.0	[NT]	[NT]	LCS-W1	113%
2,2-dichloropropane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	LCS-W1	104%
1,1,1-trichloroethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	LCS-W1	108%
1,1-dichloropropene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Cyclohexane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Benzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Dibromomethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Trichloroethene	µg/L	1	GC.13	<1.0	[NT]	[NT]	LCS-W1	101%
Bromodichloromethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	LCS-W1	122%
trans-1,3-dichloropropene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Toluene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	LCS-W1	109%
1,2-dibromoethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	µg/L	1	GC.13	<1.0	[NT]	[NT]	LCS-W1	83%
1,1,1,2-tetrachloroethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Bromoform	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
m+p-xylene	µg/L	2	GC.13	<2.0	[NT]	[NT]	[NR]	[NR]
Styrene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL VOCs in water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
1,1,2,2-tetrachloroethane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
o-xylene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Bromobenzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	µg/L	1	GC.13	<1.0	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluoromethane	%		GC.13	109	[NT]	[NT]	LCS-W1	118%
Surrogate toluene-d8	%		GC.13	86	[NT]	[NT]	LCS-W1	86%
Surrogate 4-BFB	%		GC.13	102	[NT]	[NT]	LCS-W1	100%

QUALITY CONTROL vTPH & BTEX in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			08/07/2010	[NT]	[NT]	LCS-W1	08/07/2010
Date analysed	-			08/07/2010	[NT]	[NT]	LCS-W1	08/07/2010
TPH C_6 - C_9	µg/L	10	GC.16	<10	[NT]	[NT]	LCS-W1	108%
Benzene	µg/L	1	GC.16	<1.0	[NT]	[NT]	LCS-W1	98%
Toluene	µg/L	1	GC.16	<1.0	[NT]	[NT]	LCS-W1	116%
Ethylbenzene	µg/L	1	GC.16	<1.0	[NT]	[NT]	LCS-W1	108%
m+p-xylene	µg/L	2	GC.16	<2.0	[NT]	[NT]	LCS-W1	109%
o-xylene	µg/L	1	GC.16	<1.0	[NT]	[NT]	LCS-W1	110%
Surrogate Dibromofluoromethane	%		GC.16	89	[NT]	[NT]	LCS-W1	98%
Surrogate toluene-d8	%		GC.16	106	[NT]	[NT]	LCS-W1	109%
Surrogate 4-BFB	%		GC.16	102	[NT]	[NT]	LCS-W1	95%

QUALITY CONTROL sTPH in Water (C10-C36)	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			6/7/2010	[NT]	[NT]	LCS-W2	6/7/2010
Date analysed	-			6/7/2010	[NT]	[NT]	LCS-W2	6/7/2010
TPH C_{10} - C_{14}	µg/L	50	GC.3	<50	[NT]	[NT]	LCS-W2	80%
TPH C_{15} - C_{28}	µg/L	100	GC.3	<100	[NT]	[NT]	LCS-W2	119%
TPH C_{29} - C_{36}	µg/L	100	GC.3	<100	[NT]	[NT]	LCS-W2	100%
Surrogate o-Terphenyl	%		GC.3	100	[NT]	[NT]	LCS-W2	106%

QUALITY CONTROL PAHs in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/07/2010	[NT]	[NT]	LCS-W2	06/07/2010
Date analysed	-			07/07/2010	[NT]	[NT]	LCS-W2	07/07/2010
Naphthalene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W2	96%
Acenaphthylene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W2	111%
Phenanthrene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W2	107%
Anthracene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL PAHs in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Fluoranthene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W2	102%
Pyrene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W2	109%
Benzo(a)anthracene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W2	112%
Benzo(b+k)fluoranthene	µg/L	2	GC.12 subset	<2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	LCS-W2	115%
Indeno(1,2,3-c,d)pyrene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	1	GC.12 subset	<1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d_{14}	%		GC.12 subset	128	[NT]	[NT]	LCS-W2	137%

QUALITY CONTROL OCP in water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			6/7/2010	[NT]	[NT]	LCS-W1	6/7/2010
Date analysed	-			6/7/2010	[NT]	[NT]	LCS-W1	6/7/2010
HCB	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
alpha-BHC	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	100%
gamma-BHC	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
beta-BHC	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	114%
Heptachlor	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	103%
delta-BHC	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
Aldrin	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	103%
Heptachlor Epoxide	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	115%
gamma-Chlordane	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
alpha-Chlordane	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
Endosulfan I	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
pp-DDE	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	121%
Dieldrin	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	105%
Endrin	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	112%
pp-DDD	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	113%
Endosulfan II	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
pp-DDT	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	LCS-W1	107%

QUALITY CONTROL OCP in water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Methoxychlor	µg/L	0.2	GC-5	<0.2	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		GC-5	118	[NT]	[NT]	LCS-W1	122%

QUALITY CONTROL OP Pesticides in water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			6/7/2010	[NT]	[NT]	LCS-W1	6/7/2010
Date analysed	-			6/7/2010	[NT]	[NT]	LCS-W1	6/7/2010
Diazinon	µg/L	0.2	GC.8	<0.2	[NT]	[NT]	[NR]	[NR]
Dimethoate	µg/L	0.2	GC.8	<0.2	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos-methyl	µg/L	0.2	GC.8	<0.2	[NT]	[NT]	[NR]	[NR]
Ronnel	µg/L	0.2	GC.8	<0.2	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	µg/L	0.2	GC.8	<0.2	[NT]	[NT]	LCS-W1	100%
Fenitrothion	µg/L	0.2	GC.8	<0.2	[NT]	[NT]	LCS-W1	124%
Bromophos ethyl	µg/L	0.2	GC.8	<0.2	[NT]	[NT]	[NR]	[NR]
Ethion	µg/L	0.2	GC.8	<0.2	[NT]	[NT]	LCS-W1	98%
Surrogate TCLMX	%		GC.8	118	[NT]	[NT]	LCS-W1	111%

QUALITY CONTROL PCBs in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			6/7/2010	[NT]	[NT]	LCS-W1	6/7/2010
Date analysed	-			6/7/2010	[NT]	[NT]	LCS-W1	6/7/2010
Arochlor 1016	µg/L	2	GC-6	<2	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	µg/L	2	GC-6	<2	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	µg/L	2	GC-6	<2	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	µg/L	2	GC-6	<2	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	µg/L	2	GC-6	<2	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	µg/L	2	GC-6	<2	[NT]	[NT]	LCS-W1	104%
Arochlor 1260	µg/L	2	GC-6	<2	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		GC-6	118	[NT]	[NT]	LCS-W1	136%

QUALITY CONTROL Total Phenolics in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			6/7/2010	[NT]	[NT]	LCS-W1	6/7/2010
Date analysed	-			6/7/2010	[NT]	[NT]	LCS-W1	6/7/2010
Total Phenolics (as Phenol)	mg/L	0.05	LAB.30	<0.050	[NT]	[NT]	LCS-W1	85%

QUALITY CONTROL HM in water - dissolved	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			08/07/2010	[NT]	[NT]	LCS-W2	08/07/2010
Date analysed	-			09/07/2010	[NT]	[NT]	LCS-W2	09/07/2010
Arsenic-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W2	104%
Cadmium-Dissolved	µg/L	0.1	Metals.22 ICP-MS	<0.1	[NT]	[NT]	LCS-W2	103%
Chromium-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W2	99%
Copper-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W2	96%
Lead-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W2	100%
Mercury-Dissolved	µg/L	0.5	Metals.21 CV-AAS	<0.5	[NT]	[NT]	LCS-W2	106%
Nickel-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W2	96%
Zinc-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W2	102%

Report Comments:

VOC in waters: PQL has been raised due to the sample matrix requiring dilution.

Total Petroleum Hydrocarbons in water:PQL has been raised due to the sample matrix requiring dilution.

Asbestos was analysed by Approved Identifier: Not applicable for this job

Asbestos was authorised by Approved Signatory: Not applicable for this job

INS: Insufficient sample for this test NT: Not tested PQL: Practical Quantitation Limit <: Less than >: Greater than

RPD: Relative Percent Difference NA: Test not required LCS: Laboratory Control Sample NR: Not requested

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria:

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the sample batch were within laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable. Surrogates: 60-140% is acceptable for general organics and 10-140% for

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners
96 Hermitage Rd
West Ryde NSW 2114

ph: 02 9809 0666
Fax: 02 9809 4095

Attention: Peter Oitmaa

Sample log in details:

Your reference:	**71682, Cumberland Newspapers Redevelop**
Envirolab Reference:	**42964**
Date received:	02/07/10
Date results expected to be reported:	**9/07/10**

Samples received in appropriate condition for analysis:	YES
No. of samples provided	3 Waters
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice Pack

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au

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CHAIN OF CUSTODY

Project Name: Cumberland Newspapers Redevelopment
Project No: 71682 Sampler: RAB
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: standard turnaround. Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: 8 Metals (As, Cd, Cr, Cu, Pb, Hg, Zn, Ni)	BTEX/ TPH	PAH/ ~~VOC~~	OCP/ OPP	PCB	Phenols	~~Asbestos~~ VOC	~~TCLP~~ (Metals/ PAH)	Notes
GW4	–	1	2/7	W	Various		✓					✓		Please filter metals sample
GW5	–	2	"	"	"		✓	✓	✓	✓	✓	✓		
RINS4	–	3	"	"	"		✓	✓				✓		

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: 9910 6200
Job No: 42964
Date received: 2/7/10
Time received: 4pm
Received by: ZL
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO 2/7/10	Signed: PMO	Date & Time: 2/7/10 1200 hrs	Received By: Z.L.	Date & Time: 2/7/10 4pm
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS 42964-A

Client:
Douglas Partners
96 Hermitage Rd
West Ryde
NSW 2114

Attention: Peter Oitmaa

Sample log in details:

Your Reference:	**71682, Cumberland Newspapers Redevelop**
No. of samples:	Additional Testing on 1 Water
Date samples received:	02/07/10
Date completed instructions received:	14/07/10

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by:	15/07/10
Date of Preliminary Report:	Not Issued
Issue Date:	15/07/10

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Tests not covered by NATA are denoted with *.

Results Approved By:

Jacinta Hurst
Laboratory Manager

ACCREDITED FOR TECHNICAL COMPETENCE

Miscellaneous Inorganics		
Our Reference:	UNITS	42964-A-2
Your Reference	----------	GW5
Date Sampled	----------	2/07/2010
Type of sample		Water
Date prepared	-	15/07/2010
Date analysed	-	15/07/2010
Calcium - Dissolved	mg/L	29
Magnesium - Dissolved	mg/L	16
Hardness	mgCaCO3 /L	139

Method ID	Methodology Summary
Metals.20 ICP-AES	Determination of various metals by ICP-AES.

QUALITY CONTROL Miscellaneous Inorganics	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			15/07/2010	42964-A-2	15/07/2010 || 15/07/2010	LCS-W1	15/07/2010
Date analysed	-			15/07/2010	42964-A-2	15/07/2010 || 15/07/2010	LCS-W1	15/07/2010
Calcium - Dissolved	mg/L	0.03	Metals.20 ICP-AES	<0.03	42964-A-2	29 || 27 || RPD: 7	LCS-W1	101%
Magnesium - Dissolved	mg/L	0.03	Metals.20 ICP-AES	<0.03	42964-A-2	16 || 14 || RPD: 13	LCS-W1	100%
Hardness	mgCaCO3/L	1		[NT]	42964-A-2	139 || 125 || RPD: 11	[NR]	[NR]

Report Comments:

Asbestos was analysed by Approved Identifier: Not applicable for this job
Asbestos was authorised by Approved Signatory: Not applicable for this job
INS: Insufficient sample for this test NT: Not tested PQL: Practical Quantitation Limit <: Less than >: Greater than
RPD: Relative Percent Difference NA: Test not required LCS: Laboratory Control Sample NR: Not requested

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria:

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the sample batch were within laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable. Surrogates: 60-140% is acceptable for general organics and 10-140% for

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CHAIN OF CUSTODY

Project Name: Parramatta
Project No: 71682 Sampler: RB
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: ASAP (24hr T/A) Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: 8 Metals (As, Cd, Cr, Cu, Pb, Hg, Zn, Ni)	BTEX/ TPH	PAH	OCP/ OPP	PCB	Phenols	Hardness	TCLP (Metals/ PAH)	Notes
GW4	N/A	1	13/7	W	Jar	✓						✓		Sample needs
GW5	"	2	"	"	"							✓		filtering

In report 42964A.

Envirolab Ref: 42964A
Due: 15/7/10
24hr TAT

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: 9910 6200
Job No: 43479
Date received: 14/7/10
Time received: 1600
Received by: DCT
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095
Relinquished by: PMO Signed: Date & Time: 14/7 1400hrs Received By: Tania Tam Date & Time: 14/7/10 18:00
Relinquished by: Signed: Date & Time: Received By: Date & Time:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS 43532

Client:
Douglas Partners
96 Hermitage Rd
West Ryde
NSW 2114

Attention: Peter Oitmaa

Sample log in details:

Your Reference:	**71682, Parramatta**
No. of samples:	1 Water
Date samples received:	15/07/10
Date completed instructions received:	15/07/10

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by:	16/07/10
Date of Preliminary Report:	Not issued
Issue Date:	16/07/10

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Results Approved By:

Rhian Morgan
Metals Supervisor

Jacinta Hurst
Laboratory Manager

ACCREDITED FOR TECHNICAL COMPETENCE

HM in water - dissolved		
Our Reference:	UNITS	43532-1
Your Reference	----------	GW4
Date Sampled	----------	15/07/2010
Type of sample		Water
Date prepared	-	16/07/2010
Date analysed	-	16/07/2010
Arsenic-Dissolved	µg/L	<1
Cadmium-Dissolved	µg/L	0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	2
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.5
Nickel-Dissolved	µg/L	4
Zinc-Dissolved	µg/L	27

Miscellaneous Inorganics		
Our Reference:	UNITS	43532-1
Your Reference	----------	GW4
Date Sampled	----------	15/07/2010
Type of sample		Water
Date prepared	-	16/07/2010
Date analysed	-	16/07/2010
Hardness	mgCaCO3 /L	370
Calcium - Dissolved	mg/L	100
Magnesium - Dissolved	mg/L	28

Method ID	Methodology Summary
Metals.22 ICP-MS	Determination of various metals by ICP-MS.
Metals.21 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Metals.20 ICP-AES	Determination of various metals by ICP-AES.

QUALITY CONTROL HM in water - dissolved	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			16/07/2010	[NT]	[NT]	LCS-W1	16/07/2010
Date analysed	-			16/07/2010	[NT]	[NT]	LCS-W1	16/07/2010
Arsenic-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W1	100%
Cadmium-Dissolved	µg/L	0.1	Metals.22 ICP-MS	<0.1	[NT]	[NT]	LCS-W1	100%
Chromium-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W1	102%
Copper-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W1	106%
Lead-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W1	102%
Mercury-Dissolved	µg/L	0.5	Metals.21 CV-AAS	<0.5	[NT]	[NT]	LCS-W1	103%
Nickel-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W1	106%
Zinc-Dissolved	µg/L	1	Metals.22 ICP-MS	<1	[NT]	[NT]	LCS-W1	100%

QUALITY CONTROL Miscellaneous Inorganics	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			16/07/2010	[NT]	[NT]	LCS-W1	16/07/2010
Date analysed	-			16/07/2010	[NT]	[NT]	LCS-W1	16/07/2010
Hardness	mgCaCO3/L	1		<1	[NT]	[NT]	[NR]	[NR]
Calcium - Dissolved	mg/L	0.03	Metals.20 ICP-AES	<0.03	[NT]	[NT]	LCS-W1	97%
Magnesium - Dissolved	mg/L	0.03	Metals.20 ICP-AES	<0.03	[NT]	[NT]	LCS-W1	98%

Report Comments:

Asbestos was analysed by Approved Identifier: Not applicable for this job
Asbestos was authorised by Approved Signatory: Not applicable for this job
INS: Insufficient sample for this test NT: Not tested PQL: Practical Quantitation Limit <: Less than >: Greater than
RPD: Relative Percent Difference NA: Test not required LCS: Laboratory Control Sample NR: Not requested

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria:

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the sample batch were within laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable. Surrogates: 60-140% is acceptable for general organics and 10-140% for

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners
96 Hermitage Rd
West Ryde NSW 2114

ph: 02 9809 0666
Fax: 02 9809 4095

Attention: Peter Oitmaa

Sample log in details:

Your reference:	**71682, Parramatta**
Envirolab Reference:	**43532**
Date received:	15/07/10
Date results expected to be reported:	**16/07/10**

Samples received in appropriate condition for analysis:	YES
No. of samples provided	1 Water
Turnaround time requested:	24hr
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au

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CHAIN OF CUSTODY

Project Name: Parramatta
Project No: 71682 Sampler: RB
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: 24hr t/a Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: 9910 6200

Job No: 43532
Date received: 15/7/10
Time received: 3pm
Received by: JM
Temp: Cool/Ambient
Cooling: Icepack
Security: Intact/Broken/None

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: 8 Metals (As, Cd, Cr, Cu, Pb, Hg, Zn, Ni)	BTEX/ TPH	PAH	OCP/ OPP	PCB	Phenols	Hardness	TCLP (Metals/ PAH)	Notes
GW4	N/A	1	15/7	W	Bottle	✓						✓		Please filter sample in lab.

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: RMO	Signed:	Date & Time: 15/7 1500hrs	Received By:	Date & Time: 15/7/10	
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:	

APPENDIX F
QA/QC Information

Douglas Partners
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QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES AND RESULTS

FIELD QA/QC

The field QA/QC procedures for sampling described in the Douglas Partners *Field Procedures Manual* were followed at all times during the field work. Field QA/QC included the collection of duplicate and rinsate samples, and use of laboratory prepared trip blank and trip spike samples. Details of the field QA/QC results are provided below.

Trip Blank

A soil trip blank prepared by Envirolab Services Pty Ltd was transported to site unopened, subjected to the same storage methods as the field samples and analysed for BTEX, TPH and PAH to determine whether transfer of contaminants occurred within the storage container.

The results of the laboratory analysis for the trip blank are shown in Tables F1 and F2.

Table F1 – Results of Trip Blank Analysis

Sample ID	Matrix	Total Concentrations (mg/kg)				
		Benzene	Toluene	Ethylbenzene	m+p xylene	o xylene
28/05/2010	Soil	<0.5	<0.5	<1.0	<2.0	<1.0

Table F2 – Results of Trip Blank Analysis

Sample ID	Matrix	Total Concentrations (mg/kg)				
		$C_6 - C_9$	$C_{10} - C_{14}$	$C_{15} - C_{28}$	$C_{29} - C_{36}$	Total PAHs
28/05/2010	Soil	<25	<50	<100	<100	<0.2

The levels of the analytes were all below the detection limits indicating that cross-contamination had not occurred during the field work programme.

Trip Spike

A soil trip spike prepared by Envirolab Services Pty Ltd was transported to site unopened, subjected to the same storage methods as the field samples and analysed to determine the volatile organic recovery rates for BTEX to check whether any loss of contaminants occurred within the storage container. BTEX were chosen for analysis due to the volatility of these compounds.

The results of the laboratory analysis for the trip spike are shown in Table F3.

Table F3 – Results of Trip Spike Analysis

Sample ID	Matrix	Recovery (%)				
		Benzene	Toluene	Ethylbenzene	m+p xylene	o xylene
28/05/2010	Soil	91	93	91	92	91

The recovery rates indicate that the percentage loss of BTEX compounds was generally within an accepted range and that appropriate storage and handling techniques were employed.

Rinsate

Two rinsate samples were collected to confirm that the decontamination procedures adopted during the field work were adequate for preventing cross-contamination during sampling. Both samples were collected by rinsing decontaminated sampling equipment with demineralised water. The analytes tested in the laboratory were below the laboratory detection limits indicating adequate sampling procedures were employed.

INTRA-LABORATORY QA/QC ANALYSIS

Intra-laboratory analysis of duplicate samples was conducted as an internal check of the reproducibility of the results from Envirolab Services Pty Ltd and as a measure of consistency of sampling techniques. The results are compared within each duplicate pair to determine the relative percentage difference (RPD) between the samples.

The comparative results of the analysis of the replicate sample pairs are summarised in Tables F4 to F8.

Table F4 – Intra-laboratory Results for TPH

Sample ID	Total Concentrations (mg/kg)			
	$C_6 - C_9$	$C_{10} - C_{14}$	$C_{15} - C_{28}$	$C_{29} - C_{36}$
BH6/1.0	<25	<50	<100	<100
Dup2	<25	<50	<100	<100
RPD	0%	0%	0%	0%
BH1/1.0	<25	<50	<100	<100
Dup4	<25	<50	<100	<100
RPD	0%	0%	0%	0%

Table F5 – Intra-laboratory Results for BTEX

Sample ID	Total Concentrations (mg/kg)				
	Benzene	Toluene	Ethylbenzene	m+p xylene	o xylene
BH6/1.0	<0.5	<0.5	<1.0	<2.0	<1.0
Dup2	<0.5	<0.5	<1.0	<2.0	<1.0
RPD	0%	0%	0%	0%	0%
BH1/1.0	<0.5	<0.5	<1.0	<2.0	<1.0
Dup4	<0.5	<0.5	<1.0	<2.0	<1.0
RPD	0%	0%	0%	0%	0%

Table F6 – Intra-laboratory Results for Total PAHs & Benzo(a)pyrene

Sample ID	Total Concentrations (mg/kg)	
	Total PAHs	Benzo(a)pyrene
BH6/1.0	0.3	0.06
Dup2	0.7	0.06
RPD	80%	0%
BH1/1.0	<0.2	<0.05
Dup4	<0.2	<0.05
RPD	0%	0%

Table F7 – Intra-laboratory Results for OCP, OPP, PCB and Phenol

Sample ID	Total Concentrations (mg/kg)			
	OCP	OPP	PCB	Phenol
BH6/1.0	<0.1	<0.1	<0.1	<5.0
Dup2	<0.1	<0.1	<0.1	<5.0
RPD	0%	0%	0%	0%
BH1/1.0	<0.1	<0.1	<0.1	<5.0
Dup4	<0.1	<0.1	<0.1	<5.0
RPD	0%	0%	0%	0%

Table F8 – Intra-laboratory Results for Heavy Metals

Sample ID	Total Concentrations (mg/kg)							
	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
BH6/1.0	5	<0.5	4	8	90	0.1	4	150
Dup2	6	<0.5	4	10	67	1	4	150
RPD	18%	0%	0%	22%	29%	164%	0%	0%
BH1/1.0	<4.0	<0.5	3	4	9	<0.10	3	7
Dup4	<4.0	<0.5	3	3	7	<0.10	2	6
RPD	0%	0%	0%	29%	25%	0%	40%	15%

A RPD of ± 30% is generally considered acceptable for inorganic analytes and a wider range may be acceptable for organic analytes.

The RPD values outside the generally acceptable range of ± 30% are indicated by yellow shading in the tables. These values are not considered significant due to relatively low actual differences between the contaminant concentrations.

It is therefore considered that the results indicate acceptable consistency between duplicate samples pairs and that suitable field sampling methodology was adopted and adequate laboratory precision was achieved.

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LABORATORY QA/QC PROCEDURES

Quality control procedures used during analysis include:

Reagent Blank

A reagent blank sample is prepared and analysed at the beginning of every analytical run, following calibration of the analytical apparatus. The laboratory results for reagent blanks for soil analyses indicated that concentrations of all analytes were below respective laboratory practical quantitation limits.

Duplicate

This is the complete duplicate of a sample from the process batch. The results of the two samples are compared to laboratory acceptance criteria and exceedences highlighted. No exceedences were detected.

Matrix Spike

A portion of a sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and determine whether matrix interference exists. The matrix spike recovery is compared to laboratory acceptance criteria. No exceedences were noted.

Laboratory Control Sample

This is a standard reference sample or control matrix used to check the analytical process. The results were within acceptable limits.

Surrogate Spike

Surrogates are known additions of known compounds to each sample, blank, matrix spike and laboratory control sample. The surrogates are similar to the analyte of interest, however are not expected to be detected in real samples. The results were acceptable.

APPENDIX G
Calibration Certificate for PID

PID - MiniRAE Lite SN/590-000221

Date	Cal. Gas	Conc.	Initials
25.06.09	Isobutylene	100	WFY
10.08.09	Isobutylene	100	WFY
10.09.09	"	100.	WFY
23.09.09	"	100	WFY
15.10.09	"	100	WFY
16.10.09	"	100.1	WFY.
20.10.09	"	100	WFY
19.11.09	"	100	WFY
23-11-09	"	100	SL
2-3-10	"	100	CJ
06.04.10	"	100	WFY
07.05.10	"	100	WFY