2 Australia Avenue, Sydney Olympic Park, NSW

Environmental Site Assessment

Project No. 93090.01

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1.0 EXECUTIVE SUMMARY

SGA Environmental was commissioned by Silex Solar to undertake an intrusive environmental site assessment at 2 Australia Avenue, Sydney Olympic Park, NSW (the site). The aim of the investigation was to determine if on site operations undertaken by Silex Solar had resulted in impacts to soil or groundwater underlying the site.

No impacts to site soils, which could be directly attributed to Silex Solar were identified by the assessment.

The type and level of impact potentially caused by Silex Solar was defined by SGA Environmental as a specific set of chemicals of concern (COCs) and resulting chemical characteristics associated with Silex Solar Operations.

A site specific criteria was developed for use as a trigger level to prompt additional environmental works on the site. The potential COCs and chemical characteristics included pH (associated with the use and storage of acids on the site), isopropanol, phosphorous (associated with the use of phosphoric acid on the site) and soluble fluoride (associated with the use of fluoric acid on the site). Additional testing for substances generally associated with industrial/urban sites in this area were also assessed.

The works undertaken included:

- reviewing a dangerous goods information relating to Silex Solar operations and dangerous goods stored and used on site
- site inspection and confirmation of location of site activities and borehole locations
- drilling 24 boreholes (Figure 2) over two field work mobilisations (August and October 2012) using either a hand auger or the SGA Environmental push tube drill rig (as access dictated)
- soil profiles were logged and samples collected by an experienced field scientist. Selected samples were then forwarded to NATA accredited laboratories for selected analysis.

The concentrations of isopropanol and soluble fluoride were below the laboratory limits of reporting. The concentrations of phosphorous detected were within the site criteria and are considered to represent background concentrations only.

The recorded pH in some samples were found to be below the adopted criteria of 4.5. As the pH results were similar across all borehole locations and low pH results were recorded for deep natural soil samples as well as fill material, it is considered that low pH is representative of natural conditions at the site. In consideration of this, and the investigation findings as a whole, none of the recoded pH results are considered to represent an environmental issue and no further investigations would be considered warranted.

Based on the results of this assessment, from a human health perspective, the site is considered suitable for continued industrial or commercial use. Further investigation may be needed to satisfy the requirements for site redevelopment purposes.

No further environmental investigations are considered to be necessary regarding the specific aim of this assessment.

2.0 BACKGROUND

SGA Environmental was commissioned by Silex Solar to undertake an Environmental Site Assessment to determine the presence of any potential contamination caused by Silex Solar's occupation of the site. Silex Solar have been tenants at the site since 2009. During this time the site has been utilised for manufacturing solar panels. Silex Solar was in the process of vacating the site at the time of investigation.

Initial assessment works (16 soil investigation boreholes) were undertaken in August 2012. Additional environmental assessment works (eight soil investigation boreholes) were undertaken on site in October 2012, these works were of a more general nature regarding the contamination status of the site.

A previous assessment (Reference 9), summarised in Section 3, was undertaken at the site in 2009 shortly prior to the previous tenant (BP Solar) vacating the site. This investigation established site criteria for the COCs associated with solar panel production. As the site operations undertaken by Silex Solar were essentially the same as BP Solar, these criteria have been used for this investigation.

3.0 PREVIOUS INVESTIGATION (JULY 2009)

A previous environmental site assessment was undertaken at the site in July 2009. The investigation was undertaken for the benefit of the outgoing tenant (BP Solar) and the landlord (2 Australia Avenue Custodians) to determine whether BP Solar's occupation of the site had resulted in any impact from specific COCs to site soil or groundwater..

The investigation involved drilling 24 soil investigation borehole locations. The scope of the previous investigation was very similar to the scope outlined in this report.

Based on the Dangerous Goods register and site inspection, COCs were identified and investigation criteria for these chemicals or related parameters were established. The primary chemical parameters were pH, soluble fluoride, phosphorus and isopropanol.

The assessment concluded that no impacts to soil were identified that could be attributed to the operations of BP Solar. The laboratory analysis coupled with field characteristics collected identified minor exceedences of the site criteria for pH in three boreholes, although the exceedences were not considered to be a result of BP Solar's operations.

4.0 SCOPE OF WORKS

SGA Environmental proposed a scope of works (as outlined in the SGA Environmental proposal to Silex Solar dated 25 July 2012 and subsequent emails), this scope included:

- prepare a detailed safe work method statement and job safety analysis and induct SGA Environmental representatives and subcontractors undergo site specific Work Health and Safety Induction
- undertake a dial before you dig search and location of underground services using an accredited service locator
- drilling of 16 boreholes in targeted locations. The borehole locations were designed to target potentially contaminating site activities and previous borehole locations (2009 Investigation, Reference 9)
- drilling of an additional eight soil investigation boreholes in the vicinity of potentially contaminating activities and for site coverage
- logging of soil profiles, undertaking field pH measurements and collection of soil samples
- laboratory analysis of samples for the identified COCs and chemical characteristics, including pH, isopropanol, phosphorous, and soluble fluoride.
- selective laboratory analysis of the additional soil investigation samples for analytes considered to be commonly associated with industrial/urban sites of the local area including: volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), phthalates, heavy metals, asbestos
- provision of a report detailing the findings of the field investigation and the laboratory results. Results were to be reviewed in terms of the specified site specific criteria as well as procedures and guidelines outlined by the NSW Environment Protection Authority (EPA) and the National Environment Protection Measure (Reference 4)

This investigation is subject to the limitations presented in Section 14.0 of this report.

5.0 DATA QUALITY OBJECTIVES

Development of data quality objectives (DQOs) for each project is a requirement of National Environment Protection Council (NEPC) (1999) *National Environment Protection (Assessment of Site Contamination) Measure 1999* (Reference 4). This is based on a DQO process formulated by the United States Environmental Protection Agency (USEPA) for contaminated land assessment and remediation. The method provides sound guidance for a consistent approach in understanding site assessment and remediation.

The DQO process has seven steps. Each of these steps has been given due consideration in the undertaking of this project. In brief, these steps are:

Step 1: State the problem and establish the DQO team.

Step 2: Determine the possible and probable actions that will resolve the problems.

Step 3: Identify the informational inputs to assist in the problem resolution.

Step 4: Define the boundaries of the study (geographical, temporal, etc).

Step 5: Develop and define decision rules.

Step 6: Specify tolerable limits to reduce probability of incorrect decisions.

Step 7: Ensure the quality of the information obtained.

Step 1 — State the Problem

The site is owned by 2 Australia Avenue Custodians and has been leased to Silex Solar for industrial (solar panel production) use. Silex Solar were vacating the site at the time of investigation and as part of the make good agreement we understand that there is a requirement for Silex Solar to either show that they have not caused any environmental impact to the site or if impact has occurred, they are required to remediate the impacts to a suitable standard.

Step 2 — Identify the Decision

The problem raises the following points which must be resolved to answer the question “have Silex Solar operations on site resulted in an environmental impact”

- what were the COCs used by Silex Solar which may have impacted soil underlying the site
- would these COCs have been present on the site prior to Silex Solars occupation
- where were these COCs used and stored and is there a documented history of spills or leaks
- are the COCs present in soil and at what concentration are they present
- what level of COC in soil would be considered an environmental impact

Step 3 — Identify the Inputs to the Decision

The study inputs included existing information and information collected during this site assessment. The existing information included the previous investigation undertaken (Reference 9), records of dangerous goods stored on the site, locations of dangerous goods depots and descriptions of the operations undertaken on site.

The information collected from this assessment included visual and olfactory evidence of potential COC impact identified during drilling, soil profiles from the boreholes drilled and laboratory analysis of soil samples.

Step 4 — Define the Study Boundaries

The physical boundary of the study area is defined in Section 6.1 and on Figures 2 and 3. Temporally, the study is limited to site conditions at the time of the investigation. The scope of the study is limited to that described in Section 4.0.

It should be noted that this investigation was primarily aimed at identifying potential environmental impacts to the site caused by Silex Solar during their tenancy. Additional investigation was designed to assess the general environmental condition of the site. The results were to be assessed with regards to the potential impacts attributable to Silex Solar.

Step 5 — Develop and Define Decision Rules

Under the DQO process, it is important to nominate action levels for decision making.

A site specific site criteria has been developed by SGA Environmental based on a review of chemicals used on the site by Silex Solar and assessment of the potential for

these chemicals to impact soil. Based on this review, the site criteria described in Section 8.0 was developed.

NSW EPA endorsed guidance for soil human health criteria for commercial/industrial sites will also be referenced.

National Environment Protection Council (1999) *National Environment Protection (Assessment of Site Contamination) Measure* (NEPM) (Reference 4), the following decision rules will be used to assess whether there is an guideline exceedence associated with the site:

- the mean concentration of the COCs must be below the nominated industrial criteria
- no single sample concentration can exceed 250% of the nominated criteria
- the standard deviation of the COC population must be below 50% of the nominated industrial criteria

Conceptual modelling of the subsurface conditions will also play an important role in developing conclusions regarding the site. Final decisions will be made utilising a combination of laboratory results, interpretation of field data and integration of the conceptual model of the site with these results and the field data.

Acceptable limits for field data analysis (relative percent differences (RPDs) for primary and duplicate results) are between 50 and 150 percent (depending on the origin of the sample and volatility of the chemicals present). Acceptable limits for laboratory duplicate analysis will be set based on site specific information such as background concentrations. These are summarised in Table 1 as the measurement data quality indicators (MDQIs), which will be used to establish whether the DQOs have been met.

It should be noted that Standards Australia procedures specify MDQIs for precision should be ≤50% RPD. However, they also acknowledge that low concentrations and organic compounds in particular can be acceptably outside this range. AS 4482.1 (References 10 and 11) suggests that ≤50% RPD be used as a 'trigger' and values above this level of repeatability need to be noted and explained.

Table 1 Measurement Data Quality Indicators

Parameter	Procedure	Minimum Frequency	>5<10 x LOR[4]	>10 x LOR
Precision (Repeatability)	Field Duplicates	1 in 20 (for metals and semi volatiles)	<80-100 RPD	<50-80 RPD
	Field Duplicates	1 in 20 (volatiles)	<150 RPD	<130 RPD
	Lab Replicate	1 in 20	<50 RPD	<30 RPD
Accuracy	Reference Material	1 in 10	60% to 140% R	80% to 120% R
	Matrix spikes	1 in 10	60% to 140% R	80% to 120% R
	Surrogate spikes	1 in 10	60% to 140% R	80% to 120% R
Representativeness	Reagent Blanks	1 per batch	No detection	No detection
	Holding Times	Every sample		
Blanks*	Trip Blank	1 per batch	No detection	No detection
	Rinsate Blanks	1 per batch	No detection	No detection
Sensitivity	Limit of Reporting	Every sample	2 x LOR	< investigation criteria

Note(s):
1. RPD – relative percentage difference
2. % R – percent recovery
3. LOR – limit of reporting
4. 4 no limit at <5x LOR
5. the MDQI is usually specified in the standard method. If not, use the default values set out in this table
6. * only necessary when measuring dissolved metals and volatile organic compounds in water samples where potential for cross contamination exists. In the current study, dedicated sampling equipment was used thus rinsate blanks were not considered necessary.

Step 6 — Specify Tolerable Limits on Decision Errors

There are two types of decision errors. If we are assuming that the site is impacted (the null hypothesis):

a) deciding that the site is not impacted when it actually is (Type I error). The consequence of this error may be unacceptable ecological or health risk for future users of the site

b) deciding that the site is impacted when it is not (Type II error). The consequence of this error is that the client will pay for further investigation / remediation that is not necessary

The more severe consequence is with decision error (a) since the risk of jeopardising human health outweighs the consequences of paying more for remediation.

Statistical hypothesis tests will not be undertaken.

Step 7 — Optimise the Design

Through the DQO process, the sampling design was optimised through several iterations. Optimisation of the design included the following steps:

- design of the investigation borehole locations and COCs based on the previous investigation (July 2009, Reference 9)
- revision of the borehole locations based on review of dangerous good manifest, depots and site process infrastructure to identify COCs and where they were used and stored and where potential leaks or spills were most likely to have occurred
- revision of the list of COCs following consultation with Silex Solar
- revision of the sample analysis plan in consultation with a representative of Silex Solar identifying preferential targets for boreholes, taking into account the location of plant and equipment and potential OH&S constraints
- additional intrusive investigation in October 2012 based on a request from Silex Solar

A detailed discussion on the sampling program is presented in Section 7.0.

The final field program and sampling pattern is considered optimal taking into account the purpose of the investigation, temporal limitations and access constraints.

6.0 SITE CHARACTERISTICS

6.1 Site Location

The site is located within the suburb of Sydney Olympic Park, New South Wales. The site is delineated by Australia Avenue to the north east and Herb Elliot Avenue to the north-west. Commercial and industrial facilities are located to the south-east and south-west. The site is located within an area of mixed uses including sporting grounds and industrial/commercial complexes.

The majority of the surrounding suburb (Sydney Olympic Park) was remediated and redeveloped by the Federal Government prior to the 2000 Olympics. Due to the long term industrial use of the surrounding area, the remediation program included handling of significant quantities of contaminated materials which were capped and contained in landscaped mounds around the park areas.

The nearest waterway is marshland associated with Powells Creek located approximately 500 metres east of the site. Powells Creek drains into Homebush Bay approximately 1.2 kilometres north of the site. The site location is presented in Figure 1.

6.2 Site Description

Site details are summarised in Table 2 and the site layout is presented in Figure 2.

Table 2 Site Details

Item	Details
Address	2 Australia Avenue, Sydney Olympic Park, NSW
Lot & DP Number	Lot 56 within DP 773763
Approximate Site Area	8,900 m^2
Local Government Authority	Auburn City Council
Locality Map	Refer to Figure 1
Site Map	Refer to Figure 2

6.3 Soil, Geology and Hydrogeology

The geology underlying the site, as described in the Geological Survey NSW (1983) – *Sydney1:100,000 Geological sheet 9130* (Reference 5) is Ashfield shale, which in turn overlies Hawkesbury Sandstone.

The Australian Soil Resource Information System (ASRIS) (Reference 1) describes the soil on this site as falling within the Sodosol soil order, using the Australian Soil Classification system (ASC). Sodosols are soils that display a strong texture contrast, highly sodic B horizon and can be associated with soil salinity. Sodosols have subsoils with sparingly low permeability which would be expected to limit movement of any contamination on or offsite. The soils onsite are expected to be derived *in-situ* from the underlying shale.

The hydrogeology of the area has been based on a search of the Department of Natural Resources Groundwater Works summary database (Reference 8). The search found numerous licensed groundwater wells around the marshland adjacent to Powells Creek, these wells recorded a standing water level of 1 metre below ground level (mbgl) and were drilled through fill materials. No groundwater wells drilled into Ashfield Shale (the units underlying the subject site) were identified within a 2 km radius of the site. Based on SGA Environmental's past hydrogeological experience in Ashfield Shale, it is expected that groundwater would be present approximately 8–10 mbgl at the subject site.

Assuming that groundwater was present within competent shale and at depths greater than 5 mbgl, the potential for any COCs present to impact the groundwater is considered to be low.

Based on the soil and geological review, the site is located over a shallow (<2.0 m) clay profile overlying Ashfield Shale. Both the clay and Ashfield Shale are expected to have a low permeability and the potential for impacts at the surface to impact groundwater or to migrate off site is considered to be low.

6.4 Chemicals of Concern

The following primary COCs were determined during the previous (July 2009) investigation (Reference 9) and are based on the chemicals used on site in the solar panel production process:

- Hydrochloric Acid
- Hydrofluoric Acid
- Sodium Hydroxide
- Phosphoric Acid
- Isopropanol

These chemicals, their derivatives and indicators were used as the primary COCs.

Additional investigation in October 2012 was undertaken to assess chemicals more generally associated with industrial/urban sites of the region. These supplementary COCs included:

- volatile organic compounds (VOC)
- semi-volatile organic compounds (SVOC)
- phthalates
- heavy metals
- asbestos

6.5 Preliminary Site Inspection

A preliminary site inspection was undertaken as part of the 2009 investigation to determine the location, storage setting and quantity of Dangerous Goods at the site. In general, the operations undertaken by Silex Solar were observed to be undertaken with a similar layout to that of the previous tenant, although less intensive with less Dangerous Goods stored and used on site.

The 2009 investigation noted that the site consisted of three general areas which were grouped together when assessing potential areas of environmental concern:

1. the bitumen car park and offices (where no storage or use of COCs occurred) — No areas of environmental concern identified

2. warehouse car park (where several dangerous goods depots and the effluent pit were located) — Areas of environmental concern identified at Depots 7, 8, 10, 18 & 19
3. warehouse and cell line (internal areas where COCs were both stored and used) — Areas of environmental concern identified at Depots 2, 3, 6, 14, 15, 16, 26 and wet chemistry area

The borehole locations in this investigation were decided following review of current site operations and iterations with input from Silex Solar.

7.0 FIELD INVESTIGATION

7.1 Field works 1-2 August 2012

Intrusive field investigation was undertaken by David Gouge, Scott Burrows and Dahmon Sorongan of SGA Environmental on 1 and 2 August 2012. The investigation included the following activities:

- service clearance was undertaken using an accredited service locator to ensure that underground services were not affected by drilling activities
- a total of 16 soil investigation boreholes were drilled, 9 of these were drilled using a hand auger and 7 were drilled using the SGA Environmental drill rig equipped with geoprobe direct push tube system
- detailed logging of boreholes including description of colour, texture, odour, pH, and any unusual features. These boreholes were logged with the prefix “BH”
- collection of soil samples for laboratory analysis
- boreholes were backfilled and re-compacted
- the area surrounding the sampling locations was cleaned and resealed

7.2 Field works 16 October 2012

Additional intrusive field investigation was undertaken by David Gouge and James King of SGA Environmental on 16 October 2012.

The additional investigation involved the same scope as undertaken in August with the following exceptions:

- drilling of a total of 8 additional boreholes were drilled, 2 of these were drilled using a hand auger and 6 were drilled using the SGA Environmental drill rig equipped with geoprobe direct push tube system. These boreholes were logged with the prefix “BHA”

7.3 Field Characteristics

7.3.1 Stratigraphy

The general stratigraphy encountered is shown in detail on the borehole logs in Appendix C. In general, the stratigraphy can be described as follows:

- concrete 0.0 – 0.2 mbgl
- road base (crushed gravel) 0.2 – 0.3 mbgl
- fill materials (typically reworked natural soils with some building rubble (0.3 to 0.4 but up to 1.3 mbgl)
- natural firm red to grey clays overlying grey shale

No groundwater or interface drainage was encountered in any of the boreholes.

7.3.2 Field pH

pH was measured in the field using the Raupach Method. The pH in road base material ranged from 9 to 10 pH units. The observed alkaline nature of this material was considered likely due to the presence of concrete fragments and slurry from coring of the holes. Based on this, the field recorded pH measurements in the road base material were discounted.

The pH within other fill materials and natural profiles (excluding the road base) generally ranged between 3.9 and 7.7.

7.3.3 General observations and sampling

All soil samples were collected by an experienced environmental consultant. No odours or staining were observed within the soil profiles during the field assessment.

Samples were collected based upon field observations, pH measurements and to obtain general site coverage. Samples were placed in laboratory prepared glass jars and sealed with no headspace. Upon collection, samples were placed immediately into chilled coolers for storage and transport to the laboratory.

7.4 Quality Assurance

The quality assurance and quality control (QA/QC) procedures undertaken as part of this project are outlined in Appendix E and these follow procedures referenced in the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) (Reference 4).

8.0 RELEVANT GUIDELINES

The aim of the investigation was to identify impacts to soil or groundwater which have occurred as a result of works undertaken on the site by Silex Solar. The primary potential COCs are therefore those chemicals utilised by Silex Solar on site and which have a potential to migrate into soil or groundwater. As discussed in Section 6.4 these chemicals have been identified as:

- Hydrochloric Acid
- Hydrofluoric Acid
- Sodium Hydroxide
- Phosphoric Acid
- Isopropanol

These chemicals include acids, an alkali and a solvent. Criteria were selected based upon existing guidelines endorsed by the NSW EPA. Where such guidelines were not available, consideration was given to guidelines published by the US EPA, Canadian Environmental Quality Guidelines, UK Environment Agency and the Dutch Ministry of Housing, Spatial Planning and the Environment. The trigger levels proposed for the investigation are listed in the following sections.

Supplementary COCs relating to substances generally associated with industrial/urban sites of the region have been assessed against regulatory endorsed guidelines.

8.1.1 Acids

Hydrofluoric acid, phosphoric acid and hydrochloric acid could impact soils or groundwater by lowering the pH, increasing the concentration of phosphorous (in the case of phosphoric acid) and increasing the concentration of soluble fluoride (in the case of hydrofluoric acid). The trigger levels proposed for these chemicals are as follows:

- pH value of 4.5 was suggested as a background trigger level for both soil and groundwater based on general knowledge of the natural range expected within Sydney Basin sediments

- phosphorous – 2,000 mg/kg in soils. Source: National Environmental Protection Council (1999) *National Environmental Protection (Assessment of Site Contamination) Measure – Ecological Investigation Levels* (Reference 4)
- phosphorous – 1 mg/L in groundwater. Source: no published guideline could be identified. Trigger level set at twice laboratory detection limit
- soluble fluoride – 500 mg/kg in soil. Source: Dutch Ministry of Housing and Spatial Planning and the Environment (VROM) (2000) *Target values and intervention values for soil remediation soil/sediment and groundwater* (Reference 2)
- soluble fluoride – 1.5 mg/L in groundwater. Source: Dutch Ministry of Housing and Spatial Planning and the Environment (VROM) (2000) *Target values and intervention values for soil remediation soil/sediment and groundwater* (Reference 2)

8.1.2 Alkali

The sodium hydroxide could potentially impact soils or groundwater by increasing the pH. The trigger value proposed was:

- pH value of 8.5 was suggested as a background trigger level for both soil and groundwater based on general knowledge of the natural range expected within Sydney Basin sediments

8.1.3 Solvents

Isopropanol is an organic solvent which could have a detrimental impact on the soil and groundwater underlying the site. The trigger value proposed was:

- 220 mg/kg in soil. Source: Dutch Ministry of Housing and Spatial Planning and the Environment (VROM) (2000) *Target values and intervention values for soil remediation soil/sediment and groundwater* (Reference 2)
- 31 mg/L in groundwater. Source: Dutch Ministry of Housing and Spatial Planning and the Environment (VROM) (2000) *Target values and intervention values for soil remediation soil/sediment and groundwater* (Reference 2)

8.1.4 General Commercial/Industrial Site Guidelines

The National Environmental Health Forum (NEHF) (1996) *Health-based Soil Investigation Levels* (Reference 3) which has been updated and nationally endorsed through the National Environmental Protection Council (NEPC) (1999) *National Environmental Protection (Assessment of Site Contamination) Measure (NEPM)* (Reference 4**Error! Reference source not found.**) provides health and environmental based soil investigation levels. These investigation levels are derived from toxicity of substances and estimated exposure of humans to the soil. As the site is to continue operation for vehicle servicing (commercial/industrial) use, Column F of these guidelines is most applicable.

For sites with potential hydrocarbon contamination, the NSW EPA refers to the National Environmental Health Forum (NEHF) (1996) *Health-based Soil Investigation Levels* (Reference 3) for polycyclic aromatic hydrocarbons (PAHs), benzo(a)pyrene and total petroleum hydrocarbons (TPH) C_{16}-C_{35} aromatic and aliphatic fractions which have been nationally endorsed through the NEPM.

For substances where the NEHF and the NEPM have not provided health-based soil investigation levels (i.e. benzene, toluene, ethyl benzene, xylene, TPH C_6-C_9 and C_{10}-C_{40}), the guidelines in the NSW EPA (1994) *Contaminated Sites: Guidelines for Assessing Service Station Sites* (Reference 6) and *US EPA Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites* (formerly Preliminary Remediation Goals) (Reference 12) have been used.

The criteria are reproduced in Appendix B.

9.0 LABORATORY ANALYSIS

Soil samples selected for analysis were based on sample location (i.e. to obtain satisfactory site coverage) or field observations including the presence of contamination indicators such as odours and/or staining and elevated field pH.

In total, laboratory analysis of 55 soil samples (including 4 quality control samples) was undertaken.

August 2012 works

Twelve soil samples (including two duplicates) were sent to the National Measurement Institute (NMI) for selective laboratory analysis for isopropanol, total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene and xylene (BTEX) and heavy metals.

Thirty three soil samples (including two duplicates) samples were sent to Sydney Analytical Laboratory (SAL) for analysis for pH and selective analysis for soluble fluoride and phosphorus.

October 2012 works

Twenty two soil samples (including two duplicates) were sent to the National Measurement Institute (NMI) for selective laboratory analysis for pH, isopropanol, soluble fluoride, phosphorus, heavy metals, VOC, SCOC, phthalates and asbestos.

Sixteen soil samples collected and stored by SAL were analysed for heavy metals.

NMI and SAL are NATA accredited laboratories. Laboratory results are presented in Tables 6 and 7 (Appendix D), where they are compared to the investigation criteria nominated in Section 8.0. Laboratory transcripts of analysis are included in Appendix D.

A total of four intra laboratory duplicate samples were analysed as part of quality control procedures. The results of the duplicate samples are compared to those of the primary samples as a measure of method precision. A discussion on the results of quality control procedures has been included in Appendix E.

Field procedures were undertaken with reference to the NEPM (Reference 4). Field procedures were generally designed to ensure the prevention/minimisation of cross-contamination, analyte loss and to ensure samples and results were representative of actual conditions.

10.0 RESULTS

The soil analysis results are presented in Table 6 and Table 7 (Appendix D) where they are compared to the site criteria. In summary the results were as follows:

- all analysis for soluble fluoride was below the laboratory detection limit (0.5/1 mg/kg)
- phosphorous detected ranged between 76 and 1,400 mg/kg, below the site criteria of 2,000 mg/kg
- pH ranged between 3.9 to 9.9
- all analysis for isopropanol was below the laboratory detection limit of 10 mg/kg
- bis(2-ethylhexyl)phthalate was detected in samples BHA07 0.2-0.3 and BHA08 0.2-0.3 at concentrations below the adopted guidelines
- all other results for organic compounds including phthalates, TPH, BTEX, VOC and SVOC were below the laboratory limits of reporting
- the concentration of all heavy metals for all samples were below the adopted site criteria
- asbestos fibres were not detected in any of the samples analysed

11.0 DISCUSSION

The sampling locations aimed to target Silex Solar infrastructure considered to have potential to impact to soil and/or groundwater. The initial borehole locations in the August 2012 works were located in close vicinity to previous borehole locations undertaken in the previous July 2009 investigation. The location of the boreholes drilled in October 2012 were designed to be in the vicinity of additional potential contamination sources as well as a random distribution for site coverage.

The investigation was undertaken with reference to the NSW EPA (1995) *Contaminated sites: sampling design guidelines* (Reference 7) and National Environment Protection Council (1999) *National Environment Protection (Assessment of Site Contamination) Measure* (NEPM) (Reference 4). The borehole density meets the recommended minimum number of sampling points in the documents above.

Samples collected for analysis were selected based on field observations such as olfactory assessment, stains, and presence of inclusions which indicate potential COCs or impacted chemical characteristics. No significant stains, odours or inclusions suggesting gross impact were noted. The primary chemicals and parameters targeted included isopropanol, soluble fluoride, phosphorous and pH. Supplementary analytes covering a wide range of chemicals commonly associated with commercial/industrial contamination in the region were also analysed.

The laboratory analysis coupled with field characteristics collected (particularly field pH) identified exceedances of the site criteria for pH in some samples, from both natural soil and fill material. The pH laboratory results for some samples were below the pH 4.5 adopted investigation level.

As the pH results were similar across the all borehole locations and low pH results were recorded for deep natural soil samples as well as fill material, it is considered that low pH is representative of natural conditions at the site. In consideration of this, and the investigation findings as a whole, none of the recoded pH results are considered to represent an environmental issue and no further investigations would be considered warranted. Statistical comparison of pH values between this investigation and the July 2009 investigation has not been undertaken.

The laboratory analysis for isopropanol and soluble fluoride were below the laboratory detection limit and therefore no impact associated with these COCs was identified.

The concentrations of phosphorous detected were within the site criteria and are considered to represent background concentrations only.

The laboratory results for isopropanol, soluble fluoride and phosphorus indicate that there has not been significant impact to site soils from chemicals used on site.

Bis(2-ethylhexyl)phthalate was detected in samples BHA07 0.2-0.3 at 6.7 mg/kg and BHA08 0.2-0.3 and 2.4 mg/kg. Bis(2-ethylhexyl)phthalate is a plasticiser commonly associated with plastics manufacturing or processing. The concentrations detected are significant below the adopted site criteria based on the US EPA Regional Screening Level for industrial sites (120 mg/kg). Boreholes BHA07 and BHA08 were located inside the building on site in areas with concrete slab flooring. No visible slab joints or cracks were observed in close proximity to these borehole locations.

In consideration of:

- the impermeable nature of the concrete slab to downwards infiltration from liquid chemicals in these sample locations
- no visible changes to the floor slab since the 2009 investigation (prior to Silex Solar tenancy) and the time of this assessment
- the nature of Silex operations on site (Silex Solar were not considered to have used plasticisers as part of their operations)

the detected bis(2-ethylhexyl)phthalate is not considered to be attributable to Silex Solar. It is likely the phthalates were present in fill material imported during site development (uncontrolled sources) or from previous operations on site. Regardless, the detected concentrations are not considered to represent a human health or environmental concern at the site for industrial use.

No groundwater assessment was undertaken as groundwater or interface drainage was not intercepted and based on the expected geological profile, the potential for surface spills to have impacted groundwater is considered to be low.

12.0 STATEMENT OF SITE SUITABILITY

Based on the results of this assessment, from a human health and environmental perspective, the site is considered suitable for continued industrial or commercial use.

Further investigation may be needed to satisfy the requirements for site rezoning or redevelopment purposes.

13.0 CONCLUSION

The type and level of impact potentially caused by Silex Solar was defined by SGA Environmental as a specific set of chemicals of concern and resulting chemical characteristics associated with Silex Solar's Operations. Site specific criteria was developed for use as a trigger levels to prompt additional environmental works on the site. The potential COCs and chemical characteristics included pH (associated with the use and storage of acids on the site), isopropanol, phosphorous (associated with the use of phosphoric acid on the site) and soluble fluoride (associated with the use of fluoric acid on the site). Additional testing for substances generally associated with industrial/urban sites of the region were assessed.

The works undertaken included:

- reviewing dangerous goods information relating to Silex Solar operations and dangerous goods stored and used on site
- site inspection and confirmation of location of site activities and borehole locations
- drilling of a total of 24 soil investigation boreholes (Figure 2) using either a hand auger or the SGA Environmental push tube drill rig (as access dictated)
- soil profiles were logged and samples collected by an experienced field scientist. Selected samples were then forwarded to NATA accredited laboratories for selected analysis.

The concentration of isopropanol and soluble fluoride were below the laboratory limits of reporting. The concentrations of phosphorous detected were within the site criteria and are considered to represent background concentrations only.

The recorded pH in some samples were found to be below the adopted criteria of 4.5. As the pH results were similar across the all borehole locations and low pH results were recorded for deep natural soil samples as well as fill material, it is considered that low pH is representative of natural conditions at the site. In consideration of this, and the investigation findings as a whole, none of the recorded pH results are considered to represent an environmental issue and no further investigations would be considered warranted.

Bis(2-ethylhexyl)phthalate was detected in two samples at concentrations below the adopted guideline value. These results were considered to not be attributable to Silex Solar operations.

On the basis of the field observations and laboratory results, the assessment undertaken did not identify any impacts to soil in locations investigated which could be attributed to works undertaken on the site by Silex Solar.

Based on the results of this assessment, from a human health perspective, the site is considered suitable for continued industrial or commercial use. Further investigation may be needed to satisfy the requirements for site redevelopment purposes.

No further environmental investigations are considered to be necessary regarding the specific aim of this assessment.

14.0 LIMITATIONS

This report has been prepared by SGA Environmental in response to and subject to the following limitations:

1. The specific instructions received from Gibbons Consulting
2. The report has been prepared to a specific scope of works as set out in SGA Environmental's fee proposal to Silex Solar c/- Gibbons Consulting dated 25 July 2012. The scope of additional assessment works (October 2012) were set out in emails to Silex Solar dated 9 & 10 October 2012. The limitations within this proposal are applicable to this report.
3. May not be relied upon by any third party not named in this report for any purpose except with the prior written consent of SGA Environmental (which consent may or may not be given at the discretion of SGA Environmental). The Commonwealth Bank of Australia Ltd has purchased the report and may now rely on the report findings.
4. This report comprises the formal report, documentation sections, tables, figures and appendices as referred to in the index to this report and must not be released to any third party or copied in part without all the material included in this report for any reason.
5. The report only relates to the site referred to in the scope of works being located at 2 Australia Avenue, Sydney Olympic Park ("the site").
6. The report relates to the site as at the date of the report as conditions may change thereafter due to natural processes and/or site activities.
7. No warranty or guarantee is made in regard to any other use than as specified in the scope of works and only applies to the depth tested and reported in this report.
8. Fill, soil, groundwater and rock to the depth tested on the site may be fit for the use specified in this report. Unless it is expressly stated in this report, the fill, soil and/or rock may not be suitable for classification virgin excavated natural material if deposited off site.

15.0 REFERENCES

1. CSIRO Australia (2006) *Australian Soil Resource Information System. http://www.asris.csiro.au*

2. Dutch Ministry of Housing Spatial Planning and the Environment (2000) *Intervention Values* http://www.vrom.nl/pagina.html?id=9737

3. National Environmental Health Forum (NEHF) (1996) *Health-based Soil Investigation Levels*

4. National Environment Protection Council (1999) *National Environment Protection (Assessment of Site Contamination) Measure (NEPM)*

5. NSW Department of Mineral Resources (1983) *Geological series sheet 9130* (Edition 1)

6. NSW EPA (1994) *Contaminated Sites: Guidelines for Assessing Service Station Sites*

7. NSW EPA (1995) *Contaminated sites: sampling design guidelines*

8. NSW Government *NSW Natural Resource ATLAS* www.nratlas.nsw.gov.au

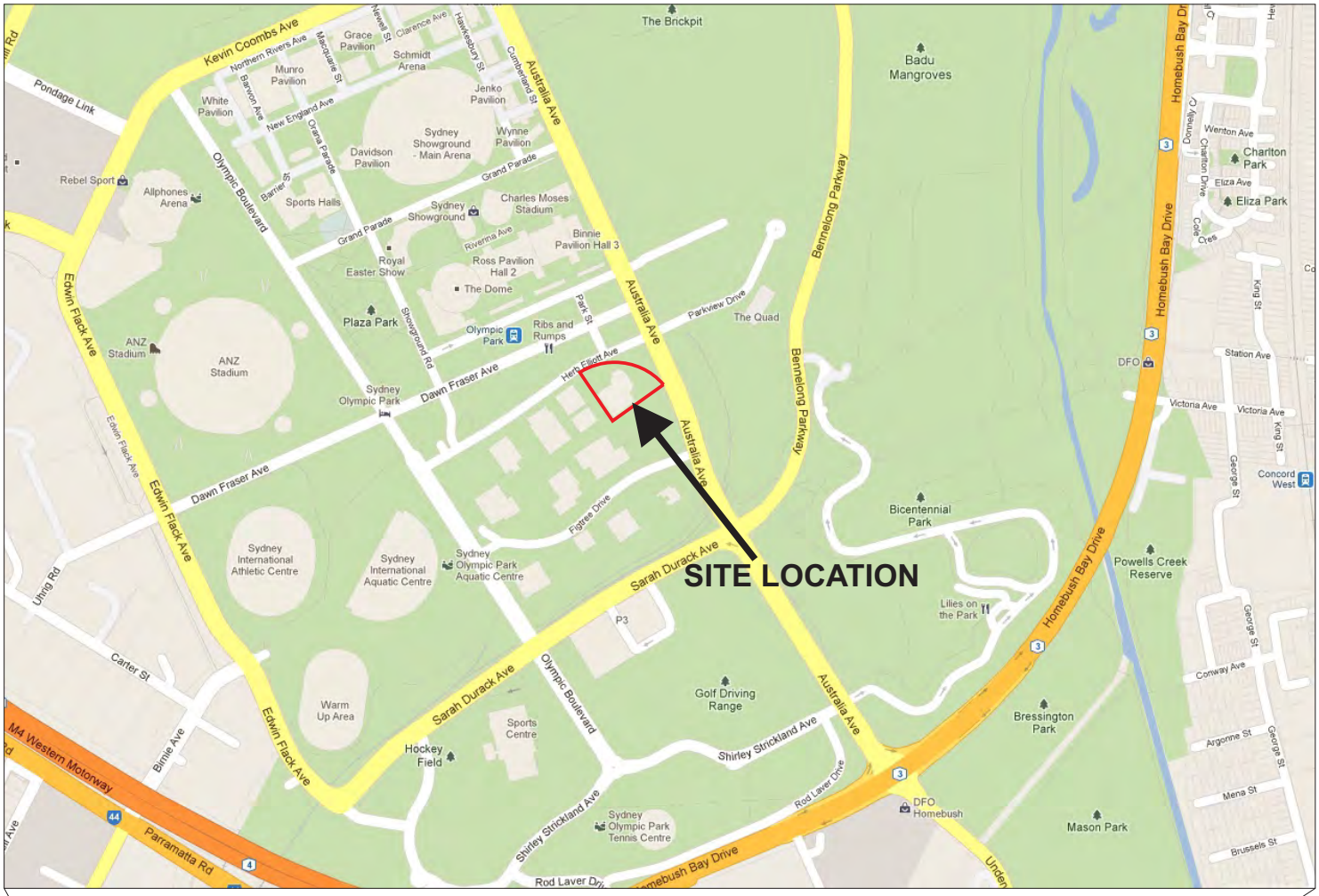
9. SGA Environmental (July 2009) *Targeted Environmental Site Assessment: 2 Australia Avenue, Sydney Olympic Park, NSW*. Report 91017.013

10. Standards Australia (1999) *Guide to the investigation and sampling of sites with potentially contaminated soil. Part 2 Volatile compounds* AS4482.2

11. Standards Australia (2005) *Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1 Non-volatile and semi volatile compounds* AS4482.1-2005

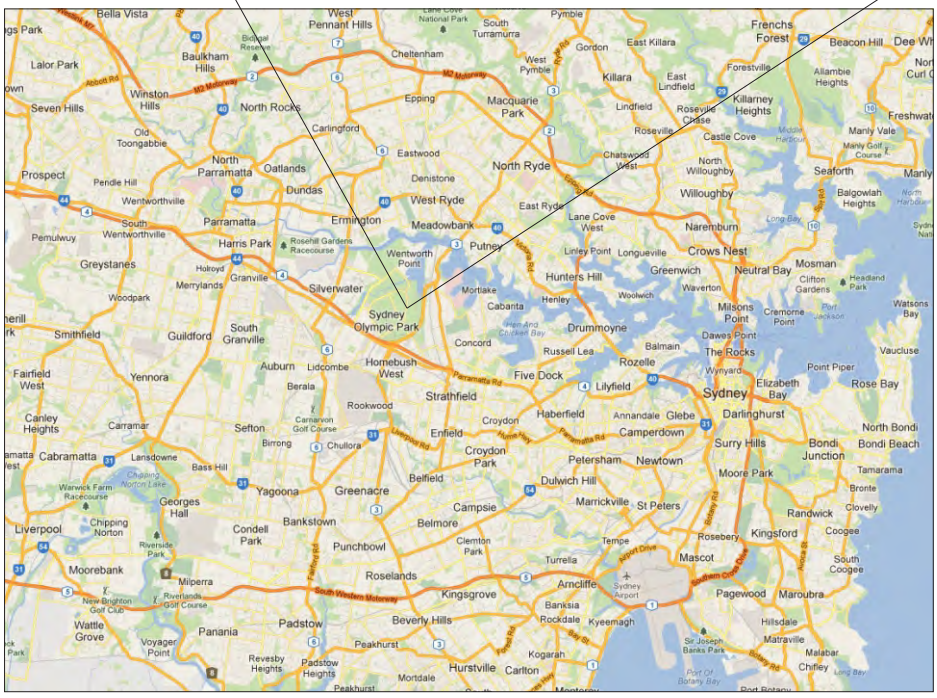
12. US EPA *Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites*

APPENDIX A
FIGURES



Approximate Scale (Meters)

0 — 300



N

Source: http://maps.google.com/

CLIENT	Silex Solar
PROJECT	2 Australia Avenue, Sydney Olympic Park NSW
TITLE	Figure 1 - Site Location

SCALE	DATE	DRAWING No.	ISSUE
NTS	15/10/2012	93090.01_Fig1	A

DRAWN	CHECKED	JOB No.
D.G.	P.G.	93090.01

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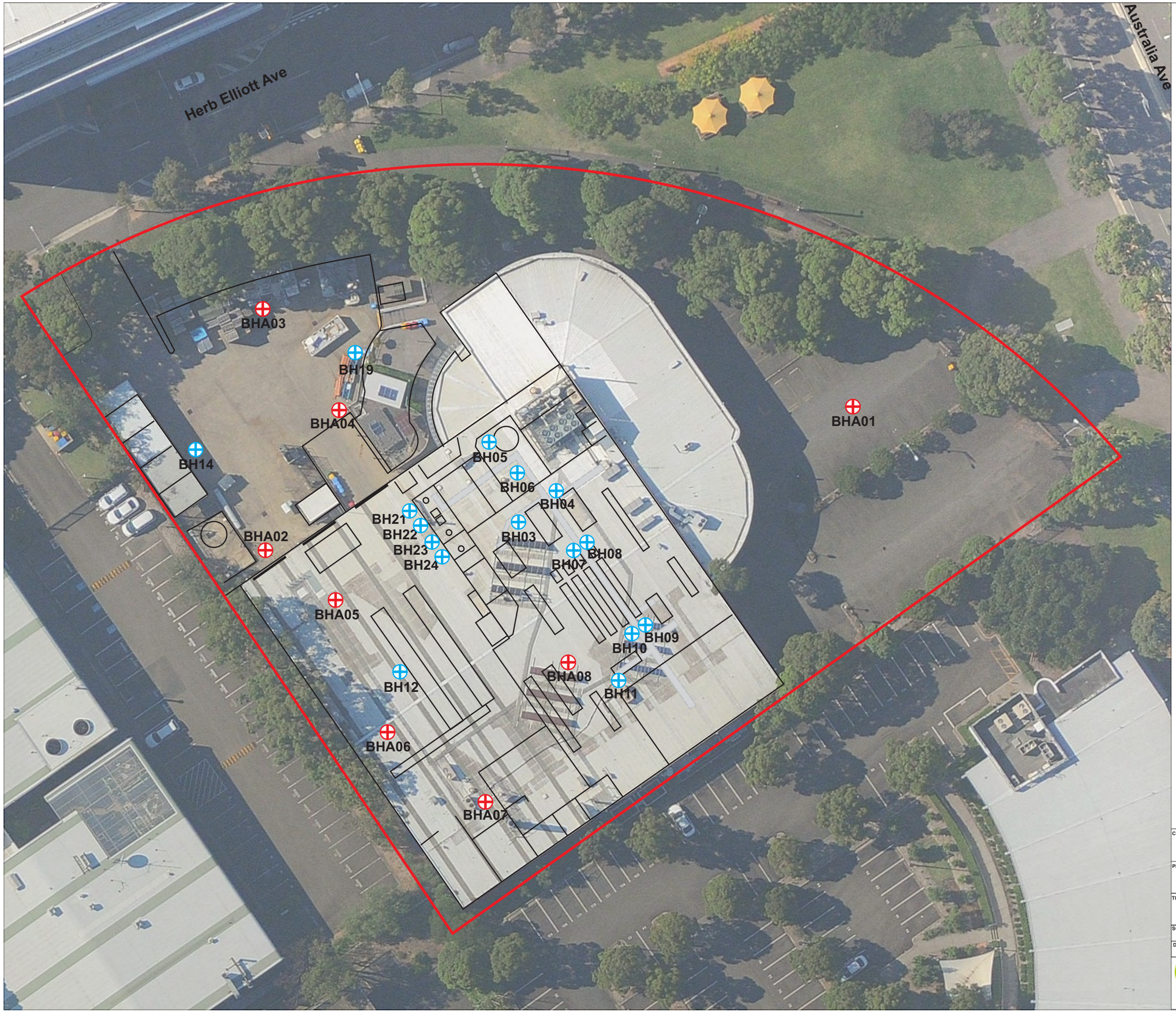

Site Boundary

Soil investigation borehole - August 2012

Soil investigation borehole - October 2012

0 30

Approximate Scale (m)

N

Source: NearMap.com

CLIENT
Silex Solar

PROJECT
2 Australia Avenue, Sydney Olympic Park NSW

TITLE
Figure 2 - Site layout and soil investigation borehole locations

SCALE	DATE	DRAWING No.	ISSUE
NTS	18/10/12	93090.01_Fig2	A
DRAWN: D.G. / CHECKED: P.G.	JOB No.: 93090.01		

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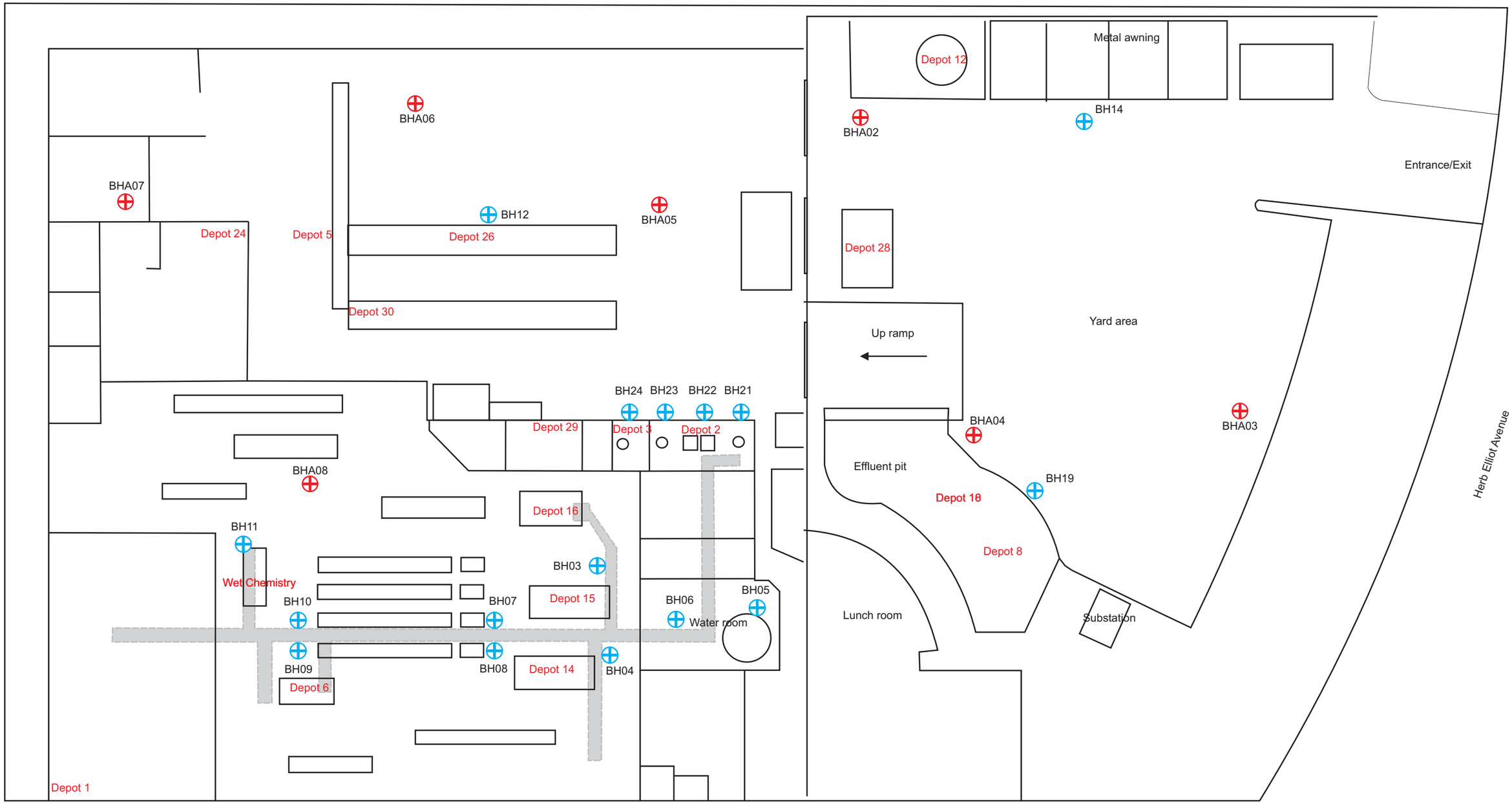

Dangerous Goods infrastructure in place as of June 2009

Depot No.	Type of Depot	Class / Pg Group	Description	Maximum Quantity	Bund Type and Capacity
1	Roofed Store - Ventilated Cabinet for Cylinders connected to process	2.3	Ammonia, Anhydrous	70L (water capacity of cylinders)	N/A
2	Roofed Process Storage	8 / II	Hydrochloric Acid, Hydrofluoric Acid, Sodium Hydroxide	3,000 L	Concrete Bund 750 Litres
3	Roofed Process Storage	3 / II	Isopropanol	410 L	100 Litres
5	Roofed Store - DG Cabinet	3 / II	Isopropanol	250 L	Cabinet Bund 65 Litres
6	Process Cylinder Store	2.2	Tetrafluoromethane, Freon, Oxygen (Compressed)	300 L (water capacity of cylinders)	N/A
8	Roofed Store - Drums	8 / II	Hydrochloric Acid	1000 Litres	GRP Bund 250 Litres
12	Above Ground Tank	2.2	Nitrogen, Refrigerated Liquid	41,800 Litres (water capacity of tank)	N/A
14	Process Storage	3 & 8 / II	Isopropanol, Hydrochloric Acid, Hydrofluoric Acid, Sodium Hydroxide	300 Litres	300 Litres

Depot No.	Type of Depot	Class / Pg Group	Description	Maximum Quantity	Bund Type and Capacity
15	Process Storage	3 & 8 / II	Isopropanol, Hydrochloric Acid, Hydrofluoric Acid, Sodium Hydroxide	400 Litres	400 Litres
18	Roofed Store - IBC	8 / II	Sodium Hydroxide	1000 Litres	Concrete Bund 1000 Litres
19	Roofed Store - IBC	8 / II	Sodium Hydroxide	3000 Litres	Concrete Bund 1000 Litres
24	Roofed Store - Aerosols (Minor Storage)	2.1	Spray Cans	20 Kg	N/A
26	Roofed Store	8 / II & III	Hydrochloric Acid, Hydrofluoric Acid, Phosphoric Acid	4940 Litres	1250 Litres
28	Cylinder Store	2.1, 2.2 (5.1) & 2.3	Acetylene, Ammonia, Argon, Oxygen, LPG, Freon, Tetrafluoromethane, Silane	2000 Litres (water capacity of cylinders)	N/A
29	Roofed Store - Corrosives Cabinet	8 / II	TSE3664(B) Silicone Compound	10 Litres	Cabinet Bund 100 Litres
30	Roofed Store - Corrosives Cabinet	8 / II	TSE3664(B) Silicone Compound	10 Litres	Cabinet Bund 30 Litres

N

0 Scale (m) 10

Legend

- Soil Investigation Borehole (August 2012)
- Soil Investigation Borehole (October 2012)
- Underground Trench

CLIENT: Silex Solar

PROJECT: 2 Australia Avenue Homebush Bay, NSW

TITLE: Figure 3 - Site infrastructure

SCALE	DATE	DRAWING No.	ISSUE
NTS	18/10/12	93090.01_Fig3	A

DRAWN	CHECKED	JOB No.
D.G.	P.G.	93090.01

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APPENDIX B
GUIDELINES

Table 3 Primary Site Criteria

Substance	Chemical of Concern	Proposed Environmental Investigation Level	
Primary COCs		**Soil**	**Groundwater**
All Acids	pH	≤4 or ≥ 8.5 [1]	≤ 4 or ≥ 8.5 [2]
Phosphoric Acid	Phosphate	2,000 mg/kg[3]	1 mg/L[5]
Hydrofluoric Acid	Fluoride (soluble)	500 mg/kg[4]	1.5 mg/L[4]
Isopropanol	Isopropanol	220 mg/kg[4]	31mg/L[4]

Notes:

1 – Investigation levels are considered background pH range for the Sydney Basin. If from background pH in groundwater ranges collected at the investigation levels fall outside the pH investigation range, then comparison will be made with samples from background soil pH ranges collected in natural soils at site, and cross referenced to analytical results collected to determine whether the source is attributed to the presence of phosphoric acid and/or hydrofluoric acid used at the site by the tenant.

2 – Investigation levels are background pH ranges for groundwater in the Sydney Basin. If investigation levels fall outside the pH investigation range, then comparison will be made with samples site, and cross referenced to analytical results collected to determine whether the source is attributed to the presence of phosphoric acid and/or hydrofluoric acid used at the site by the tenant.

3 – Sourced from National Environmental Protection Council (1999) — *National Environmental Protection (Assessment of Site Contamination) Measure – Ecological Investigation Levels.* Due to possible other sources associated with past site uses (i.e. fertilisers), if the trigger level for phosphate are exceeded, then further testing of soils specifically to measure for presence of phosphoric acid will be undertaken to confirm that the source of the phosphate is phosphoric acid used at the site by the tenant.

4 – Dutch Ministry of Housing and Spatial Planning and the Environment (VROM) (2000) — *Target values and intervention values for soil remediation soil/sediment and groundwater.* Due to possible other sources associated with past site uses for fluoride (i.e. various landfill material, natural rock composition), if the trigger level for fluoride is exceeded, then further testing of soils specifically to measure for presence of hydrofluoric acid will be undertaken to confirm the source of the fluoride is from hydrofluoric acid used at the site by the tenant. If the trigger level for soluble fluoride is exceeded, then further testing of the groundwater specifically to measure for presence of hydrofluoric acid will be undertaken to confirm that the source of the fluoride is hydrofluoric acid used at the site by the tenant.

5 – No guideline established. Trigger level set at 1mg/L (twice laboratory detection limit). Due to possible other past sources at site (ie fertilisers), if this trigger level exceeded, then further testing of groundwater will be required specifically to determine that the source of phosphate is from phosphoric acid used at the site by the tenant.

Table 4 NEPM Health Based Soil Investigation levels and Ecological Investigation Levels

Substance	Health-based Soil Investigation Levels (HILs)(mg/kg)				Ecological Investigation Levels (EILs)
	Standard Residential	High Density Residential	Parks & Open Spaces	Commercial & Industrial	
Aldrin + Dieldrin	10	40	20	50	-
Arsenic (total)	100	400	200	500	20
Benzo (a) pyrene	1	4	2	5	-
Beryllium	20	80	40	100	-
Boron	3 000	12 000	6 000	15 000	-
Cadmium	20	80	40	100	3
Chlordane	50	200	100	250	-
Chromium (III)	12%	48%	24%	60%	400
Chromium (VI)	100	400	200	500	1
Cobalt	100	400	200	500	-
Copper	1 000	4 000	2 000	5 000	100
Cyanides (complexed)	500	2 000	1 000	2 500	-
DDT+DDD+DDE	200	800	400	1 000	-
Heptachlor	10	40	20	50	-
Lead	300	1 200	600	1 500	600
Manganese	1 500	6 000	3 000	7 500	500
Methyl mercury	10	40	20	50	-
Mercury (inorganic)	15	60	30	75	1
Nickel	600	2 400	600	3 000	60
Total PAH	20	80	40	100	-
PCBs (total)	10	40	20	50	-
Phenol	8 500	34 000	17 000	42 500	-
TPH >C16-C35 aromatics	**90**	**360**	**180**	**450**	**-**
TPH >C16-C35 aliphatics	**5 600**	**22 400**	**11 200**	**28 000**	**-**
TPH >C35	**56 000**	**224 000**	**112 000**	**280 000**	**-**
Zinc	7 000	28 000	14 000	35 000	200

Notes:
Guidelines taken from National Environment Protection Council (1999) — *National Environment Protection (Assessment of Site Contamination) Measure* (NEPM). Shading indicates most applicable criteria

Table 5 NSW EPA. (1994). Contaminated sites: guidelines for assessing service station sites – Threshold concentrations for the sensitive land use - soils

Analytes	Threshold Concentrations	Sources
	mg/kg dry weight	
TPH: C_6-C_9	65	See note [d]
TPH: C_{10}-C_{40}	1000	See note [e]
Benzene	1[f]	ANZECC 1992
Toluene	1.4[g]/130[h]	Netherlands 1994
Ethylbenzene	3.1[i]/50[j]	Netherlands 1994
Total Xylenes	14[k]/25[j]	Netherlands 1994
Total Lead	300	ANZECC 1992
Total PAHs	20	ANZECC 1992

Notes:

[d] The TPH C_6-C_9 threshold concentration applies to soil containing 10% natural organic matter. This concentration has been calculated assuming- that there has been a recent spill, -that the aromatic content of the petrol is 30%; and - that the resultant BTEX soils concentrations are at their lower thresholds. TPH C_6-C_9 concentrations above the relevant threshold may indicate that BTEX concentrations are above their thresholds. The threshold concentration should be interpreted as only an approximate indicator of potential contamination;

[e] The TPH C_{10}-C_{40} threshold concentration is based on consideration of both the Netherlands Intervention Level for TPH C_{10}-C_{40} range and commonly reported analytical detection limits. The Netherlands intervention value is 5,000 mg/kg dry weight;

[f] a lower benzene threshold concentration may be needed to protect groundwater;

[g] the toluene threshold concentration is the Netherlands MPC to protect terrestrial organisms in soil. The value was obtained by applying a US EPA assessment factor for terrestrial chronic (NOEC) data. The MPC is an indicative value;

[h] human health and ecologically based protection level for toluene. The threshold concentration used here is the Netherlands intervention value for the protection of terrestrial organisms. Other considerations such as odours and the protection of groundwater may require a lower remedial criterion;

[i] the ethyl benzene threshold concentration is the Netherlands MPC for the protection of terrestrial organisms in soil. No terrestrial ecotoxicological data could be found for use in the Netherlands derivation. Therefore equilibrium partitioning has been applied to the MPC for water to obtain estimates for the MPC for soil. The MPC for water has been derived from aquatic ecotoxicological data;

[j] Human health based protection level for ethyl benzene or total xylenes as shown. The threshold concentration presented here is the Netherlands intervention value. Other considerations such as odour and the protection of groundwater may require a lower remediation criterion;

[k] the xylene threshold concentration is the Netherlands MPC for the protection of terrestrial organisms in soil. No terrestrial ecotoxicological data could be found for use in the Netherlands criteria derivation. Therefore equilibrium partitioning has been applied for the MPC for water to obtain an estimate of the MPC for soil. The MPC for water has been derived from aquatic ecotoxicological data. The concentration shown applies to total xylenes and is based on the arithmetic average of the individual xylene MPCs

APPENDIX C
BOREHOLE LOGS

sga Environmental

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Borehole Log: BH03

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Vinyl Tile	0.00					
		Concrete						
		Dense, dark brown to black coarse gravelly sand (road base)	0.14		Dist	9.5	D	No Odour
		Natural Stiff brown to red clay with ironstone fragments	0.30		Dist	6	D-M	No Odour
0.50		Becoming grey with red mottling	0.60		Dist		D	
		EOH @ 075m, target depth	0.75					
1.00								

Drilled By: **D. Gouge** *Drill Rig:* **-** *Hole Size:* **65mm**

Drill Method: **Hand Auger** *Easting:* **-** *Datum:* **-**

Drill Date: **2 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

sga Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH04

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Vinyl Tile	0.00					
		Concrete						
		Dense, dark brown to black coarse gravelly sand (road base)	0.15		Dist	9.5	D	No Odour
		Natural Stiff brown to red clay with ironstone fragments	0.30				D-M	
0.50					Dist	6	D	No Odour
		EOH @ 0.6m, refusal	0.60					
1.00								

Drilled By: **D. Gouge** *Drill Rig:* **-** *Hole Size:* **65mm**

Drill Method: **Hand Auger** *Easting:* **-** *Datum:* **-**

Drill Date: **2 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

sga Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH05

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					
		Dense, dark brown to black coarse gravelly sand (road base)	0.13		Dist	9	D	No Odour
		Soft brown clay, roots, ironstone fragments	0.30			6	D-M	
0.50					Dist		D-M	No Odour
		Natural Stiff grey to light brown clay with red mottles, ironstone fragments	0.80		Dist	6	D-M	No Odour
		EOH @ 0.9m, target depth	0.90					
1.00								

Drilled By: **D. Gouge** *Drill Rig:* **-** *Hole Size:* **65mm**

Drill Method: **Hand Auger** *Easting:* **-** *Datum:* **-**

Drill Date: **2 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

sga Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH06

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					
		Dense, dark brown to black coarse gravelly sand (road base)	0.14		Dist	9	D	No Odour
		Soft brown clay, ironstone fragments	0.30				D-M	
					Dist		D	No Odour FD02
0.50		***Natural*** Stiff grey to light brown clay with red mottles,minor ironstone fragments	0.50			6		
					Dist	6.5		No Odour
		EOH @ 0.8m, target depth	0.80					
1.00								

Drilled By: **D. Gouge** *Drill Rig:* **-** *Hole Size:* **65mm**

Drill Method: **Hand Auger** *Easting:* **-** *Datum:* **-**

Drill Date: **2 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH07

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Vinyl Tile	0.00					
		Concrete						
		Dense, dark brown to black coarse gravelly sand (road base)	0.15		Dist	9	D	No Odour
		Firm brown to red to grey clay	0.30		Dist	6	D-M	No Odour
		Natural Stiff grey clay with red mottles, ironstone fragments	0.40					
0.50							D-M	
		Stiff grey to light brown clay with red mottles,minor ironstone fragments	0.55		Dist	6	D	No Odour
		EOH @ 0.6m, refusal	0.60					
1.00								

Drilled By: **D. Gouge** *Drill Rig:* **-** *Hole Size:* **65mm**

Drill Method: **Hand Auger** *Easting:* **-** *Datum:* **-**

Drill Date: **2 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH08

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Vinyl Tile	0.00					
		Concrete						
		Dense, dark brown to black coarse gravelly sand (road base)	0.15		Dist	9	D	No Odour
		Natural Soft to firm grey to light brown clay, red mottling	0.30		Dist	6.5	D	No Odour Sample mixed with gravel from above
		Weathered grey to white shale	0.40		Dist	6	D	No Odour
		EOH @ 0.45m, refusal	0.45					
0.50								
1.00								

Drilled By: **D. Gouge** *Drill Rig:* **-** *Hole Size:* **65mm**

Drill Method: **Hand Auger** *Easting:* **-** *Datum:* **-**

Drill Date: **2 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

sga Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH09

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Vinyl Tile	0.00					
		Concrete	0.05					
		Dense, dark brown to black coarse gravelly sand (road base)	0.15		Dist	9	D	No Odour
		Natural Firm grey to light brown clay with red mottles	0.30		Dist	6	D	No Odour
0.50		Weathered grey to white shale	0.45		Dist	5.5	D	No Odour
		EOH @ 0.6m, refusal	0.60					
1.00								

Drilled By: **D. Gouge** *Drill Rig:* **-** *Hole Size:* **65mm**

Drill Method: **Hand Auger** *Easting:* **-** *Datum:* **-**

Drill Date: **2 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH10

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Vinyl Tile	0.00					
		Concrete	0.05					
		Dense, dark brown to black coarse gravelly sand (road base)	0.14		Dist	9.5	D	No Odour
		EOH @ 0.35m, refusal	0.35					
0.50								
1.00								

Drilled By: **D. Gouge** *Drill Rig:* **-** *Hole Size:* **65mm**

Drill Method: **Hand Auger** *Easting:* **-** *Datum:* **-**

Drill Date: **2 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH11

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Vinyl Tile	0.00					
		Concrete	0.05					
		Dense, dark brown to black coarse gravelly sand (road base)	0.14		Dist	9.5	D	No Odour FD03
		Dense black sandy gravelly clay	0.30		Dist	9	D	No Odour
					Dist	7.5	D	No Odour
		EOH @ 0.45m, refusal	0.45					
0.50								
1.00								

Drilled By: **D. Gouge** *Drill Rig:* **-** *Hole Size:* **65mm**

Drill Method: **Hand Auger** *Easting:* **-** *Datum:* **-**

Drill Date: **2 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH12

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					
		Dense, dark brown to black coarse gravelly sand (road base)	0.17					
		Natural Stiff grey clay with red mottling, minor shale fragments	0.35		Undist	9	D	No Odour
0.50					Undist	6	D-M	No Odour
		Grey clay with significant weathered shale fragments	0.60					
					Undist	5.5	D	No Odour
1.00		***EOH @ 1.0m, refusal***	1.00					

Drilled By: **D. Gouge** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **-** *Datum:* **-**

Drill Date: **1 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH14

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					
		Dense, dark brown to black coarse gravelly sand (road base)	0.17		Undist	9	D	No Odour
		Soft grey silty clay with orange mottling, some ironstone fragments	0.30		Undist	5.5	D	No Odour
0.50								
		Natural Soft brown clay, minor ironstone fragments	0.90		Undist	6	D-M	No Odour
1.00								
		Stiff to hard grey clay with orange to brown mottling, minor shale fragments	1.30		Undist	6	D	No Odour
1.50								
		Extremely weathered grey to white shale, minor clay	1.60		Undist	6.5	D	No Odour
		EOH @ 1.9m, target depth	1.90					
2.00								

Drilled By: **D. Gouge** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **-** *Datum:* **-**

Drill Date: **1 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH19

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					
		Dense, dark brown to black coarse gravelly sand (road base)	0.17			9.5	D	No Odour
		Natural Stiff brown to red clay, orange and grey mottling, roots	0.35		Undist	6	D-M	No Odour
0.50		Ironstone	0.60				D-M	
		Stiff grey clay, red mottling, minor ironstone fragments						No Odour
1.00		less mottling	1.00					No Odour
1.50		Ironstone	1.50				D	
		Extremely weathered grey shale			Undist	6	D	No Odour
		EOH @ 1.9m, target depth	1.90					
2.00								

Drilled By: **D. Gouge** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **-** *Datum:* **-**

Drill Date: **1 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH21

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					
		Dense, dark brown to black coarse gravelly sand (road base)	0.21			9	D	
		Natural Stiff brown to red clay, ironstone fragments	0.30		Undist	6	D-M	No Odour FD01
0.50							D-M	
1.00		Stiff grey to brown to red clay with red mottling	1.00				D	
					Undist	5.5		No Odour
		becoming grey, less red mottling	1.30					
1.50		increase in ironstone fragments	1.50					
		Weathered grey to white shale	1.60				D	
					Undist	6		No Odour
		EOH @ 1.8m, refusal	1.80					
2.00								

Drilled By: **D. Gouge** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **-** *Datum:* **-**

Drill Date: **1 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH22

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					
		Dense, dark brown to black coarse gravelly sand (road base)	0.24				D	No Odour
0.50		***Natural*** Soft to firm brown to red clay	0.40		Undist	6	D-M	No Odour
		Stiff grey to brown clay with red mottling	0.70				D-M	No Odour
1.00		Stiff grey clay with red mottling, minor ironstone	0.80		Undist	6.5	D-M	No Odour
		EOH @ 1.3m, target depth	1.30					
1.50								
2.00								

Drilled By: **D. Gouge** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **-** *Datum:* **-**

Drill Date: **1 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH23

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					
		Dense, dark brown to black coarse gravelly sand (road base)	0.20			9.5	D	No Odour
		Natural Soft to firm brown to red clay, minor ironstone fragments	0.30		Undist	6	D-M	No Odour
0.50								
		Soft brown clay, bitumen fragments	0.80				M	No Odour
1.00		Stiff grey clay with red mottling	1.00		Undist	6.5	D-M	No Odour
		Shale fragments increase at 1.2m	1.20					
		EOH @ 1.3m, target depth	1.30					
1.50								
2.00								

Drilled By: **D. Gouge** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **-** *Datum:* **-**

Drill Date: **1 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

sga Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BH24

Project No.: **93090**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Sorongan** *Logged by:* **S. Burrows**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					
		Dense, dark brown to black coarse gravelly sand (road base)	0.18			9.5	D	No Odour
		Natural Soft to firm brown to red clay, minor ironstone fragments	0.30		Undist	6	D-M	No Odour
0.50		Soft dark brown clay, bitumen fragments	0.60				M	No Odour
		Stiff grey clay with red mottling	0.70		Undist	6.5	D-M	No Odour
1.00		increase in shale fragments	1.20		Undist	6	D-M	No Odour
		EOH @ 1.3m, target depth	1.30					
1.50								
2.00								

Drilled By: **D. Gouge** *Drill Rig:* **SGA Custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **-** *Datum:* **-**

Drill Date: **1 August 2012** *Northing:* **-** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BHA01

Project No.: **93090.01**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Gouge** *Logged by:* **D. Gouge**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Loose brown silt with basaltic gravel	0.00		Undist	6	Dry	No odour throughout
		Hard white sandstone	0.20					
		Natural Firm grey siltstone with some orange mottles	0.40		Undist	6	Dry	
0.50		***EOH @ 0.5m (Refusal)***	0.50					
1.00								
1.50								

Drilled By: **J . King** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **0** *Datum:*

Drill Date: **16 October 2012** *Northing:* **0** *Sheet:* **1 of 1**

sga Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BHA02

Project No.: **93090.01**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Gouge** *Logged by:* **D. Gouge**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					No odour throughout
		Loose brown and grey sandy silty clay with some gravel	0.20		Undist	6	Dry	
0.50		***Natural*** Firm brown clay with orange mottles and rootlets	0.50		Undist	7	Dry/moist	
		Firm friable grey and brown siltstone	0.60		Undist		Dry/moist	
		EOH @ 0.8m (Refusal)	0.80					
1.00								
1.50								

Drilled By: **J . King** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **0** *Datum:*

Drill Date: **16 October 2012** *Northing:* **0** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BHA03

Project No.: **93090.01**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Gouge** *Logged by:* **D. Gouge**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					No odour throughout
		Loose grey/brown sandy silty clay with basaltic gravel (~20%)	0.20		Undist	7.5	Dry/moist	
0.50		***Natural*** Firm brown, grey, orange mottled clay with occasional gravel sized concretions	0.40		Undist	5.5	Dry	
							Dry/moist	
1.00						5.5		
1.50							Dry/moist	
		Firm friable grey and brown siltstone	1.70			5.5	Dry	
		EOH @ 1.9m (Refusal)	1.90					

Drilled By: **J . King** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **0** *Datum:*

Drill Date: **16 October 2012** *Northing:* **0** *Sheet:* **1 of 1**

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BHA04

Project No.: **93090.01**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Gouge** *Logged by:* **D. Gouge**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					No odour throughout
		Loose dark grey sand with minor silt and gravel	0.20		Undist	8	Moist	
		Dark brown/red mottled clay with minor gravel	0.30		Undist	7.5	Dry/moist	
0.50		***Natural*** Stiff orange, brown, grey mottled clay with occasional red gravel sized concretions	0.40		Undist	5.5		FD1 from 0.4-0.6m
							Dry/moist	
1.00								
		Firm friable grey and brown siltstone	1.30			5.5	Dry/moist	
1.50								
		EOH @ 1.7m (Refusal)	1.70					

Drilled By: **J . King** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **0** *Datum:*

Drill Date: **16 October 2012** *Northing:* **0** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BHA05

Project No.: **93090.01**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Gouge** *Logged by:* **D. Gouge**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					No odour throughout
		Loose grey/brown sandy silty clay with basaltic gravel (~20%)	0.20		Undist	7.5	Dry	
0.50		Firm red, brown, grey mottled clay	0.50					
		Some sandstone cobble inclusions @ 0.7-0.9m	0.70		Undist	6	Dry	
1.00		***Natural*** Firm red and brown clay/weathered siltstone	1.00		Undist	5.5	Dry	
		EOH @ 1.2m (Refusal)	1.20					
1.50								

Drilled By: **J . King** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **0** *Datum:*

Drill Date: **16 October 2012** *Northing:* **0** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BHA06

Project No.: **93090.01**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Gouge** *Logged by:* **D. Gouge**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					No odour throughout
		Loose grey/brown sandy silty clay with basaltic gravel (~20%)	0.15		Undist	8.5	Dry	
0.50		***Natural*** Stiff brown and red mottled clay Root @ 0.8m	0.30		Undist	7.5 6	Dry	
		Firm friable grey weathered shale	0.90		Undist	5.5	Dry	
1.00		***EOH @ 1.2m (Refusal)***	1.20					
1.50								

Drilled By: **J . King** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **0** *Datum:*

Drill Date: **16 October 2012** *Northing:* **0** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BHA07

Project No.: **93090.01**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Gouge** *Logged by:* **D. Gouge**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					No odour throughout
		Loose dark brown silty sand with gravel and cobbles	0.20		Undist	7	Dry	
		Natural Stiff orange/brown clay with minor grey and orange mottles	0.30		Undist	6	Dry/moist	
0.50		***EOH @ 0.4m (Refusal)***	0.40					
1.00								
1.50								

Drilled By: **J . King** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **0** *Datum:*

Drill Date: **16 October 2012** *Northing:* **0** *Sheet:* **1 of 1**

Environmental

Suite 8, 599 Pacific Highway Ph: + 61 2 9438 2333
St Leonards NSW 2065 Fx: + 61 2 9437 3222

Borehole Log: BHA08

Project No.: **93090.01**

Client: **Silex Solar**

Location: **2 Australia Avenue, Sydney Olympic Park NSW**

Project Manager: **D. Gouge** *Logged by:* **D. Gouge**

STRATIGRAPHY				SAMPLE				
Depth (mbgl)	Symbol	Description	Depth/Elev.	Sample Depth	Sample type	pH	Moisture	Comments
0.00		Ground Surface						
		Fill Concrete	0.00					No odour throughout
		Loose dark brown silty sand with gravel and cobbles	0.15		Undist	7	Dry	FD2 from 0.2-0.3m
		Natural Soft orange and grey mottled clay	0.30		Undist	6	Dry/moist	
0.50		***EOH @ 0.45m (Refusal)***	0.45					
1.00								
1.50								

Drilled By: **J . King** *Drill Rig:* **SGA custom** *Hole Size:* **65mm**

Drill Method: **Push Tube** *Easting:* **0** *Datum:*

Drill Date: **16 October 2012** *Northing:* **0** *Sheet:* **1 of 1**

APPENDIX D

LABORATORY RESULTS SUMMARY AND TRANSCRIPTS

Table D1 - Summary of Soil Results

					Primary Chemicals of Concern	pH	Phosphorus	Fluoride (soluble)	Isopropanol	Heavy Metals	Arsenic	Cadmium	Chromium (a)	Copper	Lead	Mercury (b)	Nickel	Zinc
HIL Commercial/Industrial (NEPM 1999)						-	-	-	-		500	100	60000	5000	1500	75	3000	35000
EIL (NEPM 1999)						-	2000	-	-		20	3	400	100	600	1	60	200
Dutch Ministry of Housing and Spatial Planning and Environment (VROM) (2000)						-	-	500	-		-	-	-	-	-	-	-	-
NSW EPA Service Station guidelines						-	-	-	-		-	-	-	-	300	-	-	-
Proposed Environmental Investigation Levels						(≤ 4.5 or ≥ 8.5)	-	-	220		-	-	-	-	-	-	-	-
Units						pH units	mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Detection Limit (MDL)						0.1	10	1	10		0.5	0.5	0.5	1	0.5	0.1 / 0.2	0.5	0.5
Sample Location	**Depth Sampled**	**Date Sampled**	**Lithology Sampled**															
BH03	0.4-0.5	2/08/2012	Fill - Firm brown, red, grey clay with sandstone fragments			4.3	720	<0.5	<10									
BH03	0.6-0.7	2/08/2012	Natural - Stiff grey clay with red mottles and ironstone fragments			3.9												
BH04	0.4-0.5	2/08/2012	Natural - Stiff brown to red clay with ironstone fragments			5.0					7.4	<0.5	23	12	17	<0.2	8.2	7.6
BH05	0.5-0.6	2/08/2012	Fill - Soft brown clay, roots, ironstone fragments			5.0												
BH05	0.8-0.85	2/08/2012	Natural - Stiff grey to light brown clay with red mottles, ironstone fragments			4.8												
BH06	0.4-0.5	2/08/2012	Fill - Soft brown clay, ironstone fragments			4.2		<0.5	<10									
BH06	0.7-0.8	2/08/2012	Natural - Stiff grey to light brown clay with red mottles, minor ironstone fragments			4.1												
BH07	0.3-0.4	2/08/2012	Fill - Firm brown/red/grey clay			4.3												
BH07	0.55-0.6	2/08/2012	Natural - Stiff grey to light brown clay wih red mottles, minor ironstone fragments			4.7												
BH08	0.3-0.4	2/08/2012	Natural - Soft to firm grey to light brown clay, red mottling			5.4			<10									
BH08	0.4-0.45	2/08/2012	Natural - Weathered grey to white shale			6.2												
BH09	0.35-0.45	2/08/2012	Natural - Firm grey to light brown clay with red mottles			5.5					4	<0.5	6.3	13	20	<0.2	8.5	5
BH09	0.45-0.55	2/08/2012	Natural - Weathered grey to white shale			4.8												
BH11	0.4-0.45	2/08/2012	Fill - Dense black sandy gravelly clay			7.5												
BH12	0.4-0.5	2/08/2012	Natural - Stiff grey clay with red mottles and ironstone fragments			4.2	270	<0.5										
BH12	0.8-0.9	2/08/2012	Natural - Grey clay with significant weathered shale fragments			4.3												
BH14	0.3-0.4	2/08/2012	Fill - Soft grey silty clay with orange mottling, some ironstone fragments			4.4												
BH14	1.0-1.2	2/08/2012	Natural - Soft brwn clay, minor ironstone fragments			4.8												
BH14	1.3-1.4	2/08/2012	Natural - Stiff to hard grey clay with orange to brown mottling, minor shale fragments			4.6												
BH14	1.6-1.7	2/08/2012	Natural - Extremely weathered grey to white shale, minor clay			4.6												
BH19	0.4-0.5	2/08/2012	Natural - Stiff brown to red clay, orange and grey mottling, roots			5.4		<0.5										
BH19	1.7-1.86	2/08/2012	Natural - Extremely weathered grey shale			4.6	200	<0.5										
BH21	0.3-0.4	2/08/2012	Natural - Stiff brown to red clay, ironstone fragments			4.2					14	<0.5	28	17	25	<0.2	5.4	14
BH21	1.2-1.3	2/08/2012	Natural - Stiff grey/brown/red clay with red mottling			4.3												
BH21	1.7-1.8	2/08/2012	Natural - Weathered grey to white shale			4.5												
BH22	0.4-0.55	2/08/2012	Natural - Soft to firm brown to red clay			5.6		<0.5	<10									
BH22	0.8-0.9	2/08/2012	Natural - Stiff grey clay with red mottling, minor ironstone			4.7												
BH23	0.25-0.35	2/08/2012	Natural - Soft to firm brown to red clay, minor ironstone fragments			5.2	380	<0.5	<10									
BH23	0.9-1.0	2/08/2012	Natural - Stiff grey clay with red mottling			5.0												
BH24	0.3-0.4	2/08/2012	Natural - Soft to fiem brown to red clay, minor ironstone fragments			5.2												
BH24	0.75-0.85	2/08/2012	Natural - Stiff grey clay with red mottling			4.5												
BH24	1.25-1.3	2/08/2012	Natural - Stiff grey clay with red mottling			4.1												
FD01		2/08/2012	Duplicate of BH21 0.3-0.4			4.5					10	<0.5	14	14	15	<0.2	3	12
FD02		2/08/2012	Duplicate of BH06 0.4-0.5			4.3		<0.5	<10									
BHA01	0-0.2	16/10/2012	Fill - Loose brown silt with basaltic gravel			4.3	1230	<1			0.59	<0.5	15	86	2.1	<0.2	140	86
BHA01	0.4-0.5	16/10/2012	Natural - Firm grey siltstone with minor orange mottles			7.5		<1			6	<0.5	6.8	15	8.1	<0.2	2.9	12
BHA02	0.2-0.4	16/10/2012	Fill - Loose brown and grey sandy silty clay with some gravel			9.7	1050	<1	<10									
BHA02	0.5-0.6	16/10/2012	Natural - Firm brown clay with orange mottles and rootlets			6.8					5.7	<0.5	5.4	6.7	13	<0.2	0.72	1.3
BHA02	0.7-0.8	16/10/2012	Natural - Firm friable grey and brown siltstone			6.1												
BHA03	0.2-0.4	16/10/2012	Fill - Loose grey/brown sandy silty clay with basaltic gravel (~20%)			9.1			<10									
BHA03	0.4-0.6	16/10/2012	Natural - Firm brown, grey, orange mottled clay with occasional gravel sized concretions			7.2												
BHA04	0.2-0.3	16/10/2012	Fill - Loose dark grey sand with minor silt and gravel			9.5	1200	<1	<10		0.86	<0.5	19	78	1.5	<0.2	210	75
BHA04	0.3-0.4	16/10/2012	Fill - Dark brown/red mottled clay with minor gravel			7.3	76	<1										
BHA04	0.4-0.6	16/10/2012	Natural - Stiff orange, brown, grey mottled clay with occasional red concretions			6.1		<1	<10		7.9	<0.5	10	11	14	<0.2	0.85	2.4
BHA05	0.3-0.5	16/10/2012	Fill - Loose grey/brown sandy silty clay with basaltic gravel (~20%)			6.3	110	<1	<10									
BHA05	0.8-1.0	16/10/2012	Fill - Firm red, brown, grey mottled clay			5.9			<10									
BHA05	1.0-1.2	16/10/2012	Firm red and brown clay/weathered siltstone			5.2												
BHA06	0.2-0.3	16/10/2012	Fill - Loose grey/brown sandy silty clay with basaltic gravel (~20%)			9.7					0.51	<0.5	18	74	2.2	<0.2	160	76
BHA06	0.3-0.5	16/10/2012	Natural - Stiff brown and red mottled clay			6.4												
BHA06	0.9-1.0	16/10/2012	Natural - Firm friable grey weathered shale			6.2												
BHA07	0.2-0.3	16/10/2012	Fill - Loose dark brown silty sand with gravel and cobbles			9.9	1170	<1	<10									
BHA07	0.3-0.4	16/10/2012	Fill - Stiff orange/brown clay with minor grey and orange mottles			7.7	350	<1			4	<0.5	13	49	33	<0.2	27	27
BHA08	0.2-0.3	16/10/2012	Fill - Loose dark brown silty sand with gravel and cobbles			9.8	1170	<1	<10									
BHA08	0.3-0.4	16/10/2012	Natural - Soft orange and grey mottled clay			7.4												
FD1		16/10/2012	Duplicate of BHA04 0.4-0.6			6.2			<10		11	<0.5	10	11	15	<0.2	1.2	3.5
FD2		16/10/2012	Duplicate of BHA08 0.2-0.3			9.9	1400	<1	<10									

Table D1 - Summary of Soil Results

				Total Petroleum Hydrocarbons (TPH)						Monocyclic Aromatic Hydrocarbons (MAHs)						Polycyclic Aromatic Hydrocarbons (PAHs)				Phthalates		Halogenated Aliphatics Hydrocarbons		Halogenated Aliphatics Hydrocarbons		Halogenated Aliphatics Hydrocarbons		Trihalomethanes		Phenols		Oxygenated Compounds	Sulfonated Compounds		Chlorinated Hydrocarbons		Ethers	
				TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH >C29 - C36	Total TPH C10 - C40		Benzene	Toluene	Ethyl Benzene	Total Xylene	All other MAHs		Benzo(a)pyrene	All other PAH's	Total PAHs		Bis(2-ethylhexyl)phthalate	Total Phthalates		Total Halogenated Aliphatics Hydrocarbons		Total Halogenated Aromatics Hydrocarbons		Total Trihalomethanes		Phenol	Total Phenols			Carbon disulfide		Total Chlorinated Hydrocarbons		Total Ethers
HIL Commercial/Industrial (NEPM 1999)				-	-	-	-	-		-	-	-	-	-		5	-	100		-	-		-		-		-		42500	-			-		-		-
EIL (NEPM 1999)				-	-	-	-	-		-	-	-	-	-		-	-	-		-	-		-		-		-		-	-			-		-		-
Dutch Ministry of Housing and Spatial Planning and Environment (VROM) (2000)				-	-	-	-	-		-	-	-	-	-		-	-	-		-	-		-		-		-		-	-			-		-		-
NSW EPA Service Station guidelines				65	-	-	-	1000		1	1.4	3.1	14	-		1	-	20		-	-		-		-		-		-	-			-		-		-
Proposed Environmental Investigation Levels				-	-	-	-	-		-	-	-	-	-		-	-	-		120*	-		-		-		-		-	-			-		-		-
Units				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg		mg/kg	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	mg/kg			mg/kg		mg/kg		mg/kg
Method Detection Limit (MDL)				25	50	100	100	100		0.5	0.5	0.5	1	1		1	1	1		2	1								1				5				
Sample Location	**Depth Sampled**	**Date Sampled**	**Lithology Sampled**																																		
BH03	0.4-0.5	2/08/2012	Fill - Firm brown, red, grey clay with sandstone fragments	<25	<50	<100	<100	<100		<0.5	<0.5	<0.5	nd																								
BH03	0.6-0.7	2/08/2012	Natural - Stiff grey clay with red mottles and ironstone fragments																																		
BH04	0.4-0.5	2/08/2012	Natural - Stiff brown to red clay with ironstone fragments	<25	<50	<100	<100	<100		<0.5	<0.5	<0.5	nd																								
BH05	0.5-0.6	2/08/2012	Fill - Soft brown clay, roots, ironstone fragments																																		
BH05	0.8-0.85	2/08/2012	Natural - Stiff grey to light brown clay with red mottles, ironstone fragments																																		
BH06	0.4-0.5	2/08/2012	Fill - Soft brown clay, ironstone fragments																																		
BH06	0.7-0.8	2/08/2012	Natural - Stiff grey to light brown clay with red mottles, minor ironstone fragments																																		
BH07	0.3-0.4	2/08/2012	Fill - Firm brown/red/grey clay																																		
BH07	0.55-0.6	2/08/2012	Natural - Stiff grey to light brown clay wih red mottles, minor ironstone fragments																																		
BH08	0.3-0.4	2/08/2012	Natural - Soft to firm grey to light brown clay, red mottling																																		
BH08	0.4-0.45	2/08/2012	Natural - Weathered grey to white shale																																		
BH09	0.35-0.45	2/08/2012	Natural - Firm grey to light brown clay with red mottles	<25	<50	<100	<100	<100		<0.5	<0.5	<0.5	nd																								
BH09	0.45-0.55	2/08/2012	Natural - Weathered grey to white shale																																		
BH11	0.4-0.45	2/08/2012	Fill - Dense black sandy gravelly clay																																		
BH12	0.4-0.5	2/08/2012	Natural - Stiff grey clay with red mottles and ironstone fragments																																		
BH12	0.8-0.9	2/08/2012	Natural - Grey clay with significant weathered shale fragments																																		
BH14	0.3-0.4	2/08/2012	Fill - Soft grey silty clay with orange mottling, some ironstone fragments																																		
BH14	1.0-1.2	2/08/2012	Natural - Soft brwn clay, minor ironstone fragments																																		
BH14	1.3-1.4	2/08/2012	Natural - Stiff to hard grey clay with orange to brown mottling, minor shale fragments																																		
BH14	1.6-1.7	2/08/2012	Natural - Extremely weathered grey to white shale, minor clay																																		
BH19	0.4-0.5	2/08/2012	Natural - Stiff brown to red clay, orange and grey mottling, roots	<25	<50	<100	<100	<100		<0.5	<0.5	<0.5	nd																								
BH19	1.7-1.86	2/08/2012	Natural - Extremely weathered grey shale																																		
BH21	0.3-0.4	2/08/2012	Natural - Stiff brown to red clay, ironstone fragments	<25	<50	<100	<100	<100		<0.5	<0.5	<0.5	nd																								
BH21	1.2-1.3	2/08/2012	Natural - Stiff grey/brown/red clay with red mottling																																		
BH21	1.7-1.8	2/08/2012	Natural - Weathered grey to white shale																																		
BH22	0.4-0.55	2/08/2012	Natural - Soft to firm brown to red clay																																		
BH22	0.8-0.9	2/08/2012	Natural - Stiff grey clay with red mottling, minor ironstone																																		
BH23	0.25-0.35	2/08/2012	Natural - Soft to firm brown to red clay, minor ironstone fragments																																		
BH23	0.9-1.0	2/08/2012	Natural - Stiff grey clay with red mottling																																		
BH24	0.3-0.4	2/08/2012	Natural - Soft to fiem brown to red clay, minor ironstone fragments	<25	<50	<100	<100	<100		<0.5	<0.5	<0.5	nd																								
BH24	0.75-0.85	2/08/2012	Natural - Stiff grey clay with red mottling																																		
BH24	1.25-1.3	2/08/2012	Natural - Stiff grey clay with red mottling																																		
FD01		2/08/2012	Duplicate of BH21 0.3-0.4	<25	<50	<100	<100	<100		<0.5	<0.5	<0.5	nd																								
FD02		2/08/2012	Duplicate of BH06 0.4-0.5																																		
BHA01	0-0.2	16/10/2012	Fill - Loose brown silt with basaltic gravel													<1																		nd		nd
BHA01	0.4-0.5	16/10/2012	Natural - Firm grey siltstone with minor orange mottles																																		
BHA02	0.2-0.4	16/10/2012	Fill - Loose brown and grey sandy silty clay with some gravel							<1	<1	<1	nd	<1						<2			nd		nd		nd		<1	nd			<5				
BHA02	0.5-0.6	16/10/2012	Natural - Firm brown clay with orange mottles and rootlets													<1																		nd		nd
BHA02	0.7-0.8	16/10/2012	Natural - Firm friable grey and brown siltstone																																		
BHA03	0.2-0.4	16/10/2012	Fill - Loose grey/brown sandy silty clay with basaltic gravel (~20%)							<1	<1	<1	nd	<1		<1							nd		nd		nd		<1	nd			<5		nd		nd
BHA03	0.4-0.6	16/10/2012	Natural - Firm brown, grey, orange mottled clay with occasional gravel sized concretions													<1																		nd		nd
BHA04	0.2-0.3	16/10/2012	Fill - Loose dark grey sand with minor silt and gravel																	<2									<1	nd							
BHA04	0.3-0.4	16/10/2012	Fill - Dark brown/red mottled clay with minor gravel							<1	<1	<1	nd	<1									nd		nd		nd		<1	nd			<5				
BHA04	0.4-0.6	16/10/2012	Natural - Stiff orange, brown, grey mottled clay with occasional red concretions																																		
BHA05	0.3-0.5	16/10/2012	Fill - Loose grey/brown sandy silty clay with basaltic gravel (~20%)													<1																		nd		nd
BHA05	0.8-1.0	16/10/2012	Fill - Firm red, brown, grey mottled clay							<1	<1	<1	nd	<1						<2			nd		nd		nd						<5				
BHA05	1.0-1.2	16/10/2012	Firm red and brown clay/weathered siltstone																										<1	nd							
BHA06	0.2-0.3	16/10/2012	Fill - Loose grey/brown sandy silty clay with basaltic gravel (~20%)							<1	<1	<1	nd	<1		<1							nd		nd		nd						<5		nd		nd
BHA06	0.3-0.5	16/10/2012	Natural - Stiff brown and red mottled clay																																		
BHA06	0.9-1.0	16/10/2012	Natural - Firm friable grey weathered shale																										<1	nd							
BHA07	0.2-0.3	16/10/2012	Fill - Loose dark brown silty sand with gravel and cobbles																	6.7																	
BHA07	0.3-0.4	16/10/2012	Fill - Stiff orange/brown clay with minor grey and orange mottles																																		
BHA08	0.2-0.3	16/10/2012	Fill - Loose dark brown silty sand with gravel and cobbles																	2.4																	
BHA08	0.3-0.4	16/10/2012	Natural - Soft orange and grey mottled clay							<1	<1	<1	nd	<1									nd		nd		nd						<5				
FD1		16/10/2012	Duplicate of BHA04 0.4-0.6																																		
FD2		16/10/2012	Duplicate of BHA08 0.2-0.3																	2																	

Table D1 - Summary of Soil Results

				Amines Nitroaromatics & Nitrosamines	Total Amines Nitroaromatics & Nitrosamines	Organochlorine Pesticides (OCPs)	Aldrin + Dieldrin	DDE + DDD + DDE	Total OCPs	Organophosphate Pesticides (OPPs)	Total OPPs	Other Compounds	Dichlorobenzidine	2-Methylnaphthalene	Isophorone	Benzyl alcohol	Carbazole	Dibenzofuran	Asbestos	Asbestos fibres
HIL Commercial/Industrial (NEPM 1999)					-		50	1000	-		-		-	-	-	-	-			-
EIL (NEPM 1999)					-		-	-	-		-		-	-	-	-	-			-
Dutch Ministry of Housing and Spatial Planning and Environment (VROM) (2000)					-		-	-	-		-		-	-	-	-	-			-
NSW EPA Service Station guidelines					-		-	-	-		-		-	-	-	-	-			-
Proposed Environmental Investigation Levels					-		-	-	-		-		-	-	-	-	-			-
Units					mg/kg		mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		mg/kg
Method Detection Limit (MDL)													2	1	2	2	2	2		
Sample Location	**Depth Sampled**	**Date Sampled**	**Lithology Sampled**																	
BH03	0.4-0.5	2/08/2012	Fill - Firm brown, red, grey clay with sandstone fragments																	
BH03	0.6-0.7	2/08/2012	Natural - Stiff grey clay with red mottles and ironstone fragments																	
BH04	0.4-0.5	2/08/2012	Natural - Stiff brown to red clay with ironstone fragments																	
BH05	0.5-0.6	2/08/2012	Fill - Soft brown clay, roots, ironstone fragments																	
BH05	0.8-0.85	2/08/2012	Natural - Stiff grey to light brown clay with red mottles, ironstone fragments																	
BH06	0.4-0.5	2/08/2012	Fill - Soft brown clay, ironstone fragments																	
BH06	0.7-0.8	2/08/2012	Natural - Stiff grey to light brown clay with red mottles, minor ironstone fragments																	
BH07	0.3-0.4	2/08/2012	Fill - Firm brown/red/grey clay																	
BH07	0.55-0.6	2/08/2012	Natural - Stiff grey to light brown clay wih red mottles, minor ironstone fragments																	
BH08	0.3-0.4	2/08/2012	Natural - Soft to firm grey to light brown clay, red mottling																	
BH08	0.4-0.45	2/08/2012	Natural - Weathered grey to white shale																	
BH09	0.35-0.45	2/08/2012	Natural - Firm grey to light brown clay with red mottles																	
BH09	0.45-0.55	2/08/2012	Natural - Weathered grey to white shale																	
BH11	0.4-0.45	2/08/2012	Fill - Dense black sandy gravelly clay																	
BH12	0.4-0.5	2/08/2012	Natural - Stiff grey clay with red mottles and ironstone fragments																	
BH12	0.8-0.9	2/08/2012	Natural - Grey clay with significant weathered shale fragments																	
BH14	0.3-0.4	2/08/2012	Fill - Soft grey silty clay with orange mottling, some ironstone fragments																	
BH14	1.0-1.2	2/08/2012	Natural - Soft brwn clay, minor ironstone fragments																	
BH14	1.3-1.4	2/08/2012	Natural - Stiff to hard grey clay with orange to brown mottling, minor shale fragments																	
BH14	1.6-1.7	2/08/2012	Natural - Extremely weathered grey to white shale, minor clay																	
BH19	0.4-0.5	2/08/2012	Natural - Stiff brown to red clay, orange and grey mottling, roots																	
BH19	1.7-1.86	2/08/2012	Natural - Extremely weathered grey shale																	
BH21	0.3-0.4	2/08/2012	Natural - Stiff brown to red clay, ironstone fragments																	
BH21	1.2-1.3	2/08/2012	Natural - Stiff grey/brown/red clay with red mottling																	
BH21	1.7-1.8	2/08/2012	Natural - Weathered grey to white shale																	
BH22	0.4-0.55	2/08/2012	Natural - Soft to firm brown to red clay																	
BH22	0.8-0.9	2/08/2012	Natural - Stiff grey clay with red mottling, minor ironstone																	
BH23	0.25-0.35	2/08/2012	Natural - Soft to firm brown to red clay, minor ironstone fragments																	
BH23	0.9-1.0	2/08/2012	Natural - Stiff grey clay with red mottling																	
BH24	0.3-0.4	2/08/2012	Natural - Soft to fiem brown to red clay, minor ironstone fragments																	
BH24	0.75-0.85	2/08/2012	Natural - Stiff grey clay with red mottling																	
BH24	1.25-1.3	2/08/2012	Natural - Stiff grey clay with red mottling																	
FD01		2/08/2012	Duplicate of BH21 0.3-0.4																	
FD02		2/08/2012	Duplicate of BH06 0.4-0.5																	
BHA01	0-0.2	16/10/2012	Fill - Loose brown silt with basaltic gravel		nd		nd	nd	nd		nd		<2	<1	<2	<2	<2	<2		
BHA01	0.4-0.5	16/10/2012	Natural - Firm grey siltstone with minor orange mottles																	
BHA02	0.2-0.4	16/10/2012	Fill - Loose brown and grey sandy silty clay with some gravel																	nd
BHA02	0.5-0.6	16/10/2012	Natural - Firm brown clay with orange mottles and rootlets		nd		nd	nd	nd		nd		<2	<1	<2	<2	<2	<2		nd
BHA02	0.7-0.8	16/10/2012	Natural - Firm friable grey and brown siltstone																	
BHA03	0.2-0.4	16/10/2012	Fill - Loose grey/brown sandy silty clay with basaltic gravel (~20%)		nd		nd	nd	nd		nd		<2	<1	<2	<2	<2	<2		
BHA03	0.4-0.6	16/10/2012	Natural - Firm brown, grey, orange mottled clay with occasional gravel sized concretions		nd		nd	nd	nd		nd		<2	<1	<2	<2	<2	<2		
BHA04	0.2-0.3	16/10/2012	Fill - Loose dark grey sand with minor silt and gravel																	nd
BHA04	0.3-0.4	16/10/2012	Fill - Dark brown/red mottled clay with minor gravel																	nd
BHA04	0.4-0.6	16/10/2012	Natural - Stiff orange, brown, grey mottled clay with occasional red concretions																	
BHA05	0.3-0.5	16/10/2012	Fill - Loose grey/brown sandy silty clay with basaltic gravel (~20%)		nd		nd	nd	nd		nd		<2	<1	<2	<2	<2	<2		nd
BHA05	0.8-1.0	16/10/2012	Fill - Firm red, brown, grey mottled clay																	
BHA05	1.0-1.2	16/10/2012	Firm red and brown clay/weathered siltstone																	
BHA06	0.2-0.3	16/10/2012	Fill - Loose grey/brown sandy silty clay with basaltic gravel (~20%)		nd		nd	nd	nd		nd		<2	<1	<2	<2	<2	<2		
BHA06	0.3-0.5	16/10/2012	Natural - Stiff brown and red mottled clay																	
BHA06	0.9-1.0	16/10/2012	Natural - Firm friable grey weathered shale																	
BHA07	0.2-0.3	16/10/2012	Fill - Loose dark brown silty sand with gravel and cobbles																	
BHA07	0.3-0.4	16/10/2012	Fill - Stiff orange/brown clay with minor grey and orange mottles																	
BHA08	0.2-0.3	16/10/2012	Fill - Loose dark brown silty sand with gravel and cobbles																	
BHA08	0.3-0.4	16/10/2012	Natural - Soft orange and grey mottled clay																	nd
FD1		16/10/2012	Duplicate of BHA04 0.4-0.6																	
FD2		16/10/2012	Duplicate of BHA08 0.2-0.3																	

Australian Government
National Measurement Institute

SGAPRI/120803
Due 10/8/12
NN

NMI CHAIN OF CUSTODY FORM

Sent by (Company):	SGA Environmental	PROJECT NAME: ~~Lane Cove West~~ Sydney Olympic Park	SEND TO:
Address:	Suite 8, 599 Pacific Highway	NMI Quote Number: PL11/0127A	NMI (National Measurement Institute)
	St Leonards NSW 2065		105 Delhi Road, Riverside Corporate Park,
		Your Purchase Order Number: 93090	NORTH RYDE NSW 2113
Contact:	David Gouge	Your Job Number: 93090	Phone: 02 9449 0111
Phone:	02 9438 2333	Results due date (as agreed with NMI): Standard turnaround	E-mail: customerservice@measurement.gov.au
Contact person email:	dgouge@sgaproperty.com		NMI Contact: Customer Service Unit

Following analysis, Please forward all samples to SAL - address attached.

NMI SAMPLE NUMBER (NMI USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information (Date & Time)	Sample type	Isopropanol	TPH/BTEX	Heavy metals (8)											COMMENTS
N12/020375	BH03 0.4-0.5	2/06/2012	Soil	X	X												
	BH03 0.6-0.7	2/06/2012	Soil														Hold
N12/020376	BH04 0.4-0.5	2/06/2012	Soil		X	X											
	BH05 0.5-0.6	2/06/2012	Soil														Hold
	BH05 0.8-0.85	2/06/2012	Soil														Hold
N12/020377	BH06 0.4-0.5	2/06/2012	Soil	X													Hold
	BH06 0.7-0.8	2/06/2012	Soil														Hold
	BH07 0.3-0.4	2/06/2012	Soil														Hold
	BH07 0.55-0.6	2/06/2012	Soil														Hold
N12/020378	BH08 0.3-0.4	2/06/2012	Soil	X													
	BH08 0.4-0.45	2/06/2012	Soil														Hold
N12/020379	BH09 0.35-0.45	2/06/2012	Soil		X	X											
	BH09 0.45-0.55	2/06/2012	Soil														Hold

03 AUG 2012
AM 16:20

Relinquished by:		Received at NMI laboratory by:
Print Name:	David Gouge	Print Name:
Date & Time:	3 / 08 / 12 10 : 30 hrs	Date & Time: / / : hrs
Signature:		Signature:

PAGE No: of PAGES

If multiple pages, ensure ALL pages are stapled together

Australian Government
National Measurement Institute

NMI CHAIN OF CUSTODY FORM

Sent by (Company):	SGA Environmental	PROJECT NAME: ~~Lane Cove West~~ Sydney Olympic Park	SEND TO:
Address:	Suite 8, 599 Pacific Highway	NMI Quote Number: PL11/0127A	NMI (National Measurement Institute)
	St Leonards NSW 2065		105 Delhi Road, Riverside Corporate Park,
		Your Purchase Order Number: 93090	NORTH RYDE NSW 2113
Contact:	David Gouge	Your Job Number: 93090	Phone: 02 9449 0111
Phone:	02 9438 2333	Results due date (as agreed with NMI): Standard turnaround	E-mail: customerservice@measurement.gov.au
Contact person email:	dgouge@sgaproperty.com		NMI Contact: Customer Service Unit

NMI SAMPLE NUMBER (NMI USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information (Date & Time)	Sample type	Isopropanol	TPH/BTEX	Heavy metals (8)											COMMENTS
Not received. AD	~~BH11 0.3-0.38~~	~~2/06/2012~~	~~Soil~~	X	~~X~~	A D		e-mail attached. A-D									
	BH11 0.4-0.45	2/06/2012	Soil														Hold
	BH12 0.4-0.5	1/06/2012	Soil														Hold
	BH12 0.8-0.9	1/06/2012	Soil														Hold
	BH14 0.3-0.4	1/06/2012	Soil														Hold
	BH14 1.0-1.2	1/06/2012	Soil														Hold
	BH14 1.3-1.4	1/06/2012	Soil														Hold
	BH14 1.6-1.7	1/06/2012	Soil														Hold
N12/020380	BH19 0.4-0.5	1/06/2012	Soil		X												Hold
	BH19 1.7-1.86	1/06/2012	Soil														Hold
N12/020381	BH21 0.3-0.4	1/06/2012	Soil		X	X							03 AUG 2012 A-D		16:30	C	
	BH21 1.2-1.3	1/06/2012	Soil														Hold
	BH21 1.7-1.8	1/06/2012	Soil														Hold

Relinquished by:		Received at NMI laboratory by:	
Print Name:	David Gouge	Print Name:	
Date & Time:	3 / 08 / 12 10 : 30 hrs	Date & Time: / / : hrs	
Signature:		Signature:	

PAGE No: of PAGES

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Australian Government
National Measurement Institute

NMI CHAIN OF CUSTODY FORM

Sent by (Company):	SGA Environmental
Address:	Suite 8, 599 Pacific Highway
	St Leonards NSW 2065
Contact:	David Gouge
Phone:	02 9438 2333
Contact person email:	dgouge@sgaproperty.com

PROJECT NAME: ~~Lane Cove West~~ Sydney Olympic Park
NMI Quote Number: PL11/0127A
Your Purchase Order Number: 93090
Your Job Number: 93090
Results due date (as agreed with NMI): Standard turnaround

SEND TO:
NMI (National Measurement Institute)
105 Delhi Road, Riverside Corporate Park,
NORTH RYDE NSW 2113
Phone: 02 9449 0111
E-mail: customerservice@measurement.gov.au
NMI Contact: Customer Service Unit

NMI SAMPLE NUMBER (NMI USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information (Date & Time)	Sample type	Isopropanol	TPH/BTEX	Heavy metals (8)											COMMENTS
N12/020382	BH22 0.4-0.55	1/06/2012	Soil	X													
	BH22 0.8-0.9	1/06/2012	Soil														Hold
N12/020383	BH23 0.25-0.35	1/06/2012	Soil	X													
	BH23 0.9-1.0	1/06/2012	Soil														Hold
N12/020384	BH24 0.3-0.4	1/06/2012	Soil		X												
	BH24 0.75-0.85	1/06/2012	Soil														Hold
	BH24 1.25-1.3	1/06/2012	Soil										03 AUG 2012				Hold
N12/020385	FD01	1/06/2012	Soil		X	X							AB	16:30	C		Hold
N12/020386	FD02	1/06/2012	Soil	X													Hold
	~~FD03~~	~~1/06/2012~~	~~Soil~~														~~Hold~~

Relinquished by:
Print Name: David Gouge
Date & Time: 3 / 08 / 12 10 : 30 hrs
Signature:

Received at NMI laboratory by:
Print Name:
Date & Time: / / : hrs
Signature:

PAGE No: of PAGES

If multiple pages, ensure ALL pages are stapled together

Begum, Afroza

From: David Gouge [DGouge@sgaproperty.com]
Sent: Friday, 3 August 2012 4:30 PM
To: Begum, Afroza
Subject: COC ammendment - our job 93090 - sample BH11 0.3-0.38

Afroza

As discussed today, please remove sample BH11 0.3-0.38 from the schedule of analysis (no analysis for this missing sample).

Thanks

David Gouge B.Sc (Chemistry, Geology)
Environmental Geoscientist

SGA Environmental
Suite 8, 599 Pacific Highway
St Leonards NSW 2065
Phone: +61 2 9438 2333
Fax: +61 2 9437 3222
Mobile: +61 488 448 195

www.sgaproperty.com

Australian Government

National Measurement Institute

SAMPLE RECEIPT NOTIFICATION

To: SGA PROPERTY CONSULTANCY P/L
Attn: DAHMON SORONGAN
From: Laboratory Services Unit
Date: 6-AUG-2012
Email:

If you have any queries or wish to make any adjustments to analyses requested, please contact Susanne Neuman immediately on 02 9449 0181

Project: SYDNEY OLYMPIC PARK
Order No.: 93090
NMI Job No: SGAP01/120803
Total Number of Samples: 12
Date received by NMI: 3-AUG-2012
Estimated Report Date: 10-AUG-2012

LRNs	Sample Ref	Description
N12/020375	BH03 0.4-0.5	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020376	BH04 0.4-0.5	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020377	BH06 0.4-0.5	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020378	BH08 0.3-0.4	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020379	BH09 0.35-0.45	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020380	BH19 0.4-0.5	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020381	BH21 0.3-0.4	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020382	BH22 0.4-0.55	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020383	BH23 0.25-0.35	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020384	BH24 0.3-0.4	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020385	FD1	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK J
N12/020386	FD2	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK J

Comments:

ALL OK

Samples received Chilled

NMI quotation number provided Yes
Complete documentation received Yes

If NO please contact Susanne Neuman on 02 9449 0181 to clarify. Note: incomplete or unclear information about samples or required testing will delay the start of the analysis work

Unless advised otherwise sample analysis will commence regardless of integrity issues
Relevant non-conformances will be recorded on the final report.

REPORT OF ANALYSIS

Report No. RN928109

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/120803
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 3-AUG-2012
Attention	: DAHMON SORONGAN	Sampled By	: CLIENT
Project Name	: SYDNEY OLYMPIC PARK		
Your Client Services Manager	: BRIAN WOODWARD	Phone	: (02) 94490151

Lab Reg No.	Sample Ref	Sample Description
N12/020375	BH03 0.4-0.5	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090

Lab Reg No.		N12/020375				
Sample Reference	Units	BH03 0.4-0.5				Method
BTEX						
Benzene	mg/kg	< 0.5				NGCMS_1121
Toluene	mg/kg	< 0.5				NGCMS_1121
Ethyl Benzene	mg/kg	< 0.5				NGCMS_1121
m, p - Xylene	mg/kg	< 1				NGCMS_1121
o - Xylene	mg/kg	< 0.5				NGCMS_1121
Surrogate: TOL-D8	%REC	97				NGCMS_1121
Miscellaneous						
Organic Investigation		See comment				NGCMS_1130
Total Petroleum Hydrocarbons						
TPH C6 - C9	mg/kg	< 25				NGCMS_1121
TPH C10 - C14	mg/kg	< 50				NGCMS_1112
TPH C15 - C28	mg/kg	< 100				NGCMS_1112
TPH C29 - C36	mg/kg	< 100				NGCMS_1112
Surrogate: TOL-D8	%REC	97				NGCMS_1121
Dates						
Date extracted		8-AUG-2012				
Date analysed		8-AUG-2012				

N12/020375
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Danny Slee, Section Manager
Organics - NSW
Accreditation No. 198

10-AUG-2012

REPORT OF ANALYSIS

Report No. RN928109

Lab Reg No.		N12/020375				
Sample Reference	Units	BH03 0.4-0.5				Method
Trace Elements						
Total Solids	%	77.6				NT2_49

Ling Shuang Lu, Analyst
Inorganics - NSW
Accreditation No. 198

10-AUG-2012

All results are expressed on a dry weight basis.

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This Report supersedes reports: RN927803 RN928088

Australian Government

National Measurement Institute

REPORT OF ANALYSIS

Report No. RN928110

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/120803
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 3-AUG-2012
Attention	: DAHMON SORONGAN	Sampled By	: CLIENT
Project Name	: SYDNEY OLYMPIC PARK		
Your Client Services Manager	: BRIAN WOODWARD	Phone	: (02) 94490151

Lab Reg No.	Sample Ref	Sample Description
N12/020380	BH19 0.4-0.5	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090
N12/020384	BH24 0.3-0.4	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090

Lab Reg No.		N12/020380	N12/020384			
Sample Reference	Units	BH19 0.4-0.5	BH24 0.3-0.4			Method
BTEX						
Benzene	mg/kg	< 0.5	< 0.5			NGCMS_1121
Toluene	mg/kg	< 0.5	< 0.5			NGCMS_1121
Ethyl Benzene	mg/kg	< 0.5	< 0.5			NGCMS_1121
m, p - Xylene	mg/kg	< 1	< 1			NGCMS_1121
o - Xylene	mg/kg	< 0.5	< 0.5			NGCMS_1121
Surrogate: TOL-D8	%REC	97	100			NGCMS_1121
Total Petroleum Hydrocarbons						
TPH C6 - C9	mg/kg	< 25	< 25			NGCMS_1121
TPH C10 - C14	mg/kg	< 50	< 50			NGCMS_1112
TPH C15 - C28	mg/kg	< 100	< 100			NGCMS_1112
TPH C29 - C36	mg/kg	< 100	< 100			NGCMS_1112
Surrogate: TOL-D8	%REC	97	100			NGCMS_1121
Dates						
Date extracted		8-AUG-2012	8-AUG-2012			
Date analysed		8-AUG-2012	8-AUG-2012			

Danny Slee, Section Manager
Organics - NSW
Accreditation No. 198

10-AUG-2012

REPORT OF ANALYSIS

Report No. RN928110

Lab Reg No.		N12/020380	N12/020384			
Sample Reference	Units	BH19 0.4-0.5	BH24 0.3-0.4			Method
Trace Elements						
Total Solids	%	75.5	75.6			NT2_49

Ling Shuang Lu, Analyst
Inorganics - NSW
Accreditation No. 198

10-AUG-2012

All results are expressed on a dry weight basis.

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This Report supersedes reports: RN927803 RN928089

REPORT OF ANALYSIS

Report No. RN928111

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/120803
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 3-AUG-2012
Attention	: DAHMON SORONGAN	Sampled By	: CLIENT
Project Name	: SYDNEY OLYMPIC PARK		
Your Client Services Manager	: BRIAN WOODWARD	Phone	: (02) 94490151

Lab Reg No.	Sample Ref	Sample Description
N12/020376	BH04 0.4-0.5	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090
N12/020379	BH09 0.35-0.45	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090
N12/020381	BH21 0.3-0.4	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090
N12/020385	FD01	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090

Lab Reg No.		N12/020376	N12/020379	N12/020381	N12/020385	
Sample Reference	Units	BH04 0.4-0.5	BH09 0.35-0.	BH21 0.3-0.4	FD01	Method
BTEX						
Benzene	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	NGCMS_1121
Toluene	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	NGCMS_1121
Ethyl Benzene	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	NGCMS_1121
m, p - Xylene	mg/kg	< 1	< 1	< 1	< 1	NGCMS_1121
o - Xylene	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	NGCMS_1121
Surrogate: TOL-D8	%REC	101	102	99	98	NGCMS_1121
Total Petroleum Hydrocarbons						
TPH C6 - C9	mg/kg	< 25	< 25	< 25	< 25	NGCMS_1121
TPH C10 - C14	mg/kg	< 50	< 50	< 50	< 50	NGCMS_1112
TPH C15 - C28	mg/kg	< 100	< 100	< 100	< 100	NGCMS_1112
TPH C29 - C36	mg/kg	< 100	< 100	< 100	< 100	NGCMS_1112
Surrogate: TOL-D8	%REC	101	102	99	98	NGCMS_1121
Dates						
Date extracted		8-AUG-2012	Not Tested	8-AUG-2012	8-AUG-2012	
Date analysed		8-AUG-2012	Not Tested	8-AUG-2012	8-AUG-2012	

Danny Slee, Section Manager
Organics - NSW
Accreditation No. 198

10-AUG-2012

REPORT OF ANALYSIS

Report No. RN928111

Lab Reg No.	Units	N12/020376	N12/020379	N12/020381	N12/020385	Method
Sample Reference		BH04 0.4-0.5	BH09 0.35-0.	BH21 0.3-0.4	FD01	
Trace Elements						
Arsenic	mg/kg	7.4	4	14	10	NT2_49
Cadmium	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	NT2_49
Chromium	mg/kg	23	6.3	28	14	NT2_49
Copper	mg/kg	12	13	17	14	NT2_49
Lead	mg/kg	17	20	25	15	NT2_49
Mercury	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2	NT2_49
Nickel	mg/kg	8.2	8.5	5.4	3	NT2_49
Zinc	mg/kg	7.6	5	14	12	NT2_49
Total Solids	%	77.2	87.6	79.8	79.0	NT2_49

Ling Shuang Lu, Analyst
Inorganics - NSW
Accreditation No. 198

10-AUG-2012

All results are expressed on a dry weight basis.

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This Report supersedes reports: RN927803 RN928089

REPORT OF ANALYSIS

Report No. RN928112

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/120803
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 3-AUG-2012
Attention	: DAHMON SORONGAN	Sampled By	: CLIENT
Project Name	: SYDNEY OLYMPIC PARK		
Your Client Services Manager	: BRIAN WOODWARD	Phone	: (02) 94490151

Lab Reg No.	Sample Ref	Sample Description
N12/020377	BH06 0.4-0.5	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090
N12/020378	BH08 0.3-0.4	SOIL 2/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090
N12/020382	BH22 0.4-0.55	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090
N12/020383	BH23 0.25-0.35	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090

Lab Reg No.		N12/020377	N12/020378	N12/020382	N12/020383	
Sample Reference	Units	BH06 0.4-0.5	BH08 0.3-0.4	BH22 0.4-0.5	BH23 0.25-0.	Method
Miscellaneous						
Organic Investigation		See comment	See comment	See comment	See comment	NGCMS_1130

N12/020377
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

N12/020378
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

N12/020382
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

N12/020383
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Danny Slee, Section Manager
Organics - NSW
Accreditation No. 198

10-AUG-2012

REPORT OF ANALYSIS

Report No. RN928112

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/120803
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 3-AUG-2012
Attention	: DAHMON SORONGAN	Sampled By	: CLIENT
Project Name	: SYDNEY OLYMPIC PARK		
Your Client Services Manager	: BRIAN WOODWARD	Phone	: (02) 94490151

Lab Reg No.	Sample Ref	Sample Description
N12/020386	FD02	SOIL 1/06/2012 PROJECT: SYDNEY OLYMPIC PARK JOB: 93090

Lab Reg No.		N12/020386				
Sample Reference	Units	FD02				Method
Miscellaneous						
Organic Investigation		See comment				NGCMS_1130

N12/020386
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Danny Slee, Section Manager
Organics - NSW
Accreditation No. 198

10-AUG-2012

All results are expressed on a dry weight basis.

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Results relate only to the sample(s) tested.

This Report supersedes reports: RN928088 RN928089

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Client: SGA PROPERTY CONSULTANCY P/L

NMI QA Report No: SGAP01/120803 **Sample Matrix:** Solid

Analyte	Method	LOR	Blank	Sample Duplicates			Recoveries	
				Sample	Duplicate	RPD	LCS	Matrix Spike
		mg/kg	mg/kg	mg/kg	mg/kg	%	%	%
Organics Section								
BTEX								
Benzene	NGCMS_1121	0.5	<0.5	NA	NA	NA	112	NA
Toluene	NGCMS_1121	0.5	<0.5	NA	NA	NA	101	NA
Ethyl Benzene	NGCMS_1121	0.5	<0.5	NA	NA	NA	96	NA
m, p - Xylene	NGCMS_1121	1	<1	NA	NA	NA	98	NA
o-Xylene	NGCMS_1121	0.5	<0.5	NA	NA	NA	95	NA
TPH								
TPH C6-C9	NGCMS_1121	25	<25	NA	NA	NA	100	NA
TPH C10-C14	NGCMS_1112	50	<50	NA	NA	NA	101	NA
TPH C15-C28	NGCMS_1112	100	<100	NA	NA	NA	101	NA
TPH C29-C36	NGCMS_1112	100	<100	NA	NA	NA	-	NA
Surrogate: TOL-D8	NGCMS_1121	-	-	NA	NA	NA	110	NA

Results expressed in percentage (%) or mg/kg wherever appropriate.
Acceptable Spike recovery is 70-130% (BTEX and TPH C6-C9); 50-150% (TPH C10-C36)
Maximum acceptable RPDs on spikes and duplicates is 40%.
'NA ' = Not Applicable.
RPD= Relative Percentage Difference.

Signed:

Danny Slee
Organics Manager, NMI-Pymble

Date: **9/08/2012**

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Client: SGA Property Consultancy P/L

NMI QA Report No: SGAP01/120803T1 **Sample Matrix:** Soil

Analyte	Method	LOR	Blank	Duplicates			Recoveries	
				Sample	Duplicate	RPD	LCS	Matrix Spike
		mg/kg	mg/kg	mg/kg	mg/kg	%	%	%
Inorganics Section								**N12/020385**
Arsenic	NT2.49	0.5	<0.5				101	ND
Cadmium	NT2.49	0.5	<0.5				96	ND
Chromium	NT2.49	0.5	<0.5				108	ND
Copper	NT2.49	0.5	<0.5				98	ND
Lead	NT2.49	0.5	<0.5				105	ND
Mercury	NT2.49	0.2	<0.2				99	ND
Nickel	NT2.49	0.5	<0.5				104	ND
Zinc	NT2.49	0.5	<0.5				102	ND

Filename = K:\Inorganics\Trace Elements Instrument Data\Date ICP_MS LIMS-2012\

Legend:
Acceptable recovery is 75-120%.
Acceptable RPDs on duplicates is 44% at concentrations >5 times LOR. Greater RPD may be expected at <5 times LOR.
LOR = Limit Of Reporting ND = Not Determined
RPD = Relative Percent Difference NA = Not Applicable
LCS = Laboratory Control Sample.
#: Spike level is less than 50% of the sample's concentration, hence the recovery data is not reliable.
**: reference value not available
* sample was not spiked for this element
Comments:
Results greater than ten times LOR have been rounded to two significant figures.

Signed:

Dr Michael Wu
Inorganics Section, NMI-North Ryde
Date: **8/08/2012**

CHAIN OF CUSTODY

SGA Property Consultancy

Sent by (Company Name):	SGA Property Consultancy	PROJECT NAME: Sydney Olympic Park	SEND TO:
Address:	Suite 8, 599 Pacific Highway St Leonards NSW 2065	SGA JOB NUMBER: 93090 REQUESTED DATE FOR RESULTS:	SAL (Sydney Analytical Laboratories) Unit 1, 4 Abbott Road, SEVEN HILLS, NSW 2147
Phone: (02) 9438 2333	Fax: (02) 9437 3222 Mob: 0488 448 195	SAL24314 Due: 24/8/12	Phone: (02) 98388903
Contact Person : David Gouge			SAL Contact Person : Lance Smith
Email: : dgouge@sgaproperty.com			

SAL SAMPLE NUMBER (SAL USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information	Sample type	pH	TOTAL Phosphorous	Fluoride soluble											COMMENTS
	BH03 0.4-0.5	2/08/2012	Soil	X	X	X											
	BH03 0.6-0.7	2/08/2012	Soil	X													
	BH04 0.4-0.5	2/08/2012	Soil	X													
	BH05 0.5-0.6	2/08/2012	Soil	X													
	BH05 0.8-0.85	2/08/2012	Soil	X													
	BH06 0.4-0.5	2/08/2012	Soil	X		X											
	BH06 0.7-0.8	2/08/2012	Soil	X													
	BH07 0.3-0.4	2/08/2012	Soil	X													
	BH07 0.55-0.6	2/08/2012	Soil	X													
	BH08 0.3-0.4	2/08/2012	Soil	X													
	BH08 0.4-0.45	2/08/2012	Soil	X													
	BH09 0.35-0.45	2/08/2012	Soil	X													
	BH09 0.45-0.55	2/08/2012	Soil	X													
	BH11 0.4-0.45	2/08/2012	Soil	X													
	BH12 0.4-0.5	1/08/2012	Soil	X	X	X											

Relinquished by:		SAL USE ONLY: Received at SAL laboratory by:	
Print Name:	David Gouge	Print Name:	Kate Smith
Date & Time:	3/08/2012 09 : 30 hrs	Date & Time:	21/8/12 7 : pm hrs
Signature:		Signature:	

PAGE No: 1 of 3 PAGES

If multiple pages, ensure ALL pages are stapled together

Samples delivered via NMI Lab - week beginning 6/08/12

CHAIN OF CUSTODY

SGA Property Consultancy

Property Consultancy

Sent by (Company Name): SGA Property Consultancy	PROJECT NAME: Sydney Olympic Park	SEND TO:
Address: Suite 8, 599 Pacific Highway St Leonards NSW 2065	SGA JOB NUMBER: 93090	SAL (Sydney Analytical Laboratories)
Phone: (02) 9438 2333 Fax: (02) 9437 3222 Mob: 0488 448 195	REQUESTED DATE FOR RESULTS:	Unit 1, 4 Abbott Road, SEVEN HILLS, NSW 2147
Contact Person : David Gouge	SAL24314	Phone: (02) 98388903
Email: : dgouge@sgaproperty.com	Due: 24/8/12	SAL Contact Person : Lance Smith

SAL SAMPLE NUMBER (SAL USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information	Sample type	pH	TOTAL Phosphorous	Fluoride soluble											COMMENTS
	BH12 0.8-0.9	1/08/2012	Soil	X													
	BH14 0.3-0.4	2/08/2012	Soil	X													
	BH14 1.0-1.2	2/08/2012	Soil	X													
	BH14 1.3-1.4	2/08/2012	Soil	X													
	BH14 1.6-1.7	2/08/2012	Soil	X													
	BH19 0.4-0.5	2/08/2012	Soil	X		X											
	BH19 1.7-1.86	2/08/2012	Soil	X	X	X											
	BH21 0.3-0.4	2/08/2012	Soil	X													
	BH21 1.2-1.3	2/08/2012	Soil	X													
	BH21 1.7-1.8	2/08/2012	Soil	X													
	BH22 0.4-0.55	2/08/2012	Soil	X		X											
	BH22 0.8-0.9	2/08/2012	Soil	X													
	BH23 0.9-1.0	2/08/2012	Soil	X													
	BH24 0.3-0.4	2/08/2012	Soil	X													
	BH24 0.75-0.85	2/08/2012	Soil	X													

Relinquished by:		SAL USE ONLY: Received at SAL laboratory by:	
Print Name:	David Gouge	Print Name:	Kate Smith
Date & Time:	3/08/2012 09:30 hrs	Date & Time:	21/8/12 : hrs
Signature:		Signature:	

PAGE No: 2 of 3 PAGES

If multiple pages, ensure ALL pages are stapled together

CHAIN OF CUSTODY

SGA Property Consultancy

Property Consultancy

Sent by (Company Name):	SGA Property Consultancy	PROJECT NAME: Sydney Olympic Park	SEND TO:
Address:	Suite 8, 599 Pacific Highway St Leonards NSW 2065	SGA JOB NUMBER: 93090	SAL (Sydney Analytical Laboratories)
Phone: (02) 9438 2333	Fax: (02) 9437 3222 Mob: 0488 448 195	REQUESTED DATE FOR RESULTS:	Unit 1, 4 Abbott Road, SEVEN HILLS, NSW 2147
Contact Person : David Gouge		SAL24314 Due: 24/8/12	Phone: (02) 98388903
Email: : dgouge@sgaproperty.com			SAL Contact Person : Lance Smith

SAL SAMPLE NUMBER (SAL USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information	Sample type	pH	TOTAL Phosphorous	Fluoride soluble											COMMENTS
	BH24 1.25-1.3	2/08/2012	Soil	X													
	FD01	2/08/2012	Soil	X													
	FD02	2/08/2012	Soil	X		X											
EXTRA	BH23 -																
	0.25-0.35																

Relinquished by:		SAL USE ONLY: Received at SAL laboratory by:	
Print Name:	David Gouge	Print Name:	Kate Smith
Date & Time:	3/08/2012 09 : 30 hrs	Date & Time:	21/8/12 : hrs
Signature:		Signature:	

PAGE No: 3 of 3 PAGES

If multiple pages, ensure ALL pages are stapled together

SYDNEY
ANALYTICAL
LABORATORIES

Office:
PO BOX 48
ERMINGTON NSW 2115

Laboratory:
1/4 ABBOTT ROAD
SEVEN HILLS NSW 2147
Telephone: (02) 9838 8903
Fax: (02) 9838 8919
A.C.N. 003 614 695
A.B.N. 81 829 182 852
NATA No: 1884

ANALYTICAL REPORT for:

SGA PROPERTY CONSULTANCY PTY LTD

LEVEL 2/120 CLARENCE ST
SYDNEY 2000

ATTN: DAVID GOUGE

JOB NO:	SAL24314
CLIENT ORDER:	93090
DATE RECEIVED:	21/08/12
DATE COMPLETED:	24/08/12
TYPE OF SAMPLES:	SOILS
NO OF SAMPLES:	34

.....
Issued on 24/08/12
Lance Smith
(Chief Chemist)

ANALYTICAL REPORT

JOB NO: SAL24314
CLIENT ORDER: 93090

	SAMPLES	pH 1:5	F mg/kg	Tot.P mg/kg
1	BH03/0.4-0.5	4.3	<0.5	720
2	BH03/0.6-0.7	3.9		
3	BH04/0.4-0.5	5.0		
4	BH05/0.5-0.6	5.0		
5	BH05/0.8-0.85	4.8		
6	BH06/0.4-0.5	4.2	<0.5	
7	BH06/0.7-0.8	4.1		
8	BH07/0.3-0.4	4.3		
9	BH07/0.55-0.6	4.7		
10	BH08/0.3-0.4	5.4		
11	BH08/0.4-0.45	6.2		
12	BH09/0.35-0.45	5.5		
13	BH09/0.45-0.55	4.8		
14	BH11/0.4-0.45	7.5		
15	BH12/0.4-0.5	4.2	<0.5	270
16	BH12/0.8-0.9	4.3		
17	BH14/0.3-0.4	4.4		
18	BH14/1.0-1.2	4.8		
19	BH14/1.3-1.4	4.6		
20	BH14/1.6-1.7	4.6		
21	BH19/0.4-0.5	5.4	<0.5	
22	BH19/1.7-1.86	4.6	<0.5	200
23	BH21/0.3-0.4	4.2		
24	BH21/1.2-1.3	4.3		
25	BH21/1.7-1.8	4.5		
26	BH22/0.4-0.55	5.6	<0.5	
27	BH22/0.8-0.9	4.7		
28	BH23/0.9-1.0	5.0		
29	BH24/0.3-0.4	5.2		
30	BH24/0.75-0.85	4.5		
31	BH24/1.25-1.30	4.1		
32	FD01	4.5		
33	FD02	4.3	<0.5	
34	BH23/0.25-0.35	5.2	<0.5	380
	BLANK/1	7.0	<0.5	<0.5
	BLANK/2	6.9	<0.5	<0.5
DUPLICATES:				
10	BH08/0.3-0.4	5.5		
20	BH14/1.6-1.7	4.6		
30	BH24/0.75-0.85	4.5		
MDL		0.1	0.5	0.5
Method Code		WA1	WA8	W5
Preparation		P5	P5	P5

RESULTS ON DRY BASIS

SYDNEY ANALYTICAL LABORATORIES

LABORATORY DUPLICATE REPORT

JOB NO: SAL24314
CLIENT ORDER: 93090

Sample Number	Analyte	Units	MDL	Sample Result	Duplicate Result	%RPD
BH08/0.3-0.4	pH		0.1	5.4	5.5	2
BH14/1.6-1.7	pH		0.1	4.6	4.6	0
BH24/0.75-0.85	pH		0.1	4.5	4.5	0

Acceptance criteria:

RPD <50% for low level (<20xMDL)
RPD <30% for medium level (20-100xMDL)
RPD <15% for high level (>100xMDL)
No limit applies at <2xMDL

MDL = Method Detection Limit

All results are within the acceptance criteria

SYDNEY ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB NO: SAL24314
CLIENT ORDER: 93090

METHODS OF PREPARATION AND ANALYSIS

The tests contained in this report have been carried out on the samples as received by the laboratory.

P5	Sample dried, split and crushed to -150um
WA1	pH - 1:5 soil/water extract Determined by APHA 4500B
WA8	Fluoride - 1:5 soil/water extract Determined by APHA 4500C
W5	Total Phosphorus - HNO3/H2SO4 Digestion Determined by ICP-AES

SGAR21/121016

Due 22/10/12

Australian Government
National Measurement Institute

NMI CHAIN OF CUSTODY FORM

Sent by (Company):	SGA Environmental	PROJECT NAME: Sydney Olympic Park	SEND TO:
Address:	Suite 8, 599 Pacific Highway	NMI Quote Number: PL11/0127AA	NMI (National Measurement Institute)
	St Leonards NSW 2065		105 Delhi Road, Riverside Corporate Park,
		Your Purchase Order Number: 93090.01	NORTH RYDE NSW 2113
Contact:	David Gouge	Your Job Number: 93090.01	Phone: 02 9449 0111
Phone:	02 9438 2333	Results due date (as agreed with NMI): 3-day TAT (19-10-12)	E-mail: customerservice@measurement.gov.au
Contact person email:	dgouge@sgaproperty.com	See Brian Woodward before analysis	NMI Contact: Customer Service Unit

NMI SAMPLE NUMBER (NMI USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information (Date & Time)	Sample type	pH	Fluoride (soluble)	Phosphorus	Heavy metals	Isopropanol	VOC 8260	SVOC 8270	Phthalates							COMMENTS
N12/027635	BHA01 0-0.2	16/10/2012	Soil	X	X	X	X			X								High concentrations not
N12/027636	BHA01 0.4-0.5	16/10/2012	Soil	X	X		X											expected in any samples
N12/027637	BHA02 0.2-0.4	16/10/2012	Soil	X	X	X		X	X		X							
N12/027638	BHA02 0.5-0.6	16/10/2012	Soil	X			X			X								
N12/027639	BHA02 0.7-0.8	16/10/2012	Soil	X														
N12/027640	BHA03 0.2-0.4	16/10/2012	Soil	X				X	X	X								
N12/027641	BHA03 0.4-0.6	16/10/2012	Soil	X						X								
N12/027642	BHA04 0.2-0.3	16/10/2012	Soil	X	X	X	X	X			X							
N12/027643	BHA04 0.3-0.4	16/10/2012	Soil	X	X	X			X									
N12/027644	BHA04 0.4-0.6	16/10/2012	Soil	X	X		X	X										
N12/027645	BHA05 0.3-0.5	16/10/2012	Soil	X	X	X		X		X								
N12/027646	BHA05 0.8-1.0	16/10/2012	Soil	X				X	X		X							
N12/027647	BHA05 1.0-1.2	16/10/2012	Soil	X														

RECEIVED
17 OCT 2012
BY: KB 9:30

Relinquished by:		Received at NMI laboratory by:	PAGE No: 1 of 2 PAGES
Print Name:	David Gouge	Print Name:	
Date & Time:	16 / 10 / 12 16 : 21 hrs	Date & Time: / / : hrs	
Signature:		Signature:	If multiple pages, ensure ALL pages are stapled together

Australian Government
National Measurement Institute

NMI CHAIN OF CUSTODY FORM

Sent by (Company):	SGA Environmental	PROJECT NAME: Sydney Olympic Park	SEND TO:
Address:	Suite 8, 599 Pacific Highway	NMI Quote Number: PL11/0127AA	NMI (National Measurement Institute)
	St Leonards NSW 2065		105 Delhi Road, Riverside Corporate Park,
		Your Purchase Order Number: 93090.01	NORTH RYDE NSW 2113
Contact:	David Gouge	Your Job Number: 93090.01	Phone: 02 9449 0111
Phone:	02 9438 2333	Results due date (as agreed with NMI): 3-day TAT (19-10-12)	E-mail: customerservice@measurement.gov.au
Contact person email:	dgouge@sgaproperty.com	See Brian Woodward before analysis	NMI Contact: Customer Service Unit

NMI SAMPLE NUMBER (NMI USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information (Date & Time)	Sample type	pH	Fluoride (soluble)	Phosphorus	Heavy metals	Isopropanol	VOC 8260	SVOC 8270	Phthalates							COMMENTS
N12/027648	BHA06 0.2-0.3	16/10/2012	Soil	X			X		X	X								
N12/027649	BHA06 0.3-0.5	16/10/2012	Soil	X														
N12/027650	BHA06 0.9-1.0	16/10/2012	Soil	X														
N12/027651	BHA07 0.2-0.3	16/10/2012	Soil	X	X	X		X			X							
N12/027652	BHA07 0.3-0.4	16/10/2012	Soil	X	X	X	X											
N12/027653	BHA08 0.2-0.3	16/10/2012	Soil	X	X	X		X			X							
N12/027654	BHA08 0.3-0.4	16/10/2012	Soil	X					X									
N12/027655	FD1	16/10/2012	Soil	X			X	X										
N12/027656	FD2	16/10/2012	Soil	X	X	X		X			X							

Relinquished by:		Received at NMI laboratory by:	PAGE No: 2 of 2 PAGES
Print Name:	David Gouge	Print Name:	
Date & Time:	16 / 10 / 12 16 : 21 hrs	Date & Time: / / : hrs	
Signature:		Signature:	If multiple pages, ensure ALL pages are stapled together

Australian Government
National Measurement Institute

NMI CHAIN OF CUSTODY FORM

Sent by (Company): SGA Environmental	PROJECT NAME: Sydney Olympic Park	**SEND TO:**	
Address: Suite 8, 599 Pacific Highway St Leonards, NSW	NMI Quote Number: TBA	**NMI (National Measurement Institute)**	
	Your Purchase Order Number: 93090.01	**105 Delhi Road, North Ryde NSW 2113**	
Contact: David Gouge	Your Job Number: 93090.01	Phone: 02 9449 0111	
Phone: ~~0448~~ 9438 2333	Results due date (as agreed with NMI): ~~5–7 working days~~ 3-day TAT. As discussed with Brian Woodward	E-mail: customerservice@measurement.gov.au	
Contact person email: dgouge@sgaproperty.com		NMI Contact Person : Brian Woodward	

NMI SAMPLE NUMBER (NMI USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information (Date & Time)	Sample type		COMMENTS
N12/027635	BHA01 0-0.2	16/10/12	Soil	Analaysis schedule to follow shortly	
N12/027636	BHA01 0.4-0.5	"	↓		
N12/027637	BHA02 0.2-0.4	↓	↓		
N12/027638	BHA02 0.5-0.6				
N12/027639	BHA02 0.7-0.8				
N12/027640	BHA03 0.2-0.4				
N12/027641	BHA03 0.4-0.6				
N12/027642	BHA04 0.2-0.3				
N12/027643	BHA04 0.3-0.4				RECEIVED 5ples.
N12/027644	BHA04 0.4-0.6				16 OCT 2012
N12/027645	BHA05 0.3-0.5				BY: Am 16:20
N12/027646	BHA05 0.8-1.0				
N12/027647	BHA05 1.0-1.2				

Relinquished by: Print Name: David Gouge Date & Time: 16/10/12 16:21 hrs Signature: [signature]	Received at NMI laboratory by: Print Name: Date & Time: / / : hrs Signature:	PAGE No: 1 of 2 PAGES If multiple pages, ensure ALL pages are stapled together

Australian Government
National Measurement Institute

NMI CHAIN OF CUSTODY FORM

Sent by (Company): SGA Environmental	PROJECT NAME:
Address:	NMI Quote Number:
	Your Purchase Order Number: 93090.01
Contact: David Gouge	Your Job Number:
Phone:	Results due date (as agreed with NMI): **5 - 7 working days**
Contact person email:	

SEND TO:
NMI (National Measurement Institute)
105 Delhi Road, North Ryde NSW 2113
Phone: 02 9449 0111
E-mail: customerservice@measurement.gov.au
NMI Contact Person : Brian Woodward

NMI SAMPLE NUMBER (NMI USE ONLY - please do not write in this column)	Your Sample ID / Description / Number	Collection Information (Date & Time)	Sample type	COMMENTS
N12/027648	BHA06 0.2-0.3	16/10/12	Soil	
N12/027649	BHA06 0.3-0.5			
N12/027650	BHA06 0.9-1.0			
N12/027651	BHA07 0.2-0.3			
N12/027652	BHA07 0.3-0.4			
N12/027653	BHA08 0.2-0.3			
N12/027654	BHA08 0.3-0.4			
N12/027655	FD1			
N12/027656	FD2			

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16 OCT 2012
BY: [illegible] 16:20

Relinquished by:	Received at NMI laboratory by:	PAGE No: 2 of 2 PAGES
Print Name: David Gouge	Print Name:	
Date & Time: 16/10/12 16:21 hrs	Date & Time: / / : hrs	
Signature:	Signature:	If multiple pages, ensure ALL pages are stapled together

Australian Government

National Measurement Institute

SAMPLE RECEIPT NOTIFICATION

To: SGA PROPERTY CONSULTANCY P/L
Attn: DAVID GOUGE
From: Laboratory Services Unit
Date: 17-OCT-2012
Email:

If you have any queries or wish to make any adjustments to analyses requested, please contact Susanne Neuman immediately on 02 9449 0181

Project:	Not Provided
Order No.:	93090.01
NMI Job No:	SGAP01/121016
Total Number of Samples:	22
Date received by NMI:	16-OCT-2012
Estimated Report Date:	22-OCT-2012
LRN Range:	N12/027635 to N12/027656

Comments:

ALL OK

Samples received	Chilled
NMI quotation number provided	No
Complete documentation received	Yes

If NO please contact Susanne Neuman on 02 9449 0181 to clarify. Note: incomplete or unclear information about samples or required testing will delay the start of the analysis work

Unless advised otherwise sample analysis will commence regardless of integrity issues
Relevant non-conformances will be recorded on the final report.

REPORT OF ANALYSIS

Report No. RN938982

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027648	BHA06 0.2-0.3	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027648		
Sample Reference	Units	BHA06 0.2-0.3		Method
Monocyclic Aromatic Hydrocarbons NMI 1120 Screen				
Benzene	mg/kg	< 1		NGCMS_1120
Toluene	mg/kg	< 1		NGCMS_1120
Ethylbenzene	mg/kg	< 1		NGCMS_1120
m & p-Xylenes	mg/kg	< 2		NGCMS_1120
o-Xylene	mg/kg	< 1		NGCMS_1120
Styrene	mg/kg	< 1		NGCMS_1120
Isopropylbenzene	mg/kg	< 1		NGCMS_1120
n-Propylbenzene	mg/kg	< 1		NGCMS_1120
1,3,5-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
tert-Butylbenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
sec-Butylbenzene	mg/kg	< 1		NGCMS_1120
4-Isopropyltoluene	mg/kg	< 1		NGCMS_1120
n-Butylbenzene	mg/kg	< 1		NGCMS_1120
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
Chloromethane	mg/kg	< 1		NGCMS_1120
Vinyl chloride	mg/kg	< 1		NGCMS_1120
Bromomethane	mg/kg	< 1		NGCMS_1120
Chloroethane	mg/kg	< 1		NGCMS_1120
Trichlorofluoromethane	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethane	mg/kg	< 1		NGCMS_1120
Dichloromethane	mg/kg	< 1		NGCMS_1120
trans-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethene	mg/kg	< 1		NGCMS_1120
2,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
cis-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
Bromochloromethane	mg/kg	< 1		NGCMS_1120
1,1,1-Trichloroethane	mg/kg	< 1		NGCMS_1120
Carbon tetrachloride	mg/kg	< 1		NGCMS_1120
1,1-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,2-Dichloroethane	mg/kg	< 1		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027648		
Sample Reference	Units	BHA06 0.2-0.3		Method
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
Trichloroethene	mg/kg	< 1		NGCMS_1120
1,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
Dibromomethane	mg/kg	< 1		NGCMS_1120
cis-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
trans-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,1,2-Trichloroethane	mg/kg	< 1		NGCMS_1120
Tetrachloroethene	mg/kg	< 1		NGCMS_1120
1,3-Dichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromoethane	mg/kg	< 1		NGCMS_1120
1,1,1,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,1,2,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,2,3-Trichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromo-3-chloropropane	mg/kg	< 1		NGCMS_1120
Hexachlorobutadiene	mg/kg	< 1		NGCMS_1120
Halogenated Aromatic Hydrocarbons NMI 1120 Screen				
Chlorobenzene	mg/kg	< 1		NGCMS_1120
Bromobenzene	mg/kg	< 1		NGCMS_1120
2-Chlorotoluene	mg/kg	< 1		NGCMS_1120
4-Chlorotoluene	mg/kg	< 1		NGCMS_1120
1,3-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,4-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3,4-Tetrachlorobenzene	mg/kg	< 1		NGCMS_1120
Trihalomethanes NMI 1120 Screen				
Chloroform	mg/kg	< 1		NGCMS_1120
Bromodichloromethane	mg/kg	< 1		NGCMS_1120
Dibromochloromethane	mg/kg	< 1		NGCMS_1120
Bromoform	mg/kg	< 1		NGCMS_1120
Polycyclic Aromatic Hydrocarbons(volatile) NMI 1120 Screen				
Naphthalene	mg/kg	< 1		NGCMS_1120
Polycyclic Aromatic Hydrocarbons NMI 1122 Screen				
Acenaphthylene	mg/kg	< 1		NGCMS_1122
Naphthalene	mg/kg	< 1		NGCMS_1122
Acenaphthene	mg/kg	< 1		NGCMS_1122
Fluorene	mg/kg	< 1		NGCMS_1122
Phenanthrene	mg/kg	< 1		NGCMS_1122
Anthracene	mg/kg	< 1		NGCMS_1122
Fluoranthene	mg/kg	< 1		NGCMS_1122
Pyrene	mg/kg	< 1		NGCMS_1122
Benz(a)anthracene	mg/kg	< 1		NGCMS_1122
Chrysene	mg/kg	< 1		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027648		
Sample Reference	Units	BHA06 0.2-0.3		Method
Polycyclic Aromatic Hydrocarbons NMI 1122 Screen				
Benzo(b,k)fluoranthene	mg/kg	< 2		NGCMS_1122
Benzo(a)pyrene	mg/kg	< 1		NGCMS_1122
Indeno(1,2,3-cd)pyrene	mg/kg	< 1		NGCMS_1122
Dibenz(a,h)anthracene	mg/kg	< 1		NGCMS_1122
Benzo(g,h,i)perylene	mg/kg	< 1		NGCMS_1122
Phenols NMI 1122 Screen				
Phenol	mg/kg	< 1		NGCMS_1122
2-Chlorophenol	mg/kg	< 1		NGCMS_1122
2-Methylphenol	mg/kg	< 1		NGCMS_1122
3&4-Methylphenol	mg/kg	< 2		NGCMS_1122
2-Nitrophenol	mg/kg	< 1		NGCMS_1122
2,4-Dimethylphenol	mg/kg	< 1		NGCMS_1122
2,4-Dichlorophenol	mg/kg	< 1		NGCMS_1122
2,6-Dichlorophenol	mg/kg	< 1		NGCMS_1122
4-Chloro-3-methylphenol	mg/kg	< 2		NGCMS_1122
2,4,5-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,4,6-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,3,4,6-Tetrachlorophenol	mg/kg	< 2		NGCMS_1122
Pentachlorophenol	mg/kg	< 2		NGCMS_1122
Oxygenated Compounds NMI 1120 Screen				
Acetone	mg/kg	< 5		NGCMS_1120
2-Butanone (MEK)	mg/kg	< 5		NGCMS_1120
2-Hexanone (MBK)	mg/kg	< 5		NGCMS_1120
4-Methyl-2-pentanone (MIBK)	mg/kg	< 5		NGCMS_1120
Methyl tert-Butyl Ether (MTBE)	mg/kg	< 5		NGCMS_1120
Vinylacetate	mg/kg	< 5		NGCMS_1120
Other Compounds NMI 1120 Screen				
Carbon disulfide	mg/kg	< 5		NGCMS_1120
Surrogate: DBFM	%REC	108		NGCMS_1120
Surrogate: TOL-D8	%REC	93		NGCMS_1120
Surrogate: 4-BFB	%REC	94		NGCMS_1120
Phthalates NMI 1122 Screen				
Dimethyl phthalate	mg/kg	< 1		NGCMS_1122
Diethyl phthalate	mg/kg	< 1		NGCMS_1122
Di-n-butyl phthalate	mg/kg	< 1		NGCMS_1122
Butyl benzyl phthalate	mg/kg	< 1		NGCMS_1122
Bis(2-ethylhexyl) phthalate	mg/kg	< 2		NGCMS_1122
Di-n-octyl phthalate	mg/kg	< 1		NGCMS_1122
Chlorinated Hydrocarbons NMI 1122 Screen				
2-Chloronaphthalene	mg/kg	< 2		NGCMS_1122
1,4-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
1,2-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
1,3-Dichlorobenzene	mg/kg	< 2		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027648		
Sample Reference	Units	BHA06 0.2-0.3		Method
Chlorinated Hydrocarbons NMI 1122 Screen				
Hexachlorobenzene	mg/kg	< 2		NGCMS_1122
1,2,4-Trichlorobenzene	mg/kg	< 2		NGCMS_1122
Hexachloroethane	mg/kg	< 2		NGCMS_1122
Hexachlorocyclopentadiene	mg/kg	< 2		NGCMS_1122
Hexachloro-1,3-butadiene	mg/kg	< 2		NGCMS_1122
Ethers NMI 1122 Screen				
4-Bromophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
4-Chlorophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethyl)ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethoxy)methane	mg/kg	< 2		NGCMS_1122
Bis(2-chloroisopropyl)ether	mg/kg	< 2		NGCMS_1122
Amines Nitroaromatics & Nitrosamines NMI 1122 Screen				
Azobenzene	mg/kg	< 2		NGCMS_1122
2,4-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
2,6-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
Nitrobenzene	mg/kg	< 2		NGCMS_1122
N-Nitrosodimethylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodiphenylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodi-n-propylamine	mg/kg	< 2		NGCMS_1122
Aniline	mg/kg	< 2		NGCMS_1122
4-Chloroaniline	mg/kg	< 2		NGCMS_1122
2-Nitroaniline	mg/kg	< 2		NGCMS_1122
3-Nitroaniline	mg/kg	< 2		NGCMS_1122
4-Nitroaniline	mg/kg	< 2		NGCMS_1122
Organochlorine Pesticides NMI 1122 Screen				
Aldrin	mg/kg	< 2		NGCMS_1122
a-BHC	mg/kg	< 2		NGCMS_1122
b-BHC	mg/kg	< 2		NGCMS_1122
g-BHC (Lindane)	mg/kg	< 2		NGCMS_1122
d-BHC	mg/kg	< 2		NGCMS_1122
4,4 '-DDD	mg/kg	< 2		NGCMS_1122
4,4 '-DDE	mg/kg	< 2		NGCMS_1122
4,4 '-DDT	mg/kg	< 2		NGCMS_1122
Dieldrin	mg/kg	< 2		NGCMS_1122
Endosulphan I	mg/kg	< 2		NGCMS_1122
Endosulphan II	mg/kg	< 2		NGCMS_1122
Endosulfan sulphate	mg/kg	< 2		NGCMS_1122
Endrin	mg/kg	< 2		NGCMS_1122
Endrin Aldehyde	mg/kg	< 2		NGCMS_1122
Heptachlor	mg/kg	< 2		NGCMS_1122
Heptachlorepoxide	mg/kg	< 2		NGCMS_1122
Organophosphate Pesticides NMI 1122 Screen				
Dimethoate	mg/kg	< 2		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027648		
Sample Reference	Units	BHA06 0.2-0.3		Method
Organophosphate Pesticides NMI 1122 Screen				
Diazinon	mg/kg	< 2		NGCMS_1122
Fenitrothion	mg/kg	< 2		NGCMS_1122
Malathion	mg/kg	< 2		NGCMS_1122
Chlorpyrifos	mg/kg	< 2		NGCMS_1122
Ethion	mg/kg	< 2		NGCMS_1122
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		
Other Compounds NMI 1122 Screen				
Dichlorobenzidine	mg/kg	< 2		NGCMS_1122
2-Methylnaphthalene	mg/kg	< 1		NGCMS_1122
Isophorone	mg/kg	< 2		NGCMS_1122
Benzyl alcohol	mg/kg	< 2		NGCMS_1122
Carbazole	mg/kg	< 2		NGCMS_1122
Dibenzofuran	mg/kg	< 2		NGCMS_1122
Surrogate: PHENOL-D6	%REC	71		NGCMS_1122
Surrogate: 1,2-DCB-D4	%REC	90		NGCMS_1122
Surrogate: TER-D14	%REC	102		NGCMS_1122

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027648		
Sample Reference	Units	BHA06 0.2-0.3		Method
Trace Elements				
Arsenic	mg/kg	0.51		NT2_49
Cadmium	mg/kg	< 0.5		NT2_49
Chromium	mg/kg	18		NT2_49
Copper	mg/kg	74		NT2_49
Lead	mg/kg	2.2		NT2_49
Mercury	mg/kg	< 0.2		NT2_49
Nickel	mg/kg	160		NT2_49
Zinc	mg/kg	76		NT2_49
Total Solids	%	95.5		NT2_49

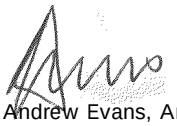
REPORT OF ANALYSIS

Lab Reg No.		N12/027648		
Sample Reference	Units	BHA06 0.2-0.3		Method

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027648		
Sample Reference	Units	BHA06 0.2-0.3		Method
Miscellaneous				
pH	pH units	9.7		NW_S11



Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

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This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN938983

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027651	BHA07 0.2-0.3	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027653	BHA08 0.2-0.3	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027651	N12/027653	
Sample Reference	Units	BHA07 0.2-0.3	BHA08 0.2-0.3	Method
Phthalates				
Dimethyl phthalate	mg/kg	< 1	< 1	NGCMS_1111
Diethyl phthalate	mg/kg	< 1	< 1	NGCMS_1111
Di-n-butyl phthalate	mg/kg	< 1	< 1	NGCMS_1111
Benzyl butyl phthalate	mg/kg	< 1	< 1	NGCMS_1111
Bis(2-ethylhexyl)phthalate	mg/kg	6.7	2.4	NGCMS_1111
Di-n-octyl phthalate	mg/kg	< 1	< 1	NGCMS_1111
Miscellaneous				
Organic Investigation		See comment	See comment	NGCMS_1130
Dates				
Date extracted		17-OCT-2012 00:00	17-OCT-2012 00:00	
Date analysed		17-OCT-2012 00:00	17-OCT-2012 00:00	

N12/027651
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

N12/027653
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

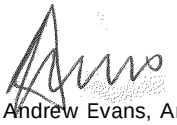
REPORT OF ANALYSIS

Lab Reg No.	Units	N12/027651	N12/027653	Method
Sample Reference		BHA07 0.2-0.3	BHA08 0.2-0.3	
Trace Elements				
Phosphorus	mg/kg	1170	1170	NT2_49
Total Solids	%	93.7	95.3	NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.	Units	N12/027651	N12/027653	Method
Sample Reference		BHA07 0.2-0.3	BHA08 0.2-0.3	
Miscellaneous				
Water Soluble Fluoride	mg/kg	< 1	< 1	NW_B3_B14
pH	pH units	9.9	9.8	NW_S11



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19-OCT-2012

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This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN938984

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027652	BHA07 0.3-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027652		
Sample Reference	Units	BHA07 0.3-0.4		Method
Trace Elements				
Arsenic	mg/kg	4		NT2_49
Cadmium	mg/kg	< 0.5		NT2_49
Chromium	mg/kg	13		NT2_49
Copper	mg/kg	49		NT2_49
Lead	mg/kg	33		NT2_49
Mercury	mg/kg	< 0.2		NT2_49
Nickel	mg/kg	27		NT2_49
Phosphorus	mg/kg	350		NT2_49
Zinc	mg/kg	27		NT2_49
Total Solids	%	90.2		NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

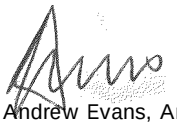
19-OCT-2012

Lab Reg No.		N12/027652		
Sample Reference	Units	BHA07 0.3-0.4		Method
Miscellaneous				
Water Soluble Fluoride	mg/kg	< 1		NW_B3_B14
pH	pH units	7.7		NW_S11

REPORT OF ANALYSIS

Report No. RN938984

Lab Reg No.		N12/027652		
Sample Reference	Units	BHA07 0.3-0.4		Method



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19-OCT-2012

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This Report supersedes reports: RN938809 RN938938

REPORT OF ANALYSIS

Report No. RN938985

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027654	BHA08 0.3-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027654		
Sample Reference	Units	BHA08 0.3-0.4		Method
Monocyclic Aromatic Hydrocarbons NMI 1120 Screen				
Benzene	mg/kg	< 1		NGCMS_1120
Toluene	mg/kg	< 1		NGCMS_1120
Ethylbenzene	mg/kg	< 1		NGCMS_1120
m & p-Xylenes	mg/kg	< 2		NGCMS_1120
o-Xylene	mg/kg	< 1		NGCMS_1120
Styrene	mg/kg	< 1		NGCMS_1120
Isopropylbenzene	mg/kg	< 1		NGCMS_1120
n-Propylbenzene	mg/kg	< 1		NGCMS_1120
1,3,5-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
tert-Butylbenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
sec-Butylbenzene	mg/kg	< 1		NGCMS_1120
4-Isopropyltoluene	mg/kg	< 1		NGCMS_1120
n-Butylbenzene	mg/kg	< 1		NGCMS_1120
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
Chloromethane	mg/kg	< 1		NGCMS_1120
Vinyl chloride	mg/kg	< 1		NGCMS_1120
Bromomethane	mg/kg	< 1		NGCMS_1120
Chloroethane	mg/kg	< 1		NGCMS_1120
Trichlorofluoromethane	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethane	mg/kg	< 1		NGCMS_1120
Dichloromethane	mg/kg	< 1		NGCMS_1120
trans-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethene	mg/kg	< 1		NGCMS_1120
2,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
cis-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
Bromochloromethane	mg/kg	< 1		NGCMS_1120
1,1,1-Trichloroethane	mg/kg	< 1		NGCMS_1120
Carbon tetrachloride	mg/kg	< 1		NGCMS_1120
1,1-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,2-Dichloroethane	mg/kg	< 1		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027654		
Sample Reference	Units	BHA08 0.3-0.4		Method
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
Trichloroethene	mg/kg	< 1		NGCMS_1120
1,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
Dibromomethane	mg/kg	< 1		NGCMS_1120
cis-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
trans-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,1,2-Trichloroethane	mg/kg	< 1		NGCMS_1120
Tetrachloroethene	mg/kg	< 1		NGCMS_1120
1,3-Dichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromoethane	mg/kg	< 1		NGCMS_1120
1,1,1,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,1,2,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,2,3-Trichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromo-3-chloropropane	mg/kg	< 1		NGCMS_1120
Hexachlorobutadiene	mg/kg	< 1		NGCMS_1120
Halogenated Aromatic Hydrocarbons NMI 1120 Screen				
Chlorobenzene	mg/kg	< 1		NGCMS_1120
Bromobenzene	mg/kg	< 1		NGCMS_1120
2-Chlorotoluene	mg/kg	< 1		NGCMS_1120
4-Chlorotoluene	mg/kg	< 1		NGCMS_1120
1,3-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,4-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3,4-Tetrachlorobenzene	mg/kg	< 1		NGCMS_1120
Trihalomethanes NMI 1120 Screen				
Chloroform	mg/kg	< 1		NGCMS_1120
Bromodichloromethane	mg/kg	< 1		NGCMS_1120
Dibromochloromethane	mg/kg	< 1		NGCMS_1120
Bromoform	mg/kg	< 1		NGCMS_1120
Polycyclic Aromatic Hydrocarbons(volatile) NMI 1120 Screen				
Naphthalene	mg/kg	< 1		NGCMS_1120
Oxygenated Compounds NMI 1120 Screen				
Acetone	mg/kg	< 5		NGCMS_1120
2-Butanone (MEK)	mg/kg	< 5		NGCMS_1120
2-Hexanone (MBK)	mg/kg	< 5		NGCMS_1120
4-Methyl-2-pentanone (MIBK)	mg/kg	< 5		NGCMS_1120
Methyl tert-Butyl Ether (MTBE)	mg/kg	< 5		NGCMS_1120
Vinylacetate	mg/kg	< 5		NGCMS_1120
Other Compounds NMI 1120 Screen				
Carbon disulfide	mg/kg	< 5		NGCMS_1120
Surrogate: DBFM	%REC	116		NGCMS_1120
Surrogate: TOL-D8	%REC	103		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027654		
Sample Reference	Units	BHA08 0.3-0.4		Method
Other Compounds NMI 1120 Screen				
Surrogate: 4-BFB	%REC	99		NGCMS_1120
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027654		
Sample Reference	Units	BHA08 0.3-0.4		Method
Trace Elements				
Total Solids	%	90.3		NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027654		
Sample Reference	Units	BHA08 0.3-0.4		Method
Miscellaneous				
pH	pH units	7.4		NW_S11

Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

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This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN938986

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027655	FD1	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027655				
Sample Reference	Units	FD1				Method
Miscellaneous						
Organic Investigation		See comment				NGCMS_1130
Dates						
Date extracted		17-OCT-2012				
Date analysed		17-OCT-2012				

N12/027655
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027655				
Sample Reference	Units	FD1				Method
Trace Elements						
Arsenic	mg/kg	11				NT2_49
Cadmium	mg/kg	< 0.5				NT2_49
Chromium	mg/kg	10				NT2_49
Copper	mg/kg	11				NT2_49
Lead	mg/kg	15				NT2_49
Mercury	mg/kg	< 0.2				NT2_49
Nickel	mg/kg	1.2				NT2_49
Zinc	mg/kg	3.5				NT2_49
Total Solids	%	79.2				NT2_49

REPORT OF ANALYSIS

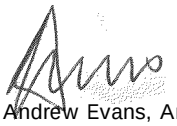
Report No. RN938986

Lab Reg No.		N12/027655				
Sample Reference	Units	FD1				Method

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027655				
Sample Reference	Units	FD1				Method
Miscellaneous						
pH	pH units	6.2				NW_S11



Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

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This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN938987

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027656	FD2	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027656				
Sample Reference	Units	FD2				Method
Phthalates						
Dimethyl phthalate	mg/kg	< 1				NGCMS_1111
Diethyl phthalate	mg/kg	< 1				NGCMS_1111
Di-n-butyl phthalate	mg/kg	< 1				NGCMS_1111
Benzyl butyl phthalate	mg/kg	< 1				NGCMS_1111
Bis(2-ethylhexyl)phthalate	mg/kg	2.0				NGCMS_1111
Di-n-octyl phthalate	mg/kg	< 1				NGCMS_1111
Miscellaneous						
Organic Investigation		See comment				NGCMS_1130
Dates						
Date extracted		17-OCT-2012				
Date analysed		17-OCT-2012				

N12/027656
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

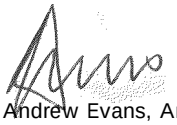
Report No. RN938987

Lab Reg No.		N12/027656				
Sample Reference	Units	FD2				Method
Trace Elements						
Phosphorus	mg/kg	1400				NT2_49
Total Solids	%	95.2				NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027656				
Sample Reference	Units	FD2				Method
Miscellaneous						
Water Soluble Fluoride	mg/kg	< 1				NW_B3_B14
pH	pH units	9.9				NW_S11



Andrew Evans, Analyst
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19-OCT-2012

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REPORT OF ANALYSIS

Report No. RN938991

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027639	BHA02 0.7-0.8	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027647	BHA05 1.0-1.2	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027639	N12/027647	
Sample Reference	Units	BHA02 0.7-0.8	BHA05 1.0-1.2	Method
Trace Elements				
Total Solids	%	88.1	88.3	NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
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19-OCT-2012

Lab Reg No.		N12/027639	N12/027647	
Sample Reference	Units	BHA02 0.7-0.8	BHA05 1.0-1.2	Method
Miscellaneous				
pH	pH units	6.1	5.2	NW_S11

Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

Report No. RN938991

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027649	BHA06 0.3-0.5	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027650	BHA06 0.9-1.0	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027649	N12/027650	
Sample Reference	Units	BHA06 0.3-0.5	BHA06 0.9-1.0	Method
Trace Elements				
Total Solids	%	81.4	89.8	NT2_49

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Lab Reg No.		N12/027649	N12/027650	
Sample Reference	Units	BHA06 0.3-0.5	BHA06 0.9-1.0	Method
Miscellaneous				
pH	pH units	6.4	6.2	NW_S11

Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

All results are expressed on a dry weight basis.

This Report supersedes reports: RN938809 RN938938

REPORT OF ANALYSIS

Report No. RN938992

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027635	BHA01 0-0.2	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No. / Sample Reference	Units	N12/027635 BHA01 0-0.2				Method
Polycyclic Aromatic Hydrocarbons NMI 1122 Screen						
Acenaphthylene	mg/kg	< 1				NGCMS_1122
Naphthalene	mg/kg	< 1				NGCMS_1122
Acenaphthene	mg/kg	< 1				NGCMS_1122
Fluorene	mg/kg	< 1				NGCMS_1122
Phenanthrene	mg/kg	< 1				NGCMS_1122
Anthracene	mg/kg	< 1				NGCMS_1122
Fluoranthene	mg/kg	< 1				NGCMS_1122
Pyrene	mg/kg	< 1				NGCMS_1122
Benz(a)anthracene	mg/kg	< 1				NGCMS_1122
Chrysene	mg/kg	< 1				NGCMS_1122
Benzo(b,k)fluoranthene	mg/kg	< 2				NGCMS_1122
Benzo(a)pyrene	mg/kg	< 1				NGCMS_1122
Indeno(1,2,3-cd)pyrene	mg/kg	< 1				NGCMS_1122
Dibenz(a,h)anthracene	mg/kg	< 1				NGCMS_1122
Benzo(g,h,i)perylene	mg/kg	< 1				NGCMS_1122
Phenols NMI 1122 Screen						
Phenol	mg/kg	< 1				NGCMS_1122
2-Chlorophenol	mg/kg	< 1				NGCMS_1122
2-Methylphenol	mg/kg	< 1				NGCMS_1122
3&4-Methylphenol	mg/kg	< 2				NGCMS_1122
2-Nitrophenol	mg/kg	< 1				NGCMS_1122
2,4-Dimethylphenol	mg/kg	< 1				NGCMS_1122
2,4-Dichlorophenol	mg/kg	< 1				NGCMS_1122
2,6-Dichlorophenol	mg/kg	< 1				NGCMS_1122
4-Chloro-3-methylphenol	mg/kg	< 2				NGCMS_1122
2,4,5-Trichlorophenol	mg/kg	< 2				NGCMS_1122
2,4,6-Trichlorophenol	mg/kg	< 2				NGCMS_1122
2,3,4,6-Tetrachlorophenol	mg/kg	< 2				NGCMS_1122
Pentachlorophenol	mg/kg	< 2				NGCMS_1122
Phthalates NMI 1122 Screen						
Dimethyl phthalate	mg/kg	< 1				NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027635				
Sample Reference	Units	BHA01 0-0.2				Method
Phthalates NMI 1122 Screen						
Diethyl phthalate	mg/kg	< 1				NGCMS_1122
Di-n-butyl phthalate	mg/kg	< 1				NGCMS_1122
Butyl benzyl phthalate	mg/kg	< 1				NGCMS_1122
Bis(2-ethylhexyl) phthalate	mg/kg	< 2				NGCMS_1122
Di-n-octyl phthalate	mg/kg	< 1				NGCMS_1122
Chlorinated Hydrocarbons NMI 1122 Screen						
2-Chloronaphthalene	mg/kg	< 2				NGCMS_1122
1,4-Dichlorobenzene	mg/kg	< 2				NGCMS_1122
1,2-Dichlorobenzene	mg/kg	< 2				NGCMS_1122
1,3-Dichlorobenzene	mg/kg	< 2				NGCMS_1122
Hexachlorobenzene	mg/kg	< 2				NGCMS_1122
1,2,4-Trichlorobenzene	mg/kg	< 2				NGCMS_1122
Hexachloroethane	mg/kg	< 2				NGCMS_1122
Hexachlorocyclopentadiene	mg/kg	< 2				NGCMS_1122
Hexachloro-1,3-butadiene	mg/kg	< 2				NGCMS_1122
Ethers NMI 1122 Screen						
4-Bromophenyl phenyl ether	mg/kg	< 2				NGCMS_1122
4-Chlorophenyl phenyl ether	mg/kg	< 2				NGCMS_1122
Bis(2-chloroethyl)ether	mg/kg	< 2				NGCMS_1122
Bis(2-chloroethoxy)methane	mg/kg	< 2				NGCMS_1122
Bis(2-chloroisopropyl)ether	mg/kg	< 2				NGCMS_1122
Amines Nitroaromatics & Nitrosamines NMI 1122 Screen						
Azobenzene	mg/kg	< 2				NGCMS_1122
2,4-Dinitrotoluene	mg/kg	< 2				NGCMS_1122
2,6-Dinitrotoluene	mg/kg	< 2				NGCMS_1122
Nitrobenzene	mg/kg	< 2				NGCMS_1122
N-Nitrosodimethylamine	mg/kg	< 2				NGCMS_1122
N-Nitrosodiphenylamine	mg/kg	< 2				NGCMS_1122
N-Nitrosodi-n-propylamine	mg/kg	< 2				NGCMS_1122
Aniline	mg/kg	< 2				NGCMS_1122
4-Chloroaniline	mg/kg	< 2				NGCMS_1122
2-Nitroaniline	mg/kg	< 2				NGCMS_1122
3-Nitroaniline	mg/kg	< 2				NGCMS_1122
4-Nitroaniline	mg/kg	< 2				NGCMS_1122
Organochlorine Pesticides NMI 1122 Screen						
Aldrin	mg/kg	< 2				NGCMS_1122
a-BHC	mg/kg	< 2				NGCMS_1122
b-BHC	mg/kg	< 2				NGCMS_1122
g-BHC (Lindane)	mg/kg	< 2				NGCMS_1122
d-BHC	mg/kg	< 2				NGCMS_1122
4,4 '-DDD	mg/kg	< 2				NGCMS_1122
4,4 '-DDE	mg/kg	< 2				NGCMS_1122
4,4 '-DDT	mg/kg	< 2				NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027635				
Sample Reference	Units	BHA01 0-0.2				Method
Organochlorine Pesticides NMI 1122 Screen						
Dieldrin	mg/kg	< 2				NGCMS_1122
Endosulphan I	mg/kg	< 2				NGCMS_1122
Endosulphan II	mg/kg	< 2				NGCMS_1122
Endosulfan sulphate	mg/kg	< 2				NGCMS_1122
Endrin	mg/kg	< 2				NGCMS_1122
Endrin Aldehyde	mg/kg	< 2				NGCMS_1122
Heptachlor	mg/kg	< 2				NGCMS_1122
Heptachlorepoxide	mg/kg	< 2				NGCMS_1122
Organophosphate Pesticides NMI 1122 Screen						
Dimethoate	mg/kg	< 2				NGCMS_1122
Diazinon	mg/kg	< 2				NGCMS_1122
Fenitrothion	mg/kg	< 2				NGCMS_1122
Malathion	mg/kg	< 2				NGCMS_1122
Chlorpyrifos	mg/kg	< 2				NGCMS_1122
Ethion	mg/kg	< 2				NGCMS_1122
Dates						
Date extracted		17-OCT-2012				
Date analysed		17-OCT-2012				
Other Compounds NMI 1122 Screen						
Dichlorobenzidine	mg/kg	< 2				NGCMS_1122
2-Methylnaphthalene	mg/kg	< 1				NGCMS_1122
Isophorone	mg/kg	< 2				NGCMS_1122
Benzyl alcohol	mg/kg	< 2				NGCMS_1122
Carbazole	mg/kg	< 2				NGCMS_1122
Dibenzofuran	mg/kg	< 2				NGCMS_1122
Surrogate: PHENOL-D6	%REC	71				NGCMS_1122
Surrogate: 1,2-DCB-D4	%REC	96				NGCMS_1122
Surrogate: TER-D14	%REC	108				NGCMS_1122

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

Lab Reg No.		N12/027635				
Sample Reference	Units	BHA01 0-0.2				Method
Trace Elements						
Arsenic	mg/kg	0.59				NT2_49
Cadmium	mg/kg	< 0.5				NT2_49
Chromium	mg/kg	15				NT2_49
Copper	mg/kg	86				NT2_49
Lead	mg/kg	2.1				NT2_49
Mercury	mg/kg	< 0.2				NT2_49
Nickel	mg/kg	140				NT2_49
Phosphorus	mg/kg	1230				NT2_49
Zinc	mg/kg	86				NT2_49
Total Solids	%	97.7				NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027635				
Sample Reference	Units	BHA01 0-0.2				Method
Miscellaneous						
Water Soluble Fluoride	mg/kg	< 1				NW_B3_B14
pH	pH units	9.4				NW_S11

Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

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REPORT OF ANALYSIS

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REPORT OF ANALYSIS

Report No. RN938993

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027636	BHA01 0.4-0.5	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027636				
Sample Reference	Units	BHA01 0.4-0.				Method
Trace Elements						
Arsenic	mg/kg	6				NT2_49
Cadmium	mg/kg	< 0.5				NT2_49
Chromium	mg/kg	6.8				NT2_49
Copper	mg/kg	15				NT2_49
Lead	mg/kg	8.1				NT2_49
Mercury	mg/kg	< 0.2				NT2_49
Nickel	mg/kg	2.9				NT2_49
Zinc	mg/kg	12				NT2_49
Total Solids	%	91.7				NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

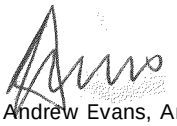
19-OCT-2012

Lab Reg No.		N12/027636				
Sample Reference	Units	BHA01 0.4-0.				Method
Miscellaneous						
Water Soluble Fluoride	mg/kg	< 1				NW_B3_B14
pH	pH units	7.5				NW_S11

REPORT OF ANALYSIS

Report No. RN938993

Lab Reg No.		N12/027636				
Sample Reference	Units	BHA01 0.4-0.				Method



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REPORT OF ANALYSIS

Report No. RN938997

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027638	BHA02 0.5-0.6	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027638		
Sample Reference	Units	BHA02 0.5-0.6		Method
Polycyclic Aromatic Hydrocarbons NMI 1122 Screen				
Acenaphthylene	mg/kg	< 1		NGCMS_1122
Naphthalene	mg/kg	< 1		NGCMS_1122
Acenaphthene	mg/kg	< 1		NGCMS_1122
Fluorene	mg/kg	< 1		NGCMS_1122
Phenanthrene	mg/kg	< 1		NGCMS_1122
Anthracene	mg/kg	< 1		NGCMS_1122
Fluoranthene	mg/kg	< 1		NGCMS_1122
Pyrene	mg/kg	< 1		NGCMS_1122
Benz(a)anthracene	mg/kg	< 1		NGCMS_1122
Chrysene	mg/kg	< 1		NGCMS_1122
Benzo(b,k)fluoranthene	mg/kg	< 2		NGCMS_1122
Benzo(a)pyrene	mg/kg	< 1		NGCMS_1122
Indeno(1,2,3-cd)pyrene	mg/kg	< 1		NGCMS_1122
Dibenz(a,h)anthracene	mg/kg	< 1		NGCMS_1122
Benzo(g,h,i)perylene	mg/kg	< 1		NGCMS_1122
Phenols NMI 1122 Screen				
Phenol	mg/kg	< 1		NGCMS_1122
2-Chlorophenol	mg/kg	< 1		NGCMS_1122
2-Methylphenol	mg/kg	< 1		NGCMS_1122
3&4-Methylphenol	mg/kg	< 2		NGCMS_1122
2-Nitrophenol	mg/kg	< 1		NGCMS_1122
2,4-Dimethylphenol	mg/kg	< 1		NGCMS_1122
2,4-Dichlorophenol	mg/kg	< 1		NGCMS_1122
2,6-Dichlorophenol	mg/kg	< 1		NGCMS_1122
4-Chloro-3-methylphenol	mg/kg	< 2		NGCMS_1122
2,4,5-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,4,6-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,3,4,6-Tetrachlorophenol	mg/kg	< 2		NGCMS_1122
Pentachlorophenol	mg/kg	< 2		NGCMS_1122
Phthalates NMI 1122 Screen				
Dimethyl phthalate	mg/kg	< 1		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027638		
Sample Reference	Units	BHA02 0.5-0.6		Method
Phthalates NMI 1122 Screen				
Diethyl phthalate	mg/kg	< 1		NGCMS_1122
Di-n-butyl phthalate	mg/kg	< 1		NGCMS_1122
Butyl benzyl phthalate	mg/kg	< 1		NGCMS_1122
Bis(2-ethylhexyl) phthalate	mg/kg	< 2		NGCMS_1122
Di-n-octyl phthalate	mg/kg	< 1		NGCMS_1122
Chlorinated Hydrocarbons NMI 1122 Screen				
2-Chloronaphthalene	mg/kg	< 2		NGCMS_1122
1,4-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
1,2-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
1,3-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
Hexachlorobenzene	mg/kg	< 2		NGCMS_1122
1,2,4-Trichlorobenzene	mg/kg	< 2		NGCMS_1122
Hexachloroethane	mg/kg	< 2		NGCMS_1122
Hexachlorocyclopentadiene	mg/kg	< 2		NGCMS_1122
Hexachloro-1,3-butadiene	mg/kg	< 2		NGCMS_1122
Ethers NMI 1122 Screen				
4-Bromophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
4-Chlorophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethyl)ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethoxy)methane	mg/kg	< 2		NGCMS_1122
Bis(2-chloroisopropyl)ether	mg/kg	< 2		NGCMS_1122
Amines Nitroaromatics & Nitrosamines NMI 1122 Screen				
Azobenzene	mg/kg	< 2		NGCMS_1122
2,4-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
2,6-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
Nitrobenzene	mg/kg	< 2		NGCMS_1122
N-Nitrosodimethylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodiphenylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodi-n-propylamine	mg/kg	< 2		NGCMS_1122
Aniline	mg/kg	< 2		NGCMS_1122
4-Chloroaniline	mg/kg	< 2		NGCMS_1122
2-Nitroaniline	mg/kg	< 2		NGCMS_1122
3-Nitroaniline	mg/kg	< 2		NGCMS_1122
4-Nitroaniline	mg/kg	< 2		NGCMS_1122
Organochlorine Pesticides NMI 1122 Screen				
Aldrin	mg/kg	< 2		NGCMS_1122
a-BHC	mg/kg	< 2		NGCMS_1122
b-BHC	mg/kg	< 2		NGCMS_1122
g-BHC (Lindane)	mg/kg	< 2		NGCMS_1122
d-BHC	mg/kg	< 2		NGCMS_1122
4,4 '-DDD	mg/kg	< 2		NGCMS_1122
4,4 '-DDE	mg/kg	< 2		NGCMS_1122
4,4 '-DDT	mg/kg	< 2		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027638		
Sample Reference	Units	BHA02 0.5-0.6		Method
Organochlorine Pesticides NMI 1122 Screen				
Dieldrin	mg/kg	< 2		NGCMS_1122
Endosulphan I	mg/kg	< 2		NGCMS_1122
Endosulphan II	mg/kg	< 2		NGCMS_1122
Endosulfan sulphate	mg/kg	< 2		NGCMS_1122
Endrin	mg/kg	< 2		NGCMS_1122
Endrin Aldehyde	mg/kg	< 2		NGCMS_1122
Heptachlor	mg/kg	< 2		NGCMS_1122
Heptachlorepoxide	mg/kg	< 2		NGCMS_1122
Organophosphate Pesticides NMI 1122 Screen				
Dimethoate	mg/kg	< 2		NGCMS_1122
Diazinon	mg/kg	< 2		NGCMS_1122
Fenitrothion	mg/kg	< 2		NGCMS_1122
Malathion	mg/kg	< 2		NGCMS_1122
Chlorpyrifos	mg/kg	< 2		NGCMS_1122
Ethion	mg/kg	< 2		NGCMS_1122
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		
Other Compounds NMI 1122 Screen				
Dichlorobenzidine	mg/kg	< 2		NGCMS_1122
2-Methylnaphthalene	mg/kg	< 1		NGCMS_1122
Isophorone	mg/kg	< 2		NGCMS_1122
Benzyl alcohol	mg/kg	< 2		NGCMS_1122
Carbazole	mg/kg	< 2		NGCMS_1122
Dibenzofuran	mg/kg	< 2		NGCMS_1122
Surrogate: PHENOL-D6	%REC	63		NGCMS_1122
Surrogate: 1,2-DCB-D4	%REC	84		NGCMS_1122
Surrogate: TER-D14	%REC	99		NGCMS_1122

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

Lab Reg No.		N12/027638		
Sample Reference	Units	BHA02 0.5-0.6		Method
Trace Elements				
Arsenic	mg/kg	5.7		NT2_49
Cadmium	mg/kg	< 0.5		NT2_49
Chromium	mg/kg	5.4		NT2_49
Copper	mg/kg	6.7		NT2_49
Lead	mg/kg	13		NT2_49
Mercury	mg/kg	< 0.2		NT2_49
Nickel	mg/kg	0.72		NT2_49
Zinc	mg/kg	1.3		NT2_49
Total Solids	%	83.2		NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027638		
Sample Reference	Units	BHA02 0.5-0.6		Method
Miscellaneous				
pH	pH units	6.8		NW_S11

Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

All results are expressed on a dry weight basis.

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This report shall not be reproduced except in full.
Results relate only to the sample(s) tested.

This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027640	BHA03 0.2-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No. / Sample Reference	Units	N12/027640 BHA03 0.2-0.4		Method
Miscellaneous				
Organic Investigation		See comment		NGCMS_1130
Monocyclic Aromatic Hydrocarbons NMI 1120 Screen				
Benzene	mg/kg	< 1		NGCMS_1120
Toluene	mg/kg	< 1		NGCMS_1120
Ethylbenzene	mg/kg	< 1		NGCMS_1120
m & p-Xylenes	mg/kg	< 2		NGCMS_1120
o-Xylene	mg/kg	< 1		NGCMS_1120
Styrene	mg/kg	< 1		NGCMS_1120
Isopropylbenzene	mg/kg	< 1		NGCMS_1120
n-Propylbenzene	mg/kg	< 1		NGCMS_1120
1,3,5-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
tert-Butylbenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
sec-Butylbenzene	mg/kg	< 1		NGCMS_1120
4-Isopropyltoluene	mg/kg	< 1		NGCMS_1120
n-Butylbenzene	mg/kg	< 1		NGCMS_1120
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
Chloromethane	mg/kg	< 1		NGCMS_1120
Vinyl chloride	mg/kg	< 1		NGCMS_1120
Bromomethane	mg/kg	< 1		NGCMS_1120
Chloroethane	mg/kg	< 1		NGCMS_1120
Trichlorofluoromethane	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethane	mg/kg	< 1		NGCMS_1120
Dichloromethane	mg/kg	< 1		NGCMS_1120
trans-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethene	mg/kg	< 1		NGCMS_1120
2,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
cis-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
Bromochloromethane	mg/kg	< 1		NGCMS_1120
1,1,1-Trichloroethane	mg/kg	< 1		NGCMS_1120
Carbon tetrachloride	mg/kg	< 1		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027640		
Sample Reference	Units	BHA03 0.2-0.4		Method
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
1,1-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,2-Dichloroethane	mg/kg	< 1		NGCMS_1120
Trichloroethene	mg/kg	< 1		NGCMS_1120
1,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
Dibromomethane	mg/kg	< 1		NGCMS_1120
cis-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
trans-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,1,2-Trichloroethane	mg/kg	< 1		NGCMS_1120
Tetrachloroethene	mg/kg	< 1		NGCMS_1120
1,3-Dichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromoethane	mg/kg	< 1		NGCMS_1120
1,1,1,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,1,2,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,2,3-Trichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromo-3-chloropropane	mg/kg	< 1		NGCMS_1120
Hexachlorobutadiene	mg/kg	< 1		NGCMS_1120
Halogenated Aromatic Hydrocarbons NMI 1120 Screen				
Chlorobenzene	mg/kg	< 1		NGCMS_1120
Bromobenzene	mg/kg	< 1		NGCMS_1120
2-Chlorotoluene	mg/kg	< 1		NGCMS_1120
4-Chlorotoluene	mg/kg	< 1		NGCMS_1120
1,3-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,4-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3,4-Tetrachlorobenzene	mg/kg	< 1		NGCMS_1120
Trihalomethanes NMI 1120 Screen				
Chloroform	mg/kg	< 1		NGCMS_1120
Bromodichloromethane	mg/kg	< 1		NGCMS_1120
Dibromochloromethane	mg/kg	< 1		NGCMS_1120
Bromoform	mg/kg	< 1		NGCMS_1120
Polycyclic Aromatic Hydrocarbons(volatile) NMI 1120 Screen				
Naphthalene	mg/kg	< 1		NGCMS_1120
Polycyclic Aromatic Hydrocarbons NMI 1122 Screen				
Acenaphthylene	mg/kg	< 1		NGCMS_1122
Naphthalene	mg/kg	< 1		NGCMS_1122
Acenaphthene	mg/kg	< 1		NGCMS_1122
Fluorene	mg/kg	< 1		NGCMS_1122
Phenanthrene	mg/kg	< 1		NGCMS_1122
Anthracene	mg/kg	< 1		NGCMS_1122
Fluoranthene	mg/kg	< 1		NGCMS_1122
Pyrene	mg/kg	< 1		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027640		
Sample Reference	Units	BHA03 0.2-0.4		Method
Polycyclic Aromatic Hydrocarbons NMI 1122 Screen				
Benz(a)anthracene	mg/kg	< 1		NGCMS_1122
Chrysene	mg/kg	< 1		NGCMS_1122
Benzo(b,k)fluoranthene	mg/kg	< 2		NGCMS_1122
Benzo(a)pyrene	mg/kg	< 1		NGCMS_1122
Indeno(1,2,3-cd)pyrene	mg/kg	< 1		NGCMS_1122
Dibenz(a,h)anthracene	mg/kg	< 1		NGCMS_1122
Benzo(g,h,i)perylene	mg/kg	< 1		NGCMS_1122
Phenols NMI 1122 Screen				
Phenol	mg/kg	< 1		NGCMS_1122
2-Chlorophenol	mg/kg	< 1		NGCMS_1122
2-Methylphenol	mg/kg	< 1		NGCMS_1122
3&4-Methylphenol	mg/kg	< 2		NGCMS_1122
2-Nitrophenol	mg/kg	< 1		NGCMS_1122
2,4-Dimethylphenol	mg/kg	< 1		NGCMS_1122
2,4-Dichlorophenol	mg/kg	< 1		NGCMS_1122
2,6-Dichlorophenol	mg/kg	< 1		NGCMS_1122
4-Chloro-3-methylphenol	mg/kg	< 2		NGCMS_1122
2,4,5-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,4,6-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,3,4,6-Tetrachlorophenol	mg/kg	< 2		NGCMS_1122
Pentachlorophenol	mg/kg	< 2		NGCMS_1122
Oxygenated Compounds NMI 1120 Screen				
Acetone	mg/kg	< 5		NGCMS_1120
2-Butanone (MEK)	mg/kg	< 5		NGCMS_1120
2-Hexanone (MBK)	mg/kg	< 5		NGCMS_1120
4-Methyl-2-pentanone (MIBK)	mg/kg	< 5		NGCMS_1120
Methyl tert-Butyl Ether (MTBE)	mg/kg	< 5		NGCMS_1120
Vinylacetate	mg/kg	< 5		NGCMS_1120
Other Compounds NMI 1120 Screen				
Carbon disulfide	mg/kg	< 5		NGCMS_1120
Surrogate: DBFM	%REC	107		NGCMS_1120
Surrogate: TOL-D8	%REC	90		NGCMS_1120
Surrogate: 4-BFB	%REC	98		NGCMS_1120
Phthalates NMI 1122 Screen				
Dimethyl phthalate	mg/kg	< 1		NGCMS_1122
Diethyl phthalate	mg/kg	< 1		NGCMS_1122
Di-n-butyl phthalate	mg/kg	< 1		NGCMS_1122
Butyl benzyl phthalate	mg/kg	< 1		NGCMS_1122
Bis(2-ethylhexyl) phthalate	mg/kg	< 2		NGCMS_1122
Di-n-octyl phthalate	mg/kg	< 1		NGCMS_1122
Chlorinated Hydrocarbons NMI 1122 Screen				
2-Chloronaphthalene	mg/kg	< 2		NGCMS_1122
1,4-Dichlorobenzene	mg/kg	< 2		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027640		
Sample Reference	Units	BHA03 0.2-0.4		Method
Chlorinated Hydrocarbons NMI 1122 Screen				
1,2-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
1,3-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
Hexachlorobenzene	mg/kg	< 2		NGCMS_1122
1,2,4-Trichlorobenzene	mg/kg	< 2		NGCMS_1122
Hexachloroethane	mg/kg	< 2		NGCMS_1122
Hexachlorocyclopentadiene	mg/kg	< 2		NGCMS_1122
Hexachloro-1,3-butadiene	mg/kg	< 2		NGCMS_1122
Ethers NMI 1122 Screen				
4-Bromophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
4-Chlorophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethyl)ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethoxy)methane	mg/kg	< 2		NGCMS_1122
Bis(2-chloroisopropyl)ether	mg/kg	< 2		NGCMS_1122
Amines Nitroaromatics & Nitrosamines NMI 1122 Screen				
Azobenzene	mg/kg	< 2		NGCMS_1122
2,4-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
2,6-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
Nitrobenzene	mg/kg	< 2		NGCMS_1122
N-Nitrosodimethylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodiphenylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodi-n-propylamine	mg/kg	< 2		NGCMS_1122
Aniline	mg/kg	< 2		NGCMS_1122
4-Chloroaniline	mg/kg	< 2		NGCMS_1122
2-Nitroaniline	mg/kg	< 2		NGCMS_1122
3-Nitroaniline	mg/kg	< 2		NGCMS_1122
4-Nitroaniline	mg/kg	< 2		NGCMS_1122
Organochlorine Pesticides NMI 1122 Screen				
Aldrin	mg/kg	< 2		NGCMS_1122
a-BHC	mg/kg	< 2		NGCMS_1122
b-BHC	mg/kg	< 2		NGCMS_1122
g-BHC (Lindane)	mg/kg	< 2		NGCMS_1122
d-BHC	mg/kg	< 2		NGCMS_1122
4,4 '-DDD	mg/kg	< 2		NGCMS_1122
4,4 '-DDE	mg/kg	< 2		NGCMS_1122
4,4 '-DDT	mg/kg	< 2		NGCMS_1122
Dieldrin	mg/kg	< 2		NGCMS_1122
Endosulphan I	mg/kg	< 2		NGCMS_1122
Endosulphan II	mg/kg	< 2		NGCMS_1122
Endosulfan sulphate	mg/kg	< 2		NGCMS_1122
Endrin	mg/kg	< 2		NGCMS_1122
Endrin Aldehyde	mg/kg	< 2		NGCMS_1122
Heptachlor	mg/kg	< 2		NGCMS_1122
Heptachlorepoxide	mg/kg	< 2		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027640		
Sample Reference	Units	BHA03 0.2-0.4		Method
Organophosphate Pesticides NMI 1122 Screen				
Dimethoate	mg/kg	< 2		NGCMS_1122
Diazinon	mg/kg	< 2		NGCMS_1122
Fenitrothion	mg/kg	< 2		NGCMS_1122
Malathion	mg/kg	< 2		NGCMS_1122
Chlorpyrifos	mg/kg	< 2		NGCMS_1122
Ethion	mg/kg	< 2		NGCMS_1122
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		
Other Compounds NMI 1122 Screen				
Dichlorobenzidine	mg/kg	< 2		NGCMS_1122
2-Methylnaphthalene	mg/kg	< 1		NGCMS_1122
Isophorone	mg/kg	< 2		NGCMS_1122
Benzyl alcohol	mg/kg	< 2		NGCMS_1122
Carbazole	mg/kg	< 2		NGCMS_1122
Dibenzofuran	mg/kg	< 2		NGCMS_1122
Surrogate: PHENOL-D6	%REC	64		NGCMS_1122
Surrogate: 1,2-DCB-D4	%REC	84		NGCMS_1122
Surrogate: TER-D14	%REC	99		NGCMS_1122

N12/027640
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027640		
Sample Reference	Units	BHA03 0.2-0.4		Method
Trace Elements				
Total Solids	%	94.4		NT2_49

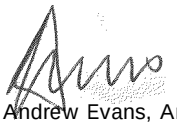
REPORT OF ANALYSIS

Lab Reg No.		N12/027640		
Sample Reference	Units	BHA03 0.2-0.4		Method

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027640		
Sample Reference	Units	BHA03 0.2-0.4		Method
Miscellaneous				
pH	pH units	9.1		NW_S11



Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

All results are expressed on a dry weight basis.

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Results relate only to the sample(s) tested.

This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN938999

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027641	BHA03 0.4-0.6	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027641		
Sample Reference	Units	BHA03 0.4-0.6		Method
Polycyclic Aromatic Hydrocarbons NMI 1122 Screen				
Acenaphthylene	mg/kg	< 1		NGCMS_1122
Naphthalene	mg/kg	< 1		NGCMS_1122
Acenaphthene	mg/kg	< 1		NGCMS_1122
Fluorene	mg/kg	< 1		NGCMS_1122
Phenanthrene	mg/kg	< 1		NGCMS_1122
Anthracene	mg/kg	< 1		NGCMS_1122
Fluoranthene	mg/kg	< 1		NGCMS_1122
Pyrene	mg/kg	< 1		NGCMS_1122
Benz(a)anthracene	mg/kg	< 1		NGCMS_1122
Chrysene	mg/kg	< 1		NGCMS_1122
Benzo(b,k)fluoranthene	mg/kg	< 2		NGCMS_1122
Benzo(a)pyrene	mg/kg	< 1		NGCMS_1122
Indeno(1,2,3-cd)pyrene	mg/kg	< 1		NGCMS_1122
Dibenz(a,h)anthracene	mg/kg	< 1		NGCMS_1122
Benzo(g,h,i)perylene	mg/kg	< 1		NGCMS_1122
Phenols NMI 1122 Screen				
Phenol	mg/kg	< 1		NGCMS_1122
2-Chlorophenol	mg/kg	< 1		NGCMS_1122
2-Methylphenol	mg/kg	< 1		NGCMS_1122
3&4-Methylphenol	mg/kg	< 2		NGCMS_1122
2-Nitrophenol	mg/kg	< 1		NGCMS_1122
2,4-Dimethylphenol	mg/kg	< 1		NGCMS_1122
2,4-Dichlorophenol	mg/kg	< 1		NGCMS_1122
2,6-Dichlorophenol	mg/kg	< 1		NGCMS_1122
4-Chloro-3-methylphenol	mg/kg	< 2		NGCMS_1122
2,4,5-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,4,6-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,3,4,6-Tetrachlorophenol	mg/kg	< 2		NGCMS_1122
Pentachlorophenol	mg/kg	< 2		NGCMS_1122
Phthalates NMI 1122 Screen				
Dimethyl phthalate	mg/kg	< 1		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027641		
Sample Reference	Units	BHA03 0.4-0.6		Method
Phthalates NMI 1122 Screen				
Diethyl phthalate	mg/kg	< 1		NGCMS_1122
Di-n-butyl phthalate	mg/kg	< 1		NGCMS_1122
Butyl benzyl phthalate	mg/kg	< 1		NGCMS_1122
Bis(2-ethylhexyl) phthalate	mg/kg	< 2		NGCMS_1122
Di-n-octyl phthalate	mg/kg	< 1		NGCMS_1122
Chlorinated Hydrocarbons NMI 1122 Screen				
2-Chloronaphthalene	mg/kg	< 2		NGCMS_1122
1,4-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
1,2-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
1,3-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
Hexachlorobenzene	mg/kg	< 2		NGCMS_1122
1,2,4-Trichlorobenzene	mg/kg	< 2		NGCMS_1122
Hexachloroethane	mg/kg	< 2		NGCMS_1122
Hexachlorocyclopentadiene	mg/kg	< 2		NGCMS_1122
Hexachloro-1,3-butadiene	mg/kg	< 2		NGCMS_1122
Ethers NMI 1122 Screen				
4-Bromophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
4-Chlorophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethyl)ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethoxy)methane	mg/kg	< 2		NGCMS_1122
Bis(2-chloroisopropyl)ether	mg/kg	< 2		NGCMS_1122
Amines Nitroaromatics & Nitrosamines NMI 1122 Screen				
Azobenzene	mg/kg	< 2		NGCMS_1122
2,4-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
2,6-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
Nitrobenzene	mg/kg	< 2		NGCMS_1122
N-Nitrosodimethylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodiphenylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodi-n-propylamine	mg/kg	< 2		NGCMS_1122
Aniline	mg/kg	< 2		NGCMS_1122
4-Chloroaniline	mg/kg	< 2		NGCMS_1122
2-Nitroaniline	mg/kg	< 2		NGCMS_1122
3-Nitroaniline	mg/kg	< 2		NGCMS_1122
4-Nitroaniline	mg/kg	< 2		NGCMS_1122
Organochlorine Pesticides NMI 1122 Screen				
Aldrin	mg/kg	< 2		NGCMS_1122
a-BHC	mg/kg	< 2		NGCMS_1122
b-BHC	mg/kg	< 2		NGCMS_1122
g-BHC (Lindane)	mg/kg	< 2		NGCMS_1122
d-BHC	mg/kg	< 2		NGCMS_1122
4,4 '-DDD	mg/kg	< 2		NGCMS_1122
4,4 '-DDE	mg/kg	< 2		NGCMS_1122
4,4 '-DDT	mg/kg	< 2		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027641		
Sample Reference	Units	BHA03 0.4-0.6		Method
Organochlorine Pesticides NMI 1122 Screen				
Dieldrin	mg/kg	< 2		NGCMS_1122
Endosulphan I	mg/kg	< 2		NGCMS_1122
Endosulphan II	mg/kg	< 2		NGCMS_1122
Endosulfan sulphate	mg/kg	< 2		NGCMS_1122
Endrin	mg/kg	< 2		NGCMS_1122
Endrin Aldehyde	mg/kg	< 2		NGCMS_1122
Heptachlor	mg/kg	< 2		NGCMS_1122
Heptachlorepoxide	mg/kg	< 2		NGCMS_1122
Organophosphate Pesticides NMI 1122 Screen				
Dimethoate	mg/kg	< 2		NGCMS_1122
Diazinon	mg/kg	< 2		NGCMS_1122
Fenitrothion	mg/kg	< 2		NGCMS_1122
Malathion	mg/kg	< 2		NGCMS_1122
Chlorpyrifos	mg/kg	< 2		NGCMS_1122
Ethion	mg/kg	< 2		NGCMS_1122
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		
Other Compounds NMI 1122 Screen				
Dichlorobenzidine	mg/kg	< 2		NGCMS_1122
2-Methylnaphthalene	mg/kg	< 1		NGCMS_1122
Isophorone	mg/kg	< 2		NGCMS_1122
Benzyl alcohol	mg/kg	< 2		NGCMS_1122
Carbazole	mg/kg	< 2		NGCMS_1122
Dibenzofuran	mg/kg	< 2		NGCMS_1122
Surrogate: PHENOL-D6	%REC	69		NGCMS_1122
Surrogate: 1,2-DCB-D4	%REC	84		NGCMS_1122
Surrogate: TER-D14	%REC	100		NGCMS_1122

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

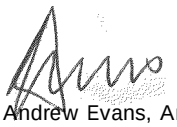
REPORT OF ANALYSIS

Lab Reg No.		N12/027641		
Sample Reference	Units	BHA03 0.4-0.6		Method
Trace Elements				
Total Solids	%	87.4		NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027641		
Sample Reference	Units	BHA03 0.4-0.6		Method
Miscellaneous				
pH	pH units	7.2		NW_S11



Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

All results are expressed on a dry weight basis.

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This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN939000

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027642	BHA04 0.2-0.3	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027642		
Sample Reference	Units	BHA04 0.2-0.3		Method
Phthalates				
Dimethyl phthalate	mg/kg	< 1		NGCMS_1111
Diethyl phthalate	mg/kg	< 1		NGCMS_1111
Di-n-butyl phthalate	mg/kg	< 1		NGCMS_1111
Benzyl butyl phthalate	mg/kg	< 1		NGCMS_1111
Bis(2-ethylhexyl)phthalate	mg/kg	< 2		NGCMS_1111
Di-n-octyl phthalate	mg/kg	< 1		NGCMS_1111
Miscellaneous				
Organic Investigation		See comment		NGCMS_1130
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		

N12/027642
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

Lab Reg No.		N12/027642		
Sample Reference	Units	BHA04 0.2-0.3		Method
Trace Elements				
Arsenic	mg/kg	0.86		NT2_49
Cadmium	mg/kg	< 0.5		NT2_49
Chromium	mg/kg	19		NT2_49
Copper	mg/kg	78		NT2_49
Lead	mg/kg	1.5		NT2_49
Mercury	mg/kg	< 0.2		NT2_49
Nickel	mg/kg	210		NT2_49
Phosphorus	mg/kg	1200		NT2_49
Zinc	mg/kg	75		NT2_49
Total Solids	%	93.3		NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027642		
Sample Reference	Units	BHA04 0.2-0.3		Method
Miscellaneous				
Water Soluble Fluoride	mg/kg	< 1		NW_B3_B14
pH	pH units	9.5		NW_S11

Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

All results are expressed on a dry weight basis.

REPORT OF ANALYSIS

This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN939001

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027643	BHA04 0.3-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027643		
Sample Reference	Units	BHA04 0.3-0.4		Method
Monocyclic Aromatic Hydrocarbons NMI 1120 Screen				
Benzene	mg/kg	< 1		NGCMS_1120
Toluene	mg/kg	< 1		NGCMS_1120
Ethylbenzene	mg/kg	< 1		NGCMS_1120
m & p-Xylenes	mg/kg	< 2		NGCMS_1120
o-Xylene	mg/kg	< 1		NGCMS_1120
Styrene	mg/kg	< 1		NGCMS_1120
Isopropylbenzene	mg/kg	< 1		NGCMS_1120
n-Propylbenzene	mg/kg	< 1		NGCMS_1120
1,3,5-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
tert-Butylbenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
sec-Butylbenzene	mg/kg	< 1		NGCMS_1120
4-Isopropyltoluene	mg/kg	< 1		NGCMS_1120
n-Butylbenzene	mg/kg	< 1		NGCMS_1120
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
Chloromethane	mg/kg	< 1		NGCMS_1120
Vinyl chloride	mg/kg	< 1		NGCMS_1120
Bromomethane	mg/kg	< 1		NGCMS_1120
Chloroethane	mg/kg	< 1		NGCMS_1120
Trichlorofluoromethane	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethane	mg/kg	< 1		NGCMS_1120
Dichloromethane	mg/kg	< 1		NGCMS_1120
trans-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethene	mg/kg	< 1		NGCMS_1120
2,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
cis-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
Bromochloromethane	mg/kg	< 1		NGCMS_1120
1,1,1-Trichloroethane	mg/kg	< 1		NGCMS_1120
Carbon tetrachloride	mg/kg	< 1		NGCMS_1120
1,1-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,2-Dichloroethane	mg/kg	< 1		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027643		
Sample Reference	Units	BHA04 0.3-0.4		Method
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
Trichloroethene	mg/kg	< 1		NGCMS_1120
1,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
Dibromomethane	mg/kg	< 1		NGCMS_1120
cis-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
trans-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,1,2-Trichloroethane	mg/kg	< 1		NGCMS_1120
Tetrachloroethene	mg/kg	< 1		NGCMS_1120
1,3-Dichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromoethane	mg/kg	< 1		NGCMS_1120
1,1,1,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,1,2,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,2,3-Trichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromo-3-chloropropane	mg/kg	< 1		NGCMS_1120
Hexachlorobutadiene	mg/kg	< 1		NGCMS_1120
Halogenated Aromatic Hydrocarbons NMI 1120 Screen				
Chlorobenzene	mg/kg	< 1		NGCMS_1120
Bromobenzene	mg/kg	< 1		NGCMS_1120
2-Chlorotoluene	mg/kg	< 1		NGCMS_1120
4-Chlorotoluene	mg/kg	< 1		NGCMS_1120
1,3-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,4-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3,4-Tetrachlorobenzene	mg/kg	< 1		NGCMS_1120
Trihalomethanes NMI 1120 Screen				
Chloroform	mg/kg	< 1		NGCMS_1120
Bromodichloromethane	mg/kg	< 1		NGCMS_1120
Dibromochloromethane	mg/kg	< 1		NGCMS_1120
Bromoform	mg/kg	< 1		NGCMS_1120
Polycyclic Aromatic Hydrocarbons(volatile) NMI 1120 Screen				
Naphthalene	mg/kg	< 1		NGCMS_1120
Oxygenated Compounds NMI 1120 Screen				
Acetone	mg/kg	< 5		NGCMS_1120
2-Butanone (MEK)	mg/kg	< 5		NGCMS_1120
2-Hexanone (MBK)	mg/kg	< 5		NGCMS_1120
4-Methyl-2-pentanone (MIBK)	mg/kg	< 5		NGCMS_1120
Methyl tert-Butyl Ether (MTBE)	mg/kg	< 5		NGCMS_1120
Vinylacetate	mg/kg	< 5		NGCMS_1120
Other Compounds NMI 1120 Screen				
Carbon disulfide	mg/kg	< 5		NGCMS_1120
Surrogate: DBFM	%REC	107		NGCMS_1120
Surrogate: TOL-D8	%REC	88		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027643		
Sample Reference	Units	BHA04 0.3-0.4		Method
Other Compounds NMI 1120 Screen				
Surrogate: 4-BFB	%REC	96		NGCMS_1120
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

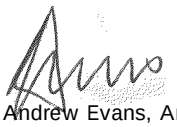
19-OCT-2012

Lab Reg No.		N12/027643		
Sample Reference	Units	BHA04 0.3-0.4		Method
Trace Elements				
Phosphorus	mg/kg	76		NT2_49
Total Solids	%	75.2		NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027643		
Sample Reference	Units	BHA04 0.3-0.4		Method
Miscellaneous				
Water Soluble Fluoride	mg/kg	< 1		NW_B3_B14
pH	pH units	7.3		NW_S11



Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

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This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN939002

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027644	BHA04 0.4-0.6	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027644		
Sample Reference	Units	BHA04 0.4-0.6		Method
Miscellaneous				
Organic Investigation		See comment		NGCMS_1130
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		

N12/027644
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027644		
Sample Reference	Units	BHA04 0.4-0.6		Method
Trace Elements				
Arsenic	mg/kg	7.9		NT2_49
Cadmium	mg/kg	< 0.5		NT2_49
Chromium	mg/kg	10		NT2_49
Copper	mg/kg	11		NT2_49
Lead	mg/kg	14		NT2_49
Mercury	mg/kg	< 0.2		NT2_49
Nickel	mg/kg	0.85		NT2_49
Zinc	mg/kg	2.4		NT2_49
Total Solids	%	78.8		NT2_49

REPORT OF ANALYSIS

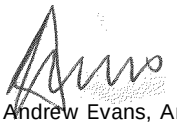
Report No. RN939002

Lab Reg No.		N12/027644		
Sample Reference	Units	BHA04 0.4-0.6		Method

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027644		
Sample Reference	Units	BHA04 0.4-0.6		Method
Miscellaneous				
Water Soluble Fluoride	mg/kg	< 1		NW_B3_B14
pH	pH units	6.1		NW_S11



Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

All results are expressed on a dry weight basis.

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Results relate only to the sample(s) tested.

This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN939003

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027645	BHA05 0.3-0.5	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027645		
Sample Reference	Units	BHA05 0.3-0.5		Method
Miscellaneous				
Organic Investigation		See comment		NGCMS_1130
Polycyclic Aromatic Hydrocarbons NMI 1122 Screen				
Acenaphthylene	mg/kg	< 1		NGCMS_1122
Naphthalene	mg/kg	< 1		NGCMS_1122
Acenaphthene	mg/kg	< 1		NGCMS_1122
Fluorene	mg/kg	< 1		NGCMS_1122
Phenanthrene	mg/kg	< 1		NGCMS_1122
Anthracene	mg/kg	< 1		NGCMS_1122
Fluoranthene	mg/kg	< 1		NGCMS_1122
Pyrene	mg/kg	< 1		NGCMS_1122
Benz(a)anthracene	mg/kg	< 1		NGCMS_1122
Chrysene	mg/kg	< 1		NGCMS_1122
Benzo(b,k)fluoranthene	mg/kg	< 2		NGCMS_1122
Benzo(a)pyrene	mg/kg	< 1		NGCMS_1122
Indeno(1,2,3-cd)pyrene	mg/kg	< 1		NGCMS_1122
Dibenz(a,h)anthracene	mg/kg	< 1		NGCMS_1122
Benzo(g,h,i)perylene	mg/kg	< 1		NGCMS_1122
Phenols NMI 1122 Screen				
Phenol	mg/kg	< 1		NGCMS_1122
2-Chlorophenol	mg/kg	< 1		NGCMS_1122
2-Methylphenol	mg/kg	< 1		NGCMS_1122
3&4-Methylphenol	mg/kg	< 2		NGCMS_1122
2-Nitrophenol	mg/kg	< 1		NGCMS_1122
2,4-Dimethylphenol	mg/kg	< 1		NGCMS_1122
2,4-Dichlorophenol	mg/kg	< 1		NGCMS_1122
2,6-Dichlorophenol	mg/kg	< 1		NGCMS_1122
4-Chloro-3-methylphenol	mg/kg	< 2		NGCMS_1122
2,4,5-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,4,6-Trichlorophenol	mg/kg	< 2		NGCMS_1122
2,3,4,6-Tetrachlorophenol	mg/kg	< 2		NGCMS_1122
Pentachlorophenol	mg/kg	< 2		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027645		
Sample Reference	Units	BHA05 0.3-0.5		Method
Phthalates NMI 1122 Screen				
Dimethyl phthalate	mg/kg	< 1		NGCMS_1122
Diethyl phthalate	mg/kg	< 1		NGCMS_1122
Di-n-butyl phthalate	mg/kg	< 1		NGCMS_1122
Butyl benzyl phthalate	mg/kg	< 1		NGCMS_1122
Bis(2-ethylhexyl) phthalate	mg/kg	< 2		NGCMS_1122
Di-n-octyl phthalate	mg/kg	< 1		NGCMS_1122
Chlorinated Hydrocarbons NMI 1122 Screen				
2-Chloronaphthalene	mg/kg	< 2		NGCMS_1122
1,4-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
1,2-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
1,3-Dichlorobenzene	mg/kg	< 2		NGCMS_1122
Hexachlorobenzene	mg/kg	< 2		NGCMS_1122
1,2,4-Trichlorobenzene	mg/kg	< 2		NGCMS_1122
Hexachloroethane	mg/kg	< 2		NGCMS_1122
Hexachlorocyclopentadiene	mg/kg	< 2		NGCMS_1122
Hexachloro-1,3-butadiene	mg/kg	< 2		NGCMS_1122
Ethers NMI 1122 Screen				
4-Bromophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
4-Chlorophenyl phenyl ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethyl)ether	mg/kg	< 2		NGCMS_1122
Bis(2-chloroethoxy)methane	mg/kg	< 2		NGCMS_1122
Bis(2-chloroisopropyl)ether	mg/kg	< 2		NGCMS_1122
Amines Nitroaromatics & Nitrosamines NMI 1122 Screen				
Azobenzene	mg/kg	< 2		NGCMS_1122
2,4-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
2,6-Dinitrotoluene	mg/kg	< 2		NGCMS_1122
Nitrobenzene	mg/kg	< 2		NGCMS_1122
N-Nitrosodimethylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodiphenylamine	mg/kg	< 2		NGCMS_1122
N-Nitrosodi-n-propylamine	mg/kg	< 2		NGCMS_1122
Aniline	mg/kg	< 2		NGCMS_1122
4-Chloroaniline	mg/kg	< 2		NGCMS_1122
2-Nitroaniline	mg/kg	< 2		NGCMS_1122
3-Nitroaniline	mg/kg	< 2		NGCMS_1122
4-Nitroaniline	mg/kg	< 2		NGCMS_1122
Organochlorine Pesticides NMI 1122 Screen				
Aldrin	mg/kg	< 2		NGCMS_1122
a-BHC	mg/kg	< 2		NGCMS_1122
b-BHC	mg/kg	< 2		NGCMS_1122
g-BHC (Lindane)	mg/kg	< 2		NGCMS_1122
d-BHC	mg/kg	< 2		NGCMS_1122
4,4 '-DDD	mg/kg	< 2		NGCMS_1122
4,4 '-DDE	mg/kg	< 2		NGCMS_1122

REPORT OF ANALYSIS

Lab Reg No.		N12/027645		
Sample Reference	Units	BHA05 0.3-0.5		Method
Organochlorine Pesticides NMI 1122 Screen				
4,4 '-DDT	mg/kg	< 2		NGCMS_1122
Dieldrin	mg/kg	< 2		NGCMS_1122
Endosulphan I	mg/kg	< 2		NGCMS_1122
Endosulphan II	mg/kg	< 2		NGCMS_1122
Endosulfan sulphate	mg/kg	< 2		NGCMS_1122
Endrin	mg/kg	< 2		NGCMS_1122
Endrin Aldehyde	mg/kg	< 2		NGCMS_1122
Heptachlor	mg/kg	< 2		NGCMS_1122
Heptachlorepoxide	mg/kg	< 2		NGCMS_1122
Organophosphate Pesticides NMI 1122 Screen				
Dimethoate	mg/kg	< 2		NGCMS_1122
Diazinon	mg/kg	< 2		NGCMS_1122
Fenitrothion	mg/kg	< 2		NGCMS_1122
Malathion	mg/kg	< 2		NGCMS_1122
Chlorpyrifos	mg/kg	< 2		NGCMS_1122
Ethion	mg/kg	< 2		NGCMS_1122
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		
Other Compounds NMI 1122 Screen				
Dichlorobenzidine	mg/kg	< 2		NGCMS_1122
2-Methylnaphthalene	mg/kg	< 1		NGCMS_1122
Isophorone	mg/kg	< 2		NGCMS_1122
Benzyl alcohol	mg/kg	< 2		NGCMS_1122
Carbazole	mg/kg	< 2		NGCMS_1122
Dibenzofuran	mg/kg	< 2		NGCMS_1122
Surrogate: PHENOL-D6	%REC	63		NGCMS_1122
Surrogate: 1,2-DCB-D4	%REC	79		NGCMS_1122
Surrogate: TER-D14	%REC	92		NGCMS_1122

N12/027645
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

Lab Reg No.		N12/027645		
Sample Reference	Units	BHA05 0.3-0.5		Method
Trace Elements				
Phosphorus	mg/kg	110		NT2_49
Total Solids	%	82.3		NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027645		
Sample Reference	Units	BHA05 0.3-0.5		Method
Miscellaneous				
Water Soluble Fluoride	mg/kg	< 1		NW_B3_B14
pH	pH units	6.3		NW_S11

Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

All results are expressed on a dry weight basis.

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Results relate only to the sample(s) tested.

This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027646	BHA05 0.8-1.0	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027646		
Sample Reference	Units	BHA05 0.8-1.0		Method
Phthalates				
Dimethyl phthalate	mg/kg	< 1		NGCMS_1111
Diethyl phthalate	mg/kg	< 1		NGCMS_1111
Di-n-butyl phthalate	mg/kg	< 1		NGCMS_1111
Benzyl butyl phthalate	mg/kg	< 1		NGCMS_1111
Bis(2-ethylhexyl)phthalate	mg/kg	< 2		NGCMS_1111
Di-n-octyl phthalate	mg/kg	< 1		NGCMS_1111
Miscellaneous				
Organic Investigation		See comment		NGCMS_1130
Monocyclic Aromatic Hydrocarbons NMI 1120 Screen				
Benzene	mg/kg	< 1		NGCMS_1120
Toluene	mg/kg	< 1		NGCMS_1120
Ethylbenzene	mg/kg	< 1		NGCMS_1120
m & p-Xylenes	mg/kg	< 2		NGCMS_1120
o-Xylene	mg/kg	< 1		NGCMS_1120
Styrene	mg/kg	< 1		NGCMS_1120
Isopropylbenzene	mg/kg	< 1		NGCMS_1120
n-Propylbenzene	mg/kg	< 1		NGCMS_1120
1,3,5-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
tert-Butylbenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
sec-Butylbenzene	mg/kg	< 1		NGCMS_1120
4-Isopropyltoluene	mg/kg	< 1		NGCMS_1120
n-Butylbenzene	mg/kg	< 1		NGCMS_1120
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
Chloromethane	mg/kg	< 1		NGCMS_1120
Vinyl chloride	mg/kg	< 1		NGCMS_1120
Bromomethane	mg/kg	< 1		NGCMS_1120
Chloroethane	mg/kg	< 1		NGCMS_1120
Trichlorofluoromethane	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethane	mg/kg	< 1		NGCMS_1120
Dichloromethane	mg/kg	< 1		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027646		
Sample Reference	Units	BHA05 0.8-1.0		Method
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
trans-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethene	mg/kg	< 1		NGCMS_1120
2,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
cis-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
Bromochloromethane	mg/kg	< 1		NGCMS_1120
1,1,1-Trichloroethane	mg/kg	< 1		NGCMS_1120
Carbon tetrachloride	mg/kg	< 1		NGCMS_1120
1,1-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,2-Dichloroethane	mg/kg	< 1		NGCMS_1120
Trichloroethene	mg/kg	< 1		NGCMS_1120
1,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
Dibromomethane	mg/kg	< 1		NGCMS_1120
cis-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
trans-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,1,2-Trichloroethane	mg/kg	< 1		NGCMS_1120
Tetrachloroethene	mg/kg	< 1		NGCMS_1120
1,3-Dichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromoethane	mg/kg	< 1		NGCMS_1120
1,1,1,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,1,2,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,2,3-Trichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromo-3-chloropropane	mg/kg	< 1		NGCMS_1120
Hexachlorobutadiene	mg/kg	< 1		NGCMS_1120
Halogenated Aromatic Hydrocarbons NMI 1120 Screen				
Chlorobenzene	mg/kg	< 1		NGCMS_1120
Bromobenzene	mg/kg	< 1		NGCMS_1120
2-Chlorotoluene	mg/kg	< 1		NGCMS_1120
4-Chlorotoluene	mg/kg	< 1		NGCMS_1120
1,3-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,4-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3,4-Tetrachlorobenzene	mg/kg	< 1		NGCMS_1120
Trihalomethanes NMI 1120 Screen				
Chloroform	mg/kg	< 1		NGCMS_1120
Bromodichloromethane	mg/kg	< 1		NGCMS_1120
Dibromochloromethane	mg/kg	< 1		NGCMS_1120
Bromoform	mg/kg	< 1		NGCMS_1120
Polycyclic Aromatic Hydrocarbons(volatile) NMI 1120 Screen				
Naphthalene	mg/kg	< 1		NGCMS_1120
Oxygenated Compounds NMI 1120 Screen				
Acetone	mg/kg	< 5		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027646		
Sample Reference	Units	BHA05 0.8-1.0		Method
Oxygenated Compounds NMI 1120 Screen				
2-Butanone (MEK)	mg/kg	< 5		NGCMS_1120
2-Hexanone (MBK)	mg/kg	< 5		NGCMS_1120
4-Methyl-2-pentanone (MIBK)	mg/kg	< 5		NGCMS_1120
Methyl tert-Butyl Ether (MTBE)	mg/kg	< 5		NGCMS_1120
Vinylacetate	mg/kg	< 5		NGCMS_1120
Other Compounds NMI 1120 Screen				
Carbon disulfide	mg/kg	< 5		NGCMS_1120
Surrogate: DBFM	%REC	106		NGCMS_1120
Surrogate: TOL-D8	%REC	92		NGCMS_1120
Surrogate: 4-BFB	%REC	94		NGCMS_1120
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		

N12/027646
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

Lab Reg No.		N12/027646		
Sample Reference	Units	BHA05 0.8-1.0		Method
Trace Elements				
Total Solids	%	87.2		NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

Lab Reg No.		N12/027646		
Sample Reference	Units	BHA05 0.8-1.0		Method
Miscellaneous				
pH	pH units	5.9		NW_S11

Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

All results are expressed on a dry weight basis.

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This Report supersedes reports: RN938809 RN938852 RN938938

REPORT OF ANALYSIS

Report No. RN939005

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027637	BHA02 0.2-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027637		
Sample Reference	Units	BHA02 0.2-0.4		Method
Phthalates				
Dimethyl phthalate	mg/kg	< 1		NGCMS_1111
Diethyl phthalate	mg/kg	< 1		NGCMS_1111
Di-n-butyl phthalate	mg/kg	< 1		NGCMS_1111
Benzyl butyl phthalate	mg/kg	< 1		NGCMS_1111
Bis(2-ethylhexyl)phthalate	mg/kg	< 2		NGCMS_1111
Di-n-octyl phthalate	mg/kg	< 1		NGCMS_1111
Miscellaneous				
Organic Investigation		See comment		NGCMS_1130
Monocyclic Aromatic Hydrocarbons NMI 1120 Screen				
Benzene	mg/kg	< 1		NGCMS_1120
Toluene	mg/kg	< 1		NGCMS_1120
Ethylbenzene	mg/kg	< 1		NGCMS_1120
m & p-Xylenes	mg/kg	< 2		NGCMS_1120
o-Xylene	mg/kg	< 1		NGCMS_1120
Styrene	mg/kg	< 1		NGCMS_1120
Isopropylbenzene	mg/kg	< 1		NGCMS_1120
n-Propylbenzene	mg/kg	< 1		NGCMS_1120
1,3,5-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
tert-Butylbenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trimethylbenzene	mg/kg	< 1		NGCMS_1120
sec-Butylbenzene	mg/kg	< 1		NGCMS_1120
4-Isopropyltoluene	mg/kg	< 1		NGCMS_1120
n-Butylbenzene	mg/kg	< 1		NGCMS_1120
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
Chloromethane	mg/kg	< 1		NGCMS_1120
Vinyl chloride	mg/kg	< 1		NGCMS_1120
Bromomethane	mg/kg	< 1		NGCMS_1120
Chloroethane	mg/kg	< 1		NGCMS_1120
Trichlorofluoromethane	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethane	mg/kg	< 1		NGCMS_1120
Dichloromethane	mg/kg	< 1		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027637		
Sample Reference	Units	BHA02 0.2-0.4		Method
Halogenated Aliphatic Hydrocarbons NMI 1120 Screen				
trans-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
1,1-Dichloroethene	mg/kg	< 1		NGCMS_1120
2,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
cis-1,2-Dichloroethene	mg/kg	< 1		NGCMS_1120
Bromochloromethane	mg/kg	< 1		NGCMS_1120
1,1,1-Trichloroethane	mg/kg	< 1		NGCMS_1120
Carbon tetrachloride	mg/kg	< 1		NGCMS_1120
1,1-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,2-Dichloroethane	mg/kg	< 1		NGCMS_1120
Trichloroethene	mg/kg	< 1		NGCMS_1120
1,2-Dichloropropane	mg/kg	< 1		NGCMS_1120
Dibromomethane	mg/kg	< 1		NGCMS_1120
cis-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
trans-1,3-Dichloropropene	mg/kg	< 1		NGCMS_1120
1,1,2-Trichloroethane	mg/kg	< 1		NGCMS_1120
Tetrachloroethene	mg/kg	< 1		NGCMS_1120
1,3-Dichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromoethane	mg/kg	< 1		NGCMS_1120
1,1,1,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,1,2,2-Tetrachloroethane	mg/kg	< 1		NGCMS_1120
1,2,3-Trichloropropane	mg/kg	< 1		NGCMS_1120
1,2-Dibromo-3-chloropropane	mg/kg	< 1		NGCMS_1120
Hexachlorobutadiene	mg/kg	< 1		NGCMS_1120
Halogenated Aromatic Hydrocarbons NMI 1120 Screen				
Chlorobenzene	mg/kg	< 1		NGCMS_1120
Bromobenzene	mg/kg	< 1		NGCMS_1120
2-Chlorotoluene	mg/kg	< 1		NGCMS_1120
4-Chlorotoluene	mg/kg	< 1		NGCMS_1120
1,3-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,4-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2-Dichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,4-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3-Trichlorobenzene	mg/kg	< 1		NGCMS_1120
1,2,3,4-Tetrachlorobenzene	mg/kg	< 1		NGCMS_1120
Trihalomethanes NMI 1120 Screen				
Chloroform	mg/kg	< 1		NGCMS_1120
Bromodichloromethane	mg/kg	< 1		NGCMS_1120
Dibromochloromethane	mg/kg	< 1		NGCMS_1120
Bromoform	mg/kg	< 1		NGCMS_1120
Polycyclic Aromatic Hydrocarbons(volatile) NMI 1120 Screen				
Naphthalene	mg/kg	< 1		NGCMS_1120
Oxygenated Compounds NMI 1120 Screen				
Acetone	mg/kg	< 5		NGCMS_1120

REPORT OF ANALYSIS

Lab Reg No.		N12/027637		
Sample Reference	Units	BHA02 0.2-0.4		Method
Oxygenated Compounds NMI 1120 Screen				
2-Butanone (MEK)	mg/kg	< 5		NGCMS_1120
2-Hexanone (MBK)	mg/kg	< 5		NGCMS_1120
4-Methyl-2-pentanone (MIBK)	mg/kg	< 5		NGCMS_1120
Methyl tert-Butyl Ether (MTBE)	mg/kg	< 5		NGCMS_1120
Vinylacetate	mg/kg	< 5		NGCMS_1120
Other Compounds NMI 1120 Screen				
Carbon disulfide	mg/kg	< 5		NGCMS_1120
Surrogate: DBFM	%REC	105		NGCMS_1120
Surrogate: TOL-D8	%REC	87		NGCMS_1120
Surrogate: 4-BFB	%REC	94		NGCMS_1120
Dates				
Date extracted		17-OCT-2012 00:00		
Date analysed		17-OCT-2012 00:00		

N12/027637
Isopropanol was not detected where the Limit of Reporting for this analysis is 10 mg/kg.

Luke Baker, Analyst
Organics - NSW
Accreditation No. 198

19-OCT-2012

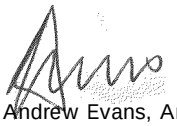
Lab Reg No.		N12/027637		
Sample Reference	Units	BHA02 0.2-0.4		Method
Trace Elements				
Phosphorus	mg/kg	1050		NT2_49
Total Solids	%	95.7		NT2_49

Nasir Shikdar, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

REPORT OF ANALYSIS

Lab Reg No.	Units	N12/027637		Method
Sample Reference		BHA02 0.2-0.4		
Miscellaneous				
Water Soluble Fluoride	mg/kg	< 1		NW_B3_B14
pH	pH units	9.7		NW_S11



Andrew Evans, Analyst
Inorganics - NSW
Accreditation No. 198

19-OCT-2012

All results are expressed on a dry weight basis.

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This Report supersedes reports: RN938809 RN938852 RN938938

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Client: SGA PROPERTY CONSULTANCY P/L

NMI QA Report No: SGAP01/121016 **Sample Matrix:** Solid

Analyte	Method	LOR	Blank	Sample Duplicates			Recoveries	
				Sample	Duplicate	RPD	LCS	Matrix Spike
		mg/kg	mg/kg	mg/kg	mg/kg	%	%	%
Organics Section								
Monocyclic Aromatic Hydrocarbons								
Benzene	NGCMS_1120	1	<1	NA	NA	NA	124	NA
Toluene	NGCMS_1120	1	<1	NA	NA	NA	128	NA
Ethylbenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
m,p-Xylene	NGCMS_1120	2	<2	NA	NA	NA	-	NA
o-Xylene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Styrene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Isopropylbenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
n-Propylbenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,3,5-Trimethylbenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
tert-Butylbenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,2,4-Trimethylbenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
sec-Butylbenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
4-Isopropyltoluene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
n-Butylbenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Halogenated Aliphatic Hydrocarbons								
Chloromethane	NGCMS_1120	2	<2	NA	NA	NA	-	NA
Vinyl chloride	NGCMS_1120	5	<5	NA	NA	NA	-	NA
Bromomethane	NGCMS_1120	5	<5	NA	NA	NA	-	NA
Chloroethane	NGCMS_1120	5	<5	NA	NA	NA	-	NA
Trichlorofluoromethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,1-Dichloroethene	NGCMS_1120	1	<1	NA	NA	NA	130	NA
Dichloromethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
trans-1,2-Dicloroethene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,1-Dichloroethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
2,2-Dichloropropane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
cis-1,2-Dichloroethene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Bromochloromethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,1,1-Trichloroethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Carbon tetrachloride	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,1-Dichloropropene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,2-Dichloroethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Trichloroethene	NGCMS_1120	1	<1	NA	NA	NA	128	NA
1,2-Dichloropropane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Dibromomethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
cis-1,3-Dichloropropene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
trans-1,3-Dichloropropene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,1,2-Trichloroethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Tetrachloroethene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,3-Dichloropropane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,2-Dibromoethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,1,1,2-Tetrachloroethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,1,2,2-Tetrachloroethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,2,3-Trichloropropane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,2-Dibromo-3-chloropropane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Hexachlorobutadiene	NGCMS_1120	1	<1	NA	NA	NA	-	NA

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Analyte	Method	LOR	Blank	Sample Duplicates			Recoveries	
				Sample	Duplicate	RPD	LCS	Matrix Spike
		mg/kg	mg/kg	mg/kg	mg/kg	%	%	%
Organics Section								
Halogenated Aromatic Hydrocarbons								
Chlorobenzene	NGCMS_1120	1	<1	NA	NA	NA	130	NA
Bromobenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
2-Chlorotoluene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
4-Chlorotoluene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,3-Dichlorobenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,4-Dichlorobenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,2-Dichlorobenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,2,4-Trichlorobenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
1,2,3-Trichlorobenzene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Trihalomethanes								
Chloroform	NGCMS_1120	1	<1	NA	NA	NA	126	NA
Bromodichloromethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Dibromochloromethane	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Bromoform	NGCMS_1120	1	<1	NA	NA	NA	-	NA
PAH (volatile)								
Naphthalene	NGCMS_1120	1	<1	NA	NA	NA	-	NA
Oxygenated Compounds								
Acetone	NGCMS_1120	5	<5	NA	NA	NA	-	NA
Vinylacetate	NGCMS_1120	5	<5	NA	NA	NA	-	NA
2-Butanone (MEK)	NGCMS_1120	5	<5	NA	NA	NA	-	NA
4-Methyl-2-pentanone (MIBK)	NGCMS_1120	5	<5	NA	NA	NA	-	NA
2-Hexanone (MBK	NGCMS_1120	5	<5	NA	NA	NA	-	NA
Methyl tert-Butyl Ether (MTBE)	NGCMS_1120	5	<5	NA	NA	NA	-	NA
Sulfonated Compounds								
Carbon disulfide	NGCMS_1120	5	<5	NA	NA	NA	-	NA
Surrogate: DBFM	NGCMS_1120	-	-	NA	NA	NA	99	NA
Surrogate: TOL-D8	NGCMS_1120	-	-	NA	NA	NA	102	NA
Surrogate: 4-BFB	NGCMS_1120	-	-	NA	NA	NA	105	NA

Results expressed in percentage (%) or mg/kg wherever appropriate.
Acceptable Spike recovery is 70-130%
Maximum acceptable RPDs on spikes and duplicates is 40%.
'NA ' = Not Applicable.
RPD= Relative Percentage Difference.

Signed:

Danny Slee
Organics Manager, NMI-North Ryde

Date: **19/10/2012**

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Client: SGA PROPERTY CONSULTANCY P/L

NMI QA Report No: SGAP01/121016 **Sample Matrix:** Solid

Analyte	Method	LOR	Blank	Sample Duplicates			Recoveries	
				Sample	Duplicate	RPD	LCS	Matrix Spike
		mg/kg	mg/kg	mg/kg	mg/kg	%	%	%
PAHs				**N12/027648**				**N12/027648**
Naphthalene	NGCMS_1122	1	<1	<1	<1	-	87	74
Acenaphthylene	NGCMS_1122	1	<1	<1	<1	-	-	-
Acenaphthene	NGCMS_1122	1	<1	<1	<1	-	-	-
Fluorene	NGCMS_1122	1	<1	<1	<1	-	88	85
Phenanthrene	NGCMS_1122	1	<1	<1	<1	-	86	93
Anthracene	NGCMS_1122	1	<1	<1	<1	-	-	-
Fluoranthene	NGCMS_1122	1	<1	<1	<1	-	-	-
Pyrene	NGCMS_1122	1	<1	<1	<1	-	-	-
Benz[a]anthracene	NGCMS_1122	1	<1	<1	<1	-	-	-
Chrysene	NGCMS_1122	1	<1	<1	<1	-	84	84
Benzo[b,k]fluoranthene	NGCMS_1122	2	<2	<2	<2	-	-	-
Benzo[a]pyrene	NGCMS_1122	1	<1	<1	<1	-	87	83
Indeno[1,2,3-cd]pyrene	NGCMS_1122	1	<1	<1	<1	-	-	-
Dibenz[a,h]anthracene	NGCMS_1122	1	<1	<1	<1	-	84	84
Benzo[g,h,i]perylene	NGCMS_1122	1	<1	<1	<1	-	-	-
Phenols								
Phenol	NGCMS_1122	1	<1	<1	<1	-	87	74
2-Chlorophenol	NGCMS_1122	1	<1	<1	<1	-	-	-
2-Methyl phenol	NGCMS_1122	1	<1	<1	<1	-	-	-
3 & 4-methyl phenol	NGCMS_1122	2	<2	<2	<2	-	86	73
2-Nitrophenol	NGCMS_1122	1	<1	<1	<1	-	-	-
2,4-Dimethyl phenol	NGCMS_1122	1	<1	<1	<1	-	-	-
2,4-Dichlorophenol	NGCMS_1122	1	<1	<1	<1	-	-	-
2,6-Dichlororphenol	NGCMS_1122	1	<1	<1	<1	-	84	67
4-Chloro-3-methyl phenol	NGCMS_1122	2	<2	<2	<2	-	-	-
2,4,5-Trichlorophenol	NGCMS_1122	2	<2	<2	<2	-	-	-
2,4,6-Trichlorophenol	NGCMS_1122	2	<2	<2	<2	-	-	-
2,3,4,6-Tetrachlorophenol	NGCMS_1122	2	<2	<2	<2	-	-	-
Pentachlorophenol	NGCMS_1122	2	<2	<2	<2	-	75	41
Phthalates								
Dimethylphthalate	NGCMS_1122	1	<1	<1	<1	-	-	-
Diethylphthalate	NGCMS_1122	1	<1	<1	<1	-	-	-
Di-n-butylphthalate	NGCMS_1122	1	<1	<1	<1	-	-	-
Butyl benzyl phthalate	NGCMS_1122	1	<1	<1	<1	-	-	-
Bis(2-ethylhexyl)phthalate	NGCMS_1122	2	<2	<2	<2	-	-	-
Di-n-octyl phthalate	NGCMS_1122	1	<1	<1	<1	-	-	-
Chlorinated Hydrocarbons								
2-Chloronaphthalene	NGCMS_1122	2	<2	<2	<2	-	-	-
1,4-Dichlorobenzene	NGCMS_1122	2	<2	<2	<2	-	-	-
1,2-Dichlorobenzene	NGCMS_1122	2	<2	<2	<2	-	-	-
1,3-Dichlorobenzene	NGCMS_1122	2	<2	<2	<2	-	-	-
Hexachlorobenzene	NGCMS_1122	2	<2	<2	<2	-	-	-
1,2,4-Trichlorobenzene	NGCMS_1122	2	<2	<2	<2	-	-	-
Hexachloroethane	NGCMS_1122	2	<2	<2	<2	-	-	-
Hexachlorocyclopentadiene	NGCMS_1122	2	<2	<2	<2	-	-	-
Hexachloro-1,3-butadiene	NGCMS_1122	2	<2	<2	<2	-	-	-
Ethers								
4-Bromophenyl phenyl ether	NGCMS_1122	2	<2	<2	<2	-	-	-
4-Chlorophenyl phenyl ether	NGCMS_1122	2	<2	<2	<2	-	-	-
Bis(2-chloroethyl) ether	NGCMS_1122	2	<2	<2	<2	-	-	-
Bis(2-chloroethoxy)methane	NGCMS_1122	2	<2	<2	<2	-	-	-
Bis(2-chloroisopropyl)ether	NGCMS_1122	2	<2	<2	<2	-	-	-

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Analyte	Method	LOR	Blank	Sample Duplicates			Recoveries	
				Sample	Duplicate	RPD	LCS	Matrix Spike
		mg/kg	mg/kg	mg/kg	mg/kg	%	%	%
Amines, Nitroaromatics & Nitrosamines				**N12/027648**				**N12/027648**
Azobenzene	NGCMS_1122	2	<2	<2	<2	-	-	-
2,4-Dinitrotoluene	NGCMS_1122	2	<2	<2	<2	-	-	-
2,6-Dinitrotoluene	NGCMS_1122	2	<2	<2	<2	-	-	-
Nitrobenzene	NGCMS_1122	2	<2	<2	<2	-	-	-
N-Nitrosodimethylamine	NGCMS_1122	2	<2	<2	<2	-	-	-
N-Nitrosodiphenylamine	NGCMS_1122	2	<2	<2	<2	-	-	-
N-Nitrosodi-n-propylamine	NGCMS_1122	2	<2	<2	<2	-	-	-
Aniline	NGCMS_1122	2	<2	<2	<2	-	-	-
4-Chloroaniline	NGCMS_1122	2	<2	<2	<2	-	-	-
2-Nitroaniline	NGCMS_1122	2	<2	<2	<2	-	-	-
3-Nitroaniline	NGCMS_1122	2	<2	<2	<2	-	-	-
4-Nitroaniline	NGCMS_1122	2	<2	<2	<2	-	-	-
OC Pesticides								
Aldrin	NGCMS_1122	2	<2	<2	<2	-	-	-
alpha-BHC	NGCMS_1122	2	<2	<2	<2	-	-	-
beta-BHC	NGCMS_1122	2	<2	<2	<2	-	-	-
gamma-BHC	NGCMS_1122	2	<2	<2	<2	-	-	-
delta-BHC	NGCMS_1122	2	<2	<2	<2	-	-	-
4,4'-DDD	NGCMS_1122	2	<2	<2	<2	-	-	-
4,4'-DDE	NGCMS_1122	2	<2	<2	<2	-	-	-
4,4'-DDT	NGCMS_1122	2	<2	<2	<2	-	-	-
Dieldrin	NGCMS_1122	2	<2	<2	<2	-	-	-
a-Endosulphan	NGCMS_1122	2	<2	<2	<2	-	-	-
b-Endosulphan	NGCMS_1122	2	<2	<2	<2	-	-	-
Endosulphan sulphate	NGCMS_1122	2	<2	<2	<2	-	-	-
Endrin	NGCMS_1122	2	<2	<2	<2	-	-	-
Endrin aldehyde	NGCMS_1122	2	<2	<2	<2	-	-	-
Heptachlor	NGCMS_1122	2	<2	<2	<2	-	-	-
Heptachlorepoxide	NGCMS_1122	2	<2	<2	<2	-	-	-
OP Pesticides								
Dimethoate	NGCMS_1122	2	<2	<2	<2	-	-	-
Diazinon	NGCMS_1122	2	<2	<2	<2	-	-	-
Fenitrothion	NGCMS_1122	2	<2	<2	<2	-	-	-
Malathion	NGCMS_1122	2	<2	<2	<2	-	-	-
Chlorpyrifos	NGCMS_1122	2	<2	<2	<2	-	-	-
Ethion	NGCMS_1122	2	<2	<2	<2	-	-	-
Others								
Dichlorobenzidine	NGCMS_1122	2	<2	<2	<2	-	-	-
2-Methylnaphthalene	NGCMS_1122	1	<1	<1	<1	-	-	-
Isophorone	NGCMS_1122	2	<2	<2	<2	-	-	-
Benzyl alcohol	NGCMS_1122	2	<2	<2	<2	-	-	-
Carbazole	NGCMS_1122	2	<2	<2	<2	-	-	-
Dibenzofuran	NGCMS_1122	2	<2	<2	<2	-	-	-
Surrogate PHENOL-D6	NGCMS_1122	-	-	71	60	17	104	73
Surrogate 1,2-DCB-D4	NGCMS_1122	-	-	90	77	16	99	79
Surrogate TER-D14	NGCMS_1122	-	-	102	83	21	103	99

Results expressed in percentage (%) or mg/kg wherever appropriate.
Acceptable Spike recovery is 40-150%
Maximum acceptable RPDs on spikes and duplicates is 40%.
'NA ' = Not Applicable.
RPD= Relative Percentage Difference.

Signed:

Danny Slee
Organics Manager, NMI-North Ryde

Date: **19/10/2012**

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Client: SGA Property Consultancy P/L

NMI QA Report No: SGAP01/121016 **Sample Matrix:** Soil

Analyte	Method	LOR	Blank	Duplicates			Recoveries	
				Sample	Duplicate	RPD	LCS	Matrix Spike
		mg/kg	mg/kg	mg/kg	mg/kg	%	%	%
Inorganics Section				**N12/027635**				**N12/027635**
Arsenic	NT2.49	0.5	<0.5	0.64	0.55	15	99	99
Cadmium	NT2.49	0.5	<0.5	<0.5	<0.5	ND	102	100
Chromium	NT2.49	0.5	<0.5	16	15	6	99	100
Copper	NT2.49	0.5	<0.5	88	85	3	103	97
Lead	NT2.49	0.5	<0.5	2.1	2	5	100	92
Mercury	NT2.49	0.2	<0.2	<0.2	<0.2	ND	97	93
Nickel	NT2.49	0.5	<0.5	130	140	7	102	#
Phosphorus	NT2.49	0.5	<0.5	1240	1220	2	98	94
Zinc	NT2.49	0.5	<0.5	87	85	2	101	100

Filename = K:\Inorganics\Quality System\QA Reports\TE\QAR2012\Soil\

Legend:
Acceptable recovery is 75-120%.
Acceptable RPDs on duplicates is 44% at concentrations >5 times LOR. Greater RPD may be expected at <5 times LOR.
LOR = Limit Of Reporting ND = Not Determined
RPD = Relative Percent Difference NA = Not Applicable
LCS = Laboratory Control Sample.
#: Spike level is less than 50% of the sample's concentration, hence the recovery data is not reliable.
**: reference value not available
* sample was not spiked for this element
Comments:
Results greater than ten times LOR have been rounded to two significant figures.

Signed:

Dr Michael Wu
Inorganics Section, NMI-Pymble
Date: **19/10/2012**

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Client: SGA PROPERTY CONSULTANCY P/L

NMI QA Report No: SGAP01/121016 QA **Sample Matrix:** Solid

Analyte	Method	LOR	Blank	Duplicates			Recoveries	
				Sample	Duplicate	RPD	Matrix spk	LCS
		mg/kg	mg/kg	mg/kg	mg/kg	%	%	%
Inorganics Section				N12/027656			N12/027656	
Water Soluble Fluoride	NW_B3_B14	1	<1	<1	<1	NA	80	95
pH (pH units)	NW_S11	NA	NA	9.9	ND	NA	NA	NA

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Legend
Acceptable recovery is 80 -120 %.
Acceptable RPDs on duplicates is 40% at > 5 times LOR. Greater RPD may be expected at < 5 LOR.
LOR = Limit Of Reporting
RPD = Relative Percent Difference
LCS = Laboratory Control Sample
ND = Not Determined
NA = Not Applicable

Comments
This report shall not be reproduced except in full.
Results greater than ten times LOR have been rounded to two significant figures.

Signed:

Dr Michael Wu
Inorganics Manager, NMI-Pymble
Date: **19/10/2012**

REPORT OF ANALYSIS

Report No. RN939126

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027637/S	BHA02 0.2-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027638/S	BHA02 0.5-0.6	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027642/S	BHA04 0.2-0.3	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027643/S	BHA04 0.3-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027637/S	N12/027638/S	N12/027642/S	N12/027643/S	
Sample Reference	Units	BHA02 0.2-0.	BHA02 0.5-0.	BHA04 0.2-0.	BHA04 0.3-0.	Method
Subcontracted						
ASBESTOS		See comment	See comment	See comment	See comment	

N12/027637/S
& N12/27638/S, N12/26742/S, N12/26743/S, N12/26745/S, N12/27654/S.
Samples were sent to and a report was received from
Envirolab Services, Chatswood NSW 2067.

Envirolab Services report number 80404 is attached to this cover report.

Susanne Neuman
Laboratory Services Unit - NSW

22-OCT-2012

REPORT OF ANALYSIS

Report No. RN939126

Client	: SGA PROPERTY CONSULTANCY P/L		Job No.	:	SGAP01/121016
	SUITE 8		Quote No.	:	QT-01493
	599 PACIFIC HIGHWAY		Order No.	:	93090.01
	ST LEONARDS NSW 2065		Date Sampled	:	
			Date Received	:	16-OCT-2012
Attention	: DAVID GOUGE		Sampled By	:	CLIENT
Project Name	:				
Your Client Services Manager	: Brian Woodward		Phone	:	(02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027645/S	BHA05 0.3-0.5	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027654/S	BHA08 0.3-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027645/S	N12/027654/S			
Sample Reference	Units	BHA05 0.3-0.	BHA08 0.3-0.			Method
Subcontracted						
ASBESTOS		See comment	See comment			

Susanne Neuman
Laboratory Services Unit - NSW

22-OCT-2012

Results relate only to the sample(s) tested.
This Report shall not be reproduced except in full.

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

CERTIFICATE OF ANALYSIS 80404

Client:

National Measurement Institute
105 Delhi Rd
North Ryde
NSW 2113

Attention: Geoff Thurtell

Sample log in details:

Your Reference:	**N12/027637/S - N12/027654/S**		
No. of samples:	6 Soils		
Date samples received / completed instructions received	18/10/12	/	18/10/12

Analysis Details:

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

Report Details:

Date results requested by: / Issue Date:	22/10/12	/	19/10/12
Date of Preliminary Report:	Not Issued		

NATA accreditation number 2901. This document shall not be reproduced except in full.
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:

Lulu Guo
Approved Signatory

Asbestos ID - soils						
Our Reference:	UNITS	80404-1	80404-2	80404-3	80404-4	80404-5
Your Reference	----------	N12/027637/S	N12/027638/S	N12/027642/S	N12/027643/S	N12/027645/S
Type of sample	----------	Soil	Soil	Soil	Soil	Soil
Date analysed	-	19/10/2012	19/10/2012	19/10/2012	19/10/2012	19/10/2012
Sample mass tested	g	Approx 40g	Approx 40g	Approx 40g	Approx 40g	Approx 40g
Sample Description	-	Dark brown coarse-grained soil & rocks	Dark brown coarse-grained soil & rocks	Dark brown coarse-grained soil & rocks	Dark brown coarse-grained soil & rocks	Dark brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected

Asbestos ID - soils		
Our Reference:	UNITS	80404-6
Your Reference	----------	N12/027654/S
Type of sample	----------	Soil
Date analysed	-	19/10/2012
Sample mass tested	g	Approx 40g
Sample Description	-	Dark brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.

Report Comments:

Asbestos ID was analysed by Approved Identifier: Alex Tam
Asbestos ID was authorised by Approved Signatory: Lulu Guo

INS: Insufficient sample for this test
NA: Test not required
<: Less than

PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: Greater than

NT: Not tested
NA: Test not required
LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

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

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

SYDNEY
ANALYTICAL
LABORATORIES

Office:
PO BOX 48
ERMINGTON NSW 2115

Laboratory:
1/4 ABBOTT ROAD
SEVEN HILLS NSW 2147
Telephone: (02) 9838 8903
Fax: (02) 9838 8919
A.C.N. 003 614 695
A.B.N. 81 829 182 852
NATA No: 1884

ANALYTICAL REPORT for:

SGA PROPERTY CONSULTANCY PTY LTD

LEVEL 2/120 CLARENCE ST
SYDNEY 2000

ATTN: DAVID GOUGE

JOB NO:	SAL24382
CLIENT ORDER:	93090.01
DATE RECEIVED:	10/10/12
DATE COMPLETED:	23/10/12
TYPE OF SAMPLES:	SOILS
NO OF SAMPLES:	16

.....
Issued on 23/10/12
Lance Smith
(Chief Chemist)

SYDNEY ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB NO: SAL24382
CLIENT ORDER: 93090.01

	SAMPLES	Cu mg/kg	Pb mg/kg	Zn mg/kg	Cd mg/kg	Cr mg/kg
1	BH03/0.4-0.5	21	22	14	<0.5	14
2	BH03/0.6-0.7	14	16	10	<0.5	10
3	BH05/0.5-0.6	17	23	18	<0.5	13
4	BH06/0.4-0.5	15	21	11	<0.5	15
5	BH07/0.3-0.4	20	13	14	<0.5	10
6	BH08/0.3-0.4	39	15	32	<0.5	12
7	BH08/0.4-0.45	48	12	38	<0.5	10
8	BH09/0.45-0.55	20	14	14	<0.5	7.5
9	BH11/0.4-0.45	53	13	60	<0.5	10
10	BH12/0.4-0.5	10	15	5.5	<0.5	8.0
11	BH14/0.3-0.4	22	17	19	<0.5	6.0
12	BH19/0.4-0.5	15	23	8.0	<0.5	16
13	BH21/1.2-1.3	11	22	6.5	<0.5	13
14	BH22/0.4-0.55	13	18	11	<0.5	12
15	BH23/0.25-0.35	16	21	14	<0.5	14
16	BH24/0.3-0.4	17	19	13	<0.5	14
	BLANK	<0.5	<0.5	<0.5	<0.5	<0.5
DUPLICATES:						
10	BH12/0.4-0.5	11	17	7.0	<0.5	9.5
	AGAL-10	23	40	60	8.5	74
MDL		0.5	0.5	0.5	0.5	0.5
Method Code		M1	M1	M1	M1	M1
Preparation		P3	P3	P3	P3	P3

SYDNEY ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB NO: SAL24382
CLIENT ORDER: 93090.01

	SAMPLES	Ni mg/kg	As mg/kg	Hg mg/kg
1	BH03/0.4-0.5	19	3.5	0.015
2	BH03/0.6-0.7	10	3.0	0.010
3	BH05/0.5-0.6	10	4.0	0.020
4	BH06/0.4-0.5	8.0	3.0	0.010
5	BH07/0.3-0.4	20	3.0	<0.005
6	BH08/0.3-0.4	84	4.0	<0.005
7	BH08/0.4-0.45	110	4.0	<0.005
8	BH09/0.45-0.55	23	3.5	<0.005
9	BH11/0.4-0.45	135	4.5	<0.005
10	BH12/0.4-0.5	6.0	2.5	0.005
11	BH14/0.3-0.4	10	3.0	<0.005
12	BH19/0.4-0.5	7.5	2.5	0.025
13	BH21/1.2-1.3	5.5	2.5	<0.005
14	BH22/0.4-0.55	8.0	3.0	0.015
15	BH23/0.25-0.35	10	3.0	0.020
16	BH24/0.3-0.4	7.0	3.0	0.010
	BLANK	<0.5	<0.5	<0.005
DUPLICATES:				
10	BH12/0.4-0.5	6.5	3.0	<0.005
	AGAL-10	17	20	10.3
MDL		0.5	0.5	0.005
Method Code		M1	M7	M3
Preparation		P3	P3	P1

RESULTS ON DRY BASIS

LABORATORY DUPLICATE REPORT

JOB NO: SAL24382
CLIENT ORDER: 93090.01

Sample Number	Analyte	Units	MDL	Sample Result	Duplicate Result	%RPD
BH12/0.4-0.5	Copper	mg/kg	0.5	10	11	9
BH12/0.4-0.5	Lead	mg/kg	0.5	15	17	13
BH12/0.4-0.5	Zinc	mg/kg	0.5	5.5	7.0	24
BH12/0.4-0.5	Cadmium	mg/kg	0.5	<0.5	<0.5	0
BH12/0.4-0.5	Chromium	mg/kg	0.5	8.0	9.5	17
BH12/0.4-0.5	Nickel	mg/kg	0.5	6.0	6.5	8
BH12/0.4-0.5	Arsenic	mg/kg	0.5	2.5	3.0	18
BH12/0.4-0.5	Mercury	mg/kg	0.005	0.005	<0.005	167

Acceptance criteria:

RPD <50% for low level (<20xMDL)
RPD <30% for medium level (20-100xMDL)
RPD <15% for high level (>100xMDL)
No limit applies at <2xMDL

MDL = Method Detection Limit

All results are within the acceptance criteria

CERTIFIED REFERENCE MATERIAL

JOB NO: SAL24382
CLIENT ORDER: 93090.01

CRM Number	Analyte	Units	CRM Result	Certified Value	%Recovery	Acceptance Criteria %
AGAL-10	Copper	mg/kg	23	23.2	99	85-115
AGAL-10	Lead	mg/kg	40	40.4	99	85-115
AGAL-10	Zinc	mg/kg	60	57.0	105	85-115
AGAL-10	Cadmium	mg/kg	8.5	9.3	91	80-120
AGAL-10	Chromium	mg/kg	74	82.0	90	80-120
AGAL-10	Nickel	mg/kg	17	17.8	96	80-125
AGAL-10	Arsenic	mg/kg	20	17.2	116	80-125
AGAL-10	Mercury	mg/kg	10.3	11.6	89	80-120

All results are within the acceptance criteria

Note: The hot acid digest does not always determine 'total' metals. Refractory elements such as Iron and Aluminium and some base metals (particularly Chromium) show lower recoveries depending on their form within the sample matrix. Silicates and oxides are normally less soluble than elements in metallic or salt forms. The acceptance criteria for this reference material is based on histories of analyte recoveries using the nitric acid based digestion procedures.

ANALYTICAL REPORT

JOB NO: SAL24382
CLIENT ORDER: 93090.01

METHODS OF PREPARATION AND ANALYSIS

The tests contained in this report have been carried out on the samples as received by the laboratory.

P3	Sample dried, jaw crushed and sieved at 1mm
P1	Analysis performed on sample as received
M1	Base Metal - Digestion Method 3050 (HNO_3/H_2O_2) Element determined by APHA 3111B (Flame AAS)
M7	Hydride Element - Digestion Method 7061 (HNO_3/H_2SO_4) Element determined by APHA 3114B (Hydride Generation AAS)
M3	Mercury - Digestion Method 7471 (HNO_3/HCl) Determined by APHA 3112B (Cold Vapour AAS)

REPORT OF ANALYSIS

Report No. RN939126

Client	: SGA PROPERTY CONSULTANCY P/L	Job No.	: SGAP01/121016
	SUITE 8	Quote No.	: QT-01493
	599 PACIFIC HIGHWAY	Order No.	: 93090.01
	ST LEONARDS NSW 2065	Date Sampled	:
		Date Received	: 16-OCT-2012
Attention	: DAVID GOUGE	Sampled By	: CLIENT
Project Name	:		
Your Client Services Manager	: Brian Woodward	Phone	: (02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027637/S	BHA02 0.2-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027638/S	BHA02 0.5-0.6	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027642/S	BHA04 0.2-0.3	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027643/S	BHA04 0.3-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027637/S	N12/027638/S	N12/027642/S	N12/027643/S	
Sample Reference	Units	BHA02 0.2-0.	BHA02 0.5-0.	BHA04 0.2-0.	BHA04 0.3-0.	Method
Subcontracted						
ASBESTOS		See comment	See comment	See comment	See comment	

N12/027637/S
& N12/27638/S, N12/26742/S, N12/26743/S, N12/26745/S, N12/27654/S.
Samples were sent to and a report was received from
Envirolab Services, Chatswood NSW 2067.

Envirolab Services report number 80404 is attached to this cover report.

Susanne Neuman
Laboratory Services Unit - NSW

22-OCT-2012

REPORT OF ANALYSIS

Report No. RN939126

Client	: SGA PROPERTY CONSULTANCY P/L		Job No.	:	SGAP01/121016
	SUITE 8		Quote No.	:	QT-01493
	599 PACIFIC HIGHWAY		Order No.	:	93090.01
	ST LEONARDS NSW 2065		Date Sampled	:	
			Date Received	:	16-OCT-2012
Attention	: DAVID GOUGE		Sampled By	:	CLIENT
Project Name	:				
Your Client Services Manager	: Brian Woodward		Phone	:	(02) 9449 0151

Lab Reg No.	Sample Ref	Sample Description
N12/027645/S	BHA05 0.3-0.5	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01
N12/027654/S	BHA08 0.3-0.4	SOIL 16/10/12 SYDNEY OLYMPIC PARK 93090.01

Lab Reg No.		N12/027645/S	N12/027654/S			
Sample Reference	Units	BHA05 0.3-0.	BHA08 0.3-0.			Method
Subcontracted						
ASBESTOS		See comment	See comment			

Susanne Neuman
Laboratory Services Unit - NSW

22-OCT-2012

Results relate only to the sample(s) tested.
This Report shall not be reproduced except in full.

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

CERTIFICATE OF ANALYSIS 80404

Client:

National Measurement Institute
105 Delhi Rd
North Ryde
NSW 2113

Attention: Geoff Thurtell

Sample log in details:

Your Reference:	**N12/027637/S - N12/027654/S**		
No. of samples:	6 Soils		
Date samples received / completed instructions received	18/10/12	/	18/10/12

Analysis Details:

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

Report Details:

Date results requested by: / Issue Date:	22/10/12	/	19/10/12
Date of Preliminary Report:	Not Issued		

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:

Lulu Guo
Approved Signatory

Asbestos ID - soils						
Our Reference:	UNITS	80404-1	80404-2	80404-3	80404-4	80404-5
Your Reference	----------	N12/027637/S	N12/027638/S	N12/027642/S	N12/027643/S	N12/027645/S
Type of sample	----------	Soil	Soil	Soil	Soil	Soil
Date analysed	-	19/10/2012	19/10/2012	19/10/2012	19/10/2012	19/10/2012
Sample mass tested	g	Approx 40g	Approx 40g	Approx 40g	Approx 40g	Approx 40g
Sample Description	-	Dark brown coarse-grained soil & rocks	Dark brown coarse-grained soil & rocks	Dark brown coarse-grained soil & rocks	Dark brown coarse-grained soil & rocks	Dark brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected

Asbestos ID - soils		
Our Reference:	UNITS	80404-6
Your Reference	----------	N12/027654/S
Type of sample	----------	Soil
Date analysed	-	19/10/2012
Sample mass tested	g	Approx 40g
Sample Description	-	Dark brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.

Report Comments:

Asbestos ID was analysed by Approved Identifier: Alex Tam
Asbestos ID was authorised by Approved Signatory: Lulu Guo

INS: Insufficient sample for this test
NA: Test not required
<: Less than

PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: Greater than

NT: Not tested
NA: Test not required
LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

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

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

APPENDIX E
QUALITY CONTROL AND ASSURANCE

Environmental

Table of Contents

page

1.0 INTRODUCTION

1.1 Introduction

The quality assurance and quality control (QA/QC) program is undertaken to ensure the data delivered is precise, accurate, reproducible and representative of what is sampled.

QA/QC should be considered both in the field and within the laboratory. The objective is to enable evaluation and identification of the data quality objectives (DQOs), the method data quality objectives (MDQOs) and the data quality indicators (DQIs) which we use to assess whether the DQOs have been met.

Development of data quality objectives (DQOs) for each project is a requirement of National Environment Protection Council (NEPC) (1999) *National Environment Protection (Assessment of Site Contamination) Measure*. This is based on a DQO process formulated by the USEPA for contaminated land assessment and remediation. DQOs have been developed in Section 5.0 of the report.

Data quality is typically discussed in terms of precision, accuracy, representativeness, comparability and completeness. These are referred to as the PARCC parameters. The PARCC (and additional QA) parameters are discussed within this report.

2.0 SAMPLING AND ANALYSIS PLAN

2.1 Rationale for sampling pattern selection and density

A sampling and analysis plan was developed based on the site history, accessible areas of the site, Chemicals of Concern potentially present and iterations throughout the DQO process. The positions of the sampling locations are shown on Figures 2 and 3. The sampling program comprised of investigating 24 borehole locations in targeted areas based on site history, site observations and previous investigation findings.

The use of judgmental sampling is justified as the locations of possible contaminating activities and migration pathways were the areas of concern. This methodology is in line with guidance provided by the NSW EPA.

2.2 Sampling methods

Soil samples were collected in laboratory supplied 100mL glass jars with Teflon seals. Soil samples were collected directly from the push tube core using a clean stainless steel spatula, with the consultant handling the samples wearing a fresh pair of nitrile disposable gloves for every sample collected.

2.3 Rationale for laboratory analysis schedule

Table E1 identifies the laboratory analysis schedule for soil samples collected during this project.

The analytes selected are based on determination of the chemicals of concern for the site and the sample area, and their potential derivatives. The analytical methods selected are based on those recommended by the laboratories and publications such as APHA (1995) *Standard methods for the examination of water and waste-water* (19th edition), Rayment & Higginson (1992) *Australian laboratory handbook of soil and water chemical methods*.

Table E1 Analytical schedule

Analytes	Soil samples	Number of blind duplicates
pH	51	4
Phosphorus	11	1
Soluble Fluoride	16	2
Isopropanol	13	3
Heavy Metals	26	2
Phthalates	5	1
Volatile Organic Compounds (VOC) (US EPA 8260 method)	6	-
Semi-volatile Organic Compounds (VOC) (US EPA 8270 method)	6	-
Total Petroleum Hydrocarbons (TPH)	6	1
Benzene, Toluene, Ethylbenzene, Xylene	6	1
Asbestos	6	-

Note:
methods used are reported in the laboratory transcripts appended and are detailed in the APHA Standard methods for the examination of water and waste-water 19th or 20th Edition (for example) and/or Rayment & Higginson (1992) Australian laboratory handbook of soil and water chemical methods

3.0 QUALITY CONTROL AND QUALITY ASSURANCE

3.1 Measurement data quality objectives

Step 6 of the DQO process (Section 5.0 of the report) is a focus on the quality of the information by measurement, that is, measurement data quality objectives (MDQOs). The MDQOs are described in that section.

All soil sampling procedures need to be undertaken according to a standard procedure, in particular those procedures set out in:

- Standards Australia AS 4482.1 (1997) *Guide to the sampling and investigation of potentially contaminated soil (Part 1: Non-volatile and semi-volatile compounds)*;
- Standards Australia AS 4482.1 (1999) *Guide to the sampling and investigation of potentially contaminated soil (Part 2: Volatile substances)*; and
- National Environment Protection Council (NEPC) (1999) *National Environment Protection (Assessment of Site Contamination) Measure*.

Measurement data quality is typically discussed in terms of *Measured Parameters* and *Assessed Parameters*. Methods of assessing measured parameters include duplicate samples for repeatability (comparability) and internal laboratory tests on accuracy and precision. Methods of analysing assessed parameters include sample documentation (completeness), representation of site conditions undertaken by development of a conceptual site model, and the comparison of results/investigation criteria to the sensitivity of analytical methods.

The laboratories used should be NATA accredited for the analytical methods preformed. Containers, sample preservation (if necessary) and holding times should be consistent with industry practices as set out in NEPM and as defined by ASTM.

3.1.1 Repeatability (Field collected intra-laboratory duplicates)

These samples provide a check on the analytical performance of the laboratory. It is recommended that at least 5 percent of soil samples (1 in 20) from a site should be collected in duplicate. For split samples, because of error associated with field splitting, a relative percentage difference (RPD) of between <30% and <150%

(depending on the substance) will be allowed as the MDQI. Soil heterogeneity due to the "nugget effect" could result in significantly greater difference, particularly for metals. Consequently, samples with the most observable field homogeneity are selected. Any value >50% RPD will be noted and discussed, as per Standards Australia requirements, with respect to its acceptability for inclusion in the data-set.

3.1.2 Precision

Precision is a measure of the reproducibility of results, and is assessed on the basis of agreement between a set of replicate results obtained from duplicate analyses. The precision of a duplicate determination can be measured as relative percentage difference (RPD), and is calculated from the following equation:

$$RPD = \left[\frac{X1 - X2}{\left(\frac{X1 + X2}{2} \right)} \right] \times 100$$

where: X1 is the first duplicate value

X2 is the second duplicate value

The field blind duplicate results and calculated RPDs are presented in Table E2. Table E2 includes heavy metal data only as all organic compound results were below the laboratory limits of detection and therefore RPD values are incalculable.

Much of the RPD between metal results is attributed to the inherent heterogeneity of soil also referred to as the "nugget effect" effecting laboratory subsamples. Also, the detected concentrations are approximately five times the method detection limit, making the RPD values liable to large differences.

Considering these factors, all RPD values are considered to be within the acceptable range.

Table E2 Soil field blind duplicate QC results

Analyte	MDL	BH21 0.3-0.4	FD1 (August 2012)	RPD	BH06 0.4-05	FD2 (August 2012)	RPD
pH	0.1						
Phosphorus	10						
Soluble Fluoride	1						
Isopropanol	10	-	-	**-**	<10	<10	**nc**
Arsenic	0.5	14	10	**33.3**	-	-	**-**
Cadmium	0.5	<0.5	<0.5	**nc**	-	-	**-**
Chromium	0.5	28	14	**66.6**	-	-	**-**
Copper	1	17	14	**19.4**	-	-	**-**
Lead	0.5	25	15	**50.0**	-	-	**-**
Mercury	0.2	<0.2	<0.2	**nc**	-	-	**-**
Nickel	0.5	5.4	3.0	**57.1**	-	-	**-**
Zinc	0.5	14	12	**15.4**	-	-	**-**
TPH C_6 - C_9	25	<25	<25	**nc**	-	-	**-**
TPH C_{10} - C_{14}	50	<50	<50	**nc**	-	-	**-**
TPH C_{15} - C_{28}	100	<100	<100	**nc**	-	-	**-**
TPH C_{29} - C_{36}	100	<100	<100	**nc**	-	-	**-**
Benzene	0.5	<0.5	<0.5	**nc**	-	-	**-**
Toluene	0.5	<0.5	<0.5	**nc**	-	-	**-**
Ethyl Benzene	0.5	<0.5	<0.5	**nc**	-	-	**-**
m, p - Xylene	1	<1	<1	**nc**	-	-	**-**
o - Xylene	0.5	<0.5	<0.5	**nc**	-	-	**-**

Notes
1 MDL method detection limit
2 RPD relative percentage difference
3 - not analysed
4 nc RPD not calculable
5 all units in mg/kg
6 Acceptance Criteria – no limit applies to <5 x MDL
7 Acceptance Criteria – 80-150% for low level (<10 x MDL)
8 Acceptance Criteria – 50-130% for medium to high level (>10 x MDL)

Table E2 (cont). Soil field blind duplicate QC results

Analyte	MDL	BHA04 0.4-0.6	FD1 (October 2012)	RPD	BHA08 0.2-0.3	FD2 (October 2012)	RPD
pH	0.1	6.1	6.2	**1.6**	9.8	9.9	**1.2**
Phosphorus	10	-	-	**-**	1,170	1,400	**17.9**
Soluble Fluoride	1	-	-	**-**	<1	<1	**nc**
Isopropanol	10	-	-	**-**	<10	<10	**nc**
Arsenic	0.5	7.9	11	**32.8**	-	-	**-**
Cadmium	0.5	<0.5	<0.5	**nc**	-	-	**-**
Chromium	0.5	10	10	**0**	-	-	**-**
Copper	1	11	11	**0**	-	-	**-**
Lead	0.5	14	15	**6.9**	-	-	**-**
Mercury	0.2	<0.2	<0.2	**nc**	-	-	**-**
Nickel	0.5	0.85	1.2	**34.1**	-	-	**-**
Zinc	0.5	2.4	3.5	**37.3**	-	-	**-**
Dimethyl phthalate	1	-	-	**-**	<1	<1	**nc**
Diethyl phthalate	1	-	-	**-**	<1	<1	**nc**
Di-n-butyl phthalate	1	-	-	**-**	<1	<1	**nc**
Benzyl butyl phthalate	1	-	-	**-**	<1	<1	**nc**
Bis(2-ethylhexyl)phthalate	1	-	-	**-**	2.4	2	**18.2**
Di-n-octyl phthalate	1	-	-	**-**	<1	<1	**nc**

Notes
1 MDL method detection limit
2 RPD relative percentage difference
3 - not analysed
4 nc RPD not calculable
5 all units in mg/kg
6 Acceptance Criteria – no limit applies to <5 x MDL
7 Acceptance Criteria – 80-150% for low level (<10 x MDL)
8 Acceptance Criteria – 50-130% for medium to high level (>10 x MDL)

3.1.3 Accuracy

Accuracy is a measure of the agreement between an experimental determination and the true value of the parameter being measured. The determination of accuracy can be achieved through the analysis of known reference materials or assessed by the

analysis of matrix spikes. Accuracy is measured in terms of percentage recovery as defined by the following equation:

$$\%R = \frac{SSR - SR}{SA} X\ 100$$

where: %R = percentage recovery of the spike

SSR = spiked sample result

SR = sample result (native)

SA = spike added

Laboratory personnel calculate percentage recoveries of spiked compounds, which are evaluated against control or acceptance limits taken from the appropriate method or the Contract Laboratory Program Statement of Work. If the spike recovery for a sample does not fall within the prescribed control limits, laboratory based corrective action is required.

Surrogate spikes consist of spiking non-target compounds into the sample prior to analysis. The spiked compounds are expected to behave during analysis in the same way as the target compounds. Every sample is spiked prior to extraction or analysis with surrogate compounds that are representative of the analysis. If surrogate spike recovery does not meet the prescribed control limits, samples should be reanalysed.

3.1.4 Representativeness

Data Point Evaluation

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition.

Representativeness is primarily dependent on the design and implementation of the sampling program. Representativeness of the data is partially ensured by the avoidance of cross-contamination, adherence to sample handling and analysis protocols, and use of proper chain-of-custody and documentation procedures. Blanks,

holding times and field duplicates are all QA parameters that can assist in the analysis of representativeness for data point evaluation and will need to be analysed as part of the measurement data quality assessment.

Data Set Evaluation

Whether the data is representative of the site is checked in part by undertaking an evaluation of the whole data set to establish the data is compatible. Data compatibility is authenticated by confirming that the laws of chemistry are upheld (i.e. nitrate is not present when Eh is -250 mV), that intra-laboratory analysis relationships are consistent (i.e. BTEX is a subset of the TPH C_6-C_9 fraction), that observations and field measurements are in agreement with other field data and the laboratory data, and that results are consistent with the site geology, history etc.

3.1.5 Completeness

The following information is required to check for completeness of data sets:

- chain-of-custody forms (completed by SGA Environmental and the laboratory);
- sample receipt forms;
- all requested sample results reported;
- all blank data reported;
- all laboratory duplicates reported and relative percent differences (RPDs) calculated;
- all surrogate spike data reported;
- all matrix spike data reported; and
- NATA stamp on reports.

3.1.6 Comparability

Comparability is the evaluation of the similarity of conditions (e.g. sample depth, sample homogeneity, sampling procedures) under which separate sets of data are produced to ensure minimal common error. Data comparability should be demonstrated by the use of standardised sampling and analysis procedures. Data comparability was maintained by undertaking the investigations as follows:

- the soil samples were collected during the investigation by a trained scientist using standard operating procedures; and
- both laboratories (National Measurement Institute (NMI) and Sydney Analytical Laboratories (SAL)) were used for all relevant samples using the same NATA approved analytical methods

3.1.7 Sensitivity

When interferences are present in the sample, a loss of sensitivity can occur resulting in an increase in the method detection limit. In some instances (e.g. where one or more compounds have particularly high concentrations) the sample must be diluted for analysis. This increases the method detection limit by the dilution factor.

The detection limits achieved by the laboratory, when adjusted for dry weight and interferences from the presence of other chemicals within the sampled matrix, must be less than half the site criteria for all analytes tested (i.e. 2 x LOR <site criteria).

3.1.8 Blanks

To meet the QC acceptance criteria, laboratory blanks should have no detectable concentrations of the target compounds. Trip blanks (taken to and returned from the field) and rinsate blanks (taken in the field) were not collected and analysed as part of this investigation.

3.1.9 Holding times

Where standard holding times are exceeded, a discussion, using professional judgement, as to the integrity of the data will be required, taking into account such factors as field storage, laboratory storage and sample jar characteristics.

All samples were analysed within the required holding times.

3.1.10 Procedures for anomalous samples and confirmation checking

All results should be checked for discrepancies by the project manager, against the anticipated results and all other results, within 8 hours of receipt of the results from the laboratory.

Any result that is considered by the supervising scientist to be unusually high or at variance with other results is automatically re-analysed. A significantly different result requires immediate remedial action on the whole sample batch (retesting or using an alternative analytical method).

After appropriate checking by laboratories, all sample analysis results work-sheets, including those of duplicates and replicate analyses, should be checked by the project manager.

Once confirmation checking is completed the final laboratory report is issued.

For blind duplicates, if one sample has more than two analytes exceeding the data quality objectives, the sample is carefully checked. If the error is not apparent, the sample is rejected. If more than three samples are rejected all the samples collected at that time are rejected. These samples are then re-sampled and re-analysed.

3.2 Field QA/QC

3.2.1 Details of sampling team

Fieldwork was conducted over a two days by Dahmon Sorongan, David Gouge and Scott Burrows of SGA Environmental.

3.2.2 Sampling controls

Decontamination procedures carried out between sampling events

All soil sampling equipment (spatula) were decontaminated using Decon 90 followed by a triple rinse in separate water containers between sampling events, where applicable.

Sample notation details

The chemical analyses to be performed on each sample are presented on the chain of custody documentation (Appendix C) which also identify for each sample – the sampler, nature of the sample, collection date, analyses to be performed, sample preservation method (if any), departure time from the site and dispatch courier.

Duplicate sampling

A single field duplicate sample was collected as part of this investigation and analysed for selected chemicals of concern. This single duplicate sample is considered adequate given the limited scope of the investigation.

Blanks, spikes and rinsate samples

The scope of this project did not include analysis of trip and field blanks, rinsate samples or laboratory prepared trip spikes.

SGA Environmental did not consider analysis of trip blanks, background samples, rinsate blanks or trip spikes necessary for the following reasons:

- a **trip blank** is used to document contamination attributable to shipping procedures for volatile components. For this project, shipping was closely monitored, with collected samples immediately placed upright within a chilled Esky and passed directly from the field scientist to a laboratory specific courier. This process is documented within the chain of custody documentation. A field blank is used to document contamination attributable to field handling. The measurement of volatiles present within samples due to field handling procedure is a measurement of false positives. False positives are not considered to be a major concern due to the industrial nature of the site;
- **rinsate samples** are a measure of potential cross contamination between samples due to contamination on sampling equipment. Rinsate samples were not collected due to the field sampling procedures which the uses of disposable nitrile gloves, Decon 90 and triple rinsing; and
- laboratory prepared **trip spikes** are used to measure potential volatile contaminant loss due to transport and field handling procedures. SGA Environmental follows strict sample handling procedures and consider the potential for volatile loss during handling and transport low. For this reason project laboratory prepared trip spikes were not used for this project.

3.3 Laboratory QA/QC

Analysis for this project was completed by National Measurement Institute (NMI) and Sydney Analytical Laboratories (SAL). NMI and SAL are accredited by NATA for the

methods used, details of this accreditation can be viewed at http://www.nata.asn.au/, while details of the samples sent to the laboratory and the analysis requested are contained in the chain of custody documentation held in Appendix D. The collection date of samples, laboratory extraction date and allowable holding time are presented in Appendix D. All analysis was completed within the allowable holding times.

NMI and SAL complete laboratory control samples, laboratory blanks, sample duplicates, surrogate spikes and matrix spikes. These results are presented in the NMI and SAL reports in Appendix D.

These reports include details of surrogates and spikes used, percent recoveries of surrogates and spikes used, the instrument detection limits, the method detection limits, the practical quantification limits and the reference sample results.

3.4 QA/QC data evaluation

The field blind duplicate results and calculated RPDs are presented in Table E2. With the exception of bis(2-ethylhexyl)phthalate in one sample and associated duplicate, the concentration of all organic compounds in soil samples were below the laboratory limits of reporting as therefore RPDs were not able to be calculated, but do not indicate any precision issues. The RPD for the detected bis(2-ethylhexyl)phthalate was within the acceptance range.

The calculable RPD values for heavy metals were within the acceptance range.

Field and laboratory quality procedures for this project are considered to be acceptable. Holding times for samples were also considered acceptable.

Based on information presented in Sections 3.1, 3.2 and 3.3 it is considered that the MDQO's for this project have been met and the data set is considered to be reliable.

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