APPENDIX A

Documents available for review

Table 1: Documents Received and Reviewed

Document	Reviewed	Rationale
Wentworth Point		
ERM (Dec 2003) Masterplan	Y	-
ERM (May 2003) Tankpit validation and additional site investigation	Y	-
ERM (Jul 2004) Groundwater and acid sulphate soil investigation	Y	-
ERM (Apr 2005) Block A Consolidated Report Final	N	Block A refers to an area over 200m inland from the proposed bridge landing and thus is not within the area of interest
ERM (Oct 2005) September 2005 Groundwater Monitoring Event Final report	Y	-
ERM (Sep 2006) Additional site investigation Final report	Y	-
ERM (Dec 2004) Site Characterisation	Y	-
GHD (Feb 2010) Report for Homebush Bay West Contamination Assessment – Sediment Investigation	N	Report refers to Lot 2 and 3/DP859608 which is not within the area of interest
HLA (May 2005) Site Audit Statement	N	Document refers to Block A which is not within the area of interest
ERM (Nov 2003) Additional Groundwater Investigations (letter to Billbergia)	N	Letter informing client of investigation results to date. Results are found in subsequent reports which have been reviewed.
ERM (Mar 2004) Additional Soil Characterisation (letter to Billbergia)	N	Letter informing client of investigation results to date. Results are found in subsequent reports which have been reviewed.
ERM (Oct 2005) Outstanding environmental works at the Burroway Rd site (letter to Billbergia)	N	Letter informing client of investigation results to date and works to be completed. Results are found in subsequent reports which have been reviewed.

Document	Reviewed	Rationale
ERM (Mar 2005) Burroway Road – February 2005 Groundwater Sampling	N	Letter informing client of investigation results to date. Results are found in subsequent reports which have been reviewed.
Architechtus (Oct 2005) Homebush Bay West – Wentworth Point Masterplan	N	Report refers to Lot 2 and 3/DP859608 which is not within the area of interest
New Plan (Sep 2009) Preliminary Environmental Assessment for Wentworth Point Maritime Precinct	N	Report refers to Lot 2 and 3/DP859608 which is not within the area of interest
Maunsell (Jul 2003) Homebush Bay West Master Planning: Site Investigation Phase 1	N	Report refers to Lot 1, 2 and 3/DP859608 which is not within the area of interest
GHD (Feb 2010) Report for Homebush Bay West Contamination Assessment: Detailed Site Investigation – Stage 1 Area	N	Report refers to Lot 2 and 3/DP859608 which is not within the area of interest
AECOM (Jul 2010) Wentworth Point Maritime Precinct: Geotechnical Report – Preliminary desktop Study	N	Report refers to Lot 3020/DP879226 and Lot 2 and 3/DP859608 which are not within the area of interest
Coffey (2003) Geotechnical Desk Top Study	N	Contains no specific information on the concentrations of contaminants
Coffey (Aug 2004) Site Specific Occupation Health And Safety Management Plan: Geotechnical Site Investigation	N	Contains no specific information on the concentrations of contaminants
Coffey (Aug 2004) Geotechnical Site Investigation And Preliminary Foundation Assessment	N	Contains no specific information on the concentrations of contaminants
Scott Carver (Apr 2006) No. 1 Burroway Rd Development Control Plan	N	Contains no specific information on the concentrations of contaminants
ADI (Mar 1998) Remediation Action Plan for No 1 Bennelong Rd, Homebush: Fairmead Business	Y	-
Lednez Site, Rhodes and Homebush Bay		
NSW Health (Aug 2004) Rhodes Peninsula small area cancer incidence and mortality study	N	Contains no specific information on concentrations of contaminants
PB (Dec 2002) Remediation of Lednez site, Rhodes and Homebush Bay	Y	-

Document	Reviewed	Rationale
PB (Dec 2002) Remediation of Lednez site, Rhodes and Homebush Bay: Technical Paper 2 – Site History	N	Contains no specific information on the concentrations of contaminants
PB (Dec 2002) Remediation of Lednez site, Rhodes and Homebush Bay: Technical Paper 3 – Extent of contamination, Homebush Bay	Y	-
PB (Dec 2002) Remediation of Lednez site, Rhodes and Homebush Bay: Technical Paper 4 – Extent of contamination, Lednez Site	Y	-
PB (Dec 2002) Remediation of Lednez site, Rhodes and Homebush Bay: Technical Paper 5 – SKM Detailed human health and ecological risk assessment of Homebush Bay sediments	N	The SKM (2002) report is a review of the URS (2001) investigation addressed in Technical Paper 3. It does not provide any new information on the concentrations of contaminants.
PB (Dec 2002) Remediation of Lednez site, Rhodes and Homebush Bay: Technical Paper 6 - Detailed human health and ecological risk assessment, Lednez Site	N	Contains no specific information on the concentrations of contaminants
PB (Dec 2002) Remediation of Lednez site, Rhodes and Homebush Bay: Technical Paper 7 – Remediation Action Plans	Y	Provides information on the proposed remediation plans for the Lednez site and Homebush Bay
PB (Dec 2002) Remediation of Lednez site, Rhodes and Homebush Bay: Technical Paper 10 –Estuarine Environment, Homebush Bay	Y	Contains information regarding water depth, sedimentation rates and currents.
Earth Tech (Oct 2002) Supplementary Report to EOS Remediation of the Former Allied Feeds Site, Rhodes Peninsula	N	Refers to Allied Feeds/Meriton site which is not within the area of interest
Contamination Management (Apr 2002) Summary Site Audit Report April 2002: Investigations of Dioxins in sediments in north-east Homebush Bay	Y	-
Contamination Management (Jul 2002) Addendum to May 2001 Investigation at Part of the former Lednez Site, Rhodes*	Y	-
AECOM (February 2011) Site Audit Report, Homebush Bay Remediation Verification	Y	-

Document	Reviewed	Rationale
AECOM (May 2011) Site Audit Report, Lots 305 to 31 and 316 DP 1163025, Walker Street, Rhodes	Y	-
Thiess Services Pty Ltd (May 2011) Environmental Management Plan, Lots 310, 312, 313 and 316 DP1163025 40 Walker Street Rhodes NSW	Y	-
Other Areas		
NSW Sydney Olympic Park (2010) Parklands Plan of Management	N	Contains no specific information on concentrations of contaminants and is not within area of interest.

* Report provided is missing pages

APPENDIX B

Document review

1.0 CONTAMINATION ISSUES

The information provided in Appendix B has been compiled from the reports listed in Appendix A. No field investigations were undertaken as part of the review.

1.1 Western Shore

The western shore refers to Burroway Rd/Bennelong Rd, Sydney Olympic Park, NSW Lot 10/DP 776611. This lot was separated into Lot 121 and 122/DP1156412 since the investigations discussed below were undertaken).

Site Geology

The site geology was described in the ERM Masterplan (ERM 2003B) as fill material underlain by soft, dark grey, estuarine clays with an organic odour to the maximum investigation depth of 4.5 m. The depth of the fill layer varied from 0.4 to 2.2 m thick across the site. In 14 of the 32 sampling locations, predominately sandy, shell was encounter at depths ranging between 0.4 and 1.7 m. This material is considered to be dredged sediments which were excavated from Homebush Bay and used for land reclamation. Generally, overlying the shelly sand horizon was firm, moist, light brown clay that is thought to have been imported to improve the load bearing capacity of the soils.

Surface fill material encountered at borehole BH126 (Area A in Appendix B -1) consisted of a loose grey/green, sandy gravel. The discolouration is considered to be a result of copper chrome arsenate treatment of timber in the area. This was confirmed by the inorganic laboratory analysis of soil sample BH126/0.3 with reported chromium concentration of 260 mg/kg and copper concentration of 310 mg/kg; these concentrations do not exceed the NEPM (1999) HIL Setting D. These were the highest chromium and copper concentrations encountered during the site investigation. It should be noted that BH126 is not directly within the area relevant to the proposed bridge.

No asbestos fibres or potentially asbestos containing fragments were noted to be present within the soils encountered during soil sampling activities.

The ERM Additional Site Investigation (ERM 2006) provided a detailed description of the site geology which included borehole logs. The most relevant borehole log (sample location SB57) is provided in Appendix B -2. A concrete slab approximately 0.15 m thick overlaid a fill layer comprised of black sandy clay, shell and some gravel which overlaid sandy, silty clay.

Groundwater and Acid Sulphate Soils

Groundwater monitoring, as well as acid sulphate soils investigations, was undertaken by ERM at various times.

Soils samples were taken from six of the eleven locations during well installations to determine the presence of acid sulphate soils (ERM, 2004). The results indicate moderate to high potential acid sulphate soil capacity in material from depths of 1.0m below ground level at most sites sampled, including MW3 and MW4. The full results and sample locations are presented in Appendix B-3.

The ERM September 2005 Groundwater Monitoring Event (ERM 2005) undertook groundwater sampling at 1 Burroway Rd, Homebush Bay. Twenty samples were taken from the site, with the most relevant monitoring wells being MW2, MW4 and MW17.

The results from the relevant monitoring wells are as follows:

- Arsenic concentrations at MW4 exceeded the ANZECC 2000 low reliability marine trigger values for As III (2.3 µg/L) and As V (4.5 µg/L). The MW4-S total arsenic concentration was 35 µg/L and the MW4-D total arsenic concentration was 11 µg/L.
- The concentrations of cadmium, total chromium, nickel, lead and zinc did not exceed the site assessment criteria at any of the relevant monitoring wells.

- Copper concentrations exceeded the ANZECC 2000 guidelines at MW17-S.

The full results and sample locations are highlighted in Appendix B -3.

Soils

The Masterplan for 1 Bennelong Road (ERM 2003B) details the analytical results from the 39 samples collected. Of the samples collected the most relevant to the proposed Homebush Bay Bridge are locations BH131, BH138, BH139 and BH140, with sample locations BH130, BH129 and BH125 also of interest. It should be noted that BH129 is located in Area D which has subsequently been remediated. The relevant boreholes are highlighted in Appendix B - 4.

The results from the relevant boreholes are as follows:

- Concentrations of arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc for all analysed soil samples were less than the NEPM (NEPC 1999) exposure setting 'D'. BH129 had one of the highest concentrations of chromium at 170 mg/kg, however, it is still within the guideline values.
- Zinc concentrations at BH129 (240 mg/kg) and BH 131 (220 mg/kg) exceeded the provisional phytotoxicity-based level of 200 mg/kg (EPA 1998). However, these values are within the NEPM level D land use guidelines (NEPC 1999).
- The results indicated that TPH and BTEX concentrations were either below laboratory detection limits or below the adopted guidelines (Service Station Guidelines, EPA 1994).
- The samples analysed for PAHs contained concentrations which were less than the NEPM Level 'D' guideline level of 4 mg/kg.
- The phenol concentrations for the soil samples analysed were below the NEPM Level 'D' guideline level of 34,000 mg/kg.
- The OCP, OPP and PCB concentrations for the soil samples analysed were below the NEPM Level 'D' guideline level or below laboratory detection limits.
- The PAH concentrations for the soil samples analysed were below the US EPA (2000) PRGs and below laboratory detection limits.
- The VOC and SVOC concentrations for the soil samples analysed were below the US EPA (2000) PRGs and below laboratory detection limits.

Additional sampling was undertaken in the ERM Site Characterisation (ERM 2004B), however, there were no soil samples taken in close proximity to the proposed bridge location. Two sampling sites that may be of interest include SB24 and SB25A. Column leach tests were undertaken along the foreshore; CL05 and CL04 are the test locations of greatest interest. Metals including arsenic, cadmium, chromium, chromium IV, copper, lead, nickel and zinc, TPH, PAHs, OCPs, OPPs and PCBs were analysed in the soil samples taken. The soil sampling locations of interest had no detections which exceeded guidelines (NEPM HIL 'D' and EPA 1994). The column leach tests found concentrations of copper in CL05 of 15 µg/L and in CL04 of 27 µg/L which exceeds that ANZECC (2000) 95% trigger value for marine water of 1.3 µg/L. The full results and sampling location figure are highlighted in Appendix B - 5.

Further soil sampling was undertaken in the ERM Additional Site Investigation (ERM 2006); however the majority of sample locations were not close to the proposed Homebush Bay Bridge. At sample location SB57 in proximity to the bridge alignment the soil was assessed for arsenic, cadmium, copper, lead, nickel, zinc and mercury, TPH, PAHs, OCPs, OPPs and PCBs. The sample had no detections which exceeded guidelines (NEPM HIL 'D' and EPA 1994). The full results and sampling location figure are highlighted in Appendix B - 6.

However, it should be noted that the concentrations of TPH (C_{10}-C_{36}), benzo(a)pyrene and/or total PAH exceeded the relevant NEPM HIL 'D' and EPA 1994 guidelines at other sample locations away from the

proposed bridge location. These sample locations include SB38, SB41, SB44, SB47, SB49, SB65, SB74 and SB77. The table of exceedances for these sample locations is found in Table 8 of Appendix B-6. It should be noted that SB57 is also included in this table as having exceedances for benzo(a)pyrene and total PAH, however, this is likely to be an error as the laboratory reports and full results tables (Appendix B - 6) report concentrations below the guideline values.

Remediation Works (Removals of USTs)

The ERM Tankpit Validation and Additional Site Investigation (ERM 2003A) details remediation works undertaken involving the removal of Underground Storage Tanks (USTs) located on the site. USTs were indentified at five areas on the site. These areas are not directly relevant to location of the proposed Homebush Bay Bridge, with the exception of Area D which is approximately 30 m from the location of the proposed bridge. Soil samples collected from Area D as part of the site investigation works were reported to contain TPH, BTEX, inorganics and phenols concentrations which were less than the adopted site assessment guidelines (NEPM Level 'D' guidelines). The excavation of the two trenches also did not indicate the potential presence of any USTs or associated service lines. As such, it was considered that the soils in this area are suitable for combined commercial/residential land use with minimal access to soil. The results tables and sampling locations for Area D are presented in Appendix B - 7.

It should be noted that although Area A and B are not in close vicinity to the proposed bridge, they have also been declared as suitable for combined commercial/residential land use with minimal access to soil. Area C requires further remediation due to the close proximity of Building Unit 3 which limited remediation works undertaken. However, this area is likely to be too remote from the location of the proposed bridge to be relevant. Area E and F were not remediated as they require the removal of buildings.

1.2 Homebush Bay

Depth

Homebush Bay is characterised by a deeper (up to 4 m) channel along the western margins that shoals to the eastern and north-eastern shores. Water depths near the eastern and north-eastern shores are generally <1 m. The bathymetry of Homebush Bay is shown in Appendix B - 8.

Sedimentation Rate

Yearly sedimentation for the period from 1978 to 1985 was estimated by AWACS (AWACS, 1989 cited in PB 2002) using data from hydrographic surveys (MHL 2001 cited in PB, 2002). Sedimentation in the Bay ranges from minimal change to greater than 215 mm/yr. The average rate is between 25 mm and 30 mm/yr. This value is considered higher than other estuaries where rates generally average less than 1-3 mm/yr.

Total sedimentation for the periods 1978-1985, 1985-2001 and 1978-2001 was calculated by MHL (2001, cited in PB, 2002). The volume of sediments introduced was calculated by multiplying the average survey differentials by the survey area. The volume of sediments deposited in the period from 1978-1985 was estimated as 103,636 m^3 (14,805 m^3/yr). From 1985-2001 a volume of 113,065 m^3 (7,067 m^3/yr) was deposited. Between 1978 and 2001 an average volume of 9,422 m^3/yr of sediments was deposited. These sediments can be transported to Homebush Bay from the local catchment of Haslam's or Powell's Creeks, and from the Parramatta River.

In general, water depths in shallow areas within Homebush Bay changed little between 1978 and 2001, while other areas show significant accretion. The areas of highest accretion are the deeper areas in the western margins of the Bay. Appendix B - 9 shows the changes in bathymetry between 1978 and 2001.

As part of regional contaminant assessment throughout Port Jackson average sedimentation rates for 15 cores were determined using a ^{210}Pb radioisotopic dating method (Taylor, 2000). Sedimentation rates for each core were calculated for numerous depth intervals and average sedimentation rates were determined from largest depth intervals yielding low analytical uncertainties. Sedimentations rates through Port Jackson varied from 3.7 mm/yr to 26.8 mm/yr. Three cores were collected along the eastern shoreline of Homebush Bay, dated and analysed for a suite of trace metals and organochlorine pesticide residues. Average

sedimentation rates in Homebush Bay were 5.9±0.8 mm/yr (HB 1), 13.4±2.6 mm/yr (HB 3) and 6.8±1.5 cm/yr (HB 4). Core HB 4 was located a little to the north of the proposed Homebush Bay Bridge.

Currents

Homebush Bay is a tidally-influenced estuarine environment. Tides at Homebush Bay are semi-diurnal and asymmetric. Tidal ranges vary significantly throughout each lunar month (spring-neap cycle) and from month to month. Very high and very low tides occur more frequently at solstices around Christmas and the mid-winter months. The spring high tide range varies from 1.8 m to 2.2 m (PB 2002).

Tidal currents cause a periodic flow into and out of the Bay, and coupled with turbulent mixing, this process effectively replaces bay water with adjacent main body estuarine water from the Parramatta River. The flushing time for Homebush Bay is estimated to be around three to four days.

The action of the wind blowing across the water surface transfers energy to the water column, resulting in turbulent mixing near the surface. The wind also forces the surface layer down-drift with a compensating return flow of deeper water. These two processes can be very effective at exchanging water between the Bay and the Parramatta River and have been previously documented by Fischer et al. (1979, cited in PB 2002). Wind energy is transferred through surface waves that in turn transfer energy to the water below. The wave-induced currents at the sea bed are important for re-suspending bed material into the water column.

Haslams and Powells Creeks discharge to the southern reaches of the embayment. Freshwater inputs from these creeks contribute to the gravitational or density-driven circulation. This type of flow is characterised by horizontal density gradients that lead to gravitational adjustments and exchange. Density differences may also result from groundwater inflow and from spatially variable rates of heating or wind mixing. While these flows are often subtle in terms of the magnitude of the currents generated, their persistence can lead to significant mass transport (van Senden and Imberger, 1990, cited in PB, 2002).

A number of studies have reported current velocities in the Bay. Sydney Ports Corporation (SPC) (1996) estimated maximum tidal currents of 0.2 m/s in deeper water close to the Bay entrance. The University of New South Wales (2004) stated an average velocity of 0.07 m/s through the entry cross section to the Bay, with a maximum of approximately 0.1 m/s (and up to 0.2 m/s in the deeper water near the Bay entrance, which is consistent with SPC (1996). Parsons Brinckerhoff (2004) calculated a long–term, tidal velocity of 0.081 m/s, which was based on a weighted average of the dry (0.067 m/s) and wet (0.13 m/s) weather velocities.

Description of Sediments

Irvine (1980 cited in PB, 2002) found that Homebush Bay is predominately composed of sandy muds which were deposited and redistributed by tidal and floods flows. AWACS (1989 cited in PB 2002) have described physical sediment characteristics. The bed sediment of Homebush Bay is comprised of fine (<0.063 mm) fraction material. In water depths of less than 1 m, current velocities at the bed resulting from wind wave action are sufficient to entrain the sediment. In 1986, the Public Works Department (PWD) analysed several bed and core samples from Homebush Bay based on a sizing analysis of the proportion of material passing a 0.065 mm sieve (PWD 1986 cited in PB 2002). The coarse fraction was composed of sands and shell, and the fine component was classified as silty clay. It was concluded that the coarse fraction was highest at the mouth of the Bay (68%) and decreased away from the river to levels less than 20% in the southern area. One sediment sample taken in the western corner of Homebush Bay contained no coarse component.

Water Quality

Note: This refers to water quality before remediation of the Bay.

As part of the EIS (PB, 2002), PB undertook a surface water study to provide a snapshot of the water quality conditions in Homebush Bay. The study took place during February and March 2002 and included wet and dry weather sampling events with analysis for a range of nutrients, metals and organic compounds, including dioxins. Three sites along the shore of the former Union Carbide site were sampled to provide an indication of Bay water quality variability.

The sample analyses were generally below the trigger values set out in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000) for marine waters (99%) and environmental stressors for estuaries, although there were some notable exceptions. The analytes that exceeded the trigger value limits were considered consistent with past industrial activity carried out at the site.

The following summarises the Homebush Bay water quality results:

- Total nitrogen and phosphorus exceeded the water quality criteria in all samples.
- Endrin exceeded the water quality criteria for sample WQ2W (wet weather sample taken approximately 200 m north of the proposed bridge landing on the eastern shore).
- Lead and zinc exceeded the water quality criteria in all samples.
- Copper exceeded the water quality criteria for all wet weather samples and for WQ2D (dry weather sample taken approximately 200 m north of the proposed bridge landing on the eastern shore).
- Mercury exceeded the water quality criteria in all dry weather samples.
- Dioxin and furan results were elevated and exceeded the adopted guideline value (Canadian Water Quality Guidelines, CCME, 2001) for all samples, with particularly high results for WQ2 under both wet and dry conditions.

In summary, (pre-remediation) water quality in Homebush Bay adjacent to the former Union Carbide site was generally fair, except for dioxin concentrations. The water was also enriched in nutrients, metals and some organic compounds. Overall, the results of wet weather sampling indicate slightly lower chemical concentrations than those from dry weather sampling. Water quality results from sampling point WQ2 showed markedly higher concentrations of most contaminants than other locations under both wet and dry conditions.

See Appendix B - 10 for full results and figure for location of samples.

Sediment Contamination

Technical Paper 3 which forms part of the EIS prepared by PB on behalf of Thiess summarises previous sediment contamination investigations undertaken on Homebush Bay, including:

- Homebush Bay Screening-Level Risk Assessment (Parametrix, Inc and AWT Ensight, 1996 cited in PB 2002).
- Detailed Human Health and Ecological Risk Assessment of Homebush Bay (EVS Environmental Consultants, 1998 cited in PB 2002).
- Investigations of Dioxins in Homebush Bay Sediments, Final (URS, 2002, cited in PB 2002).

In 1996, Parametrix Inc. and AWT Ensight undertook a screening level human health and ecological risk assessment of Homebush Bay sediments. Although this study was completed over 10 years ago, it contains three samples locations on the western shore of Homebush Bay which were not sampled in later investigations and it is understood have not been remediated. Sediment sample locations of greatest interest on the western shore include locations 11, 12 and 13 and location 14. Surface sediment at location 14 contained 690 µg/kg DDT and <0.64 µg/kg 2,3,7,8-TCDD. It should be noted that a sample at location 9, also on the western shore, but not in the proposed bridge alignment contained 1,180 µg/kg of DDT. Appendix B - 11 contains the figures from Technical Paper 3 indicating the location of sediment samples. Unfortunately, a table containing the full results is not available.

EVS undertook systematic sediment grid sampling in 1997 and analysed for 2,3,7,8-TCDD, total organic carbon, dioxin and furan congeners, chlorinated benzenes, substituted phenols, PAHs, chlorinated pesticides and heavy metals (EVS 1998). The greatest sampling density was conducted along the eastern seawall between the former Union Carbide and Allied Feeds sites. In the central and western portions of

northern Homebush Bay that parallel the property lines the sampling density was moderate, with the lowest sampling density associated with the southern portion of the Bay where Powells and Haslams Creeks enter. One surface sediment sample was taken from each third of the grid.

The results may be summarised as follows:

- Contaminant concentrations generally decrease from the eastern shore (former Union Carbide and Allied Feeds sites) to the western shore line.
- Concentrations of 2,3,7,8-TCDD are higher along the north-east shoreline with hotspots in locations adjoining the former Union Carbide and Allied Feeds sites (see Figure 5.11 in Appendix B – 12). The highest concentrations were found where the proposed bridge approaches the Rhodes peninsula.
- Overall concentrations of chlorinated benzenes are highest along the former Union Carbide and Allied Feeds sites.
- Concentrations of 3-methylphenol, the only substituted phenol investigated, varied from less than the laboratory detection limit to 11.6 µg/kg at NE-3 near the former Allied Feeds site.
- Total PAH concentrations were highest along the former Union Carbide and Allied Feeds sites, with concentrations decreasing westward in the Bay.
- Total DDT (including DDD and DDE) was found at concentrations greater than any other organochlorine pesticide. Concentrations were elevated directly adjacent to the former Union Carbide and Allied Feeds sites along the eastern shore line. Chlordane, endosulphan and dieldrin were also found at elevated concentrations.
- Concentrations of copper, lead and zinc were all higher along the eastern shore. In general, trace metal concentrations increased towards the mouth of the Bay and are higher in areas of sediment accretion which suggests that these contaminants have been transported into the Bay.

In 2001, URS undertook an investigation into the dioxins (PCDDs) and furans (PCDFs) present in the sediments of Homebush Bay (URS 2002 cited in PB 2002). Two hundred and fifty three samples were collected in a pattern similar to the previous investigation conducted by EVS (1998). Sample locations 42-49 are the most relevant with respect to the location of the proposed Homebush Bay Bridge. Surface sediment and sub-surface samples at 400-500 mm and 900-1000 mm were analysed.

The results can be summarised as follows:

- The combined concentrations of PCDDs and PCDFs across all sediment samples varied from 64.1 µg/kg to 6,290 µg/kg. In the majority of results, the main contribution to the total PCDDs and PCDFs was from octachlorodibenzo-p-dioxin (OCDD) with lesser contributions from heptachlorinated dibenzo-p-dioxins (HpCDDs), hexachlorinated dibenzo-p-dioxins (HxCDDs) and penta and tetra dioxin congeners.
- Concentrations of 2,3,7,8-TCDD in all sediment samples ranged from less than the laboratory detection limit to 360 µg/kg. In the majority of samples, 2,3,7,8-TCDD contributed less than 1% of the total PCDD and PCDF concentration in sediment.
- Surface sediment concentrations of 2,3,7,8-TCDD are greatest along the eastern shore line, with some hotspots (concentrations of up to 66 µg/kg) identified adjacent to the former Union Carbide and Allied Feeds sites. There was a hotspot where the proposed bridge will approach the eastern shore.
- Concentrations of 2,3,7,8-TCDD were generally higher in the subsurface sediments (400-500 mm) than surface sediments, particularly adjacent to the former Union Carbide site.

- Concentrations of 2,3,7,8-TCDD in the deeper subsurface sediments (900-1000 mm) varied with respect to the overlying sediments; in some locations concentrations were higher, while in others concentrations were significantly lower.
- The reported sediment international toxic equivalent (I-TEQ) values reported varied from less than the limit of detection to 380 µg/kg. In the majority (88%) of samples, 2,3,7,8-TCDD contributed 50% or less to the total sediment PCDD/PCDF I-TEQ.

The full results can be found in Appendix B – 12 and Appendix B - 13.

1.3 Eastern Shore

The eastern shore refers to the section of the former Union Carbide (formerly Lot 10 in DP1007931) site near Gauthorpe St.

Site Geology

The main Environmental Impact Statement (EIS) report developed by PB on behalf of Thiess (PB 2002) contains a detailed geology of the former Union Carbide site based on geological maps and bore logs. The basement geology of Homebush Bay comprises Triassic age strata consisting of the lower part of the Ashfield Shale, underlain by Hawkesbury Sandstone. A transitional unit known as the Mittagong Formation occurs between the Ashfield Shale and Hawkesbury Sandstone.

The upper few metres of the Ashfield Shale comprise mottled grey/brown residual clays resulting from weathering processes. Data from site investigation boreholes indicates that this residual clay is approximately one to two metres in thickness. The upper one to two metres of the shale below that residual clay is highly fractured.

Estuarine deposits of marine mud are present above the residual clay in much of the area reclaimed from Homebush Bay. These consist of dark-grey or black clays, often containing shell fragments and have a thickness of up to 3.5 m.

The 1:25,000 Acid Sulphate Soil Risk Map, Parramatta Sheet prepared by the NSW Department of Land and Water Conservation indicates that there is a high probability of acid sulphate soil occurring within 1 m of the ground surface.

The generalised geology of the site is shown in Appendix B - 14.

Soils

Technical Paper 4 from the EIS undertaken by PB on behalf of Thiess summarises the distribution of contaminants on the former Union Carbide site based on the investigation carried out by Johnstone Environmental Technology (JET) in 2001 (Homebush Bay Dioxin Remediation Project – Contamination Investigation of Former Lednez Site).

The most relevant reclamation area on the former Union Carbide site is R3, as well as a small section of R1. The Figures in Appendix B - 14 show the chemical manufacturing activities conducted at the site and the location of the reclamation areas. The location of the proposed bridge is highlighted.

Area R3, which is most relevant to the location of the proposed bridge contained no significant manufacturing activities, however, it is likely that tank cleaning operations were carried out in the north-east pond (JET 2001 in PB Technical Paper 4, page 5.11). The clay cap and crushed sandstone from previous reclamation extend into this area. The materials underlying the clay cap are generally materials from the 1954-1970 remediation works and consist of mixed clay, ash, shale and brick rubble fill (1 m thick), boiler ash (1-2 m thick) and spent lime sludge (1-2 m thick). These sediments overlie natural marine sediments and shale.

The range and average concentration of contaminants across the site are summarised in Appendix B - 14. The results of greatest importance are as follows:

- Average total concentration of chlorobenzenes across R3 in the mixed fill layer was 80 mg/kg (range 0.7-240 mg/kg).
- Average concentration of C_{10}-C_{36} across R3 in the boiler ash layer was 2,370 mg/kg (range less than detection limit to 6,740 mg/kg).
- Average concentration of total chlorophenols across R3 in the boiler ash layer was 148 mg/kg (range less than detection limit to 958 mg/kg).
- Average concentration of total organochlorine pesticides across R3 in the spent lime sludge layer was 20 mg/kg (range less than detection limit to 117 mg/kg).

The sediments in the foreshore strip also contain high average concentrations for a number of contaminants including:

- C_6-C_9 (average concentration >15,000 mg/kg).
- C_{10}-C_{36} (average concentration 104,000 mg/kg).
- Benzene (average concentration >680 mg/kg).
- Total PAH (average concentration 2,240 mg/kg).
- Total OCPs (average concentration 3,980 mg/kg).
- Total chlorobenzenes (average concentration 166,300 mg/kg).

The full JET report and results were included as an appendix in the PB Technical Paper. The most relevant results with respect to the proposed bridge are highlighted in Appendix B - 15.

Remediation - The Lednez Site and Homebush Bay Remediation Action Plan

In 1999, the western portion of the Rhodes Peninsula was rezoned to accommodate residential development. However, the former Union Carbide site was not suitable for this land use and required further remediation action before residential development could proceed. Thiess was appointed as the proponent for the Homebush Bay Dioxin Remediation Project.

The purpose of the RAP for the former Union Carbide site was to protect the environment by ensuring that the former Union Carbide site is not a continuing source of contamination for Homebush Bay and to ensure that the former Union Carbide site is suitable for the proposed use (high-density residential, commercial and open space). Briefly, this was to be achieved by excavating and classifying approximately 350,000 m^3 of fill/reclamation materials on the site. It was estimated that 97,000 m^3 of this material would require treatment. Remediation was also to include the excavation and placement of 280,000 m^3 of rock required to perform the works on the Bay and to facilitate commercial/residential development. Treated material, sediment and fill/reclamation material materials suitable for reinstatement without treatment was to be used to regrade the site.

The remediation of the Bay was to involve the excavation of the surface 0.5 m of Bay sediments along the frontage of the former Union Carbide, Meriton (formerly Allied Feeds) and McRoss Developments (former ICI) sites and the re-instatement of the excavation area with clean materials.

Homebush Bay Remediation (Portion 1) process can be summarised as follows:

1. Construction of 8 coffer dams around Bay's shoreline, dewatering of each dam undertaken to reduce amount of water held in sediments.
2. Removal of the seawall in front of former Union Carbide site to allow for contaminated sediments and fill located beneath and behind it and sediment enclosed within the coffer dams to be removed

simultaneously. The sediments in front of other sites (former Allied Feeds and Orica) were also excavated. The depth of excavation limited to 0.5 m. The seawall was later reconstructed.

3. Sediments removed were transferred to former Union Carbide site, classified and treated as necessary.

4. The 15 m foreshore strip was managed in the same way as the former Union Carbide site (Portion 2). This included excavating sediment, classifying and treating if required, then reinstating the sediment.

1.4 Remediation

1.4.1 Homebush Bay

The AECOM Site Audit Report (AECOM 2011A) provides verification of the Homebush Bay remediation works undertaken by Thiess. Excavated sediment sample locations 05, 06, 29 and 30 in remediation areas 5 and 6 are most relevant to the location of the proposed bridge (Appendix B - 16). Of all samples taken, sample 06 recorded the highest total cyanide concentration of 3 mg/kg and sample 29 recorded the highest 2,4-dichlorophenol concentration of 0.56 mg/kg.

The laboratory analytical results from the relevant sampling locations in the remediated area of the Bay are as follows:

- The dioxin concentrations vary from approximately 3,500 to 13,500 pg/g TEQ[1] which exceeds the US EPA Region 5 ecological screening level of 11.0 pg/g for polychlorinated dibenzo-p-dioxins and the Canadian Interim Sediment Quality Guideline (ISQG) of 0.85 pg/g TEQ and Probable Effect Level[2] (PEL) of 21.5 pg/g TEQ.
- The range of organic contamination analysed (organochlorine pesticides, monocyclic aromatic hydrocarbons, oxygenated compounds, halogenated aromatic compounds, phenolic compounds, polynuclear aromatic compounds, phthalate esters and chlorinated hydrocarbons) were generally found to be below the laboratory detection limits. However, it should be stressed that the laboratory detection limits for a number of analytes were orders of magnitude greater than the ANZECC (2000) ISQG-low and ISQG-high guidelines.
- Organic contaminants that exceeded the guidelines regardless of the high detection limits include:
    - DDE in all samples exceeded the ISQG-high guidelines.
    - DDD in sample 6 exceeded the ISQG-high guidelines.
    - Naphthalene in samples 6 and 29 exceeded the ISQG-low guidelines.
    - Phenanthrene in all samples exceeded the ISQG-low guidelines.
    - Anthracene in samples 6 and 29 exceeded the ISQG-low guidelines.
- The concentration of lead and zinc identified at all sample locations exceeds the ISQG-high guidelines.
- The concentration of mercury at sample locations 5 and 6 exceeds the ISQG-high guidelines and sample locations 29 and 30 exceeded the ISQG-Low guidelines.
- A number of heavy metals including arsenic, cadmium, chromium, copper and nickel exceeded the ISQG-Low guidelines but were below the ISQG-High trigger values for all relevant sample locations.

[1] TEQ: Toxic Equivalent, the toxicity of a mixture of dioxins and furans expressed as 2,3,7,8-TCDD, the most toxic dioxin isomer.

[2] PEL: The concentration above which adverse biological effects usually or always occur.

It should be noted that there were significant variations in the minimum and maximum concentrations of analytes across the Bay remediation area. This high variability suggests that the maximum concentrations identified during characterisation of the Bay sediment should be taken into account for the bridge construction as it is appears that even small changes in sample location can have a significant influence on the apparent concentrations measured.

The depth of excavation in remediation areas 5 and 6 and backfill depths are provided in the table below. The geofabric marker layer was placed on the excavated area (Bay floor). Backfill material was a mixture of imported sandstone (VENM) and shale from the former Union Carbide site.

Table 1: Excavation and backfill depths in remediation areas 5 and 6 of Homebush Bay.

Remediation Area	Size (m^2)	Range of excavation Depths (m)	Average excavation depth (m)	Estimated backfill volume (m3)	Average backfill depth – material balance (m)	Average backfill depth – survey levels (m)
Area 5	4,152	0.5-1.52	0.79	2,279	0.55	0.77
Area 6	5,676	0.36-1.47	0.7	4,006	0.71	0.76

1.4.2 Eastern Shore

AECOM undertook a site audit of the remediation of Lots 305 to 313 and 316 in DP 1163025, being part of the former Union Carbide Site (SAR, AECOM 2011B). The purpose of the audit was to confirm the suitability of areas of the site for specific land uses. The eastern end of the proposed bridge will land on Lot 310 in DP 1163025, with associated works possibly impinging on Lots 311 and 316 in DP 1163025.

The Site Audit Statement SAS) for the audit included a condition requiring an environmental management plan (EMP, Thiess 2011) for Lots 310, 312, 313 and 316. Lots 310 and 316 were remediated to a standard suitable for use as Open Space Foreshore. Lot 313 was remediated to a standard suitable for use as Open Space Parkland, and Lot 312 was remediated to a standard suitable for use as both Open Space Foreshore and Open Space Parkland.

The SAR and EMP describe the subsurface conditions on the eastern shore of Homebush Bay in the vicinity of the landing area of the proposed bridge. As part of the remediation of the former Union Carbide site contaminated materials were excavated and either treated and reused, or re-used without treatment, by placement at depth on the site, subject to meeting soil remediation criteria based on the location and depth of the material. Imported virgin excavated natural material (VENM) was used to reinstate the area immediately adjacent to Homebush Bay, and as a capping layer in the 40m foreshore open space zone.

The EMP requires that any party proposing intrusive works within 40m of Homebush Bay must consult with and satisfy the requirements of the OEH prior to commencement of any activity that disturbs the subsurface of the area.

Cross sections presented in Thiess 2011 show the elevations of subsurface layers on the site. The cross sections show the presence of a 1m deep maintenance layer of VENM extending from the surface of the site. Fill material of varying depths is present below the maintenance layer and the validated surface of the remedial excavations.

Subsurface conditions for the area subject to the EMP are summarised as follows:

- The area within 3m of Homebush Bay was reinstated with VENM.
- The area between 3m and 40m from Homebush Bay was reinstated with fill complying with the adopted re-use criteria and capped with a 1m layer of VENM.
- The open space area greater than 40m from Homebush Bay was reinstated with fill complying with criteria for open space <1m depth and open space 1-5m depth.

Analytical results for backfill material placed in the area were reported in Appendix D of Thiess 2011.

1.5 Potential Waste Classification

1.5.1 Bay Sediments

Based on the analytical results summarised by AECOM (AECOM 2011A), any sediment waste generated by piling operations in the capped eastern part of the Bay would be classified as Restricted Solid Waste (RSW) or Hazardous Waste (HW) for disposal purposes in accordance with the Waste Classification Guidelines (DECCW 2009).

1.5.2 Eastern Shore

Based on a review of the maximum analyte concentrations reported by Thiess (Thiess 2011) for the former Union Carbide site, excavation spoil generated (if any) from open space areas between 1-5m depth would potentially be classified as HW due to the presence of scheduled chemicals (i.e. organochlorine pesticides, chlorinated benzenes and chlorinated phenols). This material would be subject to the *Scheduled Chemical Wastes Chemical Control Order 2004,* and would not be able to be disposed to landfill without pretreatment approved by the OEH.

Excavation spoil, if any, generated from the open space areas between 0-1m depth and from the foreshore reuse zone is likely to be able to be disposed to landfill as GSW in accordance with DECCW 2009.

1.5.3 Western Shore

Based on the results reported in various ERM reports any excavation spoil from the proposed shallow works is expected to be classified as General Solid Waste in accordance with DECCW 2009.

1.5.4 Waste Classification Implications

HW may only be disposed to landfill after treatment/immobilisation procedures (approved by the EPA) that would be cost prohibitive. TCLP analysis of sediment samples may allow re-classification to lower waste categories (e.g. General Solid Waste (GSW) or RSW). Based on the limited analytical results provided as part of the review process it is considered that sediments in the western and central parts of the Bay would likely be classified as GSW or RSW, and may require management for the presence of ASS material. If the concentration of 2378-TCDD dioxin is present above a threshold of 1 part in 100 million by weight the material will be subject to the Chemical Control order in Relation to Dioxin-Contaminated Waste Materials (EPA 1986).

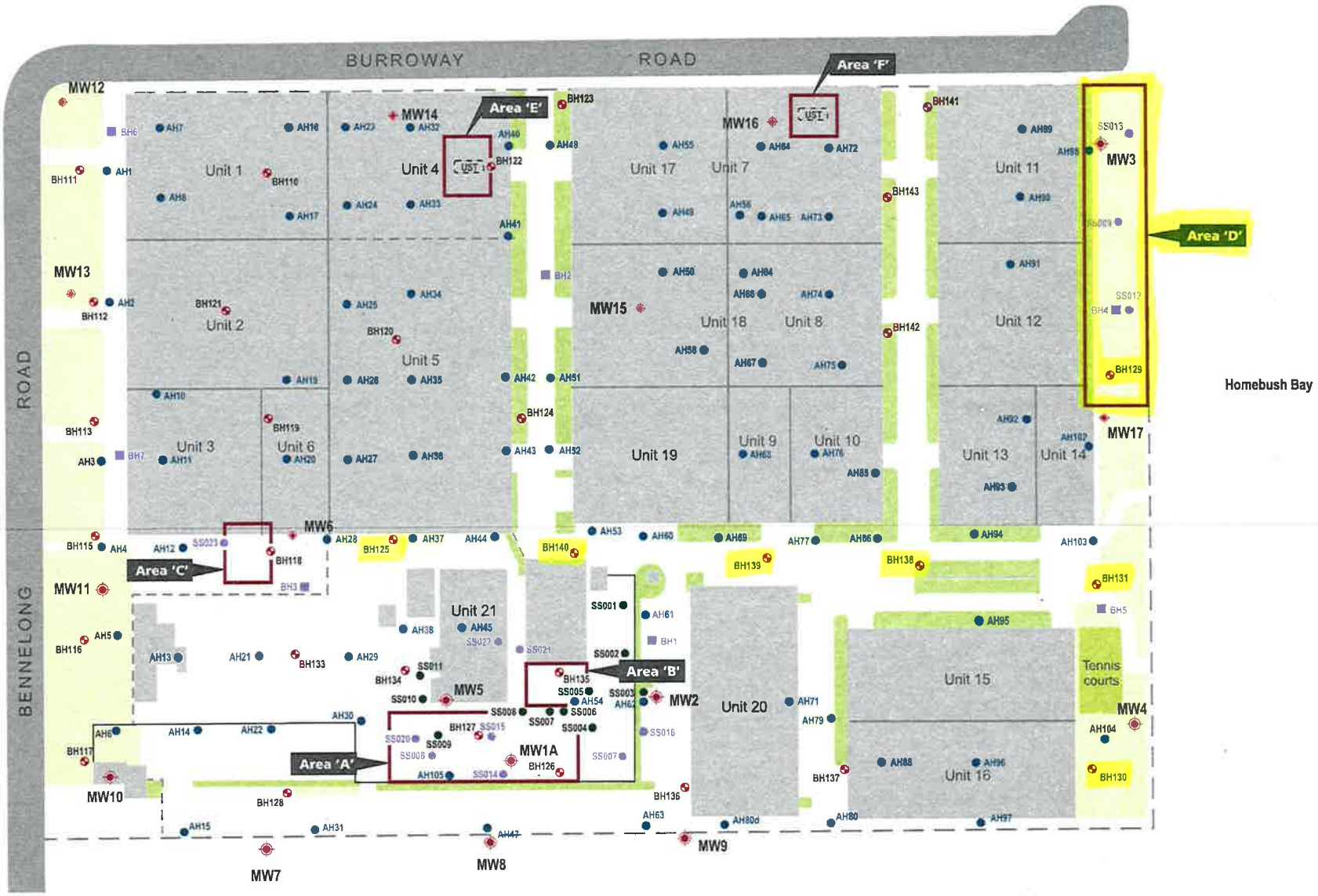
Given the constraints on the requirement for treatment or immobilisation of HW, a construction methodology for the project has been proposed which excludes dredging and bored piles, and thus avoids the potential for generation of contaminated sediment spoil and the requirement for treatment of Hazardous Waste.

APPENDIX B
CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: ERM Masterplan, 2003

Site / Report Reference: Western Shore / Appendix B - 1

Included Information: Figure of Sample Locations



Source: ADI Limited

0 30m
Approximate only

Building
Grassed area
Landscaped area
Concrete parking areas
Fence
UST locations
Possible UST locations
BH1 ERM Borehole locations (2002)
AH15 ADI Borehole Locations (1997)
SS001 WWC Borehole Locations (Aug 1994)
SS001 WWC Borehole Locations (May 1994)
BH1 WWC Monitoring Wells (May 1994)
MW1 Groundwater well locations (ERM, Oct 2003)

Figure 2 **Sample Locations**

1 Burraway Road, Homebush Bay, NSW

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Document Reference: ERM Additional Site Investigation, 2006

Site / Report Reference: Western Shore / Appendix B - 2

Included Information: Borehole Log (SB57)

Borehole No: SB57

Project: Burroway Rd
Client: Billbergia
Site Location: Homebush Bay

Drill Rig: HA/ Geoprobe
Date: 22 June 2006
Water Strike: 1.8 m

Borehole Diam.: 150 mm
Borehole Depth: 3.0 m
Relative Height

ERM

Description	Graphic Log	Depth	Sample Type	PID (ppm)	Sample Details	Remarks
Ground Surface		0				
CONCRETE						
FILL Black sandy clay, moist, shell and some gravel inclusions, increasing clay content with depth, chemical odour, no staining noted Wet from 1.8 m bgl		1		3.2	SB57-0.6	D220606-02
		2		3.5	SB57-1.5	
SANDY SILTY CLAY Black/ brown, wet, shell fragment inclusions, anaerobic odour, no staining noted		3		3.0	SB57-2.8	
End of hole at 3.0 m bgl		4				

Document Reference: ERM Groundwater and Acid Sulphate Soil Investigation, 2004

Site / Report Reference: Western Shore / Appendix B - 3

Included Information: Acid sulphate soil results tables; Groundwater results tables

TABLE 1
POCAS and pH
Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Depth (m)	Sampling Date	pH	TAA (mol H+/tonne)	TPA (mol H+/tonne)	TSA (mol H+/tonne)	S-KCl (%)	S-P (%)	S-POS (%)
EQL				5	5	5	0.01	0.01	0.01
Assessment Criteria									
ASSMAC (1998) Table 4.4				-	62	62	-	-	0.1
MW3	1.3-1.5	30/4/03	7.2	<5	<5	<5	0.02	0.16	0.14
MW4	1.0-1.1	30/4/03	7.6	<5	125	125	0.05	0.72	0.67
MW4	1.2-1.3	30/4/03	7.5	<5	10	10	0.08	0.19	0.16
MW6	1.0-1.13	30/4/03	7.5	<5	520	520	0.06	1.03	0.97
MW6	1.3-1.5	30/4/03	7.4	<5	490	490	0.04	0.99	0.95
MW10	0.9-1.0	30/4/03	7.9	<5	<5	<5	<0.01	<0.01	<0.01
MW10	1.4-1.5	30/4/03	7.7	<5	<5	<5	<0.01	<0.01	<0.01
MW11	1.0-1.2	30/4/03	4.7	<5	95	95	0.21	0.39	0.18
MW11	1.3-1.4	30/4/03	7.4	<5	130	130	0.05	0.79	0.74
MW9	1.5	1/5/03	7.3	<5	<5	<5	<0.01	<0.01	<0.01
MW9	1.7	1/5/03	7.3	<5	<5	<5	0.05	0.51	0.46

Notes:

TAA - Total Actual Acidity, TPA - Total Potential Acidity, TSA - Total Sulfidic Acidity

S-KCl - Soluble and adsorbed sulfur, S-P - Sulfur content, S-POS - Peroxide oxidisable sulfur

ASSMAC (1998) Acid Sulfate Soils Manual

- Table 4.4 Action criteria based on ASS soil analysis for Fine Texture Medium to heavy clays and silty clays

~~Both samples collected from MW6 (1.0 – 1.3 m and 1.3 – 1.5 m) recorded a high degree of PASS, with little neutralising of generated acidity and could be considered a "hot spot". MW4 (1.0 – 1.1) and MW11 (1.3 – 1.4 m) also showed a high degree of PASS, but with some neutralisation of the generated acidity. Samples collected from MW3 (1.3 – 1.5 m), MW4 (1.2 – 1.3 m), MW9 (1.7 m) and MW11 (1.0 – 1.2 m) all showed moderate PASS with some neutralising of generated acidity.~~

A detailed interpretation of acid sulfate soil analysis is included in *Annex I* and has been summarised in *Table 4.1*.

Table 4.2 Interpretation of Acid Sulfate Soil Analysis

Sample Identification	PASS	Additional Information
MW3 1.3 – 1.5 m	Moderate	Only marginally above the action criteria
MW4 1.0 – 1.1 m	High	Some neutralising of generated acidity
MW4 1.2 – 1.3 m	Moderate	Some neutralising of generated acidity
MW6 1.0 – 1.13 m	High	Little neutralising of generated acidity, considered a "hot spot"
MW6 1.3 – 1.4 m	High	Little neutralising of generated acidity, considered a "hot spot"
MW9 1.5 m	-	Sample showed no sign of potential generation of sulfuric acid
MW9 1.7 m	Moderately High	Good levels of neutralising capacity
MW10 0.9 – 1.0 m	-	Sample showed no sign of potential generation of sulfuric acid
MW10 1.4 – 1.5 m	-	Sample showed no sign of potential generation of sulfuric acid
MW11 1.0 – 1.2 m	Moderate	Small neutralising capacity, this soil has generated some sulfuric acidity due to oxidation. However acid neutralising capacity at the site has prevented the production of severe acidity
MW11 1.3 – 1.4 m	High	Moderate levels of neutralising capacity

1. PASS – Potential Acid Sulfate Soils.

2 July 2003

ERM Australia Pty Ltd
Building C, 33 Saunders Street
Pyrmont, NSW 2009

ATTENTION: Mr. Andrew Rolfe

Dear Andrew

RE: INTERPRETATION OF ACID SULFATE SOIL ANALYSIS, HOMEBUSH BAY PROJECT - TABLE 5

You supplied a table of results of Acid Sulfate Soil analysis for 11 samples, representing six boreholes (Table 5 of your report). It is understood that the samples are low-lying estuarine clays (heavy clays and silty clays). You requested comments on the presence of acid sulfate soils.

For all samples except MW11 (1.0-1.2), the alkaline pH values, low Total Actual Acidity (TAA) and low S-KCl values indicate that these samples are not Actual Acid Sulfate Soils. That is, the samples have not generated sulfuric acid. Sample MW11 (1.0-1.2), with a pH of 4.7, S-KCl of 0.21% but no TAA present, suggests that this site has generated some sulfuric acidity due to oxidation but that the acid neutralising capacity at the site has prevented the production of severe acidity.

Eight of the samples show signs, in degrees of severity, of being Potential Acid Sulfate Soils (PASS). The remaining three samples (MW10 (0.9-1.0), MW10 (1.4-1.5) and MW9 (1.5)) show no sign of potential generation of sulfuric acid.

Using the Acid Sulfate Soil Manual Table 4.4 action criteria and assuming sample soil texture of heavy clays and silty clays, the action criteria guidelines for a disturbance of less than 1000 tonnes are 62 moles H^+ /tonne as TSA and 0.1 %S as S-POS. Therefore, taking each borehole where PASS soils exist:

AUSTRALIAN LABORATORY SERVICES PTY LTD ABN 84 009 936 029
32 Shand Street Stafford Queensland 4053 Australia
Phone: 61-7-3243 7222 Fax: 61-7-3243 7218 Website: www.als.com.au

MW3 – This borehole shows moderate PASS only just above the action criteria. Some liming is desirable.

MW4 – The top depth (1.0-1.1) shows quite a high degree of PASS, with only moderate potential at depth (1.2-1.3). Both depths show some neutralisation of the generated acidity*. Liming is desirable at both depths.

MW6 – Both depths show a high degree of PASS with little neutralising of generated acidity. This borehole is a "hot spot" and liming is definitely indicated.

MW11 – The top depth (1.0-1.2) shows a moderate level of PASS but only a small neutralising capacity. At depth (1.3-1.4), PASS is quite high but there is an indication of moderate levels of acid neutralisation. Liming is still desirable.

MW9 – The top depth (1.5) shows no PASS, while at depth, the PASS is moderately high but with the indication of good levels of neutralising capacity. Liming is desirable.

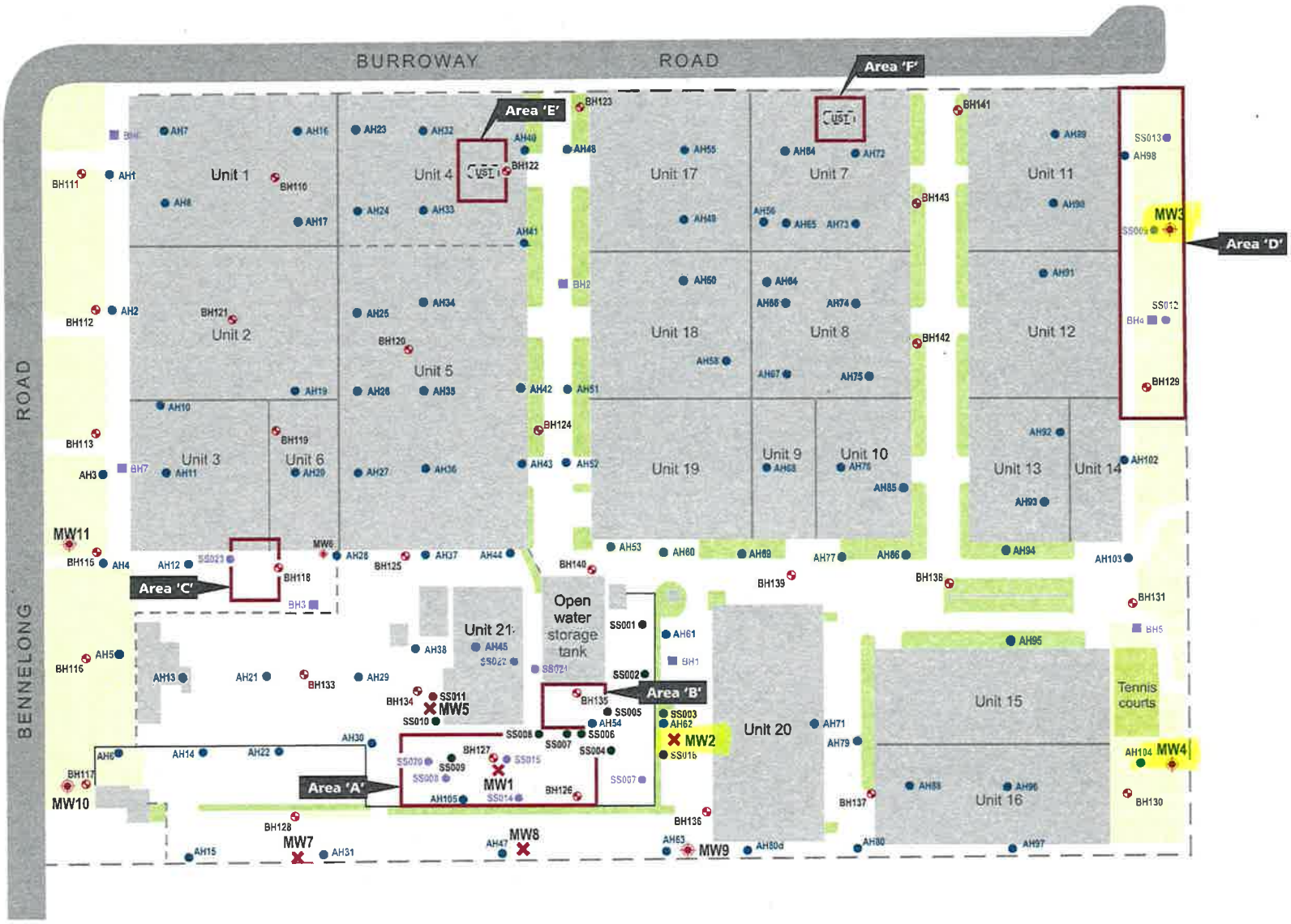
In conclusion: These samples are not currently highly acidified. Five of the six boreholes show a mix of moderate to high PASS capacity. Liming is probably desirable at all locations except MW10.

Yours sincerely

IAN WALLACE (BSc Agric. (Hons.))
Customer Services Manager
ALS Environmental - Brisbane

* An indication of acid neutralising occurring can be gained from converting the TSA (or TPA) into Sulfur equivalents and comparing the result with the S-POS (or S-P). To make this conversion, multiply the moles H^+ / tonne by 624 (%S). If the TSA expressed as % S is less than the S-POS, the difference is often associated with acid neutralising capacity. This conversion and comparison is only a rough guide as analytical errors come into play. A better indication is gained if the Acid Neutralising Capacity (ANC) or calcium after oxidation (Ca-P) is determined.

Reference:
Acid Sulfate Soil Management Advisory Committee (ASSMAC) (1998). Acid sulfate soil manual, August 1998. ASSMAC, Wollangbar NSW, Australia.



Source: ADI Limited

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ERM

0 30m
Approximate only

Building
Grassed area
Landscaped area
Concrete parking areas

Fence
UST locations
Possible UST locations

BH1 ERM Borehole locations (2002)
AH15 ADI Borehole Locations (1997)
SS001 WWC Borehole Locations (Aug 1994)

SS001 WWC Borehole Locations (May 1994)
BH1 WWC Monitoring Wells (May 1994)
MW1 Groundwater well locations (ERM, April 2003)
MW1 Acid sulfate soils sampling and groundwater well locations (ERM, April 2003)

Figure 2

Groundwater Monitoring Well Locations

1 Bennelong Road, Homebush Bay

Legend For Laboratory Results Summary Tables

Notes:-

	Results exceeds the guideline concentration
EQL	Estimated Quantification Limit (Laboratory Detection Limit)
ns	No set guideline for this compound
-	Not analysed
N/A	Not Applicable

Guidelines:-

NEPM (1999)	NEPM (Assessment of Site Contamination Measure, 1999) Schedule B(1), Guidelines on the Investigation Levels for Soil and Groundwater Table 5-A- Soil Investigation Levels (mg kg) Health Investigation
ANZECC (2000)	Australian and New Zealand Guidelines for Fresh and Marine Water Quality Table 3.4.1 Assessment criteria [6]Trigger values for 95% level of protection of species in marine water ID notates where insufficient data is available to derive a reliable trigger value
NSW EPA (1994)	NSW EPA Contaminated Sites (1994) Guidelines For Assessing Service Station Sites - Sensitive Land Use

TABLE 1
Inorganics in Groundwater (ug/L)
Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Sampling Date	Arsenic	Arsenic (III)	Arsenic (V)	Cadmium	Chromium	Chromium (VI)	Copper	Lead	Nickel	Zinc	Mercury
EQL		1	1	1	0.1	1	0.005	1	1	1	5	0.1
Assessment Criteria												
ANZECC 2000 - Marine		**ID**	**2.3[L]**	**4.5[L]**	**5.5**	**4.4**	**4.5[H]**	**1.3**	**4.4**	**70**	**15**	**0.4**
MW1	8-May-03	16	-	-	<0.1	3	-	1	<1	6	36	0.1
MW1	4-Jun-03	41	18	19	<0.1	10	-	1	<1	8	39	
MW2	8-May-03	8.7	-	-	<0.1	3	-	2	<1	8	35	0.1
MW2	4-Jun-03	11	-	-	<0.1	5	-	2	<1	5	75	
MW3	9-May-03	13	-	-	<0.1	5	-	<1	<1	7	52	0.1
MW3	4-Jun-03	14	-	-	0.1	4	-	3	5	5	160	
MW4	9-May-03	24	-	-	<0.1	5	-	2	<1	5	28	0.1
MW4	4-Jun-03	#31	18	2	<0.1	5	<0.005	2	<1	3	17	
DA-0406	4-Jun-03	#11	-	-	<0.1	14	-	3	<1	4	<5	-
MW5	8-May-03	17	-	-	<0.1	4	-	2	<1	10	62	0.1
MW5	4-Jun-03	27	14	18	0.1	5	-	4	2	16	77	
MW6	8-May-03	1	-	-	<0.1	5	-	45	4	12	77	0.1
D1-080503	8-May-03	2.1	-	-	<0.1	4	-	10	1	11	43	0.1
MW6	4-Jun-03	<1	-	-	0.1	20	-	3	<1	14	34	
MW7	8-May-03	<1	-	-	<0.1	6	-	5	<1	18	47	0.1
MW7	4-Jun-03	3	-	-	0.3	16	*<0.04	5	4	19	45	
MW8	9-May-03	15	-	-	<0.1	5	-	2	<1	10	56	0.1
MW8	4-Jun-03	8	-	-	2.8	19	-	3	33	18	100	

Prepared by:____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 1

Inorganics in Groundwater (ug/L)

Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Sampling Date	Arsenic	Arsenic (III)	Arsenic (V)	Cadmium	Chromium	Chromium (VI)	Copper	Lead	Nickel	Zinc	Mercury
EQL		1	1	1	0.1	1	0.005	1	1	1	5	0.1
Assessment Criteria												
ANZECC 2000 - Marine		**ID**	**2.3[L]**	**4.5[L]**	**5.5**	**4.4**	**4.5[H]**	**1.3**	**4.4**	**70**	**15**	**0.4**
MW9	9-May-03	12	-	-	0.2	10	-	2	<1	9	78	0.1
MW9	4-Jun-03	16	-	-	2	20	*<0.01	4	12	24	110	
MW10	8-May-03	<1	-	-	<0.1	3	-	3	<1	8	35	0.2
MW10	5-Jun-03	<1	-	-	<0.1	1	-	4	3	5	33	
MW11	8-May-03	2.8	-	-	<0.1	2	-	7	<1	25	58	0.1
MW11	4-Jun-03	3	-	-	<0.1	2	-	12	2	22	110	

Notes:

Results exceeds the guideline concentration

[H] Interference from the sample may give the result a positive bias.

* EQL increased due to sample matrix interference

[L] Marine low reliability trigger values

[H] Marine high reliability trigger values

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 2

Total Petroleum Hydrocarbons and BTEX (benzene, toluene, ethyl benzene and xylene) in Groundwater (ug/L)
Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Sampling Date	Benzene	Toluene	Ethylbenzene	Xylene (total)	TPH (C_6-C_9)	TPH (C_{10}-C_{14})	TPH (C_{15}-C_{28})	TPH (C_{29}-C_{36})	TPH (Total C_{10}-C_{36})
EQL		1	1	1	3	50	50	400	100	N/A
Assessment Criteria										
ANZECC 2000 - Marine		700	180[L]	80[L]	75[LM]	ns	ns	ns	ns	ns
MW1	8-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-
MW2	8-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-
MW3	9-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-
MW4	9-May-03	<1	<1	<1	<3	60	<50	<400	<100	-
MW5	8-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-
MW6	8-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-
D1-080503	8-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-
MW7	8-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-
MW8	9-May-03	<1	4	<1	<3	<50	<50	<400	530	530
MW9	9-May-03	<1	<1	<1	<3	230	<50	<400	<100	-
MW10	8-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-
MW11	8-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-
Trip Blank	7-May-03	<1	<1	<1	<3	<50	<50	<400	<100	-

Notes:

Results exceeds the guideline concentration

L *Marine low reliability* trigger values

LM *Marine low reliability* trigger value for *m*-xylene

Prepared by:____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 3

Semi-Volatile Organic Compounds in Groundwater (ug/L)

Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	LOR	ANZECC - Fresh & Marine	MW1	MW2	MW3	MW4	MW5	MW6	D1-080503
Sampling Date			8-May-03	8-May-03	9-May-03	9-May-03	8-May-03	8-May-03	8-May-03
2,4,6-trichlorophenol	2	ns	<2	<2	<2	<2	<2	<2	<2
2,4,5-trichlorophenol	2	0.5	<2	<2	<2	<2	<2	<2	<2
Isosafrole	2	ns	<2	<2	<2	<2	<2	<2	<2
2-chloronaphthalene	2	ns	<2	<2	<2	<2	<2	<2	<2
2-nitroaniline	4	ns	<4	<4	<4	<4	<4	<4	<4
Mevinphos (Phosdrin)	2	ns	<2	<2	<2	<2	<2	<2	<2
1,4-dinitrobenzene	2	0.6[F]	<2	<2	<2	<2	<2	<2	<2
Dimethyl phthalate	2	3700	<2	<2	<2	<2	<2	<2	<2
Acenaphthylene	2	ns	<2	<2	<2	<2	<2	<2	<2
2,6-dinitrotoluene	4	ns	<4	<4	<4	<4	<4	<4	<4
3-nitroaniline	4	ns	<4	<4	<4	<4	<4	<4	<4
Acenaphthene	2	ns	<2	<2	<2	<2	<2	<2	<2
Dibenzofuran	2	ns	<2	<2	<2	<2	<2	<2	<2
4-nitrophenol	2	58[F]	<2	<2	<2	<2	<2	<2	<2
Pentachlorobenzene	2	2	<2	<2	<2	<2	<2	<2	<2
2,4-dinitrotoluene	4	65	<4	<4	<4	<4	<4	<4	<4
2-naphthylamine	2	ns	<2	<2	<2	<2	<2	<2	<2
1-naphthylamine	2	ns	<2	<2	<2	<2	<2	<2	<2
2,3,4,6-tetrachlorophenol	2	20	<2	<2	<2	<2	<2	<2	<2
Fluorene	2	ns	<2	<2	<2	<2	<2	<2	<2
Diethylphthalate	2	1000	<2	<2	<2	<2	<2	<2	<2
4-chlorophenyl phenyl ether	2	ns	<2	<2	<2	<2	<2	<2	<2
5-nitro-o-toluidine	2	ns	<2	<2	<2	<2	<2	<2	<2
4-nitroaniline	2	ns	<2	<2	<2	<2	<2	<2	<2
Demeton-O	2	ns	<2	<2	<2	<2	<2	<2	<2
Diphenylamine	2	ns	<2	<2	<2	<2	<2	<2	<2
Azobenzene	2	ns	<2	<2	<2	<2	<2	<2	<2
Ethoprop	2	ns	<2	<2	<2	<2	<2	<2	<2
Naled (Dibrom)	2	ns	<2	<2	<2	<2	<2	<2	<2
Sulfotepp	2	ns	<2	<2	<2	<2	<2	<2	<2
Monocrotophos	20	ns	<20	<20	<20	<20	<20	<20	<20
4-bromophenyl phenyl ether	2	ns	<2	<2	<2	<2	<2	<2	<2
Phorate	2	ns	<2	<2	<2	<2	<2	<2	<2
a-BHC	2	ns	<2	<2	<2	<2	<2	<2	<2
Phenacetin	2	ns	<2	<2	<2	<2	<2	<2	<2
Hexachlorobenzene (HCB)	2	0.1	<2	<2	<2	<2	<2	<2	<2
Demeton-S	2	0.04[F]	<2	<2	<2	<2	<2	<2	<2
Dimethoate	2	0.15	<2	<2	<2	<2	<2	<2	<2
4-aminobiphenyl	2	ns	<2	<2	<2	<2	<2	<2	<2
b-BHC	2	ns	<2	<2	<2	<2	<2	<2	<2
Pentachlorophenol	4	10	<4	<4	<4	<4	<4	<4	<4

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 3
Semi-Volatile Organic Compounds in Groundwater (ug/L)
Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	LOR	ANZECC - Fresh & Marine	MW1	MW2	MW3	MW4	MW5	MW6	D1-080503
Sampling Date			8-May-03	8-May-03	9-May-03	9-May-03	8-May-03	8-May-03	8-May-03
Methyl methanesulfonate	2	ns	<2	<2	<2	<2	<2	<2	<2
N-nitrosodiethylamine	2	ns	<2	<2	<2	<2	<2	<2	<2
Ethyl methanesulfonate	2	ns	<2	<2	<2	<2	<2	<2	<2
Pentachloroethane	2	80[M]	<2	<2	<2	<2	<2	<2	<2
Phenol	2	320	<2	<2	<2	<2	<2	<2	<2
Aniline	2	250	<2	<2	<2	<2	<2	<2	<2
Bis(2-chloroethyl)ether	2	ns	<2	<2	<2	<2	<2	<2	<2
2-chlorophenol	2	490	<2	<2	<2	<2	<2	<2	<2
1,3-dichlorobenzene	2	260	<2	<2	<2	<2	<2	<2	<2
1,4-dichlorobenzene	2	60	<2	<2	<2	<2	<2	<2	<2
Benzyl alcohol	2	ns	<2	<2	<2	<2	<2	<2	<2
1,2-dichlorobenzene	2	160	<2	<2	<2	<2	<2	<2	<2
2-methylphenol	2	490	<2	<2	<2	<2	<2	<2	<2
Bis(2-chloroisopropyl) ether	2	ns	<2	<2	<2	<2	<2	<2	<2
Acetophenone	2	ns	<2	<2	<2	<2	<2	<2	<2
N-nitrosopyrrolidine	4	ns	<4	<4	<4	<4	<4	<4	<4
N-nitrosomorpholine	2	ns	<2	<2	<2	<2	<2	<2	<2
3-&4-methylphenol	4	ns	<4	<4	<4	<4	<4	<4	<4
o-toluidine	2	ns	<2	<2	<2	<2	<2	<2	<2
Hexachloroethane	2	360	<2	<2	<2	<2	<2	<2	<2
N-nitrosodi-n-propylamine	2	ns	<2	<2	<2	<2	<2	<2	<2
Nitrobenzene	2	550	<2	<2	<2	<2	<2	<2	<2
N-nitrosopiperidine	2	ns	<2	<2	<2	<2	<2	<2	<2
Isophorone	2	120	<2	<2	<2	<2	<2	<2	<2
2-nitrophenol	2	2	<2	<2	<2	<2	<2	<2	<2
2,4-dimethylphenol	2	2	<2	<2	<2	<2	<2	<2	<2
Bis(2-chloroethoxy) methane	2	ns	<2	<2	<2	<2	<2	<2	<2
2,4-dichlorophenol	2	160	<2	<2	<2	<2	<2	<2	<2
1,2,4-trichlorobenzene	2	170	<2	<2	<2	<2	<2	<2	<2
Naphthalene	2	16	<2	<2	<2	<2	<2	<2	<2
2,6-dichlorophenol	2	34	<2	<2	<2	<2	<2	<2	<2
4-chloroaniline	2	ns	<2	<2	<2	<2	<2	<2	<2
Hexachloropropene	2	ns	<2	<2	<2	<2	<2	<2	<2
Hexachlorobutadiene	2	0.04	<2	<2	<2	<2	<2	<2	<2
Dichlorvos	2	ns	<2	<2	<2	<2	<2	<2	<2
N-nitrosodi-n-butylamine	2	ns	<2	<2	<2	<2	<2	<2	<2
4-chloro-3-methylphenol	2	ns	<2	<2	<2	<2	<2	<2	<2
Safrole	2	ns	<2	<2	<2	<2	<2	<2	<2
2-methylnaphthalene	2	ns	<2	<2	<2	<2	<2	<2	<2
1,2,4,5-tetrachlorobenzene	2	5[M]	<2	<2	<2	<2	<2	<2	<2
Hexachlorocyclopentadiene	4	0.05	<4	<4	<4	<4	<4	<4	<4

Prepared by: ____
Checked by: ____
Environmental Resources Management Australia Pty Ltd

TABLE 3

Semi-Volatile Organic Compounds in Groundwater (ug/L)

Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	LOR	ANZECC - Fresh & Marine	MW1	MW2	MW3	MW4	MW5	MW6	D1-080503
Sampling Date			8-May-03	8-May-03	9-May-03	9-May-03	8-May-03	8-May-03	8-May-03
d-BHC	2	ns	<2	<2	<2	<2	<2	<2	<2
Pentachloronitrobenzene	2	ns	<2	<2	<2	<2	<2	<2	<2
Phenanthrene	2	2	<2	<2	<2	<2	<2	<2	<2
Anthracene	2	0.4	<2	<2	<2	<2	<2	<2	<2
Diazinon	2	0.01	<2	<2	<2	<2	<2	<2	<2
Disulfoton	2	ns	<2	<2	<2	<2	<2	<2	<2
g-BHC (Lindane)	2	ns	<2	<2	<2	<2	<2	<2	<2
Carbazole	2	ns	<2	<2	<2	<2	<2	<2	<2
Methyl parathion	2	ns	<2	<2	<2	<2	<2	<2	<2
Heptachlor	2	0.09	<2	<2	<2	<2	<2	<2	<2
Ronnel	2	ns	<2	<2	<2	<2	<2	<2	<2
Fenitrothion	2	0.2	<2	<2	<2	<2	<2	<2	<2
Di-n-butyl phthalate	2	26	<2	<2	<2	<2	<2	<2	<2
Malathion	2	0.05	<2	<2	<2	<2	<2	<2	<2
Aldrin	2	0.001	<2	<2	<2	<2	<2	<2	<2
Fenthion	2	ns	<2	<2	<2	<2	<2	<2	<2
Chlorpyrifos	2	0.01	<2	<2	<2	<2	<2	<2	<2
Parathion	2	0.004	<2	<2	<2	<2	<2	<2	<2
Trichloronate	2	ns	<2	<2	<2	<2	<2	<2	<2
Heptachlor epoxide	2	ns	<2	<2	<2	<2	<2	<2	<2
Fluoranthene	2	1.4	<2	<2	<2	<2	<2	<2	<2
trans-chlordane	2	0.08	<2	<2	<2	<2	<2	<2	<2
Pyrene	2	ns	<2	<2	<2	<2	<2	<2	<2
Endosulfan I	2	0.2**	<2	<2	<2	<2	<2	<2	<2
Stirophos	2	ns	<2	<2	<2	<2	<2	<2	<2
cis-chlordane	2	0.08	<2	<2	<2	<2	<2	<2	<2
Prothiofos	2	ns	<2	<2	<2	<2	<2	<2	<2
Profenofos	2	0.002[M]	<2	<2	<2	<2	<2	<2	<2
4,4-DDE	2	0.03	<2	<2	<2	<2	<2	<2	<2
Dieldrin	2	0.01	<2	<2	<2	<2	<2	<2	<2
4-(dimethylamino) azobenzene	2	ns	<2	<2	<2	<2	<2	<2	<2
Endrin	2	0.02	<2	<2	<2	<2	<2	<2	<2
Endosulfan II	2	0.2**	<2	<2	<2	<2	<2	<2	<2
Fensulfothion	2	ns	<2	<2	<2	<2	<2	<2	<2
4,4-DDD	2	ns	<2	<2	<2	<2	<2	<2	<2
Endrin aldehyde	2	ns	<2	<2	<2	<2	<2	<2	<2
Butyl benzyl phthalate	2	ns	<2	<2	<2	<2	<2	<2	<2
Endosulfan sulphate	2	ns	<2	<2	<2	<2	<2	<2	<2
4,4-DDT	4	0.01	<4	<4	<4	<4	<4	<4	<4
2-(acetylamino) fluorene	2	ns	<2	<2	<2	<2	<2	<2	<2
Endrin ketone	2	ns	<2	<2	<2	<2	<2	<2	<2

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 3
Semi-Volatile Organic Compounds in Groundwater (ug/L)
Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	LOR	ANZECC - Fresh & Marine	MW1	MW2	MW3	MW4	MW5	MW6	D1-080503
Sampling Date			8-May-03	8-May-03	9-May-03	9-May-03	8-May-03	8-May-03	8-May-03
Benz(a)anthracene	2	ns	<2	<2	<2	<2	<2	<2	<2
EPN	2	ns	<2	<2	<2	<2	<2	<2	<2
Chrysene	2	ns	<2	<2	<2	<2	<2	<2	<2
Methoxychlor	2	0.004[M]	<2	<2	<2	<2	<2	<2	<2
Bis(2-ethylhexyl) phthalate	20	ns	<20	<20	<20	<20	<20	<20	<20
Azinophos methyl	2	0.02	<2	<2	<2	<2	<2	<2	<2
Di-n-octyl phthalate	2	ns	<2	<2	<2	<2	<2	<2	<2
Coumaphos	2	ns	<2	<2	<2	<2	<2	<2	<2
Benzo(b)&(k)fluoranthene	4	ns	<4	<4	<4	<4	<4	<4	<4
7,12-dimethylbenz(a)anthracene	2	ns	<2	<2	<2	<2	<2	<2	<2
Benzo(a) pyrene	2	0.2	<2	<2	<2	<2	<2	<2	<2
3-methylcholanthrene	2	ns	<2	<2	<2	<2	<2	<2	<2
Indeno(1,2,3-c,d)pyrene	2	ns	<2	<2	<2	<2	<2	<2	<2
Dibenz(a,h)anthracene	2	ns	<2	<2	<2	<2	<2	<2	<2
Benzo(g,h,i)perylene	2	ns	<2	<2	<2	<2	<2	<2	<2

Prepared by:____
Checked by:____
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TABLE 3
Semi-Volatile Organic Compounds in Groundwater (ug/L)
Groundwater Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	LOR	ANZECC - Fresh & Marine	MW7	MW8	MW9	MW10	MW11
Sampling Date			8-May-03	9-May-03	9-May-03	8-May-03	8-May-03
Methyl methanesulfonate	2	ns	<2	<2	<2	<2	<2
N-nitrosodiethylamine	2	ns	<2	<2	<2	<2	<2
Ethyl methanesulfonate	2	ns	<2	<2	<2	<2	<2
Pentachloroethane	2	80[M]	<2	<2	<2	<2	<2
Phenol	2	320	<2	<2	<2	<2	<2
Aniline	2	250	<2	<2	<2	<2	<2
Bis(2-chloroethyl)ether	2	ns	<2	<2	<2	<2	<2
2-chlorophenol	2	490	<2	<2	<2	<2	<2
1,3-dichlorobenzene	2	260	<2	<2	<2	<2	<2
1,4-dichlorobenzene	2	60	<2	<2	<2	<2	<2
Benzyl alcohol	2	ns	<2	<2	<2	<2	<2
1,2-dichlorobenzene	2	160	<2	<2	<2	<2	<2
2-methylphenol	2	490	<2	<2	<2	<2	<2
Bis(2-chloroisopropyl) ether	2	ns	<2	<2	<2	<2	<2
Acetophenone	2	ns	<2	<2	<2	<2	<2
N-nitrosopyrrolidine	4	ns	<4	<4	<4	<4	<4
N-nitrosomorpholine	2	ns	<2	<2	<2	<2	<2
3-&4-methylphenol	4	ns	<4	6	<4	<4	<4
o-toluidine	2	ns	<2	<2	<2	<2	<2
Hexachloroethane	2	360	<2	<2	<2	<2	<2
N-nitrosodi-n-propylamine	2	ns	<2	<2	<2	<2	<2
Nitrobenzene	2	550	<2	<2	<2	<2	<2
N-nitrosopiperidine	2	ns	<2	<2	<2	<2	<2
Isophorone	2	120	<2	<2	<2	<2	<2
2-nitrophenol	2	2	<2	<2	<2	<2	<2
2,4-dimethylphenol	2	2	<2	<2	<2	<2	<2
Bis(2-chloroethoxy) methane	2	ns	<2	<2	<2	<2	<2
2,4-dichlorophenol	2	160	<2	<2	<2	<2	<2
1,2,4-trichlorobenzene	2	170	<2	<2	<2	<2	<2
Naphthalene	2	16	<2	<2	<2	<2	<2
2,6-dichlorophenol	2	34	<2	<2	<2	<2	<2
4-chloroaniline	2	ns	<2	<2	<2	<2	<2
Hexachloropropene	2	ns	<2	<2	<2	<2	<2
Hexachlorobutadiene	2	0.04	<2	<2	<2	<2	<2
Dichlorvos	2	ns	<2	<2	<2	<2	<2
N-nitrosodi-n-butylamine	2	ns	<2	<2	<2	<2	<2
4-chloro-3-methylphenol	2	ns	<2	<2	<2	<2	<2
Safrole	2	ns	<2	<2	<2	<2	<2
2-methylnaphthalene	2	ns	<2	<2	<2	<2	<2
1,2,4,5-tetrachlorobenzene	2	5[M]	<2	<2	<2	<2	<2
Hexachlorocyclopentadiene	4	0.05	<4	<4	<4	<4	<4

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 3
Semi-Volatile Organic Compounds in Groundwater (ug/L)
Groundwater Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	LOR	ANZECC - Fresh & Marine	MW7	MW8	MW9	MW10	MW11
Sampling Date			8-May-03	9-May-03	9-May-03	8-May-03	8-May-03
2,4,6-trichlorophenol	2	ns	<2	<2	<2	<2	<2
2,4,5-trichlorophenol	2	0.5	<2	<2	<2	<2	<2
Isosafrole	2	ns	<2	<2	<2	<2	<2
2-chloronaphthalene	2	ns	<2	<2	<2	<2	<2
2-nitroaniline	4	ns	<4	<4	<4	<4	<4
Mevinphos (Phosdrin)	2	ns	<2	<2	<2	<2	<2
1,4-dinitrobenzene	2	0.6[V]	<2	<2	<2	<2	<2
Dimethyl phthalate	2	3700	<2	<2	<2	<2	<2
Acenaphthylene	2	ns	<2	<2	<2	<2	<2
2,6-dinitrotoluene	4	ns	<4	<4	<4	<4	<4
3-nitroaniline	4	ns	<4	<4	<4	<4	<4
Acenaphthene	2	ns	<2	<2	<2	<2	<2
Dibenzofuran	2	ns	<2	<2	<2	<2	<2
4-nitrophenol	2	58[V]	<2	<2	<2	<2	<2
Pentachlorobenzene	2	2	<2	<2	<2	<2	<2
2,4-dinitrotoluene	4	65	<4	<4	<4	<4	<4
2-naphthylamine	2	ns	<2	<2	<2	<2	<2
1-naphthylamine	2	ns	<2	<2	<2	<2	<2
2,3,4,6-tetrachlorophenol	2	20	<2	<2	<2	<2	<2
Fluorene	2	ns	<2	<2	<2	<2	<2
Diethylphthalate	2	1000	<2	<2	<2	<2	<2
4-chlorophenyl phenyl ether	2	ns	<2	<2	<2	<2	<2
5-nitro-o-toluidine	2	ns	<2	<2	<2	<2	<2
4-nitroaniline	2	ns	<2	<2	<2	<2	<2
Demeton-O	2	ns	<2	<2	<2	<2	<2
Diphenylamine	2	ns	<2	<2	<2	<2	<2
Azobenzene	2	ns	<2	<2	<2	<2	<2
Ethoprop	2	ns	<2	<2	<2	<2	<2
Naled (Dibrom)	2	ns	<2	<2	<2	<2	<2
Sulfotepp	2	ns	<2	<2	<2	<2	<2
Monocrotophos	20	ns	<20	<20	<20	<20	<20
4-bromophenyl phenyl ether	2	ns	<2	<2	<2	<2	<2
Phorate	2	ns	<2	<2	<2	<2	<2
a-BHC	2	ns	<2	<2	<2	<2	<2
Phenacetin	2	ns	<2	<2	<2	<2	<2
Hexachlorobenzene (HCB)	2	0.1	<2	<2	<2	<2	<2
Demeton-S	2	0.04[V]	<2	<2	<2	<2	<2
Dimethoate	2	0.15	<2	<2	<2	<2	<2
4-aminobiphenyl	2	ns	<2	<2	<2	<2	<2
b-BHC	2	ns	<2	<2	<2	<2	<2
Pentachlorophenol	4	10	<4	<4	<4	<4	<4

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 3
Semi-Volatile Organic Compounds in Groundwater (ug/L)
Groundwater Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	LOR	ANZECC - Fresh & Marine	MW7	MW8	MW9	MW10	MW11
Sampling Date			8-May-03	9-May-03	9-May-03	8-May-03	8-May-03
d-BHC	2	ns	<2	<2	<2	<2	<2
Pentachloronitrobenzene	2	ns	<2	<2	<2	<2	<2
Phenanthrene	2	2	<2	<2	<2	<2	<2
Anthracene	2	0.4	<2	<2	<2	<2	<2
Diazinon	2	0.01	<2	<2	<2	<2	<2
Disulfoton	2	ns	<2	<2	<2	<2	<2
g-BHC (Lindane)	2	ns	<2	<2	<2	<2	<2
Carbazole	2	ns	<2	<2	<2	<2	<2
Methyl parathion	2	ns	<2	<2	<2	<2	<2
Heptachlor	2	0.09	<2	<2	<2	<2	<2
Ronnel	2	ns	<2	<2	<2	<2	<2
Fenitrothion	2	0.2	<2	<2	<2	<2	<2
Di-n-butyl phthalate	2	26	<2	<2	2	<2	<2
Malathion	2	0.05	<2	<2	<2	<2	<2
Aldrin	2	0.001	<2	<2	<2	<2	<2
Fenthion	2	ns	<2	<2	<2	<2	<2
Chlorpyrifos	2	0.01	<2	<2	<2	<2	<2
Parathion	2	0.004	<2	<2	<2	<2	<2
Trichloronate	2	ns	<2	<2	<2	<2	<2
Heptachlor epoxide	2	ns	<2	<2	<2	<2	<2
Fluoranthene	2	1.4	<2	<2	<2	<2	<2
trans-chlordane	2	0.08	<2	<2	<2	<2	<2
Pyrene	2	ns	<2	<2	<2	<2	<2
Endosulfan I	2	0.2**	<2	<2	<2	<2	<2
Stirophos	2	ns	<2	<2	<2	<2	<2
cis-chlordane	2	0.08	<2	<2	<2	<2	<2
Prothiofos	2	ns	<2	<2	<2	<2	<2
Profenofos	2	0.002[M]	<2	<2	<2	<2	<2
4,4-DDE	2	0.03	<2	<2	<2	<2	<2
Dieldrin	2	0.01	<2	<2	<2	<2	<2
4-(dimethylamino) azobenzene	2	ns	<2	<2	<2	<2	<2
Endrin	2	0.02	<2	<2	<2	<2	<2
Endosulfan II	2	0.2**	<2	<2	<2	<2	<2
Fensulfothion	2	ns	<2	<2	<2	<2	<2
4,4-DDD	2	ns	<2	<2	<2	<2	<2
Endrin aldehyde	2	ns	<2	<2	<2	<2	<2
Butyl benzyl phthalate	2	ns	<2	<2	<2	<2	<2
Endosulfan sulphate	2	ns	<2	<2	<2	<2	<2
4,4-DDT	4	0.01	<4	<4	<4	<4	<4
2-(acetylamino) fluorene	2	ns	<2	<2	<2	<2	<2
Endrin ketone	2	ns	<2	<2	<2	<2	<2

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 3

Semi-Volatile Organic Compounds in Groundwater (ug/L)

Groundwater Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	LOR	ANZECC - Fresh & Marine	MW7	MW8	MW9	MW10	MW11
Sampling Date			8-May-03	9-May-03	9-May-03	8-May-03	8-May-03
Benz(a)anthracene	2	ns	<2	<2	<2	<2	<2
EPN	2	ns	<2	<2	<2	<2	<2
Chrysene	2	ns	<2	<2	<2	<2	<2
Methoxychlor	2	0.004[M]	<2	<2	<2	<2	<2
Bis(2-ethylhexyl) phthalate	20	ns	<20	<20	<20	<20	<20
Azinophos methyl	2	0.02	<2	<2	<2	<2	<2
Di-n-octyl phthalate	2	ns	<2	<2	<2	<2	<2
Coumaphos	2	ns	<2	<2	<2	<2	<2
Benzo(b)&(k)fluoranthene	4	ns	<4	<4	<4	<4	<4
7,12-dimethylbenz(a)anthracene	2	ns	<2	<2	<2	<2	<2
Benzo(a) pyrene	2	0.2	<2	<2	<2	<2	<2
3-methylcholanthrene	2	ns	<2	<2	<2	<2	<2
Indeno(1,2,3-c,d)pyrene	2	ns	<2	<2	<2	<2	<2
Dibenz(a,h)anthracene	2	ns	<2	<2	<2	<2	<2
Benzo(g,h,i)perylene	2	ns	<2	<2	<2	<2	<2

Notes:

Results exceeds the guideline concentrati

F *Freshwater low reliability* trigger values

M *Marine low reliability* trigger values

L *Low reliability* trigger values

Prepared by:____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 4

Volatile Organic Compounds (VOCs) in groundwater (µg/L)

Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Sampling Date	Dichlorodifluoromethane	Chloromethane	Vinyl chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-dichloroethene	Vinyl acetate	Dichloromethane	Carbon disulfide	trans-1,2-dichloroethene	Tributylmethylether (TBME)	1,1-dichloroethane	2-butanone (MEK)	cis-1,2-dichloroethene	2,2-dichloropropane	Ethyl acetate	Chloroform	1,1,1-trichloroethane	1,2-dichloroethane	1,1-dichloropropene	Carbon tetrachloride	Benzene
EQL		50	50	50	50	50	50	5	5	50	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Assessment Criteria																								
ANZECC 2000 - Marine		ns	ns	ns	ns	ns	ns	ns	ns	4000[M]	20[M]	ns	ns	ns	ns	ns	ns	ns	370[M]	270[M]	1900[M]	ns	240[M]	700
Dutch (2000) Intervention Levels		ns	ns	ns	ns	ns	ns	ns	ns	1000	ns	ns	ns	900	ns	20	ns	ns	ns	ns	ns	ns	ns	30
MW4	9-May-03	<50	<50	<50	<50	<50	<50	<5	<5	70	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW4	23-May-03	<50	<50	<50	<50	<50	<50	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW9	9-May-03	<50	<50	<50	<50	<50	<50	<5	<5	180	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW9	23/May/03	<50	<50	<50	<50	<50	<50	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Notes:

Results exceeds the guideline concentration

[M] *Marine low reliability* trigger values

Prepared by:____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 4

Volatile Organic Compounds (VOCs) in groundwater (µg/L)

Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Sampling Date	2-pentanone	Trichloroethene	1,2-dichloropropane	Dibromomethane	Bromodichloromethane	cis-1,3-dichloropropene	4-methyl-2-pentanone (MIBK)	Toluene	trans-1,3-dichloropropene	1,1,2-trichloroethane	1,3-dichloropropane	2-hexanone (MBK)	Chlorodibromomethane	Tetrachloroethene	1,2-dibromoethane	Chlorobenzene	1,1,1,2-tetrachloroethane	Ethylbenzene	meta- & para- xylene	Styrene	Bromoform	ortho-xylene	1,1,2,2-tetrachloroethane
EQL		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	5	5	5	5
Assessment Criteria																								
ANZECC 2000 - Marine		ns	ns	900[M]	ns	ns	ns	ns	180[M]	ns	1900	1100[M]	ns	ns	ns	ns	55[M]	ns	5[M]	275[M]	ns	ns	350[M]	400[M]
Dutch (2000) Intervention Levels		ns	ns	ns	ns	ns	ns	ns	1000	ns	ns	ns	ns	ns	ns	ns	180	ns	150	ns	300	ns	ns	ns
MW4	9-May-03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5
MW4	23-May-03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5
MW9	9-May-03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5
MW9	23/May/03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5

Notes:

Results exceeds the guideline concentration

[M] *Marine low reliability* trigger values

Prepared by: ____
Checked by: ____
Environmental Resources Management Australia Pty Ltd

TABLE 4

Volatile Organic Compounds (VOCs) in groundwater (µg/L)

Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Sampling Date	Isopropylbenzene	1,2,3-trichloropropane	Bromobenzene	n-propylbenzene	2-chlorotoluene	4-chlorotoluene	1,3,5-trimethylbenzene	tert-butylbenzene	1,2,4-trimethylbenzene	sec-butylbenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	p-isopropyltoluene	1,2-dichlorobenzene	n-butylbenzene	1,2-dibromo-3-chloropropane	1,2,4-trichlorobenzene	Naphthalene	Hexachlorobutadiene	1,2,3-trichlorobenzene
EQL		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Assessment Criteria																					
ANZECC 2000 - Marine		30[M]	ns	ns	ns	ns	ns	ns	ns	ns	ns	260[M]	60[M]	ns	160[M]	ns	ns	80	70	0.03[M]	3[M]
Dutch (2000) Intervention Levels		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	70	ns	ns
MW4	9-May-03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW4	23-May-03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW9	9-May-03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW9	23/May/03	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Notes:

Results exceeds the guideline concentration

[M] *Marine low reliability* trigger values

Prepared by:____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 5

Major Cations and Anions in groundwater

Groundwater and ASS Investigation; 1 Bennelong Road, HOMEBUSH BAY, NSW

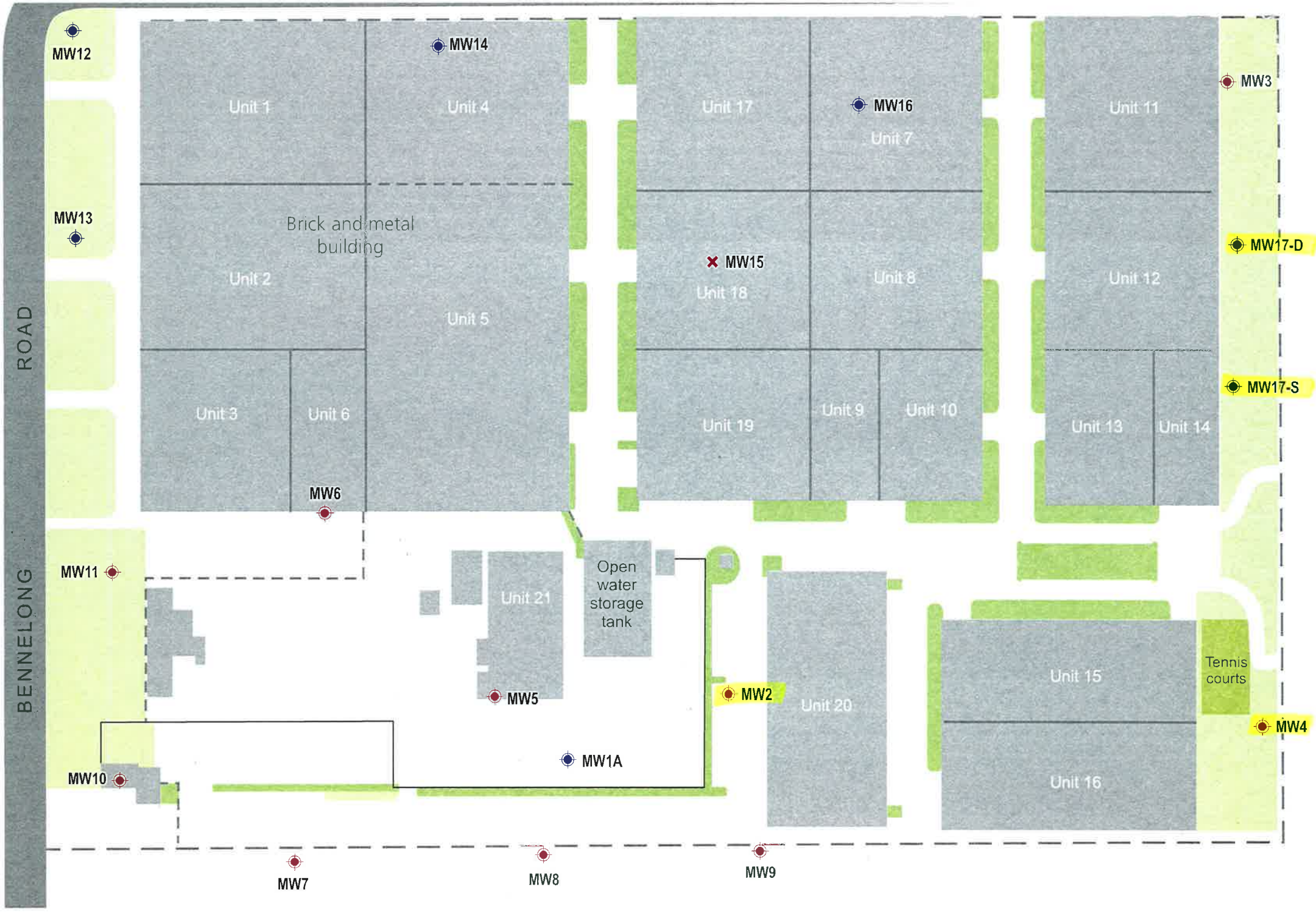
Sample ID	Sampling Date	Chloride	Fluoride	Alkalinity	Sulphate	NO_2 - N	NO_3 - N	NOx - N	Calcium	Magnesium	Sodium	Potassium
EQL		1	0.1	5	2	0.01	0.01	0.01	0.1	0.1	0.1	0.1
MW1	8-May-03	13000	0.8	730	110	<0.01	<0.01	-	191	610	6980	320
MW2	8-May-03	3720	0.8	410	360	0.03	0.01	-	179	250	1890	90
MW3	9-May-03	5730	1.2	1060	48	0.01	0.01	0.02	241	270	2840	189
MW4	9-May-03	2310	1.1	850	61	<0.01	0.03	0.04	192	132	1470	85
MW5	8-May-03	17300	0.5	670	38	0.03	0.04	-	374	740	8580	351
MW6	8-May-03	25800	0.5	1120	25	0.02	0.06	-	322	1200	11600	524
MW7	8-May-03	31000	0.5	1320	170	0.02	<0.01	-	356	1400	14800	720
MW8	9-May-03	27800	0.8	1690	<2	0.02	0.06	0.08	260	1120	14000	648
MW9	9-May-03	8350	0.7	870	58	<0.01	<0.01	0.01	253	394	4250	458
MW10	8-May-03	5240	0.9	560	660	0.04	1.4	-	213	316	2260	157
MW11	8-May-03	9170	0.5	560	3520	<0.01	<0.01	-	792	990	4780	221

Prepared by:____
Checked by:____
Environmental Resources Management Australia Pty Ltd

Document Reference: September 2005 Groundwater Monitoring Event Final Report, 2005

Site / Report Reference: Western Shore / Appendix B - 4

Included Information: Figure of sample locations; Groundwater results tables


BENNELONG ROAD
MW12
MW14
MW13
MW3
MW17-D
MW15
MW16
MW17-S
MW6
MW11
MW5
MW2
MW4
MW1A
MW10
MW7
MW8
MW9
Unit 1
Unit 4
Unit 17
Unit 7
Unit 11
Brick and metal building
Unit 2
Unit 5
Unit 18
Unit 8
Unit 12
Unit 3
Unit 6
Unit 19
Unit 9
Unit 10
Unit 13
Unit 14
Unit 21
Open water storage tank
Unit 20
Unit 15
Tennis courts
Unit 16

Legend For Laboratory Results Summary Tables

Notes:-

	Result exceeds ANZECC (2000)
EQL	Estimated Quantification Limit (Laboratory Detection Limit)
NR	Not Recorded
bcl	Below Well Casing Level
ASL	Above Site Level

Guidelines:-

ANZECC (2000)	ANZECC (Australian and New Zealand Environmental and Conservation Council) (2000) Australia and New Zealand Guidelines for Fresh and Marine Water Quality

TABLE 1
Schedule of Laboratory Analyses - Groundwater
Burroway Road, Homebush Bay, NSW

Sample ID	Sampling Date	Metals	Comments	Laboratory
MW1A	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW2	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW3-S	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW3-D	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW4-S	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW4-D	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW5	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW6	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW7	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW8	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW9-S	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW9-D	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW10	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW11	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW12	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW13	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW14	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW15			Well blocked	
MW16	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW17-S	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW17-D	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
D130905-1	13-Sep-05	X	Duplicate of MW12	LabMark
D130905-2	13-Sep-05	X	Duplicate of MW9D	ALS
D130905-3	13-Sep-05	X	Duplicate of MW4D	ALS

TABLE 1
Schedule of Laboratory Analyses - Groundwater
Burroway Road, Homebush Bay, NSW

Sample ID	Sampling Date	Metals	Comments	Laboratory
MW1A	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW2	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW3-S	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW3-D	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW4-S	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW4-D	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW5	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW6	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW7	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW8	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW9-S	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW9-D	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW10	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW11	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW12	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW13	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW14	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW15			Well blocked	
MW16	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW17-S	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
MW17-D	13-Sep-05	X	Arsenic analysis sent to University of Canberra	LabMark
D130905-1	13-Sep-05	X	Duplicate of MW12	LabMark
D130905-2	13-Sep-05	X	Duplicate of MW9D	ALS
D130905-3	13-Sep-05	X	Duplicate of MW4D	ALS

TABLE 2
Groundwater Elevation Data
Burroway Road, Homebush Bay, NSW

Sample ID	Monitoring Well Elevation	*August*				*September*			
		Sampling Date	Time	Depth to Water (m bcL)	Ground Water Elevation (m ASL)	Sampling Date	Time	Depth to Water (m bcL)	Ground Water Elevation (m ASL)
MW1A	102.65	22-Aug-05	15:45	1.35	101.30	13-Sep-05	11:38	1.335	101.32
MW2	102.70	22-Aug-05	15:00	0.84	101.86	13-Sep-05	11:30	0.798	101.90
MW3-D	102.26	23-Aug-05	8:10	1.74	100.52	13-Sep-05	14:00	1.800	100.46
MW4-D	102.12	24-Aug-05	8:37	1.55	100.57	13-Sep-05	16:10	1.490	100.63
MW5	101.42	23-Aug-05	12:15	0.10	101.32	13-Sep-05	12:35	0.150	101.27
MW6	101.79	24-Aug-05	7:30	1.00	100.79	13-Sep-05	12:55	1.300	100.49
MW7	102.55	22-Aug-05	11:30	1.49	101.06	13-Sep-05	9:32	1.440	101.11
MW8	102.32	22-Aug-05	12:21	1.13	101.19	13-Sep-05	10:40	0.990	101.33
MW9-D	102.09	22-Aug-05	13:55	1.17	100.92	13-Sep-05	9:51	0.865	101.23
MW10	102.23	22-Aug-05	8:30	1.27	100.96	13-Sep-05	7:10	1.255	100.98
MW11	101.96	22-Aug-05	10:00	1.24	100.72	13-Sep-05	7:55	1.350	100.61
MW12	102.20	24-Aug-05	11:30	1.50	100.70	13-Sep-05	8:45	0.595	101.61
MW13	102.03	22-Aug-05	10:49	1.32	100.71	13-Sep-05	8:30	1.360	100.67
MW14	102.17	23-Aug-05	14:00	1.37	100.80	13-Sep-05	14:25	1.392	100.78
MW16	102.04	23-Aug-05	14:50	1.37	100.67	13-Sep-05	15:00	1.375	100.67
MW17-D	101.71	23-Aug-05	11:05	1.38	100.33	13-Sep-05	14:10	1.436	100.27

Prepared by: KS
Checked by: AL
Environmental Resources Management Australia Pty Ltd

TABLE 3
Field Data (September Sampling Event)
Burroway Road, Homebush Bay, NSW

Sample ID	Sampling Date	Time	Volume of Water Removed (L)	Temperature (°C)	Dissolved Oxygen (ppm)	Conductivity (mS/cm)	pH	Redox Potential (mV)
MW1A	13-Sep-05	12:02	8	19.1	0.06	45.50	6.87	-129
MW2	13-Sep-05	11:59	27	20.2	0.00	13.58	7.07	-110
MW3-S	13-Sep-05	14:12	1	18.6	1.15	14.08	7.25	-132
MW3-D	13-Sep-05	15:00	15	18.0	0.54	16.45	7.23	-117
MW4-S	13-Sep-05	15:56	2	16.0	1.36	2.076	7.78	-66
MW4-D	13-Sep-05	14:48	15	16.0	0.03	1.908	7.43	-128
MW5	13-Sep-05	13:00	20	18.8	0.01	48.50	6.45	-90
MW6	13-Sep-05	13:09	14	19.0	0.00	54.10	6.75	-89
MW7	13-Sep-05	10:02	12	21.0	0.50*	37.00	6.63	-79
MW8	13-Sep-05	10:55	7	19.8	0.09	57.30	6.67	-123
MW9-S	13-Sep-05	9:56	3	18.5	4.53*	29.90	6.95	-22
MW9-D	13-Sep-05	10:25	8	19.5	0.53*	58.30	6.76	-99
MW10	13-Sep-05	7:33	9	17.9	2.70	14.77	6.99	-25
MW11	13-Sep-05	8:07	6	18.6	1.67*	32.60	6.60	-36
MW12	13-Sep-05	8:52	8	18.7	3.99	12.60	7.31	-90
MW13	13-Sep-05	8:47	4	18.6	1.81	24.30	6.85	-93
MW14	13-Sep-05	14:31	7	18.8	0.87*	3.64	7.26	-112
MW16	13-Sep-05	15:14	17	18.9	0.06	19.15	6.76	-105
MW17-S	13-Sep-05	16:24	7	16.0	0.11	11.17	7.30	-113
MW17-D	13-Sep-05	15:48	15	16.2	0.04	7.13	7.39	-133

Notes:
* Well purged dry resulting in increased Dissolved Oxygen readings

TABLE 4
Metals in Groundwater (ug/L)
Burroway Road, Homebush Bay, NSW

Sample ID	Sampling Date	Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Nickel	Zinc
Laboratory EQL		1	0.1	1	1	1	1	5
Assessment Criteria								
ANZECC (2000)		**2.3[L1] / 4.5[L2]**	**5.5**	**27.4[3] / 4.4[4]**	**1.3**	**4.4**	**70.0**	**15.0**
MW1A	13-Sep-05	5	<0.1	7	3	<1	*<10	6
MW2	13-Sep-05	<1	<0.1	3	1	<1	10	<5
MW3-S	13-Sep-05	2	<0.1	6	1	<1	13	<5
MW3-D	13-Sep-05	6	<0.1	7	3	<1	14	7
MW4-S	13-Sep-05	35	*<0.2	3	1	<1	2	<5
MW4-D	13-Sep-05	11	<0.1	3	1	<1	2	9
MW5	13-Sep-05	1	<0.1	7	5	<1	34	8
MW6	13-Sep-05	<1	<0.1	8	3	<1	23	<5
MW7	13-Sep-05	<1	<0.1	4	12	<1	29	10
MW8	13-Sep-05	2	<0.1	6	2	<1	19	<5
MW9-S	13-Sep-05	<1	*<0.2	5	10	<1	36	33
MW9-D	13-Sep-05	4	<0.1	7	3	<1	21	<5
MW10	13-Sep-05	<1	<0.1	5	9	<1	13	11
MW11	13-Sep-05	<1	<0.1	4	15	<1	59	17
MW12	13-Sep-05	<1	<0.1	3	4	<1	10	<5
MW13	13-Sep-05	3	<0.1	5	<1	<1	15	<5
MW14	13-Sep-05	2	<0.1	3	2	<1	17	10
MW16	13-Sep-05	<1	<0.1	5	1	<1	15	5
MW17-S	13-Sep-05	2	<0.1	4	2	<1	13	5
MW17-D	13-Sep-05	<1	<0.1	3	<1	<1	6	7
D130905-1	13-Sep-05	1	<0.1	2	3	<1	11	<5
D130905-2	13-Sep-05	3	<0.1	<1	2	<1	4	8
D130905-3	13-Sep-05	14	<0.1	<1	<1	<1	<1	<5

Notes:

L	Refers to Low Reliability Marine Trigger Value
1	Guideline value for Arsenic III
2	Guideline value for Arsenic V
3	Guideline value for Chromium III
4	Guideline value for Chromium VI
*	EQL increased due to matrix interference

TABLE 5

Details of Laboratory Groundwater Field Duplicate Analysis
Burroway Rd, Homebush Bay, NSW

		Metals
Discrete Samples	Originals	20
	Intra Laboratory duplicates	1
	Inter Laboratory duplicates	2
TOTAL		**23**
	% Intra laboratory Duplicates	**4.3%**
	% Inter Laboratory Duplicates	**8.7%**
	% Duplicate Samples	**13.0%**

TABLE 6
QA/QC Groundwater Results (ug/L)
Burroway Road, Homebush Bay, NSW

Sample ID	Sampling Date	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
Primary Laboratory EQL		1	0.1	1	1	1	1	5
Intra-Laboratory Duplicates								
MW12	13-Sep-05	<1	<0.1	3	4	<1	10	<5
D130905-1		1	<0.1	2	3	<1	11	<5
RPD		67%	-	40%	29%	-	10%	-
Inter-Laboratory Duplicates								
MW9D	13-Sep-05	4	<0.1	7	3	<1	21	<5
D130905-2		3	<0.1	<1	2	<1	4	8
RPD		29%	-	173%	40%	-	136%	105%
MW4D	13-Sep-05	11	<0.1	3	1	<1	2	9
D130905-3		14	<0.1	<1	<1	<1	<1	<5
RPD		24%	-	143%	67%	-	120%	113%

Legend:

indentifies RPD results > 50% where both values exceed ten times the EQL.
or where the RPD results > 75% where both values fall between five and ten times the EQL.
or where the RPD results > 100% where both values fall below five times the EQL.
\- RPD unable to be calculated

TABLE 7

Historical Review of Total Arsenic Concentrations in Groundwater (ug/L)

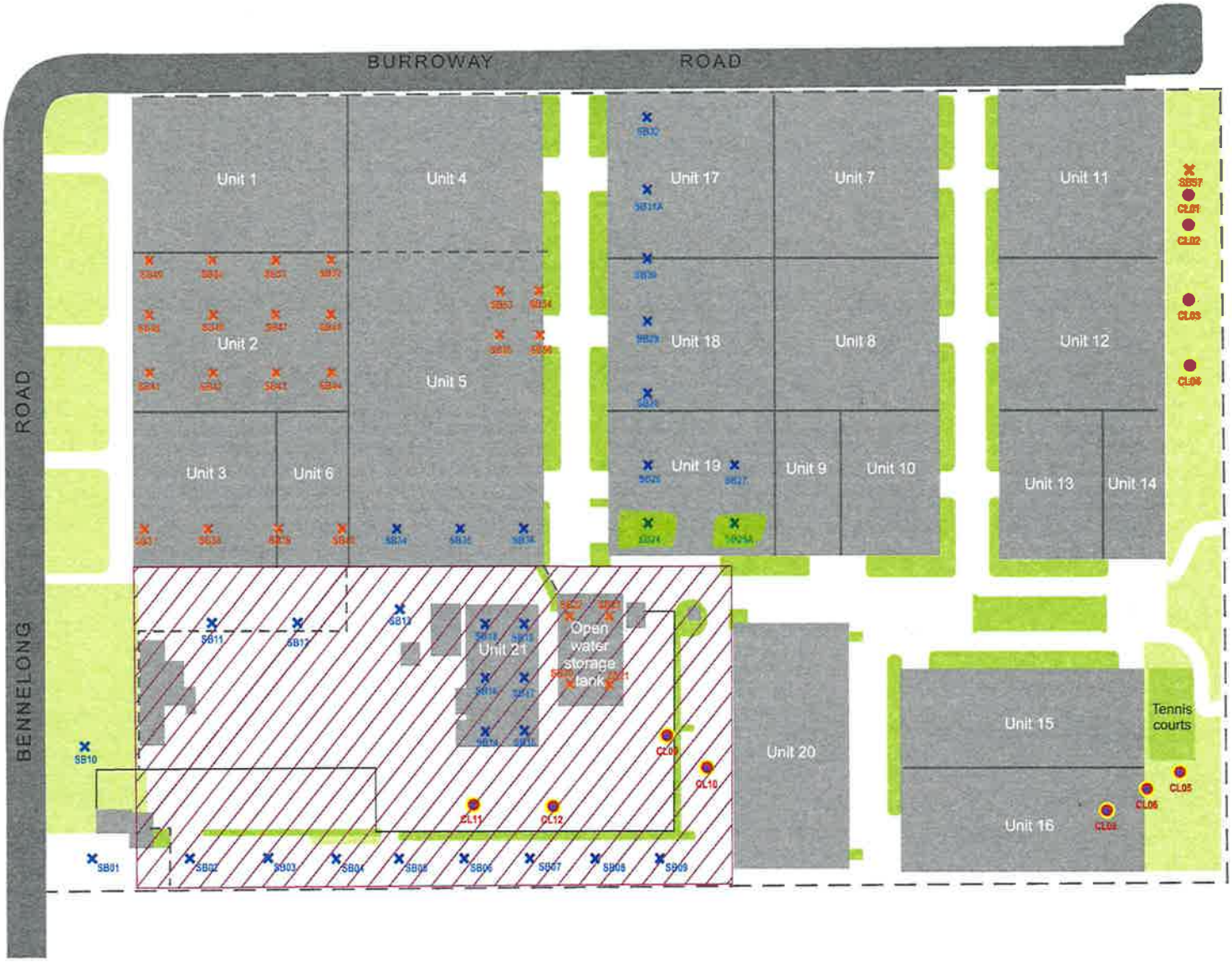
Burroway Road, Homebush Bay, NSW

Sample ID	May-03	June-03	November-03	January-04	February-05	September-05
MW1A	16	41	<10	NR	3	5
MW2	8.7	11	<10	1.3	<1	<1
MW3-S	NR	NR	NR	4.9	7	2
MW3-D	13	14	<10	5.2	27	6
MW4-S	NR	NR	NR	26.7	20	35
MW4-D	24	31#	20	19.1	1	11
MW5	17	27	<10	4.4	2	1
MW6	1	<1	<10	NR	<1	<1
MW7	<1	3	<0.01	NR	1	<1
MW8	15	8	<0.01	NR	7	2
MW9-S	NR	NR	NR	9.2	13	<1
MW9-D	12	16	29	6.2	<1	4
MW10	<1	<1	<1	NR	2	<1
MW11	2.8	3	1	NR	1	<1
MW12	NR	NR	2	NR	3	<1
MW13	NR	NR	2	NR	4	3
MW14	NR	NR	4	NR	3	2
MW15	NR	NR	<10	NR	<1	NR
MW16	NR	NR	<10	NR	<1	<1
MW17-S	NR	NR	NR	3.5	2	2
MW17-D	NR	NR	<10	3	1	<1

Document Reference: ERM Site Characterisation, 2004

Site / Report Reference: Western Shore / Appendix B - 5

Included Information: Figure of sample locations; Results tables



Source: ADI Limited

G:\obs\2004\00224790\224790224790 F4 REV D 06122004 Environmental Resources Management Australia Pty Ltd

ERM

0 30m
Approximate only

Building
Grassed area
Landscaped area
Fence
Block 'A'
Soil Sampling location (September 2004)
Future Soil Sampling location
Column leach tests

Figure 4 **Sampling Locations - September 2004**

1 Burroway Road, Homebush Bay

Legend For Laboratory Results Summary Tables

Notes:-

	Results exceed the NEPM (1999) HIL 'D' guideline concentration
	Results exceed the NEPM (1999) HIL 'E' guideline concentration
	Results exceed the NSW EPA (1994) Guidelines for Assessing Service Station Sites threshold concentrations for sensitive land use
	Results exceed the Inert Waste Maximum Value (Without TCLP)
	Results exceed the Solid Waste Maximum Value (Without TCLP)
	Results exceed Industrial Waste Maximum Value (Without TCLP)
	Results exceed the ANZECC (2000) Trigger Value for Marine Water (95% Protection of Species)
EQL	Estimated Quantification Limit (Laboratory Detection Limit)
-	Denotes Concentration Below Laboratory EQL
ns	No set guideline for this compound
a	Guideline applies to the sum of the Aldrin and Dieldrin concentrations
b	Guideline applies to the total chlordane concentration
c	Guideline applies to the sum of the DDT, DDD and DDE concentrations
-	Result below EQL

Guidelines:-

NEPM (1999)	NEPM (Assessment of Site Contamination Measure, 1999)
	Schedule B(1), Table 5-A - Guideline on the Investigation Levels for Soil and Groundwater
HIL 'D'	Health Investigation Level 'D' - Residential With Minimal Soil Access
HIL 'E'	Health Investigation Level 'E' - Parks, Recreational Open Space and Playing Fields
NSW EPA (1994)	NSW EPA Contaminated Sites (1994) Guidelines For Assessing Service Station Sites - Threshold concentrations for sensitive land use
NSW EPA (1999)	Environmental Guidelines: Assessment, Classification & Management of Liquid and Non-Liquid Wastes Table A3: Contaminant threshold values for waste classification of non-liquid wastes without doing the leaching test Table A4: Leachable concentration (TCLP) and total concentration (SCC) values for non-liquid waste classification

TABLE 1
Schedule of Laboratory Analyses - Soil
1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	Metals	TPH	PAHs	OCPs	OPPs	PCBs	Comments	Laboratory
SB01	0.5-0.6	21/9/04	X	X	X	X	X	X		LabMark
SB01	1.1-1.2	21/9/04	X	X	X	X	X	X		LabMark
SB02	0.4-0.5	20/9/04	X	X	X	X	X	X		LabMark
SB02	0.9-1.0	20/9/04	X	X	X	X	X	X		LabMark
SB03	0.6-0.7	21/9/04	X	X	X	X	X	X		LabMark
SB03	1.4-1.5	21/9/04	X	X	X	X	X	X		LabMark
SB04	0.6-0.7	21/9/04	X	X	X	X	X	X		LabMark
SB04	1.6-1.7	21/9/04	X	X	X	X	X	X		LabMark
SB05	0.5-0.6	21/9/04	X	X	X	X	X	X		LabMark
SB06	0.5-0.6	21/9/04	X	X	X	X	X	X		LabMark
SB06	0.9-1.0	21/9/04	X	X	X	X	X	X		LabMark
SB07	0.5-0.6	21/9/04	X	X	X	X	X	X		LabMark
SB07	0.9-1.0	21/9/04	X	X	X	X	X	X		LabMark
SB08	0.5-0.6	21/9/04	X	X	X	X	X	X		LabMark
SB08	1.0-1.1	21/9/04	X	X	X	X	X	X		LabMark
SB09	0.4-0.5	21/9/04	X	X	X	X	X	X		LabMark
SB10	0.5-0.6	24/9/04	X	X	X	X	X	X		LabMark
SB10	1.0-1.1	24/9/04	X	X	X	X	X	X		LabMark
SB11	0.3-0.4	20/9/04	X	X	X	X	X	X		LabMark
SB11	0.7-0.8	20/9/04	X	X	X	X	X	X		LabMark
SB12	0.4-0.5	20/9/04	X	X	X	X	X	X		LabMark
SB12	1.0-1.1	20/9/04	X	X	X	X	X	X		LabMark
SB13	0.2-0.7	20/9/04	X	X	X	X	X	X		LabMark
SB13	0.9-1.0	20/9/04	X	X	X	X	X	X		LabMark
SB14	0.4-0.5	21/9/04	X	X	X	X	X	X		LabMark
SB14	0.8-0.9	21/9/04	X	X	X	X	X	X		LabMark
SB15	0.6-0.7	21/9/04	X	X	X	X	X	X		LabMark
SB15	2.0-2.1	21/9/04	X	X	X	X	X	X		LabMark
SB16	0.3-0.4	21/9/04	X	X	X	X	X	X		LabMark
SB16	0.9-1.0	21/9/04	X	X	X	X	X	X		LabMark
SB17	0.2-0.3	21/9/04	X	X	X	X	X	X		LabMark
SB17	0.7-0.8	21/9/04	X	X	X	X	X	X		LabMark
SB18	0.1-0.3	20/9/04	X	X	X	X	X	X		LabMark
SB18	1.0-1.1	20/9/04	X	X	X	X	X	X		LabMark
SB19	0.2-0.3	20/9/04	X	X	X	X	X	X		LabMark
SB19	0.9-1.0	20/9/04	X	X	X	X	X	X		LabMark
SB24	0.3-0.4	21/9/04	X	X	X	X	X	X		LabMark
SB24	0.8-0.9	21/9/04	X	X	X	X	X	X		LabMark
SB25A	0.4-0.5	20/9/04	X	X	X	X	X	X		LabMark
SB25A	1.0-1.1	20/9/04	X	X	X	X	X	X		LabMark
SB26	0.4-0.5	21/9/04	X	X	X	X	X	X		LabMark
SB27	0.5-0.6	20/9/04	X	X	X	X	X	X		LabMark
SB28	0.3-0.4	20/9/04	X	X	X	X	X	X		LabMark
SB28	1.1-1.2	20/9/04	X	X	X	X	X	X		LabMark
SB29	0.3-0.4	20/9/04	X	X	X	X	X	X		LabMark
SB29	0.9-1.0	20/9/04	X	X	X	X	X	X		LabMark
SB30	0.4-0.5	20/9/04	X	X	X	X	X	X		LabMark
SB30	0.9-1.0	20/9/04	X	X	X	X	X	X		LabMark
SB31	0.8-0.9	20/9/04	X	X	X	X	X	X		LabMark
SB31A	0.2-0.3	20/9/04	X	X	X	X	X	X		LabMark
SB32	0.2-0.3	20/9/04	X	X	X	X	X	X		LabMark
SB32	0.7-0.8	20/9/04	X	X	X	X	X	X		LabMark
SB34	0.5-0.6	22/9/04	X	X	X	X	X	X		LabMark
SB34	1.0-1.1	22/9/04	X	X	X	X	X	X		LabMark
SB35	0.5-0.6	22/9/04	X	X	X	X	X	X		LabMark
SB35	1.0-1.1	22/9/04	X	X	X	X	X	X		LabMark
SB36	0.5-0.6	22/9/04	X	X	X	X	X	X		LabMark
SB36	1.0-1.1	22/9/04	X	X	X	X	X	X		LabMark
D2009-1		20/9/04	X	X	X	X	X	X	Duplicate of SB12 @ 0.4-0.5	LabMark
D2009-2		20/9/04	X	X	X	X	X	X	Duplicate of SB02 @ 0.9-1.0	LabMark
D2109-1		21/9/04	X	X	X	X	X	X	Duplicate of SB16 @ 0.3-0.4	LabMark
D2109-2		21/9/04	X	X	X	X	X	X	Duplicate of SB04 @ 0.6-0.7	LabMark
D2109-3		21/9/04	X	X	X	X	X	X	Duplicate of SB09 @ 0.4-0.5	LabMark
D2209-1		22/9/04	X	X	X	X	X	X	Duplicate of SB36 @ 0.5-0.6	LabMark
D2610-1		20/09/04	X						Triplicate of SB02 @ 0.9-1.0	ALS
D2610-2		20/09/04		X					Duplicate of SB11 @ 0.3-0.4	ALS
D2610-3		21/9/04	X						Triplicate of SB04 @ 0.6-0.7	ALS
D2610-4		21/09/04		X	X				Triplicate of SB09 @ 0.4-0.5	ALS
D2610-5		21/09/04			X				Duplicate of SB07 @ 0.5-0.6	ALS
D2610-6		21/09/04		X	X				Duplicate of SB14 @ 0.4-0.5	ALS
D2610-7		20/09/04	X						Triplicate of SB36 @ 0.5-0.6	ALS

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 2
Inorganics in Soil (mg/kg)
1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	Arsenic	Cadmium	Chromium	Chromium VI	Copper	Nickel	Lead	Zinc
EQL			1	0.1	1	1	2	1	2	5
Assessment Criteria										
NEPM (1999) 'D' HIL			**400**	**80**	**400**	**400**	**4,000**	**2,400**	**1,200**	**28,000**
SB01	0.5-0.6	21/9/04	9	-	11	-	14	4	29	43
SB01	1.1-1.2	21/9/04	9	-	12	-	13	5	28	24
SB02	0.4-0.5	20/9/04	8	0.1	17	-	20	5	44	48
SB02	0.9-1.0	20/9/04	10	0.2	24	-	18	6	34	47
SB03	0.6-0.7	21/9/04	11	-	15	-	32	4	18	31
SB03	1.4-1.5	21/9/04	18	0.3	34	-	49	8	160	190
SB04	0.6-0.7	21/9/04	6	-	14	-	16	4	20	23
SB04	1.6-1.7	21/9/04	22	0.2	19	-	17	5	51	76
SB05	0.5-0.6	21/9/04	7	-	11	-	15	5	16	22
SB06	0.5-0.6	21/9/04	9	0.1	20	-	18	3	53	74
SB06	0.9-1.0	21/9/04	11	0.1	14	-	32	6	290	76
SB07	0.5-0.6	21/9/04	12	0.4	14	3	39	4	310	190
SB07	0.9-1.0	21/9/04	20	0.3	30	-	26	8	77	110
SB08	0.5-0.6	21/9/04	12	0.3	17	3	26	4	260	120
SB08	1.0-1.1	21/9/04	22	0.3	28	-	27	7	83	110
SB09	0.4-0.5	21/9/04	160	0.5	270	5	140	19	150	210
SB10	0.5-0.6	24/9/04	7	-	7	-	10	4	22	31
SB10	1.0-1.1	24/9/04	6	-	8	-	15	5	13	18
SB11	0.3-0.4	20/9/04	7	0.2	21	-	20	6	81	76
SB11	0.7-0.8	20/9/04	3	-	3	-	-	1	-	-
SB12	0.4-0.5	20/9/04	4	-	25	-	2	-	10	-
SB12	1.0-1.1	20/9/04	22	0.1	36	-	36	9	96	150
SB13	0.2-0.7	20/9/04	-	0.1	16	-	67	150	-	59
SB13	0.9-1.0	20/9/04	8	-	36	-	4	3	14	8
SB14	0.4-0.5	21/9/04	8	0.5	16	-	350	5	690	210
SB14	0.8-0.9	21/9/04	14	-	20	-	13	4	41	61
SB15	0.6-0.7	21/9/04	6	0.1	17	-	21	12	72	58
SB15	2.0-2.1	21/9/04	26	0.2	21	2	17	6	53	79
SB16	0.3-0.4	21/9/04	3	-	9	-	3	-	7	-
SB16	0.9-1.0	21/9/04	6	-	19	-	3	-	9	-
SB17	0.2-0.3	21/9/04	7	-	12	-	13	2	29	16
SB17	0.7-0.8	21/9/04	7	-	10	-	11	2	17	22
SB18	0.1-0.3	20/9/04	5	-	3	-	2	1	7	9
SB18	1.0-1.1	20/9/04	21	0.1	11	2	9	4	29	43
SB19	0.2-0.3	20/9/04	3	-	7	-	5	-	12	-
SB19	0.9-1.0	20/9/04	10	-	16	-	14	5	39	30
SB24	0.3-0.4	21/9/04	4	-	10	-	3	-	12	-
SB24	0.8-0.9	21/9/04	10	-	29	-	3	1	12	-
SB25A	0.4-0.5	20/9/04	4	-	15	-	5	2	16	9
SB25A	1.0-1.1	20/9/04	14	0.2	13	3	11	4	32	52
SB26	0.4-0.5	21/9/04	9	-	23	-	6	1	10	-
SB27	0.5-0.6	20/9/04	6	-	27	-	2	-	12	-
SB28	0.3-0.4	20/9/04	6	-	16	-	2	-	10	-
SB28	1.1-1.2	20/9/04	4	-	5	-	11	7	18	28
SB29	0.3-0.4	20/9/04	6	-	29	-	2	-	13	-
SB29	0.9-1.0	20/9/04	3	-	23	-	3	-	7	-
SB30	0.4-0.5	20/9/04	4	-	27	-	2	-	10	-
SB30	0.9-1.0	20/9/04	19	0.2	20	-	31	7	92	120
SB31	0.8-0.9	20/9/04	3	-	18	-	4	2	13	10
SB31A	0.2-0.3	20/9/04	3	-	13	-	2	-	8	-
SB32	0.2-0.3	20/9/04	8	-	33	-	2	-	10	-
SB32	0.7-0.8	20/9/04	9	0.6	12	-	30	24	17	140
SB34	0.5-0.6	22/9/04	6	-	27	-	3	1	14	-
SB34	1.0-1.1	22/9/04	16	-	6	-	8	4	21	25
SB35	0.5-0.6	22/9/04	12	-	31	-	3	1	15	-
SB35	1.0-1.1	22/9/04	16	-	12	-	150	5	86	170
SB36	0.5-0.6	22/9/04	6	-	19	-	4	-	13	-
SB36	1.0-1.1	22/9/04	6	-	18	-	22	14	19	57

95% UCL			16.5	0.2	29.7	0.9	35.9	11.1	80.9	63.3
Standard Deviation			20.6	0.1	34.1	0.8	51.4	19.6	107.3	59.0

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 3

Total Petroleum Hydrocarbons (TPH) and Benzene, Toluene, Ethylbenzene and Xylene (BTEX) in Soil (mg/kg)
1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	Benzene	Toluene	Ethylbenzene	Xylene (total)	TPH (C_6–C_9)	TPH (C_{10}–C_{14})	TPH (C_{15}–C_{28})	TPH (C_{29}–C_{36})	TPH (Total C_{10}–C_{36})
EQL			0.2	0.5	0.5	1.5	10	50	100	100	NA
Assessment Criteria											
NSW EPA (1994)			**1**	**130**	**50**	**25**	**65**	ns	ns	ns	**1,000**
SB01	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-
SB01	1.1-1.2	21/9/04	-	-	-	-	-	-	-	-	-
SB02	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-
SB02	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB03	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-
SB03	1.4-1.5	21/9/04	-	-	-	-	-	-	-	-	-
SB04	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-
SB04	1.6-1.7	21/9/04	-	-	-	-	-	-	-	-	-
SB05	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-
SB06	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-
SB06	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-
SB07	0.5-0.6	21/9/04	-	-	-	-	-	-	190	-	190
SB07	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-
SB08	0.5-0.6	21/9/04	-	-	-	-	-	-	150	110	260
SB08	1.0-1.1	21/9/04	-	-	-	-	-	-	-	-	-
SB09	0.4-0.5	21/9/04	-	-	-	-	-	-	330	180	510
SB10	0.5-0.6	24/9/04	-	-	-	-	-	-	-	-	-
SB10	1.0-1.1	24/9/04	-	-	-	-	-	-	-	-	-
SB11	0.3-0.4	20/9/04	-	-	-	-	-	-	130	-	130
SB11	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-
SB12	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-
SB12	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-
SB13	0.2-0.7	20/9/04	-	-	-	-	-	-	-	-	-
SB13	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB14	0.4-0.5	21/9/04	-	-	-	-	-	470	2,250	1,670	4,390
SB14	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-
SB15	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-
SB15	2.0-2.1	21/9/04	-	-	-	-	-	-	-	-	-
SB16	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-
SB16	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-
SB17	0.2-0.3	21/9/04	-	-	-	-	-	-	-	-	-
SB17	0.7-0.8	21/9/04	-	-	-	-	-	-	120	-	120
SB18	0.1-0.3	20/9/04	-	-	-	-	-	-	-	-	-
SB18	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-
SB19	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-
SB19	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB24	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-
SB24	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-
SB25A	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-
SB25A	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-
SB26	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-
SB27	0.5-0.6	20/9/04	-	-	-	-	-	-	-	-	-
SB28	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-
SB28	1.1-1.2	20/9/04	-	-	-	-	-	-	-	-	-
SB29	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-
SB29	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB30	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-
SB30	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB31	0.8-0.9	20/9/04	-	-	-	-	-	-	-	-	-
SB31A	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-
SB32	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-
SB32	0.7-0.8	20/9/04	-	-	-	2	-	-	-	-	-
SB34	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-
SB34	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-
SB35	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-
SB35	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-
SB36	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-
SB36	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-

Prepared by: ____
Checked by: ____
Environmental Resources Management Australia Pty Ltd

TABLE 4

Polycyclic Aromatic Hydrocarbons (PAHs) in Soil (mg/kg)

1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz[a] anthracene	Chrysene	Benzo[b&j]fluoranthene	Benzo[a]pyrene	Indeno[1,2,3-c,d] pyrene	Dibenz[a,h] anthracene	Benzo[g,h,i] perylene	Total PAHs
EQL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.5	0.5	0.5	0.5	-
Assessment Criteria																		
NEPM (1999) 'D' HIL			ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	4	ns	ns	ns	80
SB01	0.5-0.6	21/9/04	-	-	-	-	-	-	0.6	0.6	0.5	-	-	-	-	-	-	1.7
SB01	1.1-1.2	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	0.4-0.5	20/9/04	-	-	-	-	-	-	0.5	0.5	-	-	-	-	-	-	-	1.0
SB02	0.9-1.0	20/9/04	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	0.5
SB03	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	1.4-1.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	1.6-1.7	21/9/04	-	-	-	-	-	-	1.2	1.3	0.6	0.5	1.0	0.6	-	-	-	5.2
SB05	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	0.5-0.6	21/9/04	-	-	-	-	1.0	-	1.0	0.9	-	0.5	-	-	-	-	-	3.4
SB06	0.9-1.0	21/9/04	-	-	-	-	1.0	-	1.9	1.6	0.8	0.8	1.0	0.8	-	-	0.5	8.4
SB07	0.5-0.6	21/9/04	0.9	2.1	-	1.9	13.0	3.5	21.0	19.0	10.0	9.0	20.0	14.0	6.6	1.3	6.7	129.0
SB07	0.9-1.0	21/9/04	-	-	-	-	-	-	0.8	1.0	-	-	-	0.6	-	-	-	2.4
SB08*	0.5-0.6	21/9/04	2.6	14.0	-	12.0	143.0	27.0	145.0	120.0	62.0	43.0	80.0	88.0	22.0	6.5	25.0	790.1
SB08	1.0-1.1	21/9/04	-	-	-	-	-	-	0.8	0.8	0.5	-	-	0.5	-	-	-	2.6
SB09	0.4-0.5	21/9/04	1.7	4.2	0.5	2.8	22.0	6.0	33.0	29.0	17.0	11.0	29.0	22.0	11.0	2.4	11.0	202.6
SB10	0.5-0.6	24/9/04	-	-	-	-	-	-	1.1	1.1	0.5	0.7	-	0.5	-	-	-	3.9
SB10	1.0-1.1	24/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB11	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB11	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	1.0-1.1	20/9/04	-	-	-	-	-	-	1.0	1.1	0.6	0.5	1.0	0.6	-	-	-	4.8
SB13	0.2-0.7	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB14	0.4-0.5	21/9/04	-	0.6	-	0.5	5.4	1.3	5.5	4.5	2.4	1.6	3.0	2.5	1.2	-	1.3	29.8
SB14	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	2.0-2.1	21/9/04	-	-	-	-	0.6	-	1.6	1.5	0.8	0.6	1.0	0.8	-	-	-	6.9
SB16	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	0.2-0.3	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	0.7-0.8	21/9/04	-	0.9	-	0.9	6.0	1.9	9.4	8.5	4.8	3.7	8.0	5.8	2.5	0.5	2.6	55.5
SB18	0.1-0.3	20/9/04	-	-	-	-	0.5	-	1.1	1.0	0.6	0.6	1.0	0.5	-	-	-	5.3
SB18	1.0-1.1	20/9/04	-	-	-	-	0.9	-	1.9	1.8	1.2	0.9	2.0	1.1	0.5	-	0.6	10.9
SB19	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	0.9-1.0	20/9/04	-	0.6	-	-	1.7	0.9	5.3	4.8	2.6	2.5	5.0	2.9	1.3	-	1.4	29.0
SB24	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB24	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB25A	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB25A	1.0-1.1	20/9/04	-	-	-	-	-	-	1.0	1.1	0.5	0.5	1.0	0.5	-	-	-	4.6
SB26	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB27	0.5-0.6	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB28	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB28	1.1-1.2	20/9/04	-	-	-	-	1.4	0.5	2.6	2.1	1.3	1.1	2.0	1.0	-	-	0.5	12.5
SB29	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB29	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB30	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB30	0.9-1.0	20/9/04	-	-	-	-	1.4	0.6	3.8	3.9	1.7	1.7	4.0	2.0	0.9	-	1.1	21.1
SB31	0.8-0.9	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB31A	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB32	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB32	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB34	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB34	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB35	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB35	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB36	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB36	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95% UCL														3.5				44.9
Standard Deviation														7.0				102.3
95 % UCL excluding exceedances														0.8				6.1
Standard Deviation excluding exceedances														0.9				9.5

* Values reported for highest reported PAH concentrations, LabMark in-house triplicate sample 36823t

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 5
Organochlorine Pesticides in Soil (mg/kg)
1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	a-BHC	HCB	g-BHC (Lindane)	b-BHC	d-BHC	Heptachlor	Aldrin	Heptachlor epoxide	trans-chlordane	Endosulfan I	cis-chlordane	Dieldrin	4,4-DDE	Endrin	Endosulfan II	4,4-DDD	Endosulfan sulphate	4,4-DDT	Methoxychlor
EQL			0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.2
Assessment Criteria																					
NEPM (1999) - 'D' HIL			ns	ns	ns	ns	ns	40	40[a]	ns	200[b]	ns	200[b]	40[a]	800[c]	ns	ns	900[c]	ns	900[c]	ns
SB01	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB01	1.1-1.2	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	1.4-1.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	1.6-1.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	-	-
SB07	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	0.3-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	1.0-1.1	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	0.5-0.6	24/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	1.0-1.1	24/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB11	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB11	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	0.2-0.7	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB14	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB14	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	2.0-2.1	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	0.2-0.3	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	0.7-0.8	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	0.1-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB24	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB24	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB25A	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB25A	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB26	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB27	0.5-0.6	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB28	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB28	1.1-1.2	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB29	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB29	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB30	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB30	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB31	0.8-0.9	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB31A	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB32	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB32	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB34	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB34	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB35	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB35	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB36	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB36	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 6
Organophosphorus Pesticides (OPPs) in Soil (mg/kg)
1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	Dichlorvos	Mevinphos (Phosdrin)	Demeton (total)	Chlorpyrifos	Monocrotophos	Fluorate	Dimethoate	Diazinon	Disulfoton	Methyl parathion	Ronnel	Fenitrothion	Malathion	Fenthion	Chlorpyrifos	Parathion	Prothiofos	Azinophos methyl	Coumaphos
EQL			0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Assessment Criteria																					
NEPM (1999) - TF III																					
SB01	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB01	1.1-1.2	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	1.4-1.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	1.6-1.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	1.0-1.1	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	0.5-0.6	24/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	1.0-1.1	24/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB11	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB11	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	0.2-0.7	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB14	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB14	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	2.0-2.1	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	0.2-0.3	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	0.7-0.8	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	0.1-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB24	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB24	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB25A	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB25A	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB26	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB27	0.5-0.6	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB28	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB28	1.1-1.2	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB29	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB29	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB30	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB30	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB31	0.8-0.9	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB31A	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB32	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB32	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB34	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB34	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB35	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB35	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB36	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB36	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Prepared by: ____
Checked by: ____
Environmental Resources Management Australia Pty Ltd

TABLE 7
Polychlorinated Biphenyls in Soil (mg/kg)
1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	Archlor 1016	Archlor 1232	Archlor 1242	Archlor 1248	Archlor 1254	Archlor 1260	Total PCBs
EQL			0.5	0.5	0.5	0.5	0.5	0.5	--
Assessment Criteria									
NEPM (1999) 'D' HIL			**ns**	**ns**	**ns**	**ns**	**ns**	**ns**	**40**
SB01	0.5-0.6	21/9/04	-	-	-	-	-	-	-
SB01	1.1-1.2	21/9/04	-	-	-	-	-	-	-
SB02	0.4-0.5	20/9/04	-	-	-	-	-	-	-
SB02	0.9-1.0	20/9/04	-	-	-	-	-	-	-
SB03	0.6-0.7	21/9/04	-	-	-	-	-	-	-
SB03	1.4-1.5	21/9/04	-	-	-	-	-	-	-
SB04	0.6-0.7	21/9/04	-	-	-	-	-	-	-
SB04	1.6-1.7	21/9/04	-	-	-	-	-	-	-
SB05	0.5-0.6	21/9/04	-	-	-	-	-	-	-
SB06	0.5-0.6	21/9/04	-	-	-	-	-	-	-
SB06	0.9-1.0	21/9/04	-	-	-	-	-	-	-
SB07	0.5-0.6	21/9/04	-	-	-	-	-	-	-
SB07	0.9-1.0	21/9/04	-	-	-	-	-	-	-
SB08	0.5-0.6	21/9/04	-	-	-	-	-	-	-
SB08	1.0-1.1	21/9/04	-	-	-	-	-	-	-
SB09	0.4-0.5	21/9/04	-	-	-	-	-	-	-
SB10	0.5-0.6	24/9/04	-	-	-	-	-	-	-
SB10	1.0-1.1	24/9/04	-	-	-	-	-	-	-
SB11	0.3-0.4	20/9/04	-	-	-	-	-	-	-
SB11	0.7-0.8	20/9/04	-	-	-	-	-	-	-
SB12	0.4-0.5	20/9/04	-	-	-	-	-	-	-
SB12	1.0-1.1	20/9/04	-	-	-	-	-	-	-
SB13	0.2-0.7	20/9/04	-	-	-	-	-	-	-
SB13	0.9-1.0	20/9/04	-	-	-	-	-	-	-
SB14	0.4-0.5	21/9/04	-	-	-	-	-	-	-
SB14	0.8-0.9	21/9/04	-	-	-	-	-	-	-
SB15	0.6-0.7	21/9/04	-	-	-	-	-	-	-
SB15	2.0-2.1	21/9/04	-	-	-	-	-	-	-
SB16	0.3-0.4	21/9/04	-	-	-	-	-	-	-
SB16	0.9-1.0	21/9/04	-	-	-	-	-	-	-
SB17	0.2-0.3	21/9/04	-	-	-	-	-	-	-
SB17	0.7-0.8	21/9/04	-	-	-	-	-	-	-
SB18	0.1-0.3	20/9/04	-	-	-	-	-	-	-
SB18	1.0-1.1	20/9/04	-	-	-	-	-	-	-
SB19	0.2-0.3	20/9/04	-	-	-	-	-	-	-
SB19	0.9-1.0	20/9/04	-	-	-	-	-	-	-
SB24	0.3-0.4	21/9/04	-	-	-	-	-	-	-
SB24	0.8-0.9	21/9/04	-	-	-	-	-	-	-
SB25A	0.4-0.5	20/9/04	-	-	-	-	-	-	-
SB25A	1.0-1.1	20/9/04	-	-	-	-	-	-	-
SB26	0.4-0.5	21/9/04	-	-	-	-	-	-	-
SB27	0.5-0.6	20/9/04	-	-	-	-	-	-	-
SB28	0.3-0.4	20/9/04	-	-	-	-	-	-	-
SB28	1.1-1.2	20/9/04	-	-	-	-	-	-	-
SB29	0.3-0.4	20/9/04	-	-	-	-	-	-	-
SB29	0.9-1.0	20/9/04	-	-	-	-	-	-	-
SB30	0.4-0.5	20/9/04	-	-	-	-	-	-	-
SB30	0.9-1.0	20/9/04	-	-	-	-	-	-	-
SB31	0.8-0.9	20/9/04	-	-	-	-	-	-	-
SB31A	0.2-0.3	20/9/04	-	-	-	-	-	-	-
SB32	0.2-0.3	20/9/04	-	-	-	-	-	-	-
SB32	0.7-0.8	20/9/04	-	-	-	-	-	-	-
SB34	0.5-0.6	22/9/04	-	-	-	-	-	-	-
SB34	1.0-1.1	22/9/04	-	-	-	-	-	-	-
SB35	0.5-0.6	22/9/04	-	-	-	-	-	-	-
SB35	1.0-1.1	22/9/04	-	-	-	-	-	-	-
SB36	0.5-0.6	22/9/04	-	-	-	-	-	-	-
SB36	1.0-1.1	22/9/04	-	-	-	-	-	-	-

Prepared by: ____
Checked by: ____
Environmental Resources Management Australia Pty Ltd

TABLE 8
Inorganics in Soil (mg/kg)
1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	Arsenic	Cadmium	Chromium	Chromium VI	Copper	Nickel	Lead	Zinc
EQL			1	0.1	1	1	2	1	2	5
Waste Classification Criteria										
Inert Waste (Maximum Concentration Without TCLP)			10	2	10	10	ns	4	10	ns
Solid Waste (Maximum Concentration Without TCLP)			100	20	100	100	ns	40	100	ns
Industrial Waste (Maximum Concentration Without TCLP)			400			400	ns		400	
SB01	0.5-0.6	21/9/04	9	-	11	-	14	4	29	43
SB01	1.1-1.2	21/9/04	9	-	12	-	13	5	28	24
SB02	0.4-0.5	20/9/04	8	0.1	17	-	20	5	44	48
SB02	0.9-1.0	20/9/04	10	0.2	24	-	18	6	34	47
SB03	0.6-0.7	21/9/04	11	-	15	-	32	4	18	31
SB03	1.4-1.5	21/9/04	18	0.3	34	-	49	8	160	190
SB04	0.6-0.7	21/9/04	6	-	14	-	16	4	20	23
SB04	1.6-1.7	21/9/04	22	0.2	19	-	17	5	51	76
SB05	0.5-0.6	21/9/04	7	-	11	-	15	5	16	22
SB06	0.5-0.6	21/9/04	9	0.1	20	-	18	3	53	74
SB06	0.9-1.0	21/9/04	11	0.1	14	-	32	6	290	76
SB07	0.5-0.6	21/9/04	12	0.4	14	3	39	4	310	190
SB07	0.9-1.0	21/9/04	20	0.3	30	-	26	8	77	110
SB08	0.5-0.6	21/9/04	12	0.3	17	3	26	4	260	120
SB08	1.0-1.1	21/9/04	22	0.3	28	-	27	7	83	110
SB09	0.4-0.5	21/9/04	160	0.5	270	5	140	19	150	210
SB10	0.5-0.6	24/9/04	7	-	7	-	10	4	22	31
SB10	1.0-1.1	24/9/04	6	-	8	-	15	5	13	18
SB11	0.3-0.4	20/9/04	7	0.2	21	-	20	6	81	76
SB11	0.7-0.8	20/9/04	3	-	3	-	-	1	-	-
SB12	0.4-0.5	20/9/04	4	-	25	-	2	-	10	-
SB12	1.0-1.1	20/9/04	22	0.1	36	-	36	9	96	150
SB13	0.2-0.7	20/9/04	-	0.1	16	-	67	150	-	59
SB13	0.9-1.0	20/9/04	8	-	36	-	4	3	14	8
SB14	0.4-0.5	21/9/04	8	0.5	16	-	350	5	690	210
SB14	0.8-0.9	21/9/04	14	-	20	-	13	4	41	61
SB15	0.6-0.7	21/9/04	6	0.1	17	-	21	12	72	58
SB15	2.0-2.1	21/9/04	26	0.2	21	2	17	6	53	79
SB16	0.3-0.4	21/9/04	3	-	9	-	3	-	7	-
SB16	0.9-1.0	21/9/04	6	-	19	-	3	-	9	-
SB17	0.2-0.3	21/9/04	7	-	12	-	13	2	29	16
SB17	0.7-0.8	21/9/04	7	-	10	-	11	2	17	22
SB18	0.1-0.3	20/9/04	5	-	3	-	2	1	7	9
SB18	1.0-1.1	20/9/04	21	0.1	11	2	9	4	29	43
SB19	0.2-0.3	20/9/04	3	-	7	-	5	-	12	-
SB19	0.9-1.0	20/9/04	10	-	16	-	14	5	39	30
SB24	0.3-0.4	21/9/04	4	-	10	-	3	-	12	-
SB24	0.8-0.9	21/9/04	10	-	29	-	3	1	12	-
SB25A	0.4-0.5	20/9/04	4	-	15	-	5	2	16	9
SB25A	1.0-1.1	20/9/04	14	0.2	13	3	11	4	32	52
SB26	0.4-0.5	21/9/04	9	-	23	-	6	1	10	-
SB27	0.5-0.6	20/9/04	6	-	27	-	2	-	12	-
SB28	0.3-0.4	20/9/04	6	-	16	-	2	-	10	-
SB28	1.1-1.2	20/9/04	4	-	5	-	11	7	18	28
SB29	0.3-0.4	20/9/04	6	-	29	-	2	-	13	-
SB29	0.9-1.0	20/9/04	3	-	23	-	3	-	7	-
SB30	0.4-0.5	20/9/04	4	-	27	-	2	-	10	-
SB30	0.9-1.0	20/9/04	19	0.2	20	-	31	7	92	120
SB31	0.8-0.9	20/9/04	3	-	18	-	4	2	13	10
SB31A	0.2-0.3	20/9/04	3	-	13	-	2	-	8	-
SB32	0.2-0.3	20/9/04	8	-	33	-	2	-	10	-
SB32	0.7-0.8	20/9/04	9	0.6	12	-	30	24	17	140
SB34	0.5-0.6	22/9/04	6	-	27	-	3	1	14	-
SB34	1.0-1.1	22/9/04	16	-	6	-	8	4	21	25
SB35	0.5-0.6	22/9/04	12	-	31	-	3	1	15	-
SB35	1.0-1.1	22/9/04	16	-	12	-	150	5	86	170
SB36	0.5-0.6	22/9/04	6	-	19	-	4	-	13	-
SB36	1.0-1.1	22/9/04	6	-	18	-	22	14	19	57

Prepared by: ____
Checked by:____
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TABLE 9

Total Petroleum Hydrocarbons (TPH) and Benzene, Toluene, Ethylbenzene and Xylene (BTEX) in Soil (mg/kg)
1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	Benzene	Toluene	Ethylbenzene	Xylene (total)	TPH (C_6–C_9)	TPH (C_{10}–C_{14})	TPH (C_{15}–C_{28})	TPH (C_{29}–C_{36})	TPH (Total C_{10}–C_{36})
EQL			0.2	0.5	0.5	1.5	10	50	100	100	NA
Waste Classification Criteria											
Inert Waste (Maximum Concentration Without TCLP)			1	28.8	60	100	650	ns	ns	ns	5,000
Solid Waste (Maximum Concentration Without TCLP)			10	288	600	1,000	650	ns	ns	ns	10,000
Industrial Waste (Maximum Concentration Without TCLP)			[illegible]	1,152	2,400	4,000	[illegible]	ns	ns	[illegible]	40,000
SB01	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-
SB01	1.1-1.2	21/9/04	-	-	-	-	-	-	-	-	-
SB02	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-
SB02	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB03	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-
SB03	1.4-1.5	21/9/04	-	-	-	-	-	-	-	-	-
SB04	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-
SB04	1.6-1.7	21/9/04	-	-	-	-	-	-	-	-	-
SB05	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-
SB06	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-
SB06	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-
SB07	0.5-0.6	21/9/04	-	-	-	-	-	-	190	-	190
SB07	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-
SB08	0.5-0.6	21/9/04	-	-	-	-	-	-	150	110	260
SB08	1.0-1.1	21/9/04	-	-	-	-	-	-	-	-	-
SB09	0.4-0.5	21/9/04	-	-	-	-	-	-	330	180	510
SB10	0.5-0.6	24/9/04	-	-	-	-	-	-	-	-	-
SB10	1.0-1.1	24/9/04	-	-	-	-	-	-	-	-	-
SB11	0.3-0.4	20/9/04	-	-	-	-	-	-	130	-	130
SB11	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-
SB12	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-
SB12	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-
SB13	0.2-0.7	20/9/04	-	-	-	-	-	-	-	-	-
SB13	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB14	0.4-0.5	21/9/04	-	-	-	-	-	470	2,250	1,670	4,390
SB14	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-
SB15	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-
SB15	2.0-2.1	21/9/04	-	-	-	-	-	-	-	-	-
SB16	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-
SB16	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-
SB17	0.2-0.3	21/9/04	-	-	-	-	-	-	-	-	-
SB17	0.7-0.8	21/9/04	-	-	-	-	-	-	120	-	120
SB18	0.1-0.3	20/9/04	-	-	-	-	-	-	-	-	-
SB18	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-
SB19	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-
SB19	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB24	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-
SB24	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-
SB25A	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-
SB25A	1.0-1.1	20/9/04	-	-	-	-	-	-	-	-	-
SB26	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-
SB27	0.5-0.6	20/9/04	-	-	-	-	-	-	-	-	-
SB28	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-
SB28	1.1-1.2	20/9/04	-	-	-	-	-	-	-	-	-
SB29	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-
SB29	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB30	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-
SB30	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-
SB31	0.8-0.9	20/9/04	-	-	-	-	-	-	-	-	-
SB31A	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-
SB32	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-
SB32	0.7-0.8	20/9/04	-	-	-	2	-	-	-	-	-
SB34	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-
SB34	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-
SB35	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-
SB35	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-
SB36	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-
SB36	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-

Prepared by: ____
Checked by:____
Environmental Resources Management Australia Pty Ltd

TABLE 10

Polycyclic Aromatic Hydrocarbons (PAHs) in Soil (mg/kg)

1 Burroway Road, Homebush Bay, NSW

Sample ID	Depth (m)	Sampling Date	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz[a] anthracene	Chrysene	Benzo[b&j] fluoranthene	Benzo[a]pyrene	Indeno[1,2,3-cd] pyrene	Dibenz[a,h] anthracene	Benzo[ghi] perylene	Total PAHs
EQL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.5	0.5	0.5	0.5	-
Assessment Criteria																		
Inert Waste (Maximum Concentration Without TCLP)														0.08				200
Solid Waste (Maximum Concentration Without TCLP)														0.8				200
Industrial Waste (Maximum Concentration Without																		800
SB01	0.5-0.6	21/9/04	-	-	-	-	-	-	0.6	0.6	0.5	-	-	-	-	-	-	1.7
SB01	1.1-1.2	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	0.4-0.5	20/9/04	-	-	-	-	-	-	0.5	0.5	-	-	-	-	-	-	-	1.0
SB02	0.9-1.0	20/9/04	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	0.5
SB03	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	1.4-1.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	1.6-1.7	21/9/04	-	-	-	-	-	-	1.2	1.3	0.6	0.5	1.0	0.6	-	-	-	5.2
SB05	0.5-0.6	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	0.5-0.6	21/9/04	-	-	-	-	1.0	-	1.0	0.9	-	0.5	-	-	-	-	-	3.4
SB06	0.9-1.0	21/9/04	-	-	-	-	1.0	-	1.9	1.6	0.8	0.8	1.0	0.8	-	-	0.5	8.6
SB07	0.5-0.6	21/9/04	0.9	2.1	-	1.9	13.0	3.5	21.0	19.0	10.0	9.0	20.0	14.0	6.6	1.3	6.7	129.0
SB07	0.9-1.0	21/9/04	-	-	-	-	-	-	0.8	1.0	-	-	-	0.6	-	-	-	2.4
SB08*	0.5-0.6	21/9/04	2.6	14.0	-	12.0	143.0	27.0	145.0	120.0	62.0	43.0	80.0	48.0	22.0	6.5	25.0	750.1
SB08	1.0-1.1	21/9/04	-	-	-	-	-	-	0.8	0.8	0.5	-	-	0.5	-	-	-	2.6
SB09	0.4-0.5	21/9/04	1.7	4.2	0.5	2.8	22.0	6.0	33.0	29.0	17.0	11.0	29.0	22.0	11.0	2.4	11.0	202.6
SB10	0.5-0.6	24/9/04	-	-	-	-	-	-	1.1	1.1	0.5	0.7	-	0.5	-	-	-	3.9
SB10	1.0-1.1	24/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB11	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB11	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	1.0-1.1	20/9/04	-	-	-	-	-	-	1.0	1.1	0.6	0.5	1.0	0.6	-	-	-	4.8
SB13	0.2-0.7	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB14	0.4-0.5	21/9/04	-	0.6	-	0.5	5.4	1.3	3.5	4.5	2.4	1.6	3.0	2.5	1.2	-	1.3	29.8
SB14	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	0.6-0.7	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	2.0-2.1	21/9/04	-	-	-	-	0.6	-	1.6	1.5	0.8	0.6	1.0	0.8	-	-	-	6.9
SB16	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	0.9-1.0	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	0.2-0.3	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	0.7-0.8	21/9/04	-	0.9	-	0.9	6.0	1.9	9.4	8.5	4.8	3.7	8.0	5.8	2.5	0.5	2.6	55.5
SB18	0.1-0.3	20/9/04	-	-	-	-	0.5	-	1.1	1.0	0.6	0.6	1.0	0.5	-	-	-	5.3
SB18	1.0-1.1	20/9/04	-	-	-	-	0.9	-	1.9	1.8	1.2	0.9	2.0	1.1	0.5	-	0.6	10.9
SB19	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	0.9-1.0	20/9/04	-	0.6	-	-	1.7	0.9	5.3	4.8	2.6	2.5	5.0	2.9	1.3	-	1.4	29.0
SB24	0.3-0.4	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB24	0.8-0.9	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB25A	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB25A	1.0-1.1	20/9/04	-	-	-	-	-	-	1.0	1.1	0.5	0.5	1.0	0.5	-	-	-	4.6
SB26	0.4-0.5	21/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB27	0.5-0.6	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB28	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB28	1.1-1.2	20/9/04	-	-	-	-	1.4	0.5	2.6	2.1	1.3	1.1	2.0	1.0	-	-	0.5	12.5
SB29	0.3-0.4	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB29	0.9-1.0	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB30	0.4-0.5	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB30	0.9-1.0	20/9/04	-	-	-	-	1.4	0.6	3.8	3.9	1.7	1.7	4.0	2.0	0.9	-	1.1	21.1
SB31	0.8-0.9	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB31A	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB32	0.2-0.3	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB32	0.7-0.8	20/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB34	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB34	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB35	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB35	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB36	0.5-0.6	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB36	1.0-1.1	22/9/04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Values reported for highest reported PAH concentrations, LabMark in-house triplicate sample 36823l

Prepared by: ____
Checked by: ____
Environmental Resources Management Australia Pty Ltd

TABLE 11
Inorganics in Soil (mg/kg)
1 Burroway Road, Homebush Bay, NSW

Sample ID	Sampling Date	Arsenic*	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
EQL		<1	<0.1	<2	<1	<1	<0.1		<5
Assessment Criteria									
ANZECC (2000) - Marine		2.3^ / 4.5^	5.5	3.8	1.3	4.4	0.4	20	15
Site Groundwater	24/09/2004	1	<0.1	<2	1	<1	<0.1	4	<5
CL01	22/09/2004	<1	<0.1	<2	<1	<1	<0.1	2	<5
CL02	22/09/2004	<1	0.6	<2	25	2	<0.1	10	5
CL03	22/09/2004	3	0.3	<2	41	2	<0.1	15	13
CL04	22/09/2004	1	0.3	<2	27	3	<0.1	14	7
CL05	22/09/2004	2	0.2	<2	20	2	<0.1	9	14
CL06	22/09/2004	3	0.3	4	34	<1	<0.1	14	6
CL08	24/09/2004	3	0.1	<1	9	<1	<0.1	12	<5
CL10	21/09/2004	<1	0.3	<1	12	10	<0.1	6	8

* University of Canberra Ecochemistry Laboratory
L Marine low reliability trigger value for Arsenic V
\# Marine low reliability trigger value for Arsenic III

Prepared by: ____
Checked by:____
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