

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302178

Page No: 8 of 16

ITEM 6

Road widening and road realignment

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

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

The land IS NOT affected by a road widening or road realignment under:

- (i) Part 3 Division 2 of the Roads Act 1993
- (ii) any environmental planning instrument; or
- (iii) any resolution of the Council

ITEM 7

Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:

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

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

- Council HAS adopted by resolution and in accordance with S.72 of the Environmental Planning & Assessment Act, 1979 a development control plan incorporating Council's policy on contaminated land. The Plan has been prepared substantially in accordance with State Environmental Planning Policy No. 55, and the Contaminated Land Planning Guidelines. This policy may affect development of land:

- (a) which is affected by contamination;
- (b) which has been used for certain purposes;
- (c) in respect of which there is not sufficient information about contamination;
- (d) which is proposed to be used for certain purposes;
- (e) in other circumstances contained in the development control plan and policy;

and in some cases may restrict the development of land.

- The land IS identified as being subject to acid sulfate soil risk under clause 6.2 of Marrickville Local Environmental Plan 2011. Development on land that is subject to acid sulphate soil risk requires development consent and the preparation of an acid sulphate soils management plan subject to a preliminary assessment of the proposed works prepared in accordance with the Acid

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302178

Page No: 9 of 16

Sulfate Soils Manual. Development consent is not required where the works involve the disturbance of less than 1 tonne of soil or are not likely to lower the watertable.

- Council HAS NOT by resolution (aside from the matters raised in the above item(s)) adopted a policy to restrict the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).
- Council HAS received no notification of the type described in item 7(b) from a public authority of a policy adopted by that authority that restricts the development of the land because of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).

ITEM 7A

Flood related development controls information

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

Yes.

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

Yes.

(3) Words and expressions in this clause have the same meaning as in the instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plan) Order 2006*.

ITEM 8

Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

The land IS NOT reserved, in part or whole, for acquisition by a public authority, as referred to in

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302178

Page No: 10 of 16

section 27 of the Act, under:

- (i) any environmental planning instrument
- (ii) deemed environmental planning instrument; or
- (iii) draft environmental planning instrument

ITEM 9

Contributions plans

The name of each contributions plan applying to the land.

Marrickville Section 94 Contributions Plan 2004.

ITEM 9A

Biodiversity certified land

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

The land IS NOT biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995).

ITEM 10

Biobanking agreements

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

The land IS NOT land to which a biobanking agreement under Part 7A of the Threatened Species Conservation Act 1995 relates.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302178

Page No: 11 of 16

ITEM 11

Bush fire prone land

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

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

The land IS NOT bush fire prone land.

ITEM 12

Property vegetation plans

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

No.

ITEM 13

Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No.

ITEM 14

Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302178

Page No: 12 of 16

ITEM 15

Site compatibility certificates and conditions for seniors housing

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

- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
 - (i) the period for which the certificate is current, and
 - (ii) that a copy may be obtained from the head office of the Department of Planning, and
- (b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

Item 15(a)

There IS NOT a current site compatibility certificate (seniors housing) relating to the land

Item 15(b)

There ARE NO applicable terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

ITEM 16

Site compatibility certificate for Infrastructure

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

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

There IS NOT a current site compatibility certificate (infrastructure) relating to the land

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302178

Page No: 13 of 16

ITEM 17

Site compatibility certificate and conditions affecting affordable rental housing

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

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

(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

Item 17(1)

There IS NOT a current site compatibility certificate (affordable rental housing) relating to the land

Item 17(2)

There ARE NO applicable terms of a kind referred to in clause 17(1) or 38(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land

ITEM 18

Paper subdivision information

- (1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

Nil.

- (2) The date of any subdivision order that applies to the land.

Not applicable.

- (3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Not Applicable.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302178

Page No: 14 of 16

ITEM 19

Site verification certificates

(1) A statement of whether there is a current site verification certificate, of which council is aware, in respect of the land and, if there is a certificate, the statement is to include:

a) the matter certified by the certificate, and

Note: A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land – see Division 3 of Part 4AA of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

b) the date on which the certificate ceases to be current (if any), and

c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure

Not applicable.

OTHER ITEMS (i)

Section 23 exemption or Section 24 authorisation

Whether an exemption under Section 23 or an authorisation under section 24 of the *Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009* No 1 has been issued by the Co-ordinator General in relation to the land.

An exemption under Section 23 or an authorisation under Section 24 of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009 No 1 HAS NOT been issued by the Co-ordinator General in relation to the land.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302178

Page No: 15 of 16

OTHER ITEMS (ii)

Matters arising under the Contaminated Land Management Act 1997

Section 59(2) of the *Contaminated Land Management Act 1997* prescribes the following additional matters that are to be specified in a planning certificate:

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

No.

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

No.

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

No.

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

No.

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

No.

**PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING &
ASSESSMENT ACT, 1979.**

Cert. No: PC201302178

Page No: 16 of 16

Information provided in this planning certificate is in accordance with the matters prescribed under Schedule 4 of the Environmental Planning and Assessment Regulation 2000.

Council draws your attention to Section 149 (6) which states that a Council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5).

This is the end of the Certificate as prescribed under section 149(2) of the Environmental Planning and Assessment Act 1979.

Please contact the Planning Services Section for further information about any instruments or affectations referred to in the Certificate.



**MARCUS ROWAN
MANAGER, PLANNING SERVICES**

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No.: PC201302181
Page No: 1 of 16
Date: 20/11/2013

APPLICANT
S XARRAS
Po Box 3247
Marrickville Metro, 2204

PROPERTY
175 Victoria Road
MARRICKVILLE NSW 2204
Lot E DP 301985

PROPERTY NO.
26805

REFERENCE

In accordance with the requirements of section 149 of the Environmental Planning and Assessment Act 1979, the following prescribed matters relate to the land at the date of this certificate.

ITEM 1

Names of relevant planning instruments and DCPs

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

1. The following environmental planning instruments apply to the land:

- Marrickville Local Environmental Plan 2011 – Amendment 1
- S.E.P.P. No. 6 Number of Storeys in a Building
- S.E.P.P. No. 19 Bushland in Urban Areas
- S.E.P.P. No. 21 Caravan Parks
- S.E.P.P. No. 22 Shops and Commercial Premises
- S.E.P.P. No. 30 Intensive Agricultures
- S.E.P.P. No. 32 Urban Consolidation (Redevelopment of Urban Land)
- S.E.P.P. No. 33 Hazardous and Offensive Development
- S.E.P.P. No. 50 Canal Estates
- S.E.P.P. No. 53 Transitional Provisions
- S.E.P.P. No. 55 Remediation of Land
- S.E.P.P. No. 62 Sustainable Aquaculture
- S.E.P.P. No. 64 Advertising and Signage
- S.E.P.P. No. 65 Design Quality of Residential Flat Development

ENGLISH

IMPORTANT

This letter contains important information. If you do not understand it, please ask a relative or friend to translate it or come to Council and discuss the letter with Council's staff using the Telephone Interpreter Service.

GREEK

ΣΗΜΑΝΤΙΚΟ

Αυτή η επιστολή περιέχει σημαντικές πληροφορίες. Αν δεν τις καταλαβαίνετε, παρακαλείστε να ζητήσετε από ένα συγγενή ή φίλο να σας τις μεταφράσει ή να έλθετε στα γραφεία της Δημαρχίας και να συζητήσετε την επιστολή με προσωπικό της Δημαρχίας χρησιμοποιώντας την Τηλεφωνική Υπηρεσία Διερμηνέων.

PORTUGUESE

IMPORTANTE

Este carta contém informação importante. Se não o compreender peça a uma pessoa de família ou a um/a amigo/a para o traduzir ou venha até à Câmara Municipal (Council) para discutir o assunto através do Serviço de Intérpretes pelo Telefone (Telephone Interpreter Service).

ARABIC

هامة
تحتوي هذه الرسالة معلومات هامة. فإذا لم تستوعبها يرجى أن تطلبوا من أحد أقربائكم أو أصدقائكم شرحها لكم، أو تفضلوا إلى البلدية واجلبوا الرسالة معكم لكي تناقشوها مع أحد موظفي البلدية من خلال الإستعانة بخدمة الترجمة الهاتفية.

VIETNAMESE

THÔNG TIN QUAN TRỌNG

Nội dung thư này gồm có các thông tin quan trọng. Nếu đọc không hiểu, xin quý vị nhờ thân nhân hay bạn bè dịch giúp hoặc đem đến Hội đồng Thành phố để thảo luận với nhân viên qua trung gian Dịch vụ Thông dịch qua Điện thoại.

MANDARIN

重要资料

本信写有重要资料。如果不明白，请亲友为您翻译，或到市政府来，通过电话传译服务，与市政府工作人员讨论此信。

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 2 of 16

- S.E.P.P. (Housing for Seniors or People with a Disability) 2004
- S.E.P.P. (Building Sustainability Index: BASIX) 2004
- S.E.P.P. (Major Development) 2005
- S.E.P.P. (Mining, Petroleum Production and Extractive Industries) 2007
- S.E.P.P. (Temporary Structures) 2007
- S.E.P.P. (Infrastructure) 2007
- S.E.P.P. (Exempt and Complying Development Codes) 2008
- S.E.P.P. (Affordable Rental Housing) 2009

Any enquiries regarding these State Planning Policies should be directed to the Department of Planning on: 1300 305 695 or 02 9228 6333. Information can also be obtained from the Department's website at <http://www.planning.nsw.gov.au>

- | | |
|-----|---|
| (1) | The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved). |
|-----|---|

2. The following proposed environmental planning instruments apply to the land:

- None

- | | |
|-----|--|
| (2) | The name of each development control plan that applies to the carrying out of development on the land. |
|-----|--|

3. The following development control plans (D.C.P's) apply to the land:

- Marrickville Development Control Plan 2011

ITEM 2

Zoning and land use under relevant LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):
--

- | |
|---|
| <ul style="list-style-type: none">(a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or Heritage Area") or by reference to a number (such as "Zone No 2 (a)"),(b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent, |
|---|

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 3 of 16

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,
- (d) the purposes for which the instrument provides that development is prohibited within the zone,
- (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed,
- (f) whether the land includes or comprises critical habitat,
- (g) whether the land is in a conservation area (however described),
- (h) whether an item of environmental heritage (however described) is situated on the land.

Item 2 (a), (b), (c) & (d) – Zoning and Land use table

IN1 - General Industrial

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To protect industrial land in proximity to Sydney Airport and Port Botany.
- To enable a purpose built dwelling house to be used in certain circumstances as a dwelling house.

2 Permitted without consent

Home occupations

3 Permitted with consent

Agricultural produce industries; Depots; Dwelling houses; Freight transport facilities; General industries; Industrial training facilities; Intensive plant agriculture; Kiosks; Light industries; Markets; Neighbourhood shops; Roads; Take away food and drink premises; Timber yards; Warehouse or distribution centres; Any other development not specified in item 2 or 4

4 Prohibited

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 4 of 16

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Child care centres; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Educational establishments; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home occupations (sex services); Information and education facilities; Jetties; Marinas; Mooring pens; Moorings; Offensive industries; Open cut mining; Passenger transport facilities; Places of public worship; Port facilities; Public administration buildings; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Respite day care centres; Restricted premises; Rural industries; Tourist and visitor accommodation; Transport depots; Veterinary hospitals; Water recreation structures; Water supply systems; Wholesale supplies

Item 2 (e) – Minimum land dimensions

There are NO minimum land dimensions for the erection of a dwelling house on the land. All applications for the erection of a dwelling house will be assessed in accordance with the Environmental Planning and Assessment Act, 1979.

Item 2 (f) – Critical habitat

The land DOES NOT include or comprise critical habitat.

Item 2 (g) – Conservation Area

The land IS NOT within a heritage conservation area referred to in Schedule 5 of Marrickville Local Environmental Plan 2011

Item 2 (h) – Heritage Item

An item of environmental heritage IS NOT situated on the land under Marrickville Local Environmental Plan 2011

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 5 of 16

ITEM 2A

Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

To the extent that the land is within any zone (however described) under:

- (a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (the 2006 SEPP), or
- (b) a Precinct Plan (within the meaning of the 2006 SEPP), or
- (c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the Act,

the particulars referred to in clause 2 (a)–(h) in relation to that land (with a reference to “the instrument” in any of those paragraphs being read as a reference to Part 3 of the 2006 SEPP, or the Precinct Plan or proposed Precinct Plan, as the case requires).

The land IS NOT land to which State Environmental Planning Policy (Sydney Region Growth Centres) 2006 applies.

ITEM 3

Complying development

(1) Whether or not the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (c) and (d) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) If complying development may not be carried out on that land because of the provisions of clauses 1.17A (c) and (d) and 1.19 of that Policy, the reasons why it may not be carried out under that clause.

General Housing Code

No. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may not be carried out on this land.

The land is excluded land identified as being less than 200sqm in area

The land is excluded land identified as being within ANEF 25 or higher, unless the development is for the erection of ancillary development

The land is excluded land identified on an Acid Sulfate Soils map as being Class 2

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 6 of 16

Housing Alterations Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

General Development Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

General Commercial and Industrial Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Subdivisions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Demolitions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

ITEM 4

Coastal protection

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 7 of 16

ITEM 4A

Certain information relating to beaches and coasts

- (1) In relation to a coastal council – whether an order has been made under Part 4D of the Coastal Protection Act 1979 in relation to temporary coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.

NO order has been made under Part 4D of the Coastal Protection Act 1979.

- (2) In relation to a coastal council:
- (a) whether the council has been notified under section 55X of the Coastal Protection Act 1979 that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and

Council HAS NOT been notified under Section 55X of the Coastal Protection Act 1979.

- (b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Not Applicable

- (3) (Repealed)

ITEM 4B

Annual charges under Local Government Act 1993 for coastal protection services that relate to the existing coastal protection works

- In relation to a coastal council – whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

The land IS NOT subject to any annual charges under Section 496B of the Local Government Act 1993.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 8 of 16

ITEM 5

Mine subsidence

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

No.

ITEM 6

Road widening and road realignment

Whether or not the land is affected by any road widening or road realignment under:
(a) Division 2 of Part 3 of the *Roads Act 1993*, or
(b) any environmental planning instrument, or
(c) any resolution of the council.

The land IS NOT affected by a road widening or road realignment under:

- (i) Part 3 Division 2 of the Roads Act 1993
- (ii) any environmental planning instrument; or
- (iii) any resolution of the Council

ITEM 7

Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:
(a) adopted by the council, or
(b) adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,

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

- Council HAS adopted by resolution and in accordance with S.72 of the Environmental Planning & Assessment Act, 1979 a development control plan incorporating Council's policy on contaminated land. The Plan has been prepared substantially in accordance with State Environmental Planning Policy No. 55, and the Contaminated Land Planning Guidelines. This policy may affect development of land:

- (a) which is affected by contamination;
- (b) which has been used for certain purposes;
- (c) in respect of which there is not sufficient information about contamination;

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 9 of 16

- (d) which is proposed to be used for certain purposes;
- (e) in other circumstances contained in the development control plan and policy;

and in some cases may restrict the development of land.

- The land IS identified as being subject to acid sulfate soil risk under clause 6.2 of Marrickville Local Environmental Plan 2011. Development on land that is subject to acid sulphate soil risk requires development consent and the preparation of an acid sulphate soils management plan subject to a preliminary assessment of the proposed works prepared in accordance with the Acid Sulfate Soils Manual. Development consent is not required where the works involve the disturbance of less than 1 tonne of soil or are not likely to lower the watertable.
- Council HAS NOT by resolution (aside from the matters raised in the above item(s)) adopted a policy to restrict the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).
- Council HAS received no notification of the type described in item 7(b) from a public authority of a policy adopted by that authority that restricts the development of the land because of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).

ITEM 7A

Flood related development controls information

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

Yes.

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

Yes.

(3) Words and expressions in this clause have the same meaning as in the instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plan) Order 2006*.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 10 of 16

ITEM 8

Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

The land IS NOT reserved, in part or whole, for acquisition by a public authority, as referred to in section 27 of the Act, under:

- (i) any environmental planning instrument
- (ii) deemed environmental planning instrument; or
- (iii) draft environmental planning instrument

ITEM 9

Contributions plans

The name of each contributions plan applying to the land.

Marrickville Section 94 Contributions Plan 2004.

ITEM 9A

Biodiversity certified land

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

The land IS NOT biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995).

ITEM 10

Biobanking agreements

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

The land IS NOT land to which a biobanking agreement under Part 7A of the Threatened Species Conservation Act 1995 relates.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 11 of 16

ITEM 11

Bush fire prone land

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

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

The land IS NOT bush fire prone land.

ITEM 12

Property vegetation plans

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

No.

ITEM 13

Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No.

ITEM 14

Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 12 of 16

ITEM 15

Site compatibility certificates and conditions for seniors housing

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

- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
 - (i) the period for which the certificate is current, and
 - (ii) that a copy may be obtained from the head office of the Department of Planning, and
- (b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

Item 15(a)

There IS NOT a current site compatibility certificate (seniors housing) relating to the land

Item 15(b)

There ARE NO applicable terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

ITEM 16

Site compatibility certificate for Infrastructure

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

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

There IS NOT a current site compatibility certificate (infrastructure) relating to the land

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 13 of 16

ITEM 17

Site compatibility certificate and conditions affecting affordable rental housing

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

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

(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

Item 17(1)

There IS NOT a current site compatibility certificate (affordable rental housing) relating to the land

Item 17(2)

There ARE NO applicable terms of a kind referred to in clause 17(1) or 38(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land

ITEM 18

Paper subdivision information

- (1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

Nil.

- (2) The date of any subdivision order that applies to the land.

Not applicable.

- (3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Not Applicable.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 14 of 16

ITEM 19

Site verification certificates

(1) A statement of whether there is a current site verification certificate, of which council is aware, in respect of the land and, if there is a certificate, the statement is to include:

a) the matter certified by the certificate, and

Note: A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land – see Division 3 of Part 4AA of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

b) the date on which the certificate ceases to be current (if any), and

c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure

Not applicable.

OTHER ITEMS (i)

Section 23 exemption or Section 24 authorisation

Whether an exemption under Section 23 or an authorisation under section 24 of the *Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009* No 1 has been issued by the Co-ordinator General in relation to the land.

An exemption under Section 23 or an authorisation under Section 24 of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009 No 1 HAS NOT been issued by the Co-ordinator General in relation to the land.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING &
ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 15 of 16

OTHER ITEMS (ii)

Matters arising under the Contaminated Land Management Act 1997

Section 59(2) of the *Contaminated Land Management Act 1997* prescribes the following additional matters that are to be specified in a planning certificate:

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

No.

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

No.

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

No.

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

No.

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302181

Page No: 16 of 16

Information provided in this planning certificate is in accordance with the matters prescribed under Schedule 4 of the Environmental Planning and Assessment Regulation 2000.

Council draws your attention to Section 149 (6) which states that a Council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5).

This is the end of the Certificate as prescribed under section 149(2) of the Environmental Planning and Assessment Act 1979.

Please contact the Planning Services Section for further information about any instruments or affectations referred to in the Certificate.

A handwritten signature in black ink, appearing to read 'MARCUS ROWAN', followed by a smaller, less legible signature in blue ink.

**MARCUS ROWAN
MANAGER, PLANNING SERVICES**

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No.: PC201302197
Page No: 1 of 16
Date: 20/11/2013

APPLICANT
S XARRAS
Po Box 3247
Marrickville Metro, 2204

PROPERTY
183 Victoria Road
MARRICKVILLE NSW 2204
Lot 15 Sec 1 DP 4590

PROPERTY NO.
26804

REFERENCE

In accordance with the requirements of section 149 of the Environmental Planning and Assessment Act 1979, the following prescribed matters relate to the land at the date of this certificate.

ITEM 1

Names of relevant planning instruments and DCPs

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

1. The following environmental planning instruments apply to the land:
 - Marrickville Local Environmental Plan 2011 – Amendment 1
 - S.E.P.P. No. 6 Number of Storeys in a Building
 - S.E.P.P. No. 19 Bushland in Urban Areas
 - S.E.P.P. No. 21 Caravan Parks
 - S.E.P.P. No. 22 Shops and Commercial Premises
 - S.E.P.P. No. 30 Intensive Agriculture
 - S.E.P.P. No. 32 Urban Consolidation (Redevelopment of Urban Land)
 - S.E.P.P. No. 33 Hazardous and Offensive Development
 - S.E.P.P. No. 50 Canal Estates
 - S.E.P.P. No. 53 Transitional Provisions
 - S.E.P.P. No. 55 Remediation of Land
 - S.E.P.P. No. 62 Sustainable Aquaculture
 - S.E.P.P. No. 64 Advertising and Signage
 - S.E.P.P. No. 65 Design Quality of Residential Flat Development

Phone 02 9335 2222
Fax 02 9335 2029
TTY 02 9335 2025 (hearing impaired)
Email council@marrickville.nsw.gov.au
Website www.marrickville.nsw.gov.au

ENGLISH

IMPORTANT

This letter contains important information. If you do not understand it, please ask a relative or friend to translate it or come to Council and discuss the letter with Council's staff using the Telephone Interpreter Service.

GREEK

ΣΗΜΑΝΤΙΚΟ

Αυτή η επιστολή περιέχει σημαντικές πληροφορίες. Αν δεν τις καταλαβαίνετε, παρακαλείστε να ζητήσετε από ένα συγγενή ή φίλο να σας τις μεταφράσει ή να έλθετε στα γραφεία της Δημαρχίας και να συζητήσετε την επιστολή με προσωπικό της Δημαρχίας χρησιμοποιώντας την Τηλεφωνική Υπηρεσία Διερμηνέων.

PORTUGUESE

IMPORTANTE

Este carta contém informação importante. Se não o compreender peça a uma pessoa de família ou a um/a amigo/a para o traduzir ou venha até à Câmara Municipal (Council) para discutir o assunto através do Serviço de Intérpretes pelo Telefone (Telephone Interpreter Service).

ARABIC

هَامَ
تحتوي هذه الرسالة معلومات هامة. فإذا لم تستوعبها يرجى أن تطلبوا من أحد أقربائكم أو أصدقائكم شرحها لكم، أو تفضلوا إلى البلدية واجلبوا الرسالة معكم لكي تناقشوها مع أحد موظفي البلدية من خلال الإستعانة بخدمة الترجمة الهاتفية.

VIETNAMESE

THÔNG TIN QUAN TRỌNG

Nội dung thư này gồm có các thông tin quan trọng. Nếu đọc không hiểu, xin quý vị nhờ thân nhân hay bạn bè dịch giúp hoặc đem đến Hội đồng Thành phố để thảo luận với nhân viên qua trung gian Dịch vụ Thông dịch qua Điện thoại.

MANDARIN

重要资料

本信写有重要资料。如果不明白，请亲友为您翻译，或到市政府来，通过电话传译服务，与市政府工作人员讨论此信。

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 2 of 16

- S.E.P.P. (Housing for Seniors or People with a Disability) 2004
- S.E.P.P. (Building Sustainability Index: BASIX) 2004
- S.E.P.P. (Major Development) 2005
- S.E.P.P. (Mining, Petroleum Production and Extractive Industries) 2007
- S.E.P.P. (Temporary Structures) 2007
- S.E.P.P. (Infrastructure) 2007
- S.E.P.P. (Exempt and Complying Development Codes) 2008
- S.E.P.P. (Affordable Rental Housing) 2009

Any enquiries regarding these State Planning Policies should be directed to the Department of Planning on: 1300 305 695 or 02 9228 6333. Information can also be obtained from the Department's website at <http://www.planning.nsw.gov.au>

- (1) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved).

2. The following proposed environmental planning instruments apply to the land:

- None

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

3. The following development control plans (D.C.P's) apply to the land:

- Marrickville Development Control Plan 2011

ITEM 2

Zoning and land use under relevant LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

- (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or Heritage Area") or by reference to a number (such as "Zone No 2 (a)"),
- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent,

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 3 of 16

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,
- (d) the purposes for which the instrument provides that development is prohibited within the zone,
- (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed,
- (f) whether the land includes or comprises critical habitat,
- (g) whether the land is in a conservation area (however described),
- (h) whether an item of environmental heritage (however described) is situated on the land.

Item 2 (a), (b), (c) & (d) – Zoning and Land use table

IN1 - General Industrial

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To protect industrial land in proximity to Sydney Airport and Port Botany.
- To enable a purpose built dwelling house to be used in certain circumstances as a dwelling house.

2 Permitted without consent

Home occupations

3 Permitted with consent

Agricultural produce industries; Depots; Dwelling houses; Freight transport facilities; General industries; Industrial training facilities; Intensive plant agriculture; Kiosks; Light industries; Markets; Neighbourhood shops; Roads; Take away food and drink premises; Timber yards; Warehouse or distribution centres; Any other development not specified in item 2 or 4

4 Prohibited

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 4 of 16

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Child care centres; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Educational establishments; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home occupations (sex services); Information and education facilities; Jetties; Marinas; Mooring pens; Moorings; Offensive industries; Open cut mining; Passenger transport facilities; Places of public worship; Port facilities; Public administration buildings; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Respite day care centres; Restricted premises; Rural industries; Tourist and visitor accommodation; Transport depots; Veterinary hospitals; Water recreation structures; Water supply systems; Wholesale supplies

Item 2 (e) – Minimum land dimensions

There are NO minimum land dimensions for the erection of a dwelling house on the land. All applications for the erection of a dwelling house will be assessed in accordance with the Environmental Planning and Assessment Act, 1979.

Item 2 (f) – Critical habitat

The land DOES NOT include or comprise critical habitat.

Item 2 (g) – Conservation Area

The land IS NOT within a heritage conservation area referred to in Schedule 5 of Marrickville Local Environmental Plan 2011

Item 2 (h) – Heritage Item

An item of environmental heritage IS NOT situated on the land under Marrickville Local Environmental Plan 2011

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 5 of 16

ITEM 2A

Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

To the extent that the land is within any zone (however described) under:

- (a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (the 2006 SEPP), or
 - (b) a Precinct Plan (within the meaning of the 2006 SEPP), or
 - (c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the Act,
- the particulars referred to in clause 2 (a)–(h) in relation to that land (with a reference to “the instrument” in any of those paragraphs being read as a reference to Part 3 of the 2006 SEPP, or the Precinct Plan or proposed Precinct Plan, as the case requires).

The land IS NOT land to which State Environmental Planning Policy (Sydney Region Growth Centres) 2006 applies.

ITEM 3

Complying development

(1) Whether or not the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (c) and (d) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) If complying development may not be carried out on that land because of the provisions of clauses 1.17A (c) and (d) and 1.19 of that Policy, the reasons why it may not be carried out under that clause.

General Housing Code

No. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may not be carried out on this land.

The land is excluded land identified as being within ANEF 25 or higher, unless the development is for the erection of ancillary development

Housing Alterations Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 6 of 16

General Development Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

General Commercial and Industrial Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Subdivisions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Demolitions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

ITEM 4

Coastal protection

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

No.

ITEM 4A

Certain information relating to beaches and coasts

(1) In relation to a coastal council – whether an order has been made under Part 4D of the <i>Coastal Protection Act 1979</i> in relation to temporary coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.
--

NO order has been made under Part 4D of the *Coastal Protection Act 1979*.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 7 of 16

(2) In relation to a coastal council:

- (a) whether the council has been notified under section 55X of the Coastal Protection Act 1979 that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and

Council HAS NOT been notified under Section 55X of the Coastal Protection Act 1979.

- (b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Not Applicable

(3) (Repealed)

ITEM 4B

Annual charges under Local Government Act 1993 for coastal protection services that relate to the existing coastal protection works

In relation to a coastal council – whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

The land IS NOT subject to any annual charges under Section 496B of the Local Government Act 1993.

ITEM 5

Mine subsidence

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 8 of 16

ITEM 6

Road widening and road realignment

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

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

The land IS NOT affected by a road widening or road realignment under:

- (i) Part 3 Division 2 of the Roads Act 1993
- (ii) any environmental planning instrument; or
- (iii) any resolution of the Council

ITEM 7

Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:

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

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

- Council HAS adopted by resolution and in accordance with S.72 of the Environmental Planning & Assessment Act, 1979 a development control plan incorporating Council's policy on contaminated land. The Plan has been prepared substantially in accordance with State Environmental Planning Policy No. 55, and the Contaminated Land Planning Guidelines. This policy may affect development of land:

- (a) which is affected by contamination;
- (b) which has been used for certain purposes;
- (c) in respect of which there is not sufficient information about contamination;
- (d) which is proposed to be used for certain purposes;
- (e) in other circumstances contained in the development control plan and policy;

and in some cases may restrict the development of land.

- The land IS identified as being subject to acid sulfate soil risk under clause 6.2 of Marrickville Local Environmental Plan 2011. Development on land that is subject to acid sulphate soil risk requires development consent and the preparation of an acid sulphate soils management plan subject to a preliminary assessment of the proposed works prepared in accordance with the Acid

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 9 of 16

Sulfate Soils Manual. Development consent is not required where the works involve the disturbance of less than 1 tonne of soil or are not likely to lower the watertable.

- Council HAS NOT by resolution (aside from the matters raised in the above item(s)) adopted a policy to restrict the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).
- Council HAS received no notification of the type described in item 7(b) from a public authority of a policy adopted by that authority that restricts the development of the land because of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).

ITEM 7A

Flood related development controls information

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

Yes.

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

Yes.

(3) Words and expressions in this clause have the same meaning as in the instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plan) Order 2006*.

ITEM 8

Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

The land IS NOT reserved, in part or whole, for acquisition by a public authority, as referred to in

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 10 of 16

section 27 of the Act, under:

- (i) any environmental planning instrument
- (ii) deemed environmental planning instrument; or
- (iii) draft environmental planning instrument

ITEM 9

Contributions plans

The name of each contributions plan applying to the land.

Marrickville Section 94 Contributions Plan 2004.

ITEM 9A

Biodiversity certified land

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

The land IS NOT biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995).

ITEM 10

Biobanking agreements

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

The land IS NOT land to which a biobanking agreement under Part 7A of the Threatened Species Conservation Act 1995 relates.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 11 of 16

ITEM 11

Bush fire prone land

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

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

The land IS NOT bush fire prone land.

ITEM 12

Property vegetation plans

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

No.

ITEM 13

Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No.

ITEM 14

Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 12 of 16

ITEM 15

Site compatibility certificates and conditions for seniors housing

- If the land is land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:
- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
 - (i) the period for which the certificate is current, and
 - (ii) that a copy may be obtained from the head office of the Department of Planning, and
 - (b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

Item 15(a)

There IS NOT a current site compatibility certificate (seniors housing) relating to the land

Item 15(b)

There ARE NO applicable terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

ITEM 16

Site compatibility certificate for Infrastructure

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

There IS NOT a current site compatibility certificate (infrastructure) relating to the land

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 13 of 16

ITEM 17

Site compatibility certificate and conditions affecting affordable rental housing

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

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

(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

Item 17(1)

There IS NOT a current site compatibility certificate (affordable rental housing) relating to the land

Item 17(2)

There ARE NO applicable terms of a kind referred to in clause 17(1) or 38(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land

ITEM 18

Paper subdivision information

- (1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

Nil.

- (2) The date of any subdivision order that applies to the land.

Not applicable.

- (3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Not Applicable.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 14 of 16

ITEM 19

Site verification certificates

(1) A statement of whether there is a current site verification certificate, of which council is aware, in respect of the land and, if there is a certificate, the statement is to include:

a) the matter certified by the certificate, and

Note: A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land – see Division 3 of Part 4AA of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

b) the date on which the certificate ceases to be current (if any), and

c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure

Not applicable.

OTHER ITEMS (i)

Section 23 exemption or Section 24 authorisation

Whether an exemption under Section 23 or an authorisation under section 24 of the *Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009* No 1 has been issued by the Co-ordinator General in relation to the land.

An exemption under Section 23 or an authorisation under Section 24 of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009 No 1 HAS NOT been issued by the Co-ordinator General in relation to the land.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 15 of 16

OTHER ITEMS (ii)

Matters arising under the Contaminated Land Management Act 1997

Section 59(2) of the *Contaminated Land Management Act 1997* prescribes the following additional matters that are to be specified in a planning certificate:

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

No.

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

No.

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

No.

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

No.

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302197

Page No: 16 of 16

Information provided in this planning certificate is in accordance with the matters prescribed under Schedule 4 of the Environmental Planning and Assessment Regulation 2000.

Council draws your attention to Section 149 (6) which states that a Council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5).

This is the end of the Certificate as prescribed under section 149(2) of the Environmental Planning and Assessment Act 1979.

Please contact the Planning Services Section for further information about any instruments or affectations referred to in the Certificate.

A handwritten signature in black ink, appearing to be 'M. Rowan', with a blue ink stamp or mark to its right.

**MARCUS ROWAN
MANAGER, PLANNING SERVICES**

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No.: PC201302201

Page No: 1 of 16

Date: 20/11/2013

APPLICANT

S XARRAS

Po Box 3247

Marrickville Metro, 2204

PROPERTY

183 Victoria Road

MARRICKVILLE NSW 2204

Lot 1 DP 315293

PROPERTY NO.

26804

REFERENCE

In accordance with the requirements of section 149 of the Environmental Planning and Assessment Act 1979, the following prescribed matters relate to the land at the date of this certificate.

ITEM 1

Names of relevant planning instruments and DCPs

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

1. The following environmental planning instruments apply to the land:

- Marrickville Local Environmental Plan 2011 – Amendment 1
- S.E.P.P. No. 6 Number of Storeys in a Building
- S.E.P.P. No. 19 Bushland in Urban Areas
- S.E.P.P. No. 21 Caravan Parks
- S.E.P.P. No. 22 Shops and Commercial Premises
- S.E.P.P. No. 30 Intensive Agricultures
- S.E.P.P. No. 32 Urban Consolidation (Redevelopment of Urban Land)
- S.E.P.P. No. 33 Hazardous and Offensive Development
- S.E.P.P. No. 50 Canal Estates
- S.E.P.P. No. 53 Transitional Provisions
- S.E.P.P. No. 55 Remediation of Land
- S.E.P.P. No. 62 Sustainable Aquaculture
- S.E.P.P. No. 64 Advertising and Signage
- S.E.P.P. No. 65 Design Quality of Residential Flat Development

ENGLISH

IMPORTANT

This letter contains important information. If you do not understand it, please ask a relative or friend to translate it or come to Council and discuss the letter with Council's staff using the Telephone Interpreter Service.

GREEK

ΣΗΜΑΝΤΙΚΟ

Αυτή η επιστολή περιέχει σημαντικές πληροφορίες. Αν δεν τις καταλαβαίνετε, παρακαλείστε να ζητήσετε από ένα συγγενή ή φίλο να σας τις μεταφράσει ή να έλθετε στα γραφεία της Δημαρχίας και να συζητήσετε την επιστολή με προσωπικό της Δημαρχίας χρησιμοποιώντας την Τηλεφωνική Υπηρεσία Διερμηνέων.

PORTUGUESE

IMPORTANTE

Este carta contém informação importante. Se não o compreender peça a uma pessoa de família ou a um/a amigo/a para o traduzir ou venha até à Câmara Municipal (Council) para discutir o assunto através do Serviço de Intérpretes pelo Telefone (Telephone Interpreter Service).

ARABIC

هَامَّ
تحتوي هذه الرسالة معلومات هامة. فإذا لم تستوعبوها يرجى أن تطلبوا من أحد أقربائكم أو أصدقائكم شرحها لكم، أو تفضلوا إلى البلدية واجلبوا الرسالة معكم لكي تناقشوها مع أحد موظفي البلدية من خلال الاستعانة بخدمة الترجمة الهاتفية.

VIETNAMESE

THÔNG TIN QUAN TRỌNG

Nội dung thư này gồm có các thông tin quan trọng. Nếu đọc không hiểu, xin quý vị nhờ thân nhân hay bạn bè dịch giúp hoặc đem đến Hội đồng Thành phố để thảo luận với nhân viên qua trung gian Dịch vụ Thông dịch qua Điện thoại.

MANDARIN

重要资料

本信写有重要资料。如果不明白，请亲友为您翻译，或到市政府来，通过电话传译服务，与市政府工作人员讨论此信。

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 2 of 16

- S.E.P.P. (Housing for Seniors or People with a Disability) 2004
- S.E.P.P. (Building Sustainability Index: BASIX) 2004
- S.E.P.P. (Major Development) 2005
- S.E.P.P. (Mining, Petroleum Production and Extractive Industries) 2007
- S.E.P.P. (Temporary Structures) 2007
- S.E.P.P. (Infrastructure) 2007
- S.E.P.P. (Exempt and Complying Development Codes) 2008
- S.E.P.P. (Affordable Rental Housing) 2009

Any enquiries regarding these State Planning Policies should be directed to the Department of Planning on: 1300 305 695 or 02 9228 6333. Information can also be obtained from the Department's website at <http://www.planning.nsw.gov.au>

- | | |
|-----|---|
| (1) | The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved). |
|-----|---|

2. The following proposed environmental planning instruments apply to the land:

- None

- | | |
|-----|--|
| (2) | The name of each development control plan that applies to the carrying out of development on the land. |
|-----|--|

3. The following development control plans (D.C.P's) apply to the land:

- Marrickville Development Control Plan 2011

ITEM 2

Zoning and land use under relevant LEPs

- | |
|--|
| For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described): |
| (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or Heritage Area") or by reference to a number (such as "Zone No 2 (a)"), |
| (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent, |

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 3 of 16

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,
- (d) the purposes for which the instrument provides that development is prohibited within the zone,
- (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed,
- (f) whether the land includes or comprises critical habitat,
- (g) whether the land is in a conservation area (however described),
- (h) whether an item of environmental heritage (however described) is situated on the land.

Item 2 (a), (b), (c) & (d) – Zoning and Land use table

IN1 - General Industrial

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To protect industrial land in proximity to Sydney Airport and Port Botany.
- To enable a purpose built dwelling house to be used in certain circumstances as a dwelling house.

2 Permitted without consent

Home occupations

3 Permitted with consent

Agricultural produce industries; Depots; Dwelling houses; Freight transport facilities; General industries; Industrial training facilities; Intensive plant agriculture; Kiosks; Light industries; Markets; Neighbourhood shops; Roads; Take away food and drink premises; Timber yards; Warehouse or distribution centres; Any other development not specified in item 2 or 4

4 Prohibited

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 4 of 16

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Child care centres; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Educational establishments; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home occupations (sex services); Information and education facilities; Jetties; Marinas; Mooring pens; Moorings; Offensive industries; Open cut mining; Passenger transport facilities; Places of public worship; Port facilities; Public administration buildings; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Respite day care centres; Restricted premises; Rural industries; Tourist and visitor accommodation; Transport depots; Veterinary hospitals; Water recreation structures; Water supply systems; Wholesale supplies

Item 2 (e) – Minimum land dimensions

There are NO minimum land dimensions for the erection of a dwelling house on the land. All applications for the erection of a dwelling house will be assessed in accordance with the Environmental Planning and Assessment Act, 1979.

Item 2 (f) – Critical habitat

The land DOES NOT include or comprise critical habitat.

Item 2 (g) – Conservation Area

The land IS NOT within a heritage conservation area referred to in Schedule 5 of Marrickville Local Environmental Plan 2011

Item 2 (h) – Heritage Item

An item of environmental heritage IS NOT situated on the land under Marrickville Local Environmental Plan 2011

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 5 of 16

ITEM 2A

Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

To the extent that the land is within any zone (however described) under:

- (a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (the 2006 SEPP)*, or
- (b) a Precinct Plan (within the meaning of the 2006 SEPP), or
- (c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the Act,

the particulars referred to in clause 2 (a)–(h) in relation to that land (with a reference to “the instrument” in any of those paragraphs being read as a reference to Part 3 of the 2006 SEPP, or the Precinct Plan or proposed Precinct Plan, as the case requires).

The land IS NOT land to which State Environmental Planning Policy (Sydney Region Growth Centres) 2006 applies.

ITEM 3

Complying development

(1) Whether or not the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (c) and (d) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) If complying development may not be carried out on that land because of the provisions of clauses 1.17A (c) and (d) and 1.19 of that Policy, the reasons why it may not be carried out under that clause.

General Housing Code

No. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may not be carried out on this land.

The land is excluded land identified as being within ANEF 25 or higher, unless the development is for the erection of ancillary development

The land is excluded land identified on an Acid Sulfate Soils map as being Class 2

Housing Alterations Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 6 of 16

General Development Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

General Commercial and Industrial Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Subdivisions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Demolitions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

ITEM 4

Coastal protection

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

No.

ITEM 4A

Certain information relating to beaches and coasts

(1) In relation to a coastal council – whether an order has been made under Part 4D of the <u>Coastal Protection Act 1979</u> in relation to temporary coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.
--

NO order has been made under Part 4D of the Coastal Protection Act 1979.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 7 of 16

(2) In relation to a coastal council:

- (a) whether the council has been notified under section 55X of the *Coastal Protection Act 1979* that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and

Council HAS NOT been notified under Section 55X of the *Coastal Protection Act 1979*.

- (b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Not Applicable

(3) (Repealed)

ITEM 4B

Annual charges under Local Government Act 1993 for coastal protection services that relate to the existing coastal protection works

In relation to a coastal council – whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

The land IS NOT subject to any annual charges under Section 496B of the *Local Government Act 1993*.

ITEM 5

Mine subsidence

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 8 of 16

ITEM 6

Road widening and road realignment

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

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

The land IS NOT affected by a road widening or road realignment under:

- (i) Part 3 Division 2 of the Roads Act 1993
- (ii) any environmental planning instrument; or
- (iii) any resolution of the Council

ITEM 7

Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:

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

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

- Council HAS adopted by resolution and in accordance with S.72 of the Environmental Planning & Assessment Act, 1979 a development control plan incorporating Council's policy on contaminated land. The Plan has been prepared substantially in accordance with State Environmental Planning Policy No. 55, and the Contaminated Land Planning Guidelines. This policy may affect development of land:

- (a) which is affected by contamination;
- (b) which has been used for certain purposes;
- (c) in respect of which there is not sufficient information about contamination;
- (d) which is proposed to be used for certain purposes;
- (e) in other circumstances contained in the development control plan and policy;

and in some cases may restrict the development of land.

- The land IS identified as being subject to acid sulfate soil risk under clause 6.2 of Marrickville Local Environmental Plan 2011. Development on land that is subject to acid sulphate soil risk requires development consent and the preparation of an acid sulphate soils management plan subject to a preliminary assessment of the proposed works prepared in accordance with the Acid

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 9 of 16

Sulfate Soils Manual. Development consent is not required where the works involve the disturbance of less than 1 tonne of soil or are not likely to lower the watertable.

- Council HAS NOT by resolution (aside from the matters raised in the above item(s)) adopted a policy to restrict the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).
- Council HAS received no notification of the type described in item 7(b) from a public authority of a policy adopted by that authority that restricts the development of the land because of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).

ITEM 7A

Flood related development controls information

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

Yes.

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

Yes.

(3) Words and expressions in this clause have the same meaning as in the instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plan) Order 2006*.

ITEM 8

Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

The land IS NOT reserved, in part or whole, for acquisition by a public authority, as referred to in

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 10 of 16

section 27 of the Act, under:

- (i) any environmental planning instrument
- (ii) deemed environmental planning instrument; or
- (iii) draft environmental planning instrument

ITEM 9

Contributions plans

The name of each contributions plan applying to the land.

Marrickville Section 94 Contributions Plan 2004.

ITEM 9A

Biodiversity certified land

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

The land IS NOT biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995).

ITEM 10

Biobanking agreements

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

The land IS NOT land to which a biobanking agreement under Part 7A of the Threatened Species Conservation Act 1995 relates.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 11 of 16

ITEM 11

Bush fire prone land

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

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

The land IS NOT bush fire prone land.

ITEM 12

Property vegetation plans

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

No.

ITEM 13

Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No.

ITEM 14

Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 12 of 16

ITEM 15

Site compatibility certificates and conditions for seniors housing

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

- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
 - (i) the period for which the certificate is current, and
 - (ii) that a copy may be obtained from the head office of the Department of Planning, and
- (b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

Item 15(a)

There IS NOT a current site compatibility certificate (seniors housing) relating to the land

Item 15(b)

There ARE NO applicable terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

ITEM 16

Site compatibility certificate for Infrastructure

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

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

There IS NOT a current site compatibility certificate (infrastructure) relating to the land

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 13 of 16

ITEM 17

Site compatibility certificate and conditions affecting affordable rental housing

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

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

(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

Item 17(1)

There IS NOT a current site compatibility certificate (affordable rental housing) relating to the land

Item 17(2)

There ARE NO applicable terms of a kind referred to in clause 17(1) or 38(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land

ITEM 18

Paper subdivision information

- (1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

Nil.

- (2) The date of any subdivision order that applies to the land.

Not applicable.

- (3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Not Applicable.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 14 of 16

ITEM 19

Site verification certificates

(1) A statement of whether there is a current site verification certificate, of which council is aware, in respect of the land and, if there is a certificate, the statement is to include:

a) the matter certified by the certificate, and

Note: A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land – see Division 3 of Part 4AA of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

b) the date on which the certificate ceases to be current (if any), and

c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure

Not applicable.

OTHER ITEMS (i)

Section 23 exemption or Section 24 authorisation

Whether an exemption under Section 23 or an authorisation under section 24 of the *Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009* No 1 has been issued by the Co-ordinator General in relation to the land.

An exemption under Section 23 or an authorisation under Section 24 of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009 No 1 HAS NOT been issued by the Co-ordinator General in relation to the land.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302201

Page No: 15 of 16

OTHER ITEMS (ii)

Matters arising under the Contaminated Land Management Act 1997

Section 59(2) of the *Contaminated Land Management Act 1997* prescribes the following additional matters that are to be specified in a planning certificate:

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

No.

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

No.

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

No.

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

No.

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

No.

**PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING &
ASSESSMENT ACT, 1979.**

Cert. No: PC201302201

Page No: 16 of 16

Information provided in this planning certificate is in accordance with the matters prescribed under Schedule 4 of the Environmental Planning and Assessment Regulation 2000.

Council draws your attention to Section 149 (6) which states that a Council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5).

This is the end of the Certificate as prescribed under section 149(2) of the Environmental Planning and Assessment Act 1979.

Please contact the Planning Services Section for further information about any instruments or affectations referred to in the Certificate.



**MARCUS ROWAN
MANAGER, PLANNING SERVICES**

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No.: PC201302199

Page No: 1 of 16

Date: 20/11/2013

APPLICANT

S XARRAS
Po Box 3247
Marrickville Metro, 2204

PROPERTY

183 Victoria Road
MARRICKVILLE NSW 2204
Lot 20 DP 667441

PROPERTY NO.

26804

REFERENCE

In accordance with the requirements of section 149 of the Environmental Planning and Assessment Act 1979, the following prescribed matters relate to the land at the date of this certificate.

ITEM 1

Names of relevant planning instruments and DCPs

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

1. The following environmental planning instruments apply to the land:

- Marrickville Local Environmental Plan 2011 – Amendment 1
- S.E.P.P. No. 6 Number of Storeys in a Building
- S.E.P.P. No. 19 Bushland in Urban Areas
- S.E.P.P. No. 21 Caravan Parks
- S.E.P.P. No. 22 Shops and Commercial Premises
- S.E.P.P. No. 30 Intensive Agriculture
- S.E.P.P. No. 32 Urban Consolidation (Redevelopment of Urban Land)
- S.E.P.P. No. 33 Hazardous and Offensive Development
- S.E.P.P. No. 50 Canal Estates
- S.E.P.P. No. 53 Transitional Provisions
- S.E.P.P. No. 55 Remediation of Land
- S.E.P.P. No. 62 Sustainable Aquaculture
- S.E.P.P. No. 64 Advertising and Signage
- S.E.P.P. No. 65 Design Quality of Residential Flat Development

Phone 02 9335 2222
Fax 02 9335 2029
TTY 02 9335 2025 (hearing impaired)
Email council@marrickville.nsw.gov.au
Website www.marrickville.nsw.gov.au

ENGLISH

IMPORTANT

This letter contains important information. If you do not understand it, please ask a relative or friend to translate it or come to Council and discuss the letter with Council's staff using the Telephone Interpreter Service.

GREEK

ΣΗΜΑΝΤΙΚΟ

Αυτή η επιστολή περιέχει σημαντικές πληροφορίες. Αν δεν τις καταλαβαίνετε, παρακαλείστε να ζητήσετε από ένα συγγενή ή φίλο να σας τις μεταφράσει ή να έλθετε στα γραφεία της Δημαρχίας και να συζητήσετε την επιστολή με προσωπικό της Δημαρχίας χρησιμοποιώντας την Τηλεφωνική Υπηρεσία Διερμηνέων.

PORTUGUESE

IMPORTANTE

Este carta contém informação importante. Se não o compreender peça a uma pessoa de família ou a um/a amigo/a para o traduzir ou venha até à Câmara Municipal (Council) para discutir o assunto através do Serviço de Intérpretes pelo Telefone (Telephone Interpreter Service).

ARABIC

هَامَ
تحتوي هذه الرسالة معلومات هامة. فإذا لم تستوعبها يرجى أن
تطلبوا من أحد أقربائكم أو أصدقائكم شرحها لكم، أو تفضلوا إلى البلدية
واجلبوا الرسالة معكم لكي تناقشوها مع أحد موظفي البلدية من خلال
الإستعانة بخدمة الترجمة الهاتفية.

VIETNAMESE

THÔNG TIN QUAN TRỌNG

Nội dung thư này gồm có các thông tin quan trọng.
Nếu đọc không hiểu, xin quý vị nhờ thân nhân hay
bạn bè dịch giúp hoặc đem đến Hội đồng Thành
phố để thảo luận với nhân viên qua trung gian Dịch
vụ Thông dịch qua Điện thoại.

MANDARIN

重要资料

本信写有重要资料。如果不明白，请亲友为您翻译，
或到市政府来，通过电话传译服务，与市政府工作人
员讨论此信。

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 2 of 16

- S.E.P.P. (Housing for Seniors or People with a Disability) 2004
- S.E.P.P. (Building Sustainability Index: BASIX) 2004
- S.E.P.P. (Major Development) 2005
- S.E.P.P. (Mining, Petroleum Production and Extractive Industries) 2007
- S.E.P.P. (Temporary Structures) 2007
- S.E.P.P. (Infrastructure) 2007
- S.E.P.P. (Exempt and Complying Development Codes) 2008
- S.E.P.P. (Affordable Rental Housing) 2009

Any enquiries regarding these State Planning Policies should be directed to the Department of Planning on: 1300 305 695 or 02 9228 6333. Information can also be obtained from the Department's website at <http://www.planning.nsw.gov.au>

- (1) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved).

2. The following proposed environmental planning instruments apply to the land:

- None

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

3. The following development control plans (D.C.P's) apply to the land:

- Marrickville Development Control Plan 2011

ITEM 2

Zoning and land use under relevant LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

- (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or Heritage Area") or by reference to a number (such as "Zone No 2 (a)"),
- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent,

**PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING &
ASSESSMENT ACT, 1979.**

Cert. No: PC201302199

Page No: 3 of 16

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,
 - (d) the purposes for which the instrument provides that development is prohibited within the zone,
 - (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed,
 - (f) whether the land includes or comprises critical habitat,
 - (g) whether the land is in a conservation area (however described),
 - (h) whether an item of environmental heritage (however described) is situated on the land.

Item 2 (a), (b), (c) & (d) – Zoning and Land use table

IN1 - General Industrial

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To protect industrial land in proximity to Sydney Airport and Port Botany.
- To enable a purpose built dwelling house to be used in certain circumstances as a dwelling house.

2 Permitted without consent

Home occupations

3 Permitted with consent

Agricultural produce industries; Depots; Dwelling houses; Freight transport facilities; General industries; Industrial training facilities; Intensive plant agriculture; Kiosks; Light industries; Markets; Neighbourhood shops; Roads; Take away food and drink premises; Timber yards; Warehouse or distribution centres; Any other development not specified in item 2 or 4

4 Prohibited

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 4 of 16

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Child care centres; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Educational establishments; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home occupations (sex services); Information and education facilities; Jetties; Marinas; Mooring pens; Moorings; Offensive industries; Open cut mining; Passenger transport facilities; Places of public worship; Port facilities; Public administration buildings; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Respite day care centres; Restricted premises; Rural industries; Tourist and visitor accommodation; Transport depots; Veterinary hospitals; Water recreation structures; Water supply systems; Wholesale supplies

Item 2 (e) – Minimum land dimensions

There are NO minimum land dimensions for the erection of a dwelling house on the land. All applications for the erection of a dwelling house will be assessed in accordance with the Environmental Planning and Assessment Act, 1979.

Item 2 (f) – Critical habitat

The land DOES NOT include or comprise critical habitat.

Item 2 (g) – Conservation Area

The land IS NOT within a heritage conservation area referred to in Schedule 5 of Marrickville Local Environmental Plan 2011

Item 2 (h) – Heritage Item

An item of environmental heritage IS NOT situated on the land under Marrickville Local Environmental Plan 2011

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 5 of 16

ITEM 2A

Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

To the extent that the land is within any zone (however described) under:

- (a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (the 2006 SEPP), or
- (b) a Precinct Plan (within the meaning of the 2006 SEPP), or
- (c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the Act,

the particulars referred to in clause 2 (a)–(h) in relation to that land (with a reference to “the instrument” in any of those paragraphs being read as a reference to Part 3 of the 2006 SEPP, or the Precinct Plan or proposed Precinct Plan, as the case requires).

The land IS NOT land to which State Environmental Planning Policy (Sydney Region Growth Centres) 2006 applies.

ITEM 3

Complying development

(1) Whether or not the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (c) and (d) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) If complying development may not be carried out on that land because of the provisions of clauses 1.17A (c) and (d) and 1.19 of that Policy, the reasons why it may not be carried out under that clause.

General Housing Code

No. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may not be carried out on this land.

The land is excluded land identified as being within ANEF 25 or higher, unless the development is for the erection of ancillary development

The land is excluded land identified on an Acid Sulfate Soils map as being Class 2

Housing Alterations Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 6 of 16

General Development Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

General Commercial and Industrial Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Subdivisions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Demolitions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

ITEM 4

Coastal protection

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

No.

ITEM 4A

Certain information relating to beaches and coasts

(1) In relation to a coastal council – whether an order has been made under Part 4D of the Coastal Protection Act 1979 in relation to temporary coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.

NO order has been made under Part 4D of the Coastal Protection Act 1979.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 7 of 16

(2) In relation to a coastal council:

- (a) whether the council has been notified under section 55X of the *Coastal Protection Act 1979* that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and

Council HAS NOT been notified under Section 55X of the *Coastal Protection Act 1979*.

- (b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Not Applicable

(3) (Repealed)

ITEM 4B

Annual charges under Local Government Act 1993 for coastal protection services that relate to the existing coastal protection works

In relation to a coastal council – whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

The land IS NOT subject to any annual charges under Section 496B of the *Local Government Act 1993*.

ITEM 5

Mine subsidence

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 8 of 16

ITEM 6

Road widening and road realignment

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

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

The land IS NOT affected by a road widening or road realignment under:

- (i) Part 3 Division 2 of the Roads Act 1993
- (ii) any environmental planning instrument; or
- (iii) any resolution of the Council

ITEM 7

Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:

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

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

- Council HAS adopted by resolution and in accordance with S.72 of the Environmental Planning & Assessment Act, 1979 a development control plan incorporating Council's policy on contaminated land. The Plan has been prepared substantially in accordance with State Environmental Planning Policy No. 55, and the Contaminated Land Planning Guidelines. This policy may affect development of land:

- (a) which is affected by contamination;
- (b) which has been used for certain purposes;
- (c) in respect of which there is not sufficient information about contamination;
- (d) which is proposed to be used for certain purposes;
- (e) in other circumstances contained in the development control plan and policy;

and in some cases may restrict the development of land.

- The land IS identified as being subject to acid sulfate soil risk under clause 6.2 of Marrickville Local Environmental Plan 2011. Development on land that is subject to acid sulphate soil risk requires development consent and the preparation of an acid sulphate soils management plan subject to a preliminary assessment of the proposed works prepared in accordance with the Acid

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 9 of 16

Sulfate Soils Manual. Development consent is not required where the works involve the disturbance of less than 1 tonne of soil or are not likely to lower the watertable.

- Council HAS NOT by resolution (aside from the matters raised in the above item(s)) adopted a policy to restrict the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).
- Council HAS received no notification of the type described in item 7(b) from a public authority of a policy adopted by that authority that restricts the development of the land because of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).

ITEM 7A

Flood related development controls information

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

Yes.

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

Yes.

(3) Words and expressions in this clause have the same meaning as in the instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plan) Order 2006*.

ITEM 8

Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

The land IS NOT reserved, in part or whole, for acquisition by a public authority, as referred to in

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 10 of 16

section 27 of the Act, under:

- (i) any environmental planning instrument
- (ii) deemed environmental planning instrument; or
- (iii) draft environmental planning instrument

ITEM 9

Contributions plans

The name of each contributions plan applying to the land.

Marrickville Section 94 Contributions Plan 2004.

ITEM 9A

Biodiversity certified land

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

The land IS NOT biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995).

ITEM 10

Biobanking agreements

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

The land IS NOT land to which a biobanking agreement under Part 7A of the Threatened Species Conservation Act 1995 relates.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 11 of 16

ITEM 11

Bush fire prone land

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

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

The land IS NOT bush fire prone land.

ITEM 12

Property vegetation plans

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

No.

ITEM 13

Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No.

ITEM 14

Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 12 of 16

ITEM 15

Site compatibility certificates and conditions for seniors housing

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

- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
 - (i) the period for which the certificate is current, and
 - (ii) that a copy may be obtained from the head office of the Department of Planning, and
- (b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

Item 15(a)

There IS NOT a current site compatibility certificate (seniors housing) relating to the land

Item 15(b)

There ARE NO applicable terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

ITEM 16

Site compatibility certificate for Infrastructure

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

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

There IS NOT a current site compatibility certificate (infrastructure) relating to the land

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 13 of 16

ITEM 17

Site compatibility certificate and conditions affecting affordable rental housing

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

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

(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

Item 17(1)

There IS NOT a current site compatibility certificate (affordable rental housing) relating to the land

Item 17(2)

There ARE NO applicable terms of a kind referred to in clause 17(1) or 38(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land

ITEM 18

Paper subdivision information

- (1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

Nil.

- (2) The date of any subdivision order that applies to the land.

Not applicable.

- (3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Not Applicable.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 14 of 16

ITEM 19

Site verification certificates

(1) A statement of whether there is a current site verification certificate, of which council is aware, in respect of the land and, if there is a certificate, the statement is to include:

a) the matter certified by the certificate, and

Note: A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land – see Division 3 of Part 4AA of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

b) the date on which the certificate ceases to be current (if any), and

c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure

Not applicable.

OTHER ITEMS (i)

Section 23 exemption or Section 24 authorisation

Whether an exemption under Section 23 or an authorisation under section 24 of the *Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009* No 1 has been issued by the Co-ordinator General in relation to the land.

An exemption under Section 23 or an authorisation under Section 24 of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009 No 1 HAS NOT been issued by the Co-ordinator General in relation to the land.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 15 of 16

OTHER ITEMS (ii)

Matters arising under the Contaminated Land Management Act 1997

Section 59(2) of the *Contaminated Land Management Act 1997* prescribes the following additional matters that are to be specified in a planning certificate:

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

No.

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

No.

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

No.

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

No.

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302199

Page No: 16 of 16

Information provided in this planning certificate is in accordance with the matters prescribed under Schedule 4 of the Environmental Planning and Assessment Regulation 2000.

Council draws your attention to Section 149 (6) which states that a Council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5).

This is the end of the Certificate as prescribed under section 149(2) of the Environmental Planning and Assessment Act 1979.

Please contact the Planning Services Section for further information about any instruments or affectations referred to in the Certificate.

A handwritten signature in black ink, appearing to be 'MR' followed by a large loop and a flourish.

MARCUS ROWAN
MANAGER, PLANNING SERVICES

**PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING &
ASSESSMENT ACT, 1979.**

Cert. No.: PC201302200

Page No: 1 of 16

Date: 20/11/2013

APPLICANT

S XARRAS

Po Box 3247

Marrickville Metro, 2204

PROPERTY

183 Victoria Road

MARRICKVILLE NSW 2204

Lot A DP 166330

PROPERTY NO.

26804

REFERENCE

In accordance with the requirements of section 149 of the Environmental Planning and Assessment Act 1979, the following prescribed matters relate to the land at the date of this certificate.

ITEM 1

Names of relevant planning instruments and DCPs

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

I. The following environmental planning instruments apply to the land:

- Marrickville Local Environmental Plan 2011 – Amendment 1
- S.E.P.P. No. 6 Number of Storeys in a Building
- S.E.P.P. No. 19 Bushland in Urban Areas
- S.E.P.P. No. 21 Caravan Parks
- S.E.P.P. No. 22 Shops and Commercial Premises
- S.E.P.P. No. 30 Intensive Agricultures
- S.E.P.P. No. 32 Urban Consolidation (Redevelopment of Urban Land)
- S.E.P.P. No. 33 Hazardous and Offensive Development
- S.E.P.P. No. 50 Canal Estates
- S.E.P.P. No. 53 Transitional Provisions
- S.E.P.P. No. 55 Remediation of Land
- S.E.P.P. No. 62 Sustainable Aquaculture
- S.E.P.P. No. 64 Advertising and Signage
- S.E.P.P. No. 65 Design Quality of Residential Flat Development

ENGLISH

IMPORTANT

This letter contains important information. If you do not understand it, please ask a relative or friend to translate it or come to Council and discuss the letter with Council's staff using the Telephone Interpreter Service.

GREEK

ΣΗΜΑΝΤΙΚΟ

Αυτή η επιστολή περιέχει σημαντικές πληροφορίες. Αν δεν τις καταλαβαίνετε, παρακαλείστε να ζητήσετε από ένα συγγενή ή φίλο να σας τις μεταφράσει ή να έλθετε στα γραφεία της Δημαρχίας και να συζητήσετε την επιστολή με προσωπικό της Δημαρχίας χρησιμοποιώντας την Τηλεφωνική Υπηρεσία Διερμηνέων.

PORTUGUESE

IMPORTANTE

Este carta contém informação importante. Se não o compreender peça a uma pessoa de família ou a um/a amigo/a para o traduzir ou venha até à Câmara Municipal (Council) para discutir o assunto através do Serviço de Intérpretes pelo Telefone (Telephone Interpreter Service).

ARABIC

هَامَ
تحتوي هذه الرسالة معلومات هامة. فإذا لم تستوعبها يرجى أن تطلبوا من أحد أقربانكم أو أصدقائكم شرحها لكم، أو تفضلوا إلى البلدية واجلبوا الرسالة معكم لكي تناقشوها مع أحد موظفي البلدية من خلال الإستعانة بخدمة الترجمة الهاتفية.

VIETNAMESE

THÔNG TIN QUAN TRỌNG

Nội dung thư này gồm có các thông tin quan trọng. Nếu đọc không hiểu, xin quý vị nhờ thân nhân hay bạn bè dịch giúp hoặc đem đến Hội đồng Thành phố để thảo luận với nhân viên qua trung gian Dịch vụ Thông dịch qua Điện thoại.

MANDARIN

重要资料

本信写有重要资料。如果不明白，请亲友为您翻译，或到市政府来，通过电话传译服务，与市政府工作人员讨论此信。

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 2 of 16

- S.E.P.P. (Housing for Seniors or People with a Disability) 2004
- S.E.P.P. (Building Sustainability Index: BASIX) 2004
- S.E.P.P. (Major Development) 2005
- S.E.P.P. (Mining, Petroleum Production and Extractive Industries) 2007
- S.E.P.P. (Temporary Structures) 2007
- S.E.P.P. (Infrastructure) 2007
- S.E.P.P. (Exempt and Complying Development Codes) 2008
- S.E.P.P. (Affordable Rental Housing) 2009

Any enquiries regarding these State Planning Policies should be directed to the Department of Planning on: 1300 305 695 or 02 9228 6333. Information can also be obtained from the Department's website at <http://www.planning.nsw.gov.au>

- | | |
|-----|---|
| (1) | The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved). |
|-----|---|

2. The following proposed environmental planning instruments apply to the land:

- None

- | | |
|-----|--|
| (2) | The name of each development control plan that applies to the carrying out of development on the land. |
|-----|--|

3. The following development control plans (D.C.P's) apply to the land:

- Marrickville Development Control Plan 2011

ITEM 2

Zoning and land use under relevant LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):
--

- | |
|---|
| <ul style="list-style-type: none">(a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or Heritage Area") or by reference to a number (such as "Zone No 2 (a)"),(b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent, |
|---|

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 3 of 16

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,
- (d) the purposes for which the instrument provides that development is prohibited within the zone,
- (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed,
- (f) whether the land includes or comprises critical habitat,
- (g) whether the land is in a conservation area (however described),
- (h) whether an item of environmental heritage (however described) is situated on the land.

Item 2 (a), (b), (c) & (d) – Zoning and Land use table

IN1 - General Industrial

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To protect industrial land in proximity to Sydney Airport and Port Botany.
- To enable a purpose built dwelling house to be used in certain circumstances as a dwelling house.

2 Permitted without consent

Home occupations

3 Permitted with consent

Agricultural produce industries; Depots; Dwelling houses; Freight transport facilities; General industries; Industrial training facilities; Intensive plant agriculture; Kiosks; Light industries; Markets; Neighbourhood shops; Roads; Take away food and drink premises; Timber yards; Warehouse or distribution centres; Any other development not specified in item 2 or 4

4 Prohibited

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 4 of 16

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Child care centres; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Educational establishments; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home occupations (sex services); Information and education facilities; Jetties; Marinas; Mooring pens; Moorings; Offensive industries; Open cut mining; Passenger transport facilities; Places of public worship; Port facilities; Public administration buildings; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Respite day care centres; Restricted premises; Rural industries; Tourist and visitor accommodation; Transport depots; Veterinary hospitals; Water recreation structures; Water supply systems; Wholesale supplies

Item 2 (e) – Minimum land dimensions

There are NO minimum land dimensions for the erection of a dwelling house on the land. All applications for the erection of a dwelling house will be assessed in accordance with the Environmental Planning and Assessment Act, 1979.

Item 2 (f) – Critical habitat

The land DOES NOT include or comprise critical habitat.

Item 2 (g) – Conservation Area

The land IS NOT within a heritage conservation area referred to in Schedule 5 of Marrickville Local Environmental Plan 2011

Item 2 (h) – Heritage Item

An item of environmental heritage IS NOT situated on the land under Marrickville Local Environmental Plan 2011

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 5 of 16

ITEM 2A

Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

To the extent that the land is within any zone (however described) under:

- (a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (the 2006 SEPP)*, or
 - (b) a Precinct Plan (within the meaning of the 2006 SEPP), or
 - (c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the Act,
- the particulars referred to in clause 2 (a)–(h) in relation to that land (with a reference to “the instrument” in any of those paragraphs being read as a reference to Part 3 of the 2006 SEPP, or the Precinct Plan or proposed Precinct Plan, as the case requires).

The land IS NOT land to which State Environmental Planning Policy (Sydney Region Growth Centres) 2006 applies.

ITEM 3

Complying development

(1) Whether or not the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (c) and (d) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) If complying development may not be carried out on that land because of the provisions of clauses 1.17A (c) and (d) and 1.19 of that Policy, the reasons why it may not be carried out under that clause.

General Housing Code

No. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may not be carried out on this land.

The land is excluded land identified as being within ANEF 25 or higher, unless the development is for the erection of ancillary development

Housing Alterations Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 6 of 16

General Development Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

General Commercial and Industrial Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Subdivisions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Demolitions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

ITEM 4

Coastal protection

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

No.

ITEM 4A

Certain information relating to beaches and coasts

(1) In relation to a coastal council – whether an order has been made under Part 4D of the Coastal Protection Act 1979 in relation to temporary coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.

NO order has been made under Part 4D of the Coastal Protection Act 1979.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 7 of 16

(2) In relation to a coastal council:

- (a) whether the council has been notified under section 55X of the *Coastal Protection Act 1979* that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and

Council HAS NOT been notified under Section 55X of the *Coastal Protection Act 1979*.

- (b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Not Applicable

(3) (Repealed)

ITEM 4B

Annual charges under Local Government Act 1993 for coastal protection services that relate to the existing coastal protection works

In relation to a coastal council – whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

The land IS NOT subject to any annual charges under Section 496B of the *Local Government Act 1993*.

ITEM 5

Mine subsidence

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 8 of 16

ITEM 6

Road widening and road realignment

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

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

The land IS NOT affected by a road widening or road realignment under:

- (i) Part 3 Division 2 of the Roads Act 1993
- (ii) any environmental planning instrument; or
- (iii) any resolution of the Council

ITEM 7

Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:

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

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

- Council HAS adopted by resolution and in accordance with S.72 of the Environmental Planning & Assessment Act, 1979 a development control plan incorporating Council's policy on contaminated land. The Plan has been prepared substantially in accordance with State Environmental Planning Policy No. 55, and the Contaminated Land Planning Guidelines. This policy may affect development of land:

- (a) which is affected by contamination;
- (b) which has been used for certain purposes;
- (c) in respect of which there is not sufficient information about contamination;
- (d) which is proposed to be used for certain purposes;
- (e) in other circumstances contained in the development control plan and policy;

and in some cases may restrict the development of land.

- The land IS identified as being subject to acid sulfate soil risk under clause 6.2 of Marrickville Local Environmental Plan 2011. Development on land that is subject to acid sulphate soil risk requires development consent and the preparation of an acid sulphate soils management plan subject to a preliminary assessment of the proposed works prepared in accordance with the Acid

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 9 of 16

Sulfate Soils Manual. Development consent is not required where the works involve the disturbance of less than 1 tonne of soil or are not likely to lower the watertable.

- Council HAS NOT by resolution (aside from the matters raised in the above item(s)) adopted a policy to restrict the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).
- Council HAS received no notification of the type described in item 7(b) from a public authority of a policy adopted by that authority that restricts the development of the land because of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).

ITEM 7A

Flood related development controls information

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

Yes.

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

Yes.

(3) Words and expressions in this clause have the same meaning as in the instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plan) Order 2006*.

ITEM 8

Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

The land IS NOT reserved, in part or whole, for acquisition by a public authority, as referred to in

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 10 of 16

section 27 of the Act, under:

- (i) any environmental planning instrument
- (ii) deemed environmental planning instrument; or
- (iii) draft environmental planning instrument

ITEM 9

Contributions plans

The name of each contributions plan applying to the land.

Marrickville Section 94 Contributions Plan 2004.

ITEM 9A

Biodiversity certified land

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

The land IS NOT biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995).

ITEM 10

Biobanking agreements

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

The land IS NOT land to which a biobanking agreement under Part 7A of the Threatened Species Conservation Act 1995 relates.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 11 of 16

ITEM 11

Bush fire prone land

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

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

The land IS NOT bush fire prone land.

ITEM 12

Property vegetation plans

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

No.

ITEM 13

Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No.

ITEM 14

Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 12 of 16

ITEM 15

Site compatibility certificates and conditions for seniors housing

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

- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
 - (i) the period for which the certificate is current, and
 - (ii) that a copy may be obtained from the head office of the Department of Planning, and
- (b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

Item 15(a)

There IS NOT a current site compatibility certificate (seniors housing) relating to the land

Item 15(b)

There ARE NO applicable terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

ITEM 16

Site compatibility certificate for Infrastructure

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

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

There IS NOT a current site compatibility certificate (infrastructure) relating to the land

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 13 of 16

ITEM 17

Site compatibility certificate and conditions affecting affordable rental housing

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

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

(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

Item 17(1)

There IS NOT a current site compatibility certificate (affordable rental housing) relating to the land

Item 17(2)

There ARE NO applicable terms of a kind referred to in clause 17(1) or 38(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land

ITEM 18

Paper subdivision information

- (1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

Nil.

- (2) The date of any subdivision order that applies to the land.

Not applicable.

- (3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Not Applicable.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 14 of 16

ITEM 19

Site verification certificates

(1) A statement of whether there is a current site verification certificate, of which council is aware, in respect of the land and, if there is a certificate, the statement is to include:

a) the matter certified by the certificate, and

Note: A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land – see Division 3 of Part 4AA of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

b) the date on which the certificate ceases to be current (if any), and

c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure

Not applicable.

OTHER ITEMS (i)

Section 23 exemption or Section 24 authorisation

Whether an exemption under Section 23 or an authorisation under section 24 of the *Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009* No 1 has been issued by the Co-ordinator General in relation to the land.

An exemption under Section 23 or an authorisation under Section 24 of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009 No 1 HAS NOT been issued by the Co-ordinator General in relation to the land.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302200

Page No: 15 of 16

OTHER ITEMS (ii)

Matters arising under the Contaminated Land Management Act 1997

Section 59(2) of the *Contaminated Land Management Act 1997* prescribes the following additional matters that are to be specified in a planning certificate:

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

No.

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

No.

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

No.

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

No.

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

No.

**PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING &
ASSESSMENT ACT, 1979.**

Cert. No: PC201302200

Page No: 16 of 16

Information provided in this planning certificate is in accordance with the matters prescribed under Schedule 4 of the Environmental Planning and Assessment Regulation 2000.

Council draws your attention to Section 149 (6) which states that a Council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5).

This is the end of the Certificate as prescribed under section 149(2) of the Environmental Planning and Assessment Act 1979.

Please contact the Planning Services Section for further information about any instruments or affectations referred to in the Certificate.



**MARCUS ROWAN
MANAGER, PLANNING SERVICES**

**PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING &
ASSESSMENT ACT, 1979.**

Cert. No.: PC201302198

Page No: 1 of 16

Date: 20/11/2013

APPLICANT

S XARRAS
Po Box 3247
Marrickville Metro, 2204

PROPERTY

183 Victoria Road
MARRICKVILLE NSW 2204
Lot D DP 301985

PROPERTY NO.

26804

REFERENCE

In accordance with the requirements of section 149 of the Environmental Planning and Assessment Act 1979, the following prescribed matters relate to the land at the date of this certificate.

ITEM 1

Names of relevant planning instruments and DCPs

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

1. The following environmental planning instruments apply to the land:

- Marrickville Local Environmental Plan 2011 – Amendment 1
- S.E.P.P. No. 6 Number of Storeys in a Building
- S.E.P.P. No. 19 Bushland in Urban Areas
- S.E.P.P. No. 21 Caravan Parks
- S.E.P.P. No. 22 Shops and Commercial Premises
- S.E.P.P. No. 30 Intensive Agriculture
- S.E.P.P. No. 32 Urban Consolidation (Redevelopment of Urban Land)
- S.E.P.P. No. 33 Hazardous and Offensive Development
- S.E.P.P. No. 50 Canal Estates
- S.E.P.P. No. 53 Transitional Provisions
- S.E.P.P. No. 55 Remediation of Land
- S.E.P.P. No. 62 Sustainable Aquaculture
- S.E.P.P. No. 64 Advertising and Signage
- S.E.P.P. No. 65 Design Quality of Residential Flat Development

ENGLISH

IMPORTANT

This letter contains important information. If you do not understand it, please ask a relative or friend to translate it or come to Council and discuss the letter with Council's staff using the Telephone Interpreter Service.

GREEK

ΣΗΜΑΝΤΙΚΟ

Αυτή η επιστολή περιέχει σημαντικές πληροφορίες. Αν δεν τις καταλαβαίνετε, παρακαλείστε να ζητήσετε από ένα συγγενή ή φίλο να σας τις μεταφράσει ή να έλθετε στα γραφεία της Δημαρχίας και να συζητήσετε την επιστολή με προσωπικό της Δημαρχίας χρησιμοποιώντας την Τηλεφωνική Υπηρεσία Διερμηνέων.

PORTUGUESE

IMPORTANTE

Este carta contém informação importante. Se não o compreender peça a uma pessoa de família ou a um/a amigo/a para o traduzir ou venha até à Câmara Municipal (Council) para discutir o assunto através do Serviço de Intérpretes pelo Telefone (Telephone Interpreter Service).

ARABIC

هَامَ
تحتوي هذه الرسالة معلومات هامة. فإذا لم تستوعبوها يرجى أن تطلبوا من أحد أقربائكم أو أصدقائكم شرحها لكم، أو تفضلوا إلى البلدية واجلبوا الرسالة معكم لكي تناقشوها مع أحد موظفي البلدية من خلال الإستعانة بخدمة الترجمة الهاتفية.

VIETNAMESE

THÔNG TIN QUAN TRỌNG

Nội dung thư này gồm có các thông tin quan trọng. Nếu đọc không hiểu, xin quý vị nhờ thân nhân hay bạn bè dịch giúp hoặc đem đến Hội đồng Thành phố để thảo luận với nhân viên qua trung gian Dịch vụ Thông dịch qua Điện thoại.

MANDARIN

重要资料

本信写有重要资料。如果不明白，请亲友为您翻译，或到市政府来，通过电话传译服务，与市政府工作人员讨论此信。

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 2 of 16

- S.E.P.P. (Housing for Seniors or People with a Disability) 2004
- S.E.P.P. (Building Sustainability Index: BASIX) 2004
- S.E.P.P. (Major Development) 2005
- S.E.P.P. (Mining, Petroleum Production and Extractive Industries) 2007
- S.E.P.P. (Temporary Structures) 2007
- S.E.P.P. (Infrastructure) 2007
- S.E.P.P. (Exempt and Complying Development Codes) 2008
- S.E.P.P. (Affordable Rental Housing) 2009

Any enquiries regarding these State Planning Policies should be directed to the Department of Planning on: 1300 305 695 or 02 9228 6333. Information can also be obtained from the Department's website at <http://www.planning.nsw.gov.au>

- (1) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved).

2. The following proposed environmental planning instruments apply to the land:

- None

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

3. The following development control plans (D.C.P's) apply to the land:

- Marrickville Development Control Plan 2011

ITEM 2

Zoning and land use under relevant LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

- (a) the identity of the zone, whether by reference to a name (such as "Residential Zone" or Heritage Area") or by reference to a number (such as "Zone No 2 (a)"),
- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent,

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 3 of 16

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,
- (d) the purposes for which the instrument provides that development is prohibited within the zone,
- (e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed,
- (f) whether the land includes or comprises critical habitat,
- (g) whether the land is in a conservation area (however described),
- (h) whether an item of environmental heritage (however described) is situated on the land.

Item 2 (a), (b), (c) & (d) – Zoning and Land use table

IN1 - General Industrial

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To protect industrial land in proximity to Sydney Airport and Port Botany.
- To enable a purpose built dwelling house to be used in certain circumstances as a dwelling house.

2 Permitted without consent

Home occupations

3 Permitted with consent

Agricultural produce industries; Depots; Dwelling houses; Freight transport facilities; General industries; Industrial training facilities; Intensive plant agriculture; Kiosks; Light industries; Markets; Neighbourhood shops; Roads; Take away food and drink premises; Timber yards; Warehouse or distribution centres; Any other development not specified in item 2 or 4

4 Prohibited

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 4 of 16

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Child care centres; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Educational establishments; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home occupations (sex services); Information and education facilities; Jetties; Marinas; Mooring pens; Moorings; Offensive industries; Open cut mining; Passenger transport facilities; Places of public worship; Port facilities; Public administration buildings; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Respite day care centres; Restricted premises; Rural industries; Tourist and visitor accommodation; Transport depots; Veterinary hospitals; Water recreation structures; Water supply systems; Wholesale supplies

Item 2 (e) – Minimum land dimensions

There are NO minimum land dimensions for the erection of a dwelling house on the land. All applications for the erection of a dwelling house will be assessed in accordance with the Environmental Planning and Assessment Act, 1979.

Item 2 (f) – Critical habitat

The land DOES NOT include or comprise critical habitat.

Item 2 (g) – Conservation Area

The land IS NOT within a heritage conservation area referred to in Schedule 5 of Marrickville Local Environmental Plan 2011

Item 2 (h) – Heritage Item

An item of environmental heritage IS NOT situated on the land under Marrickville Local Environmental Plan 2011

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 5 of 16

ITEM 2A

Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

To the extent that the land is within any zone (however described) under:

- (a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (the 2006 SEPP), or
- (b) a Precinct Plan (within the meaning of the 2006 SEPP), or
- (c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the Act,

the particulars referred to in clause 2 (a)–(h) in relation to that land (with a reference to “the instrument” in any of those paragraphs being read as a reference to Part 3 of the 2006 SEPP, or the Precinct Plan or proposed Precinct Plan, as the case requires).

The land IS NOT land to which State Environmental Planning Policy (Sydney Region Growth Centres) 2006 applies.

ITEM 3

Complying development

(1) Whether or not the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (c) and (d) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) If complying development may not be carried out on that land because of the provisions of clauses 1.17A (c) and (d) and 1.19 of that Policy, the reasons why it may not be carried out under that clause.

General Housing Code

No. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may not be carried out on this land.

The land is excluded land identified as being within ANEF 25 or higher, unless the development is for the erection of ancillary development

The land is excluded land identified on an Acid Sulfate Soils map as being Class 2

Housing Alterations Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 6 of 16

General Development Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

General Commercial and Industrial Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Subdivisions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

Demolitions Code

Yes. Complying Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may be carried out on this land subject to an assessment of compliance with the requirements of the SEPP.

ITEM 4

Coastal protection

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

No.

ITEM 4A

Certain information relating to beaches and coasts

(1) In relation to a coastal council – whether an order has been made under Part 4D of the *Coastal Protection Act 1979* in relation to temporary coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.

NO order has been made under Part 4D of the *Coastal Protection Act 1979*.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 7 of 16

(2) In relation to a coastal council:

- (a) whether the council has been notified under section 55X of the *Coastal Protection Act 1979* that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and

Council HAS NOT been notified under Section 55X of the *Coastal Protection Act 1979*.

- (b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Not Applicable

(3) (Repealed)

ITEM 4B

Annual charges under Local Government Act 1993 for coastal protection services that relate to the existing coastal protection works

In relation to a coastal council – whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

The land IS NOT subject to any annual charges under Section 496B of the *Local Government Act 1993*.

ITEM 5

Mine subsidence

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 8 of 16

ITEM 6

Road widening and road realignment

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

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

The land IS NOT affected by a road widening or road realignment under:

- (i) Part 3 Division 2 of the Roads Act 1993
- (ii) any environmental planning instrument; or
- (iii) any resolution of the Council

ITEM 7

Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:

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

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

- Council HAS adopted by resolution and in accordance with S.72 of the Environmental Planning & Assessment Act, 1979 a development control plan incorporating Council's policy on contaminated land. The Plan has been prepared substantially in accordance with State Environmental Planning Policy No. 55, and the Contaminated Land Planning Guidelines. This policy may affect development of land:

- (a) which is affected by contamination;
- (b) which has been used for certain purposes;
- (c) in respect of which there is not sufficient information about contamination;
- (d) which is proposed to be used for certain purposes;
- (e) in other circumstances contained in the development control plan and policy;

and in some cases may restrict the development of land.

- The land IS identified as being subject to acid sulfate soil risk under clause 6.2 of Marrickville Local Environmental Plan 2011. Development on land that is subject to acid sulphate soil risk requires development consent and the preparation of an acid sulphate soils management plan subject to a preliminary assessment of the proposed works prepared in accordance with the Acid

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 9 of 16

Sulfate Soils Manual. Development consent is not required where the works involve the disturbance of less than 1 tonne of soil or are not likely to lower the watertable.

- Council HAS NOT by resolution (aside from the matters raised in the above item(s)) adopted a policy to restrict the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).
- Council HAS received no notification of the type described in item 7(b) from a public authority of a policy adopted by that authority that restricts the development of the land because of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).

ITEM 7A

Flood related development controls information

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

Yes.

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

Yes.

(3) Words and expressions in this clause have the same meaning as in the instrument set out in the Schedule to the Standard Instrument (Local Environmental Plan) Order 2006.

ITEM 8

Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

The land IS NOT reserved, in part or whole, for acquisition by a public authority, as referred to in

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 10 of 16

section 27 of the Act, under:

- (i) any environmental planning instrument
- (ii) deemed environmental planning instrument; or
- (iii) draft environmental planning instrument

ITEM 9

Contributions plans

The name of each contributions plan applying to the land.

Marrickville Section 94 Contributions Plan 2004.

ITEM 9A

Biodiversity certified land

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

The land IS NOT biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995).

ITEM 10

Biobanking agreements

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

The land IS NOT land to which a biobanking agreement under Part 7A of the Threatened Species Conservation Act 1995 relates.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 11 of 16

ITEM 11

Bush fire prone land

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

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

The land IS NOT bush fire prone land.

ITEM 12

Property vegetation plans

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

No.

ITEM 13

Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No.

ITEM 14

Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 12 of 16

ITEM 15

Site compatibility certificates and conditions for seniors housing

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

- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
 - (i) the period for which the certificate is current, and
 - (ii) that a copy may be obtained from the head office of the Department of Planning, and
- (b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

Item 15(a)

There IS NOT a current site compatibility certificate (seniors housing) relating to the land

Item 15(b)

There ARE NO applicable terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

ITEM 16

Site compatibility certificate for Infrastructure

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

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

There IS NOT a current site compatibility certificate (infrastructure) relating to the land

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 13 of 16

ITEM 17

Site compatibility certificate and conditions affecting affordable rental housing

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

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

(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

Item 17(1)

There IS NOT a current site compatibility certificate (affordable rental housing) relating to the land

Item 17(2)

There ARE NO applicable terms of a kind referred to in clause 17(1) or 38(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land

ITEM 18

Paper subdivision information

- (1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

Nil.

- (2) The date of any subdivision order that applies to the land.

Not applicable.

- (3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Not Applicable.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 14 of 16

ITEM 19

Site verification certificates

(1) A statement of whether there is a current site verification certificate, of which council is aware, in respect of the land and, if there is a certificate, the statement is to include:

a) the matter certified by the certificate, and

Note: A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land – see Division 3 of Part 4AA of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

b) the date on which the certificate ceases to be current (if any), and

c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure

Not applicable.

OTHER ITEMS (i)

Section 23 exemption or Section 24 authorisation

Whether an exemption under Section 23 or an authorisation under section 24 of the *Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009* No 1 has been issued by the Co-ordinator General in relation to the land.

An exemption under Section 23 or an authorisation under Section 24 of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009 No 1 HAS NOT been issued by the Co-ordinator General in relation to the land.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

Page No: 15 of 16

OTHER ITEMS (ii)

Matters arising under the Contaminated Land Management Act 1997

Section 59(2) of the *Contaminated Land Management Act 1997* prescribes the following additional matters that are to be specified in a planning certificate:

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

No.

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

No.

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

No.

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

No.

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

No.

PLANNING CERTIFICATE UNDER SECTION 149 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979.

Cert. No: PC201302198

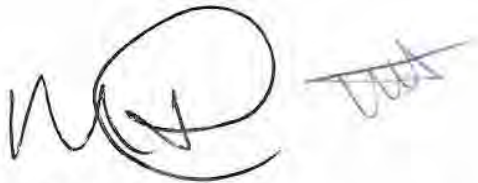
Page No: 16 of 16

Information provided in this planning certificate is in accordance with the matters prescribed under Schedule 4 of the Environmental Planning and Assessment Regulation 2000.

Council draws your attention to Section 149 (6) which states that a Council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5).

This is the end of the Certificate as prescribed under section 149(2) of the Environmental Planning and Assessment Act 1979.

Please contact the Planning Services Section for further information about any instruments or affectations referred to in the Certificate.

A handwritten signature in black ink, appearing to read 'MARCUS ROWAN', with a stylized flourish extending to the right.

**MARCUS ROWAN
MANAGER, PLANNING SERVICES**

APPENDIX H

GROUNDWATER BORE SEARCH



Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Friday, October 11, 2013

[Print Report](#)

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

Work Requested -- GW111692

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

GROUNDWATER NUMBER GW111692
LIC-NUM 10BL605067
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS Equipped - bore used for obs
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Local Govt
COMMENCE-DATE
COMPLETION-DATE 2012-01-12
FINAL-DEPTH (metres) 1.30
DRILLED-DEPTH (metres) 1.30
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY SYDENHAM RD
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 0.50
SALINITY
YIELD

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6246701.00
EASTING 329704.00
LATITUDE 33 54' 23"
LONGITUDE 151 9' 29"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A (top)

COUNTY CUMBERLAND
PARISH PETERSHAM
PORTION-LOT-DP 1//173107

Licensed (top)

COUNTY CUMBERLAND
PARISH PETERSHAM
PORTION-LOT-DP 1 173107

Construction (top)

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

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	1.30	100			Auger - Solid Flight
1	1	Casing	PVC Class 18	0.00	0.60	50	40		Screwed; Seated on Bottom; End cap PVC Class 18; Casing - Machine Slotted; SL: 35mm; A: 4mm; Screwed
1	1	Opening	Slots - Horizontal	0.60	1.30	50			Graded; GS: 2- 2.5mm
1		Annulus	Waterworn/Rounded	0.60	1.30				

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
0.50	1.30	0.80		0.50					

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL COMMENT
0.00	0.20	0.20	TOPSOIL BROWN SOFT	
0.20	0.60	0.40	CLAY BTOWN LOOSE WET	
0.60	1.30	0.70	CLAY SOFT VERY WET	

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

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Friday, October 11, 2013

[Print Report](#)

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

Work Requested -- GW111686

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

GROUNDWATER NUMBER GW111686
LIC-NUM 10BL605066
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS Equipped - bore used for obs
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Local Govt
COMMENCE-DATE
COMPLETION-DATE 2012-01-12
FINAL-DEPTH (metres) 3.50
DRILLED-DEPTH (metres) 3.50
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HENSON PARK
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 1.55
SALINITY
YIELD

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6246909.00
EASTING 329728.00
LATITUDE 33 54' 16"
LONGITUDE 151 9' 30"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A (top)

COUNTY CUMBERLAND
 PARISH PETERSHAM
 PORTION-LOT-DP 423//1035319

Licensed (top)

COUNTY CUMBERLAND
 PARISH PETERSHAM
 PORTION-LOT-DP 423 1035319

Construction (top)

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

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	3.50	100			Auger - Solid Flight
1	1	Casing	PVC Class 18	0.00	1.20	50	40		Screwed; Seated on Bottom; End cap PVC Class 18; Casing - Machine Slotted; SL: 35mm; A: 4mm; Screwed
1	1	Opening	Slots - Horizontal	1.20	3.50	50			Graded; GS: 2- 2.5mm
1		Annulus	Waterworn/Rounded	1.20	3.50				

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
1.55	3.50	1.95		1.55					

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL COMMENT
0.00	0.40	0.40	FILL,CLAY BANDS,BROWN	
0.40	1.20	0.80	SILTY CLAY,BEIGE,HIGH PLASTICITY,FIRM	
1.20	2.50	1.30	SILTY CLAY,BEIGE,SOFT,H/PLASTICITY	
2.50	3.50	1.00	CLAY GREY,FIRM,DRY	

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

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Friday, October 11, 2013

[Print Report](#)

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

Work Requested -- GW111687

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

GROUNDWATER NUMBER GW111687
LIC-NUM 10BL605066
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS Equipped - bore used for obs
CONSTRUCTION-METHOD Auger - Solid Flight
OWNER-TYPE Local Govt
COMMENCE-DATE
COMPLETION-DATE 2012-01-12
FINAL-DEPTH (metres) 4.25
DRILLED-DEPTH (metres) 4.25
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HENSON PARK
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 2.50
SALINITY
YIELD

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6246916.00
EASTING 329742.00
LATITUDE 33 54' 16"
LONGITUDE 151 9' 31"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A (top)

COUNTY CUMBERLAND
 PARISH PETERSHAM
 PORTION-LOT-DP 423//1035319

Licensed (top)

COUNTY CUMBERLAND
 PARISH PETERSHAM
 PORTION-LOT-DP 423 1035319

Construction (top)

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

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.25	100			Auger - Solid Flight
1	1	Casing	PVC Class 18	0.00	1.25	50			Screwed; Seated on Bottom; End cap
1	1	Opening	Slots - Horizontal	1.25	4.25	50			PVC Class 18; Casing - Machine Slotted; SL: 35mm; A: 4mm; Screwed
1		Annulus	Waterworn/Rounded	1.25	4.25				Graded; GS: 2- 2.5mm

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
2.50	4.25	1.75		2.50					

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.90	1.90	FILL, SANDY GRAVEL DARK,SOFT		
1.90	2.70	0.80	SILTY CLAY,RED/ORANGE,STIFF		
2.70	3.00	0.30	SILTY CLAY,RED,ORANGE,SOFT		
3.00	4.25	1.25	SILTY CLAY BEIGE,VERY MOIST,SOFT		

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

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Friday, October 11, 2013

[Print Report](#)

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

Work Requested -- GW109824

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

GROUNDWATER NUMBER GW109824
LIC-NUM 10BL164967
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Other
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2005-04-05
FINAL-DEPTH (metres) 20.70
DRILLED-DEPTH (metres) 20.70
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY ALEXANDRIA LANDFILL
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 4.51
SALINITY
YIELD

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6245635.00
EASTING 331393.00
LATITUDE 33 54' 58"
LONGITUDE 151 10' 34"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A (top)

COUNTY CUMBERLAND
 PARISH PETERSHAM
 PORTION-LOT-DP 11//1013168

Licensed (top)

COUNTY CUMBERLAND
 PARISH ALEXANDRIA
 PORTION-LOT-DP 11 1013168

Construction (top)

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

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	20.70	100			Other
1	1	Casing	PVC Class 18	0.00	13.40	63			Screwed PVC;
1	1	Opening	Slots - Horizontal	13.40	18.40	63			SL: 6mm; A: .4mm
1		Annulus	Waterworn/Rounded	0.00	0.00				Graded; GS: 0- 2mm

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
13.00	20.00	7.00		4.51					4350.00

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	4.50	4.50	FILL		
4.50	9.00	4.50	LAMINITE		
9.00	17.00	8.00	SHALE		
17.00	20.70	3.70	SANDSTONE		

Warning To Clients: This raw data has been supplied to the Department of Infrastructure, Planning and Natural Resources

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

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Friday, October 11, 2013

[Print Report](#)

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

Work Requested -- GW110122

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

GROUNDWATER NUMBER GW110122
LIC-NUM 10BL600053
AUTHORISED-PURPOSES MONITORING BORE
INTENDED-PURPOSES MONITORING BORE
WORK-TYPE Well
WORK-STATUS
CONSTRUCTION-METHOD Auger
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2006-01-16
FINAL-DEPTH (metres) 3.50
DRILLED-DEPTH (metres) 3.50
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY RAILCORP N S W
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 2.50
SALINITY
YIELD

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

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6245833.00
EASTING 329500.00
LATITUDE 33 54' 51"
LONGITUDE 151 9' 20"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A (top)

COUNTY CUMBERLAND
PARISH PETERSHAM
PORTION-LOT-DP 1 1042838

Licensed (top)

COUNTY CUMBERLAND
PARISH PETERSHAM
PORTION-LOT-DP 1 1042838

Construction (top)

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

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	3.50	150			Auger
1	1	Casing	P.V.C.	0.00	0.50	50			
1	1	Opening	Screen	0.50	3.50	50			PVC; A: .2mm

Water Bearing Zones (top)

no details

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	3.50	3.50		CLAY	

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

APPENDIX I

SITE PHOTOGRAPHS



SITE PHOTOGRAPHS

Client:	E & D Danias Pty Ltd
Project:	Remediation & Validation
Site Location:	Victoria Road; Mitchell Street; Farr Street, Marrickville
Job No.:	ES5610-2
Photos Taken By:	MS



Photograph N° 1



View of: Brick warehouse
Looking south
Inspected on 25-27.9.2013

Photograph N° 2



View of: Timber storage yard toward
Mitchell Street
Looking north

Photograph N° 3



View of: Timber dressing machinery
Looking south west
Inspected on 25-27.09.2013

Photograph N° 4



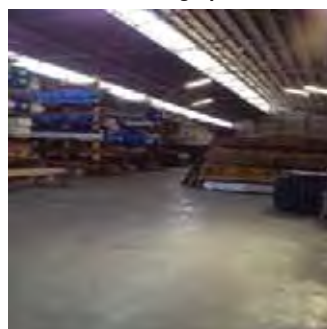
View of: Timber storage yard & Cottage toward
Mitchell Street
Looking north

Photograph N° 5



View of: Timber storage yard
Inspected on 25-27.09.2013
:

Photograph N° 6



View of: Brick warehouse with sealed concrete
surfaces and timber storage
Inspected on 25-27.09.2013

SITE PHOTOGRAPHS

Client:	E & D Danias Pty Ltd
Project:	Remediation & Validation
Site Location:	Victoria Road; Mitchell Street; Farr Street, Marrickville
Job No.:	ES5610-2
Photos Taken By:	MS

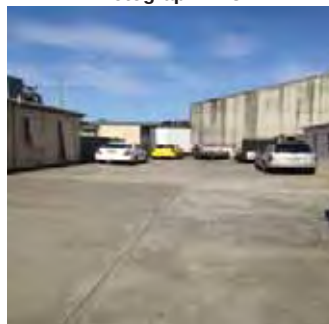


Photograph N° 7



View of: Storage yard located along Farr Street
Looking east
Inspected on 25-27.9.2013

Photograph N° 8



View of: Vacant block concrete sealed located
along Farr Street
Looking east

Photograph N° 9



View of: Garden beds and front lawn located
along Victoria Road
Looking north

Photograph N° 10



View of: Empty 44 gallon oil drums on a pallet in
the storage yard of Danias Timber
Looking west

Photograph N° 11



View of: Timber storage yard & location of
BH6/GW1
Looking east

Photograph N° 12



View of: Tracks on the concrete surface & large
circular saw
Looking east

APPENDIX J

**SOA, SAMPLE PRESERVATION &
LAB METHODS**



TECHNICAL HOLDING TIMES (THT'S)

ANALYTICAL METHODS - SOILS

Analyte	Matrix		Literature Reference	Analysis Description
	Soil	Water		
Asbestos	Not Applicable	Not Applicable	AS4964-2000	"Method for the Qualitative Identification of Asbestos in Bulk Samples" : Polarized microscopy is the primary analytical technique.
Moisture	14 Days ¹	Not Applicable	NEPM 102	Moisture in the field moist sample is evaporated at 105±5°C. The loss in moisture is expressed as a percentage of the sample as submitted
Total Cyanide	14 Days ¹	24 Hours ²	NEPM 403 APHA 4500 CN ⁻ E	The submitted soil is caustic leached, pH>10 for 16 hours by end-over-end extraction. This extract is then distilled, trapped in a caustic solution, and quantitated colorimetrically
Metals - Base Metals	6 Months ¹	6 Months ²	NEPM Sample Preparation USEPA 200.2 USEPA 7000B	An aliquot (approx. 20%) of the homogenised submitted soil sample is dried at 35±3°C, lightly ground and screened to -2mm. Samples are then digested with nitric and hydrochloric acids for 30 minutes. Metals in solution are then quantitated by flame atomic absorption spectrophotometry.
Metals - Mercury	28 Days ¹	28 Days ²	NEPM Sample Preparation USEPA 200.2 USEPA 7471A	An aliquot (approx. 20%) of the homogenised submitted soil sample is dried at 35±3°C, lightly ground and screened to -2mm. Samples are then digested with nitric and hydrochloric acids for 30 minutes. Mercury in solution is then quantitated by cold-vapour atomic absorption spectrophotometry
Hexavalent Chromium	28 Days ¹	30 Days ³	USEPA 3060A USEPA 7196A	The submitted soil is alkaline digested to extract soluble, adsorbed and precipitated forms of chromium compounds. The digest is then quantitated colorimetrically
Total Recoverable Hydrocarbons	14 Days ¹	7 Days ¹	In House method based on NEPM 506	The submitted soil is extracted with DCM:Acetone (1:1) by end-over-end extraction for 4 hours. This extract is then analysed by GC-FID
Semi-Volatile Organic Compounds	14 Days ¹	7 Days ¹	In House	The submitted soil is extracted with DCM:Acetone. This extract is then analysed by GC-MS
OCP's & Poly Chlorinated Biphenyls	14 Days ¹	7 Days ¹	In House	The submitted soil is extracted with DCM:Acetone. This extract is then analysed by dual GC-ECD.
Volatile Organic Compounds	14 Days ¹	14 Days ¹	In House	The submitted soil is extracted with methanol. This extract is then spiked into water, and analysed by P&T GC-MS.

The detailed THT's assume appropriate sample containers & preservation

References : 1 - Victorian EPA ; 2 - APHA 21st Edition ; 3 - USEPA Method 1669

Analyte	Method	APHA/USEPA Method
C₆-C₉ – 1999 NEPM Fractions TRH (Volatile)/BTEX C₆-C₁₀ – 2010 DRAFT NEPM Fractions	10g soil extracted with 20mL methanol, tumbled for 1 hour, and analysed with solvent and instrument check surrogates. Clay samples must be completely disintegrated before an aliquot is taken for analysis. Water direct injection of supplied sample (unopened) and analysis with solvent and instrument check surrogates. Analysis by capillary column Purge and Trap GCMS (mgt LabMark in-house method numbers Method: E029/E016 BTEX, Method: E004 Petroleum Hydrocarbons (TPH), Method: LM-LTM-ORG2010, Method: E005 Moisture Content). Owing to the differential responses of mass spectrometric detectors towards aliphatic and aromatic compounds, it is essential that the standard contain representatives of both groups. This standard should therefore consist of about 40% aromatic and 60% aliphatic target analytes, to be representative of a typical Australian fuel. The aromatic compounds shall comprise the components of BTEX. The aliphatics shall comprise equal proportions of all n-alkanes in the C6 to C10 range.	USEPA Method 8260B
Total Recoverable Hydrocarbons C₁₀-C₃₆ – 1999 NEPM Fractions >C₁₀-C₄₀ – 2010 DRAFT NEPM Fractions	Soil - 10g soil and anhydrous sodium sulfate extracted with 20mL dichloromethane/acetone (1:1), and tumbled for a minimum of 1 hour. Clay samples must be completely disintegrated before an aliquot is taken for analysis. Water - One 250ml of water sequentially extracted in a separatory funnel three times with 20mL dichloromethane. Analysis by capillary column GC/FID (mgt LabMark in-house method numbers Method: E004 Petroleum Hydrocarbons (TPH), Method: LM-LTM-ORG2010, Method: E005 Moisture Content)	USEPA Method 8015C
TPH (Silica Gel)	Exchange an aliquot of sample extract into a suitable solvent for clean-up. For example, a 1:1 dichloromethane/acetone extract should be exchanged into a suitable non-polar solvent to allow for removal of polar substances. To the solvent-exchanged extract add an appropriate weight of silica gel. Mix the extract and silica gel thoroughly (e.g. with vortex mixer) and allow the sorbent to settle before removing a portion of the extract for analysis. (mgt LabMark in-house method numbers Method: LM-LTM-ORG2010, Method: E005 Moisture Content)	USEPA Method 3630C
Phenols/PAH	Soil - 10g soil, surrogates, mixed with anhydrous sodium sulfate and extracted with 20mL dichloromethane/acetone (1:1), and tumbled for a minimum of 1 hour. Clay samples must be completely disintegrated before an aliquot is	USEPA Method 8270D

Analyte	Method	APHA/USEPA Method
	taken for analysis. Water - 250ml water sample plus surrogates triple extracted with dichloromethane (base and neutrals). Analysis by capillary column GC/MS (mgt LabMark in-house Methods E008.1, E008.2, E015.1, E015.2, E017.1 and E017.2, E016.1, E016.2, E017.1 and E017.2, E007.1, E007.2, E015.1, E015.2, E017.1 and E017.2 Method: E005 Moisture Content).	
Total Metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	A 0.5gm portion of soil undergoes acidic microwave digestion. Analysis by ICP/MS.(mgt Labmark in-house method E022.2).	USEPA Method 6020A
Total Mercury (Hg)	0.5g soil acidic microwave digestion. Analysis by FIMS. (mgt Labmark in-house method E026.2).	USEPA Method 7471B
Filtered Metals (As, Cd, Cr, Cu, Ni, Pb ,Zn)	Filtered (0.45mm) and acidified in the field prior to analysis. Analysis by ICP/MS. (mgt LabMark in-house method E022.1).	USEPA Method 6020A
Filtered Metals (Al, As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mo, Ni)	Filtered (0.45mm) and acidified in the field prior to analysis. Analysis by ICP/MS. (mgt LabMark in-house method E022.1).	USEPA Method 6020A
Total Metals (Al, As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mo, Ni)	Acidified in the field prior to analysis and digested in the laboratory using aqua regia. Analysis by ICP/MS. (mgt LabMark in-house method E022.1).	USEPA Method 6020A
Filtered Mercury (Hg)	Filtered, oxidation and final reduction. Analysis by FIMS. (mgt LabMark in-house method E022.1).	USEPA Method 7471B
Conductivity	Direct measurement using a calibrated meter and electrode. (mgt LabMark in-house method E032 Electrical conductivity (EC)).	APHA Method 2520 B
pH	Direct measurement using a calibrated meter and electrode. (mgt LabMark in-house method E018 pH).	APHA Method 4500-H ⁺
Suspended Solids (SS)	Gravimetric measurement of the residue filtered through a GFC filter. (mgt LabMark in-house method 4100 Total Suspended Solids dried at 103-105°C).	APHA Method 2540 D
Ammonia (as N)	Alkaline phenol and hypochlorite react with ammonia to form indophenol blue that is proportional to the ammonia concentration that is determined colorimetrically. (mgt LabMark in-house method E036/E050 Ammonia as N).	APHA Method 4500-N
Phosphorus (as P)	Acid digestion of phosphorus species to form a molybdophosphoric acid complex that is reduced to molybdenum blue which is proportional to the phosphorus concentration that is determined colorimetrically. (mgt LabMark in-house method E038 /E052 Total Phosphorus (as P)).	APHA Method 4500-P

Analyte	Method	APHA/USEPA Method
C₆-C₉ – 1999 NEPM Fractions TRH (Volatile)/BTEX C₆-C₁₀ – 2010 DRAFT NEPM Fractions	10g soil extracted with 20mL methanol, tumbled for 1 hour, and analysed with solvent and instrument check surrogates. Clay samples must be completely disintegrated before an aliquot is taken for analysis. Water direct injection of supplied sample (unopened) and analysis with solvent and instrument check surrogates. Analysis by capillary column Purge and Trap GCMS (mgt LabMark in-house method numbers Method: E029/E016 BTEX, Method: E004 Petroleum Hydrocarbons (TPH), Method: LM-LTM-ORG2010, Method: E005 Moisture Content). Owing to the differential responses of mass spectrometric detectors towards aliphatic and aromatic compounds, it is essential that the standard contain representatives of both groups. This standard should therefore consist of about 40% aromatic and 60% aliphatic target analytes, to be representative of a typical Australian fuel. The aromatic compounds shall comprise the components of BTEX. The aliphatics shall comprise equal proportions of all n-alkanes in the C6 to C10 range.	USEPA Method 8260B
Total Recoverable Hydrocarbons C₁₀-C₃₆ – 1999 NEPM Fractions >C₁₀-C₄₀ – 2010 DRAFT NEPM Fractions	Soil - 10g soil and anhydrous sodium sulfate extracted with 20mL dichloromethane/acetone (1:1), and tumbled for a minimum of 1 hour. Clay samples must be completely disintegrated before an aliquot is taken for analysis. Water - One 250ml of water sequentially extracted in a separatory funnel three times with 20mL dichloromethane. Analysis by capillary column GC/FID (mgt LabMark in-house method numbers Method: E004 Petroleum Hydrocarbons (TPH), Method: LM-LTM-ORG2010, Method: E005 Moisture Content)	USEPA Method 8015C
TPH (Silica Gel)	Exchange an aliquot of sample extract into a suitable solvent for clean-up. For example, a 1:1 dichloromethane/acetone extract should be exchanged into a suitable non-polar solvent to allow for removal of polar substances. To the solvent-exchanged extract add an appropriate weight of silica gel. Mix the extract and silica gel thoroughly (e.g. with vortex mixer) and allow the sorbent to settle before removing a portion of the extract for analysis. (mgt LabMark in-house method numbers Method: LM-LTM-ORG2010, Method: E005 Moisture Content)	USEPA Method 3630C
Phenols/PAH	Soil - 10g soil, surrogates, mixed with anhydrous sodium sulfate and extracted with 20mL dichloromethane/acetone (1:1), and tumbled for a minimum of 1 hour. Clay samples must be completely disintegrated before an aliquot is	USEPA Method 8270D

Analyte	Method	APHA/USEPA Method
	taken for analysis. Water - 250ml water sample plus surrogates triple extracted with dichloromethane (base and neutrals). Analysis by capillary column GC/MS (mgt LabMark in-house Methods E008.1, E008.2, E015.1, E015.2, E017.1 and E017.2, E016.1, E016.2, E017.1 and E017.2, E007.1, E007.2, E015.1, E015.2, E017.1 and E017.2 Method: E005 Moisture Content).	
Total Metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	A 0.5gm portion of soil undergoes acidic microwave digestion. Analysis by ICP/MS.(mgt Labmark in-house method E022.2).	USEPA Method 6020A
Total Mercury (Hg)	0.5g soil acidic microwave digestion. Analysis by FIMS. (mgt Labmark in-house method E026.2).	USEPA Method 7471B
Filtered Metals (As, Cd, Cr, Cu, Ni, Pb ,Zn)	Filtered (0.45mm) and acidified in the field prior to analysis. Analysis by ICP/MS. (mgt LabMark in-house method E022.1).	USEPA Method 6020A
Filtered Metals (Al, As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mo, Ni)	Filtered (0.45mm) and acidified in the field prior to analysis. Analysis by ICP/MS. (mgt LabMark in-house method E022.1).	USEPA Method 6020A
Total Metals (Al, As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mo, Ni)	Acidified in the field prior to analysis and digested in the laboratory using aqua regia. Analysis by ICP/MS. (mgt LabMark in-house method E022.1).	USEPA Method 6020A
Filtered Mercury (Hg)	Filtered, oxidation and final reduction. Analysis by FIMS. (mgt LabMark in-house method E022.1).	USEPA Method 7471B
Conductivity	Direct measurement using a calibrated meter and electrode. (mgt LabMark in-house method E032 Electrical conductivity (EC)).	APHA Method 2520 B
pH	Direct measurement using a calibrated meter and electrode. (mgt LabMark in-house method E018 pH).	APHA Method 4500-H ⁺
Suspended Solids (SS)	Gravimetric measurement of the residue filtered through a GFC filter. (mgt LabMark in-house method 4100 Total Suspended Solids dried at 103-105°C).	APHA Method 2540 D
Ammonia (as N)	Alkaline phenol and hypochlorite react with ammonia to form indophenol blue that is proportional to the ammonia concentration that is determined colorimetrically. (mgt LabMark in-house method E036/E050 Ammonia as N).	APHA Method 4500-N
Phosphorus (as P)	Acid digestion of phosphorus species to form a molybdophosphoric acid complex that is reduced to molybdenum blue which is proportional to the phosphorus concentration that is determined colorimetrically. (mgt LabMark in-house method E038 /E052 Total Phosphorus (as P)).	APHA Method 4500-P

SAMPLE PRESERVATION AND SAMPLING GUIDE



Soils, Sediments & Solid Matrices

mgt-LabMark Recommended Preservation and Container Guide

Parameter	Container	Lab Analysis Portion (g) ⁽¹⁾	mgt-LabMark Preferred Preservation	Recommended Holding Times
Acid Sulphate Soil (SPOCAS/CrS)	P or G	50	6°C / freezing may limit loss of integrity	24 hours [#]
Alcohols	G	20	6°C, Zero Headspace	14 days*
Asbestos	P	50	None, separate sample required	indefinite
BTEX / TPH (C6-C9)	G	20	6°C, Zero Headspace	14 days*
Carbamates	G	20	6°C	14 days*
Cyanides	G	20	6°C	14 days
Dioxins and Furans	G	250	6°C, dark	28 days
Explosives	G	50	6°C	14 days*
Formaldehyde	G	50	6°C	14 days
HRAF (aliphatic / aromatic speciation of TPH)	G	20	6°C, Zero Headspace	14 days*
Inorganics - general anion, cations and CEC	G or P	20	6°C	28 days
Metals (except Hg & Cr VI)	G or P	20	NR	6 months
Mercury or Chromium VI	G or P	20	6°C	28 days
Micro (E. Coli, FC, TC etc.)	P (sterile)	125	6°C	24 hours
Moisture	G or P	20	6°C	14 days
pH or EC	G or P	20	6°C	7 days [†]
Phenols (Totals or Speciated)	G	20	6°C	14 days*
Phenoxy Acid Herbicides	G	20	6°C	14 days*
Sulphur/Sulphides	G	20	6°C	7 days
Any SVOCs including - OCs, OPs, PCBs, PAHs, Phthalates, SVCCs plus TPH (C10-C36), Glyphosates, TBTs	G	20	6°C	14 days*
SVOC's (USEPA 8270 list)	G	20	6°C	14 days*
TCLP or AS4439.2/3 ^{##}	G	250	6°C	7 days ^{###}
TCLP (Zero Headspace) ^{##}	G	250	6°C, Zero Headspace	7 days
Total Organic Carbon (or TOM)	G	20	6°C, Zero Headspace	28 days
TPH (C6-C9) plus BTEX	G	20	6°C, Zero Headspace	14 days*
TPH/TRH (C10-C36)	G	20	6°C	14 days*
VOCs / VHCs / VACs / THMs	G	20	6°C, Zero Headspace	14 days*
Common Suites of analytes				
TPH, BTEX, Metals, Moisture	G	60	6°C, Zero Headspace	See above
TPH, BTEX, Metals, PAH, SVOCs, VOCs, pH, Moisture	G	80	6°C, Zero Headspace	See above
TPH, BTEX, Metals, PAH, OCPs, PCBs, TCLP, Moisture	G	250	6°C, Zero Headspace	See above
Trip Spikes for VOCs (prepared in the Lab)	G	full jar	<-10°C, Zero Headspace	14 days***
Typical sample weights contained in standard jars (zero headspace)			250 mL jar = 350-420 g	
Dust Gauges - contact Lab				

REFERENCES: USEPA SW846, NEPM, EPA VIC, ISO5667, Queensland Acid Sulfate Soils Management Advisory Committee (QASSMAC), Environmental Analysis Laboratory (EAL)
Please note Maximum THT's may vary upon the guideline document referenced.

NOTES:	(1)	We recommend that you provide additional sample on the 1st, 11th, 21st, 31st etc sample for performance of Duplicates / Matrix Spikes.
	*	Note however that Matrix Spike determinations are not appropriate for all tests.
	*	Extract within 14 days and analyse within 40 days (mgt-LabMark's preference is to extract within 7 days for volatiles where sufficient time available).
	**	mgt-LabMark's preference is to analyse as soon as possible
	***	Shelf life in matrix (sand) is low if not frozen, therefore freeze if storing or return to lab with samples immediately
	#	where acidity (hence liming rates) is captured in actual and potential acidity, analysis within one week should be satisfactory
	##	Time from sampling date to tumbling (water THTs for leachate apply)
	###	except Metals/OCPs/PCBs 28 days
CONTAINERS:	P	= Plastic (HDPE or equivalent, teflon lined lid), batch tested
	G	= Glass (teflon lined lid), batch tested

Soil Samples are discarded 3 months from the date received

mgt-LabMark Environmental - Contact Details

LOCATION	DELIVERY ADDRESS	TELEPHONE	FACSIMILE
Sydney	Units F3-F6, Lane Cove Business Park, 16 Mars Rd. Lane Cove NSW	(02) 8215 6222	(02) 9476 8219
Melbourne	2-5 Kingston Town Close, Oakleigh VIC 3166	(03) 9564 7055	(03) 92564 7190
Brisbane	Unit 1/21 Smallwood Place, Murarrie QLD 4172	(07) 3902 4600	(07) 3902 4646
Adelaide	140 Richmond Road, Marlestone SA 5033	(08) 8443 4430	Mobile - 0438 424 511
Perth	Unit 5, 91 Leach Hwy, Kewdale WA	(08) 9353 6535	Mobile - 0418 856 576
Darwin	Unit 3, 83 Coonawarra Rd, Winellie NT 0800	(08) 8947 1557	Mobile - 0428 489 614
Newcastle	Unit 5, 166 Hannell Street, Wickham NSW	(02) 4902 4830	Mobile - 0410 220 750

SAMPLE PRESERVATION AND SAMPLING GUIDE

Liquid Matrices



Recommended Preservation and Container Guide

Parameter	Container	Lab Analysis Portion mL ⁽²⁾	mgt-LabMark Preferred Preservation	Recommended Holding Times
Acidity/Alkalinity	P or G	200	6°C	14 days**
Alcohols	PT	2 x vials	pH<2 (HCl), 6°C, Zero headspace	14 days ⁽³⁾
Ammonia-N	P or G	200	pH<2 (H ₂ SO ₄), 6°C ⁽¹⁾ / site filter and freeze	28 days
BOD ₅	P or G	2 x 500	6°C, Zero headspace	48 Hours [#]
Bromate	P	50	6°C	28 days
Bromide	P	50	6°C	28 days
BTEX plus TPH (C6-C9)	PT	2 x vials	pH<2 (HCl or H ₂ SO ₄), 6°C, Zero headspace	14 days ⁽³⁾
Carbamates/Dioxins/Furans	G	500	6°C	1 month
Carbon, Total Organic (TOC)	G	100	pH<2 (H ₂ SO ₄ or HCl), 6°C	28 days
Carbon, Dissolved Organic (DOC)	G	100	Field filter at 0.45um then pH<2 (H ₂ SO ₄ or HCl), 6°C	28 days
Cations	P	50	6°C, pH<2 (HNO ₃)	6 months ^{(1)APHA}
Chlorate	P	50	6°C	7 days
Chloride	P	50	6°C	28 days
Chlorite	P	50	6°C	24 hours ⁽⁵⁾
Chlorine (residual)	-	--	Field test	Note (5)
Chlorophyll-a (Vol' PQL dependant)	Dark P	500-2000	Unfiltered Dark, 6°C or Filtered residue	24 Hours ^{##}
Chromium VI (hexavalent Cr)	P	100	filtered, unpreserved / pH 8-9 (NaOH), 6°C ⁽¹⁾	1 day / 28 days ^{(1)APHA}
COD	G	100	pH<2 (H ₂ SO ₄), 6°C ⁽¹⁾	28 days
Colour	P	100	6°C	2 days ^{4S}
Conductivity (EC) or Salinity	P	50	6°C, Zero headspace, 60C	28 days
Cyanide (Total/Amenable)	P	100	pH >12 (NaOH), 6°C Dark	14 days ⁽⁶⁾
Cyanide (Free / WAD)	P	100	Free neutral, WAD pH >12 (NaOH), 60C Dark	14 days ^{(6)##}
Dissolved Oxygen	-	--	Field test	Note (5)
Explosives	G	500	6°C	7 days*
Ferrous/Ferric Iron ⁽⁴⁾	P	100	filtered pH <2 (HCl), 6°C, Dark, Zero Headspace	7 days ⁵⁰
Fluoride	P	50	6°C	28 days
Formaldehyde	G	100	6°C	7 days
Hardness	P	50	6°C, pH<2 (HNO ₃)	6 months
Iodate	P	50	6°C	1 month
Iodide	P	50	6°C	1 month
Ion Balance	P	500-1000	See Individual Analytes in price book	--
Metals – Total (Recoverable)	P	100	pH<2 (HNO ₃)	6 months
Metals – Dissolved	P	100	Field Filter at 0.45 um then pH<2 (HNO ₃)	6 months
Mercury – (Total Recoverable)	P	100	pH<2 (HNO ₃)	28 days
Mercury – Dissolved	P	100	Field Filter at 0.45 um then pH<2 (HNO ₃)	28 days
Methane (Ethane/Ethane)	PT	2 x vials	Half fill the vials, store upside down at 6°C	14 days
Nitrogen: TKN	P or G	100	pH<2 (H ₂ SO ₄), 6°C ⁽¹⁾	28 days
Nitrate / NOx	P or G	50	unpreserve 6°C / pH<2 (HCl), 6°C	2 days ^{##} / 7 days
Nitrite	P or G	50	unpreserve 6°C	2 days
Nitrogen: Total N	-	--	TKN and NOx sample bottles are required	--
Oil & Grease	G	2 x 500	pH<2 (H ₂ SO ₄ or HCl), 6°C	28 days
OC/OP Pesticides – see SVOCs	G	see SVOC	6°C	7 days*
PAHs – see SVOCs below	G	see SVOC	6°C	7 days*
pH / free CO ₂ / total CO ₂	P or G	100	Field Test, 6°C	Note (5)
Phenolics (total)	P or G	100	pH<2 (H ₂ SO ₄), 6°C	28 days ^{APHA}
Phenols – speciated	G	see SVOC	6°C	7 days*
Phenoxy Acid Herbicides	G	500	6°C, pH 1-2 HCl	14 days
Phosphate (ortho)	P or G	50	6°C	2 days ^{##} 1 month filtered ⁵⁰
Phosphorus (Total filtered or unfiltered)	P	100	pH<2 (HNO ₃)	1 month
Solids (suspended, dissolved etc)	P	500-1000	6°C	7 days
Sulphate	P	50	6°C	28 days
Sulphide (Total)	P	200	6°C (Zinc Acetate/NaOH pH>9) zero headspace	7 days
Sulphide (Dissolved)	P	100	6°C	24 hours
Surfactants – anionic (MBAS)	G	250	6°C/preserved with formalin	2 days/4 days preserved with formalin to 1%
SVOCs including – OCs, OPs, PCBs, PAHs, Phthalates (normal level) plus TPH (C10-C36)	G	2 x 500	6°C	7 days*
Low or Trace level Organics	G	4 x 500	6°C	7 days*
SVOC's (USEPA 8270 list)	G	see SVOC	6°C	7 days*
TPH (C6-C9)	PT	As for BTEX no additional vials needed	pH<2 (HCl), 6°C, Zero headspace	14 days ⁽³⁾
TPH (C10-C36)	G	As for SVOC 'normal' no additional needed	6°C	7 days*
Turbidity	P or G	100	Analyse Immediately, dark, 6°C	48 Hours
VOCs / VHCs / VACs / THMs / MTBES	PT	2xvials	pH<2 (HCl or H ₂ SO ₄), 6°C, Zero headspace ⁽⁷⁾	14 days ⁽³⁾
Microbiological	P/S	120	6°C	24 hours
Micro' – (in Chlorinated Water) Coliforms - Ecoli	P/S	500 (4* 120)	6°C - 0.008% Na ₂ S ₂ O ₃	24 hours
Micro' – (in Chlorinated Water)	P/S	120	6°C - 0.008% Na ₂ S ₂ O ₃	24 hours

REFERENCES: APHA 21st Edition, USEPA SW846, ISO 5667.3, EPA VIC and AS/NZS 5667.1 1998
Please note Maximum HT's may vary upon the guideline document referenced.

NOTES:	(1)	This test may not require preservation if received and analysed within 24 hours of sampling; this must be pre-arranged with the laboratory.
	(2)	We recommend that you provide additional sample on the 1st, 11th, 21st, 31st etc sample for performance of Duplicates / Matrix Spikes. (Note however that Matrix spike determinations are not appropriate for all tests).
	(3)	USEPA recommends 14 days, Australian Standard recommends 7 days.
	(4)	If Dissolved Metals are requested, the Ferrous Iron sample must be field filtered before being preserved
	(5)	This analyte should be determined in the field, these tests will not be measured for compliance to holding time but are analysed on receipt
	(6)	Holding Time is reduced to 24hrs with the presence of sulphides. Contact the laboratory if the presence of sulphides is suspected
	(7)	Sodium Bisulfate is an alternative preservation for VOC analysis upon request
	*	This holding time requires the samples to be extracted within 7 days and analysed within 40 days.
	**	The mgt-LabMark aim is to perform these analyses within 2 days (where sufficient time available).
	#	The holding times may be extended to one month if the sample is frozen
CONTAINERS:	##	The holding times may be extended to 28 days if the sample is filtered then frozen.
	P	= Plastic (HDPE or equivalent, all teflon lined), batch tested
	PT	= Purge & Trap VOA Vial (with teflon liner), batch tested
	G	= Glass (all teflon lined), batch tested
	P/S	= Plastic Sterile, batch tested

Liquid samples are discarded 4 weeks from the date received

APPENDIX K

FIELD RECORD FORMS



Aargus Pty Ltd

Sampling & Monitoring Details for Individual Determinants

Location/Address: Victoria St Marrickville - Timber Yard
Name of Officer Responsible: Michael Silk
Title of Officer Responsible: Environmental Scientist
Phone: _____ Fax: _____
Mobile: 0423 344 390 Other: _____

Other persons involved in inspection & monitoring (including laboratories, passed on information, electronic readings, etc) _____
- Ben Calvin - Driver (Aargus)
- Labs

Date of Inspection 25/9/13 Time of Start: 7:30am Finish: 5:00pm
Description of Weather: Fine 30°C Wind Direction: _____
Wind Speed: _____ Rainfall(mm): _____ Humidity: _____

Odours present Y/N 0 Location: _____ Time: _____
Odours spraying Y/N 0 Location: _____ Time: _____
Environmental &/or other accidents/concerns:(details) _____

- BHS - BH17 investigation holes
- 2x GW installed

Actions: _____

- Drill Rig / Auger / Concrete Corer
- Estics / Jars / bags /
- Well material
- Tools

N/A

PID Readings refer to attached paper

Location	PID 100	Location	PID 100	Location	PID 100	Location	PID 100
BH5		BH13					
BH6		BH14					
BH7		BH15					
BH8		BH16					
BH9		BH17					
BH10							
BH11							
BH12							

Aargus Pty Ltd

Sampling & Monitoring Details for Individual Determinants

Location/Address: Victoria Rd Marnidulla
Name of Officer Responsible: Michael Sira
Title of Officer Responsible: Enviro Sci
Phone: _____ Fax: _____
Mobile: 0425 344 390 Other: _____

Other persons involved in inspection & monitoring (including laboratories, passed on information, electronic readings, etc) Ben Galvin - Diller
Labs

Date of Inspection: 26/1/13 Time of Start: 7:00am Finish: 4pm
Description of Weather: Clear Wind Direction: _____
Wind Speed: _____ Rainfall(mm): _____ Humidity: _____

Odours present Y/☒N Location: _____ Time: _____
Odours spraying Y/☒N Location: _____ Time: _____
Environmental &/or other accidents/concerns:(details) _____

BH12 - BSA2
9013

Actions: _____

- Drill Rig
- QA/QC
- Well Material
- Bailer
- Gas/eff /
i/c

N/A

PID Readings refer to attached paper

Location	PID No.	Location	PID No.	Location	PID No.	Location	PID No.
BH17							
BH18							
BH19							
BH20							
BH21							
BH22							
BH23							
BH24							
BH25							
BH26							
BH27							

Sample ID	Depth Range (m bgl)	PID Readings	Stratum
BH1	0.1-0.5	2.3 ppm	Fill
BH2	0.5-1.0	<1 ppm	Fill
BH3	0.5-1.0	<1 ppm	Fill
BH4	0.5-1.0	<1 ppm	Fill
BH5	0.2-0.4	<1 ppm	Fill
BH6	0.1-0.3	<1 ppm	Fill
BH7	0.4-0.6	<1 ppm	Fill
BH8	0.2-0.4	<1 ppm	Fill
BH9	0.2-0.4	<1 ppm	Fill
BH10	0.3-0.5	<1 ppm	Fill
BH11	0.3-0.5	<1 ppm	Fill
BH12	0.3-0.5	<1 ppm	Fill
BH13	0.3-0.5	<1 ppm	Fill
BH14	0.2-0.4	<1 ppm	Fill
BH15	0.4-0.6	<1 ppm	Fill
BH15	0.8-1.0	<1 ppm	Fill
BH16	0.4-0.5	<1 ppm	Fill
BH17	0.4-0.5	1.1 ppm	Fill
BH17	0.9-1.0	<1 ppm	Fill
BH18	0.4-0.5	<1 ppm	Fill
BH18	0.9-1.0	<1 ppm	Fill
BH19	0.7-0.9	<1 ppm	Fill
BH20	0.3-0.4	<1 ppm	Fill
BH21	0.5-0.7	1.6 ppm	Fill
BH22	0.4-0.6	<1 ppm	Fill
BH22	1.2-1.3	<1 ppm	Fill
BH23	0.1-0.3	<1 ppm	Fill
BH24	0.6-0.7	<1 ppm	Fill
BH24	1.4-1.5	<1 ppm	Fill
BH25	0.4-0.5	<1 ppm	Fill
BH26	0.3-0.4	<1 ppm	Fill
BH27	0.3-0.4	<1 ppm	Fill

Aargus Pty Ltd

Sampling & Monitoring Details for Individual Determinants

Location/Address: Victoria Road Marrickville
Name of Officer Responsible: _____
Title of Officer Responsible: _____
Phone: _____ Fax: _____
Mobile: 0423 344 390 Other: _____

Other persons involved in inspection & monitoring (including laboratories, passed on information, electronic readings, etc) _____

Groundwell Lab
Eurofins

Date of Inspection: 9/10/13 Time of Start: 11 am Finish: 1.00 pm
Description of Weather: fine 20°C Wind Direction: WN
Wind Speed: _____ Rainfall(mm): no Humidity: _____

Odours present Y/N Location: _____ Time: _____
Odours spraying Y/N Location: _____ Time: _____
Environmental &/or other accidents/concerns:(details) _____

- Three groundwater wells
- 1 dug
- 1 split

Actions: _____

Stormwater controls Y/N ☒ Location(s): _____ Time: _____

Dust suppression Y/N ☒ Location(s): _____ Time: _____

Traffic control Y/N ☒ Location(s): _____ Time: _____

Equipment on site:

- Hand Pail - with low flow attachment
- Buckets / gloves
- Water quality meter
- Dip meter
- Bailer
- QA / QC

Truck movement tally: *n/a*

Field Measurements *N/A*

Location	PID level	Location	PID level	Location	PID level	Location	PID level
Location	PID level	Location	PID level	Location	PID level	Location	PID level
Location	PID level	Location	PID level	Location	PID level	Location	PID level
Location	PID level	Location	PID level	Location	PID level	Location	PID level
Location	PID level	Location	PID level	Location	PID level	Location	PID level
Location	PID level	Location	PID level	Location	PID level	Location	PID level
Location	Other	Location	Other	Location	Other	Location	Other
Location	Other	Location	Other	Location	Other	Location	Other
Location	Other	Location	Other	Location	Other	Location	Other
Location	Other	Location	Other	Location	Other	Location	Other

Aargus Pty Ltd

SITE OBSERVATIONS

Client: Danias 6/L
Project: DESA
Job No: ES5610-2
Site Location: Marrickville (Victoria Rd)
Date: 27/9/13

SITE DESCRIPTION

What is the area of the site? _____

Site Features and Site Activities, plus areas of environmental concern (transformers, sump pits, trade waste pits, chemical bunding, depressions on site that accumulate sediments, mercury lamps, synthetic mineral fibres, bad housekeeping, storage of scrap metal or waste, manufacturing processes of concern, OH&S issues, odours, surface staining, cracks in sealed surfaces, etc)? _____

Ref to site plan

What vegetation is on the site? Nil

Healthy or stressed? _____

Is there fill on site, where and how deep? Yes

0.3 - 2.3 m

Is the site sealed, unsealed, percentage, condition of sealed surface, sealed with what? _____

98% sealed

Are there any spills, leaks, discoloration on the surface? _____

Yes

Wells, Boreholes, pits, etc Yes

Stormwater & Sewer drains _____

Is there any asbestos in the buildings on site (walls, floor tiles, guttering, electrical backing boards, vermiculite, pipe lagging, etc)? Yes potential

Recommend Hazmat

Chemicals used on site, storage, size, type, quantity, etc.

Lubricants / oil / petrol / gas - forklifts

Nearest Service Station? _____

Are there any underground storage tanks on the site (check for filler caps, vent pipes, bowser mounds, etc)? (Y / N)

If so what is the tank capacity and the product contained within the tank (use dip stick)? _____

Topography and slope of the site?

South East - 3°
South regional

Interviews with other parties

Nil

ADJOINING PROPERTIES

Refer to Site Plan

What are the surrounding land uses of the site? (N, S, E & W)

N: _____

S: _____

E: _____

W: _____

Information provided by:

Name

Michael Sille

Signed

[Signature]

Date

22/9/13



Aargus

WELL CONSTRUCTION AND DEVELOPMENT RECORD FORM

PROJECT INFORMATION

Client:	Danias - Timber	Monitoring Well ID:	BN6/GW1
Site Address:	Victoria St Macquarie	Logged By:	M.S.
Project:	DESA	Date:	25/9/13

WELL CONSTRUCTION DETAILS

Total Bore Depth (m):	6.03	Screening Zone (m bgl):	3.0-6.00m
Borehole Diameter:	100mm	Finish:	Catic
Standpipe Diameter:	50mm	Coordinates:	

METHODOLOGY AND EQUIPMENT

Water Measurement Device:	Dp Meter	Reference Point:	Top of Catic
Groundwater Extraction Method:	Hand Bail + Low flow attachment	Reference Point to Ground Surface (mm):	11

GROUNDWATER GAUGING (PRE-DEVELOPMENT)

SWL (m bgl):	1.4m	GROUNDWATER GAUGING (POST-DEVELOPMENT)	
Depth to Product (m bgl):	Nil	SWL (m bgl):	2.06m
Product Thickness (mm):		Depth to Product (m bgl):	
Time:	3.25	Product Thickness (mm):	Nil
		Time:	3.33
		Total GW Volume Extracted (L):	10L

OBSERVATIONS (PRE-DEVELOPMENT)

Odour:	No	OBSERVATIONS (POST-DEVELOPMENT)	
Sheen:	No	Odour:	No
Colour:	Clear	Sheen:	No
Turbidity:	No	Colour:	Clear
Other:		Turbidity:	No
		Other:	

Record Checked by:

Date:

Document Version:

Updated:

0

10/1/13



Aargus

WELL CONSTRUCTION AND DEVELOPMENT RECORD FORM

PROJECT INFORMATION

Client:	Danias	Monitoring Well ID:	BH 15 / QW2
Site Address:	Victoria St Marrideville	Logged by:	M.S
Project:	OESA	Date:	25.9.13

WELL CONSTRUCTION DETAILS

Total Bore Depth (m):	4.5m	Screening Zone (m bgl):	1.5 - 4.5m
Borehole Diameter:	100mm	Finish:	Cubic
Standpipe Diameter:	50mm	Coordinates:	

METHODOLOGY AND EQUIPMENT

Water Measurement Device:	Dip Meter	Reference Point:	Top of Cubic
Groundwater Extraction Method:	Hand Bail	Reference Point to Ground Surface (mm):	Top of Cubic

GROUNDWATER GAUGING (PRE-DEVELOPMENT)

SWL (m bgl):	1.7
Depth to Product (m bgl):	Nil
Product Thickness (mm):	
Time:	3.10pm

GROUNDWATER GAUGING (POST-DEVELOPMENT)

SWL (m bgl):	2.3
Depth to Product (m bgl):	Nil
Product Thickness (mm):	
Time:	3.20pm
Total GW Volume Extracted (L):	9L

OBSERVATIONS (PRE-DEVELOPMENT)

Odour:	No
Sheen:	No
Colour:	Clear - brown
Turbidity:	No
Other:	

OBSERVATIONS (POST-DEVELOPMENT)

Odour:	No
Sheen:	No
Colour:	Clear - brown
Turbidity:	No
Other:	

Record Checked by:

Date:

Document Version:

Updated:

0

10/1/13



Aargus

WELL CONSTRUCTION AND DEVELOPMENT RECORD FORM

PROJECT INFORMATION			
Client:	Danias	Monitoring Well ID:	BH20/GWS
Site Address:	Victoria Rd Marickville	Logged By:	MS
Project:	DESA	Date:	26/1/13

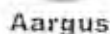
WELL CONSTRUCTION DETAILS			
Total Bore Depth (m):	5.5m	Screening Zone (m bgl):	2.5 - 5.5
Borehole Diameter:	100mm	Finish:	Cable
Standpipe Diameter:	50mm	Coordinates:	

METHODOLOGY AND EQUIPMENT			
Water Measurement Device:	Dip Meter	Reference Point:	Top of Cable
Groundwater Extraction Method:	Hard Bait - Low flow attachment	Reference Point to Ground Surface (mm):	11

GROUND WATER GAUGING (PRE-DEVELOPMENT)		GROUND WATER GAUGING (POST-DEVELOPMENT)	
SWL (m bgl):	2.2	SWL (m bgl):	2.8
Depth to Product (m bgl):	Nil	Depth to Product (m bgl):	Nil
Product Thickness (mm):	11	Product Thickness (mm):	11
Time:	2:50pm	Time:	3:00pm
		Total GW Volume Extracted (L):	10L approx

OBSERVATIONS (PRE-DEVELOPMENT)		OBSERVATIONS (POST-DEVELOPMENT)	
Odour:	Nil	Odour:	Nil
Sheen:	No	Sheen:	No
Colour:	Brown / grey	Colour:	Brown / grey
Turbidity:	Yes	Turbidity:	Yes
Other:		Other:	

Record Checked by:		Document Version:	0
Date:		Updated:	10/1/13



PROJECT INFORMATION			
Client:	EED Davies	Monitoring Well ID:	lin 1
Site Address:	Victoria Rd Merrickville	Logged By:	M.S
Project:		Date:	9/10/13

Depth (m) as constructed:	6.03	Depth (m) as measured:	5.75m
Finish:	Galic	Co-ordinates:	N: 6246395.915
Condition:	Fine	Surveyed Level:	E: 330110.332

Water Measurement Device:	Dip Meter	Reference Point:	Top of gate
Water Quality Meter:	VSI	Reference Point to Ground Surface (mm):	Top of gate
GW Extraction Method:	Acid Bait + 1.5m		

GROUNDWATER GAUGING (PRE-PURGE)		GROUNDWATER GAUGING (POST-PURGE)	
SWL (m bgl):	1.53m	SWL (m bgl):	2.10m
Depth to Product (m bgl):	N/I	Depth to Product (m bgl):	N/I
Product Thickness (mm):	N/I	Product Thickness (mm):	N/I
Time:	12:47pm	Time:	1:03pm

SWL (m bgl):	2-10m
Depth to Product (m bgl):	N/I
Product Thickness (mm):	N/I
Time:	1.03pm

Time	Volume Purged	Pump Rate (mL/min)	Temperature (°C)	DO (mg/L)	pH (pH units)	EC (µS/cm)	Redox Potential (mV)
11:52:10	2L		20.7	1.95	6.04	989	90
12:55pm	3L		19.2	2.79	5.67	872	90.6
12:59pm	3L		19.7	2.07	5.51	830	92.6
Stabilisation Criteria			± 0.2 °C	± 0.2 mg/L	± 0.1 pH units	± 5%	± 10 mV

Odour:	No	Sheen:	No
Colour / Turbidity:	Clear to very light brown / not turbid	Recent Rain (Days):	No

Samples Taken:	Primary	Blind	Split	Rinsate	TS/TB
Containers:	4				
Field Filtered:	No				
Preservation:	Yes				

Record Checked by:	M-S	Document Version:	0
Date:	1/10/12	Updated:	7/2/13



Aargus

GROUNDWATER MONITORING RECORD FORM

PROJECT INFORMATION

Client:	E & D Denias	Monitoring Well ID:	BH15/GW2
Site Address:	Victoria Rd Marncliffe	Logged By:	M.S
Project:	DESA	Date:	9/10/13

MONITORING WELL DETAILS

Depth (m) as constructed:	4.5m	Depth (m) as measured:	4.43
Finish:	Gali'e	Co-ordinates:	N: 6246462.094
Condition:	Sunk Sunk 0.05m	Surveyed Level:	E: 330124.033

METHODOLOGY AND EQUIPMENT

Water Measurement Device:	Dip Meter	Reference Point:	Top of gali'e
Water Quality Meter:	VST	Reference Point to Ground Surface (mm):	Top of concrete
GW Extraction Method:	Hand Bail		
	Low flow attachment		

GROUNDWATER GAUGING (PRE-PURGE)

SWL (m bgl):	1.83m
Depth to Product (m bgl):	Nil
Product Thickness (mm):	Nil
Time:	12:08pm

GROUNDWATER GAUGING (POST-PURGE)

SWL (m bgl):	2.63
Depth to Product (m bgl):	Nil
Product Thickness (mm):	Nil
Time:	12:22

PURGING AND PHYSICO-CHEMICAL PARAMETERS

Time	Volume Purged	Pump Rate (mL/min)	Temperature (°C)	DO (mg/L)	pH (pH units)	EC (µS/cm)	Redox Potential (mV)
12:10pm	2L	2	20.9	2.22	6.42	427	5.3
12:13pm	2L		20.2	2.39	6.43	786	5.1
12:17pm	2L		20.2	2.76	6.30	582	-1.2
12:20pm	2L		20.6	2.69	6.32	810	-1.1
Stabilisation Criteria			± 0.2 °C	± 0.2 mg/L	± 0.1 pH units	± 5%	± 10 mV

OBSERVATIONS

Odour:	No	Sheen:	No
Colour / Turbidity:	Light brown & turbid	Recent Rain (Days):	No

SAMPLING

Samples Taken:	Primary	Blind	Split	Rinsate	TS/TB
Containers:	4				
Field Filtered:	No				
Preservation:	Yes				

Record Checked by:	M.S	Document Version:	0
Date:	9/10/13	Updated:	7/2/13



Aargus

GROUNDWATER MONITORING RECORD FORM

PROJECT INFORMATION

Client:	E & D Panias	Monitoring Well ID:	BH20/GW3
Site Address:	Victoria St Merrickville	Logged By:	M.S
Project:	DESA	Date:	9/10/13

MONITORING WELL DETAILS

Depth (m) as constructed:	5.5	Depth (m) as measured:	4.93
Finish:	Calic	Co-ordinates:	N: 6246520.097
Condition:	Fine	Surveyed Levels:	E: 330081.068

METHODOLOGY AND EQUIPMENT

Water Measurement Device:	Dip Meter	Reference Point:	Top of Calic
Water Quality Meter:	YSI	Reference Point to Ground Surface (mm):	Top of Calic
GW Extraction Method:	Hand Bail		

GROUNDWATER GAUGING (PRE-PURGE)

SWL (m bgl):	1.63m
Depth to Product (m bgl):	Nil
Product Thickness (mm):	Nil
Time:	9:15am

GROUNDWATER GAUGING (POST-PURGE)

SWL (m bgl):	3.19
Depth to Product (m bgl):	Nil
Product Thickness (mm):	Nil
Time:	11:35am

PURGING AND PHYSICO-CHEMICAL PARAMETERS

Time	Volume Purged	Pump Rate (mL/min)	Temperature (°C)	DO (mg/L)	pH (pH units)	EC (µS/cm)	Redox Potential (mV)
11:17	3L		19.8	2.03	6.77	312.6	-23.8
11:20	2L		19.0	2.25	6.53	598	-22.7
11:23	2L		18.8	2.84	6.32	314.2	-23.1
11:30	2L		18.4	3.14	6.21	583	-8.5
Stabilisation Criteria			± 0.2 °C	± 0.2 mg/L	± 0.1 pH units	± 5%	± 10 mV

OBSERVATIONS

Odour:	No	Sheen:	Yes but not hydro
Colour / Turbidity:	Brown & very turbid	Recent Rain (Days):	

SAMPLING

Samples Taken:	Primary	Blind	Split	Rinsate	TS/TB
Containers:	4	4	4		
Field Filtered:	No	No	No		
Preservation:	Yes	Yes	Yes		

Record Checked by:	M.S	Document Version:	0
Date:	9/10/13	Updated:	7/2/13

APPENDIX L

LABORATORY CERTIFICATES



Aargus P/L
446 Parramatta Road
Petersham
NSW 2049

Attention: Mark Kelly

Report 394524-S
Client Reference MARRICKVILLE ES5610-2
Received Date Sep 30, 2013



Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Client Sample ID			BH1 0.1-0.5	BH1 0.5-1.0	BH2 0.5-1.0	BH3 0.5-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22454	S13-Se22455	S13-Se22456	S13-Se22458
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	-	< 20	< 20
TRH C15-C28	50	mg/kg	380	-	< 50	< 50
TRH C29-C36	50	mg/kg	700	-	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	1100	-	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	-	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	125	-	126	119
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	-	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	-	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	-	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	-	< 50	< 50
TRH >C16-C34	100	mg/kg	1000	-	< 100	< 100
TRH >C34-C40	100	mg/kg	300	-	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	0.7
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	0.6	-	< 0.5	1.2
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	0.6
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	1.0
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH1 0.1-0.5 Soil S13-Se22454 Sep 25, 2013	BH1 0.5-1.0 Soil S13-Se22455 Sep 25, 2013	BH2 0.5-1.0 Soil S13-Se22456 Sep 25, 2013	BH3 0.5-1.0 Soil S13-Se22458 Sep 25, 2013
Polycyclic Aromatic Hydrocarbons						
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	1.0
Total PAH	0.5	mg/kg	0.6	-	< 0.5	4.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	-	0.6	1.1
2-Fluorobiphenyl (surr.)	1	%	102	-	89	91
p-Terphenyl-d14 (surr.)	1	%	87	-	81	90
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Chromium (trivalent)	5	mg/kg	16	17	17	14
% Moisture	0.1	%	20	21	16	15
Asbestos (% weight as per WA Guidelines)			See attached	-	See attached	-
Heavy Metals						
Arsenic	2	mg/kg	2.3	< 2	2.5	2.2
Cadmium	0.4	mg/kg	1.2	0.5	0.5	< 0.4
Chromium	5	mg/kg	16	17	17	14
Copper	5	mg/kg	150	5.9	27	7.3
Lead	5	mg/kg	580	21	130	23
Mercury	0.05	mg/kg	0.34	< 0.05	0.08	< 0.05
Nickel	5	mg/kg	19	< 5	< 5	< 5
Zinc	5	mg/kg	280	14	140	28

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH4 0.5-1.0 Soil S13-Se22460 Sep 25, 2013	BH5 0.2-0.4 Soil S13-Se22462 Sep 25, 2013	BH5 0.8-1.0 Soil S13-Se22463 Sep 25, 2013	BH6 0.1-0.3 Soil S13-Se22464 Sep 25, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	-	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	-	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	-	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	121	125	-	124
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	-	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	-	< 50

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH4 0.5-1.0 Soil S13-Se22460 Sep 25, 2013	BH5 0.2-0.4 Soil S13-Se22462 Sep 25, 2013	BH5 0.8-1.0 Soil S13-Se22463 Sep 25, 2013	BH6 0.1-0.3 Soil S13-Se22464 Sep 25, 2013
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	-	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	-	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	-	0.6
2-Fluorobiphenyl (surr.)	1	%	96	88	-	89
p-Terphenyl-d14 (surr.)	1	%	79	81	-	83
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	-	-	-
2,4,5-Trichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2,4,6-Trichlorophenol	0.5	mg/kg	< 0.5	-	-	-
Phenol	0.5	mg/kg	< 0.5	-	-	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	< 0.5	-	-	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	< 1	-	-	-
2-Chlorophenol	0.5	mg/kg	< 0.5	-	-	-
2-Nitrophenol	0.5	mg/kg	< 0.5	-	-	-
4-Chloro-3-methylphenol	0.5	mg/kg	< 0.5	-	-	-
Pentachlorophenol	1	mg/kg	< 1	-	-	-
Phenol-d5 (surr.)	1	%	80	-	-	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
pH (1:5 Aqueous extract)	0.1	units	-	-	5.8	-
Chromium (trivalent)	5	mg/kg	28	16	21	22
% Moisture	0.1	%	19	19	19	22
Asbestos (% weight as per WA Guidelines)			-	See attached	-	See attached
Clay Content (%)			-	-	See attached	-
Cation Exchange Capacity						
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	-	66	-
Cation Exchange Capacity	0.05	meq/100g	-	-	32	-

Client Sample ID			BH4 0.5-1.0	BH5 0.2-0.4	BH5 0.8-1.0	BH6 0.1-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22460	S13-Se22462	S13-Se22463	S13-Se22464
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	2.2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	0.7	0.5	< 0.4	1.7
Chromium	5	mg/kg	28	16	12	22
Copper	5	mg/kg	< 5	12	5.0	200
Lead	5	mg/kg	17	37	11	350
Mercury	0.05	mg/kg	< 0.05	< 0.05	< 0.05	0.23
Nickel	5	mg/kg	< 5	< 5	< 5	9.4
Zinc	5	mg/kg	7.2	99	36	390

Client Sample ID			BH6 1.0-1.2	BH7 0.4-0.6	BH7 0.8-1.0	BH8 0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22465	S13-Se22466	S13-Se22467	S13-Se22468
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	-	< 20
TRH C10-C14	20	mg/kg	-	< 20	-	< 20
TRH C15-C28	50	mg/kg	-	< 50	-	< 50
TRH C29-C36	50	mg/kg	-	< 50	-	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50	-	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	-	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	106	-	122
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5

Client Sample ID			BH6 1.0-1.2	BH7 0.4-0.6	BH7 0.8-1.0	BH8 0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22465	S13-Se22466	S13-Se22467	S13-Se22468
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Chrysene	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PAH	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	0.6	-	0.6
2-Fluorobiphenyl (surr.)	1	%	-	90	-	84
p-Terphenyl-d14 (surr.)	1	%	-	86	-	73
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	-	< 1	-	< 1
Dibutylchloredate (surr.)	1	%	-	71	-	122
Tetrachloro-m-xylene (surr.)	1	%	-	111	-	98
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PCB	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibutylchloredate (surr.)	1	%	-	71	-	122
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2,4-Dimethylphenol	0.5	mg/kg	-	< 0.5	-	-

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH6 1.0-1.2 Soil S13-Se22465 Sep 25, 2013	BH7 0.4-0.6 Soil S13-Se22466 Sep 25, 2013	BH7 0.8-1.0 Soil S13-Se22467 Sep 25, 2013	BH8 0.2-0.4 Soil S13-Se22468 Sep 25, 2013
Speciated Phenols						
2,4,5-Trichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2,4,6-Trichlorophenol	0.5	mg/kg	-	< 0.5	-	-
Phenol	0.5	mg/kg	-	< 0.5	-	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	-	< 0.5	-	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	-	< 1	-	-
2-Chlorophenol	0.5	mg/kg	-	< 0.5	-	-
2-Nitrophenol	0.5	mg/kg	-	< 0.5	-	-
4-Chloro-3-methylphenol	0.5	mg/kg	-	< 0.5	-	-
Pentachlorophenol	1	mg/kg	-	< 1	-	-
Phenol-d5 (surr.)	1	%	-	71	-	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	1	mg/kg	-	< 1	-	-
Chromium (trivalent)	5	mg/kg	19	11	21	17
% Moisture	0.1	%	20	25	21	26
Asbestos (% weight as per WA Guidelines)			-	See attached	-	See attached
Heavy Metals						
Arsenic	2	mg/kg	4.1	< 2	< 2	2.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	19	11	21	17
Copper	5	mg/kg	11	22	13	22
Lead	5	mg/kg	38	59	19	64
Mercury	0.05	mg/kg	< 0.05	0.13	< 0.05	0.11
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	45	89	11	50

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH8 0.6-0.8 Soil S13-Se22469 Sep 25, 2013	BH9 0.2-0.4 Soil S13-Se22470 Sep 25, 2013	BH9 0.7-0.9 Soil S13-Se22471 Sep 25, 2013	BH10 0.3-0.5 Soil S13-Se22472 Sep 25, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	-	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	124	115	128

Client Sample ID			BH8 0.6-0.8	BH9 0.2-0.4	BH9 0.7-0.9	BH10 0.3-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22469	S13-Se22470	S13-Se22471	S13-Se22472
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PAH	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	0.6	-	0.6
2-Fluorobiphenyl (surr.)	1	%	-	93	-	88
p-Terphenyl-d14 (surr.)	1	%	-	86	-	76
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	-	< 0.2

Client Sample ID			BH8 0.6-0.8	BH9 0.2-0.4	BH9 0.7-0.9	BH10 0.3-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22469	S13-Se22470	S13-Se22471	S13-Se22472
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Methoxychlor	0.2	mg/kg	-	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	-	< 1	-	< 1
Dibutylchloredate (surr.)	1	%	-	108	-	123
Tetrachloro-m-xylene (surr.)	1	%	-	99	-	114
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PCB	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibutylchloredate (surr.)	1	%	-	108	-	123
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2,4-Dimethylphenol	0.5	mg/kg	-	< 0.5	-	-
2,4,5-Trichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2,4,6-Trichlorophenol	0.5	mg/kg	-	< 0.5	-	-
Phenol	0.5	mg/kg	-	< 0.5	-	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	-	< 0.5	-	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	-	< 1	-	-
2-Chlorophenol	0.5	mg/kg	-	< 0.5	-	-
2-Nitrophenol	0.5	mg/kg	-	< 0.5	-	-
4-Chloro-3-methylphenol	0.5	mg/kg	-	< 0.5	-	-
Pentachlorophenol	1	mg/kg	-	< 1	-	-
Phenol-d5 (surr.)	1	%	-	81	-	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	1	mg/kg	-	< 1	-	-
Chromium (trivalent)	5	mg/kg	8.9	23	51	19
% Moisture	0.1	%	20	20	33	18
Asbestos (% weight as per WA Guidelines)			-	See attached	-	See attached
Heavy Metals						
Arsenic	2	mg/kg	< 2	2.0	26	< 2
Cadmium	0.4	mg/kg	< 0.4	0.6	1.4	0.5
Chromium	5	mg/kg	8.9	23	51	19
Copper	5	mg/kg	< 5	20	< 5	< 5
Lead	5	mg/kg	7.3	20	17	14
Mercury	0.05	mg/kg	< 0.05	0.06	< 0.05	< 0.05
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	6.4	72	< 5	< 5

Client Sample ID			BH10 1.5-1.7 Soil	BH11 0.3-0.5 Soil	BH11 1.5-1.7 Soil	BH12 0.3-0.5 Soil
Sample Matrix			S13-Se22473	S13-Se22474	S13-Se22475	S13-Se22476
Eurofins mgt Sample No.			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	-	< 20
TRH C10-C14	20	mg/kg	-	< 20	-	< 20
TRH C15-C28	50	mg/kg	-	< 50	-	< 50
TRH C29-C36	50	mg/kg	-	< 50	-	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50	-	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	-	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	117	-	119
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PAH	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	0.6	-	0.6
2-Fluorobiphenyl (surr.)	1	%	-	88	-	84
p-Terphenyl-d14 (surr.)	1	%	-	77	-	72
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05

Client Sample ID			BH10 1.5-1.7	BH11 0.3-0.5	BH11 1.5-1.7	BH12 0.3-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22473	S13-Se22474	S13-Se22475	S13-Se22476
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	-	< 1	-	< 1
Dibutylchloredate (surr.)	1	%	-	128	-	119
Tetrachloro-m-xylene (surr.)	1	%	-	125	-	117
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PCB	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibutylchloredate (surr.)	1	%	-	128	-	119
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Chromium (trivalent)	5	mg/kg	12	14	19	17
% Moisture	0.1	%	21	18	17	23
Asbestos (% weight as per WA Guidelines)			-	See attached	-	See attached
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.8	< 0.4
Chromium	5	mg/kg	12	14	19	17
Copper	5	mg/kg	7.9	< 5	9.7	5.5
Lead	5	mg/kg	19	13	13	21
Mercury	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	7.3	< 5	< 5	9.5

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH12 1.3-1.5 Soil S13-Se22477 Sep 25, 2013	BH13 0.3-0.5 Soil S13-Se22478 Sep 25, 2013	BH13 1.0-1.2 Soil S13-Se22479 Sep 25, 2013	BH14 0.2-0.4 Soil S13-Se22480 Sep 25, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	-	< 20
TRH C10-C14	20	mg/kg	-	< 20	-	< 20
TRH C15-C28	50	mg/kg	-	< 50	-	< 50
TRH C29-C36	50	mg/kg	-	< 50	-	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50	-	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	-	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	124	-	116
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PAH	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	0.6	-	0.6
2-Fluorobiphenyl (surr.)	1	%	-	89	-	87
p-Terphenyl-d14 (surr.)	1	%	-	76	-	78
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4,4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4,4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4,4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-BHC	0.05	mg/kg	-	< 0.05	-	-

Client Sample ID			BH12 1.3-1.5	BH13 0.3-0.5	BH13 1.0-1.2	BH14 0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22477	S13-Se22478	S13-Se22479	S13-Se22480
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-BHC	0.05	mg/kg	-	< 0.05	-	-
d-BHC	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.2	mg/kg	-	< 0.2	-	-
Toxaphene	1	mg/kg	-	< 1	-	-
Dibutylchloredate (surr.)	1	%	-	87	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	118	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1232	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	-
Total PCB	0.5	mg/kg	-	< 0.5	-	-
Dibutylchloredate (surr.)	1	%	-	87	-	-
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2,4-Dimethylphenol	0.5	mg/kg	-	< 0.5	-	-
2,4,5-Trichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2,4,6-Trichlorophenol	0.5	mg/kg	-	< 0.5	-	-
Phenol	0.5	mg/kg	-	< 0.5	-	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	-	< 0.5	-	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	-	< 1	-	-
2-Chlorophenol	0.5	mg/kg	-	< 0.5	-	-
2-Nitrophenol	0.5	mg/kg	-	< 0.5	-	-
4-Chloro-3-methylphenol	0.5	mg/kg	-	< 0.5	-	-
Pentachlorophenol	1	mg/kg	-	< 1	-	-
Phenol-d5 (surr.)	1	%	-	81	-	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	1	mg/kg	-	< 1	-	-
Chromium (trivalent)	5	mg/kg	13	15	7.8	10
% Moisture	0.1	%	20	22	17	15
Asbestos (% weight as per WA Guidelines)			-	See attached	-	See attached
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2

Client Sample ID			BH12 1.3-1.5	BH13 0.3-0.5	BH13 1.0-1.2	BH14 0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22477	S13-Se22478	S13-Se22479	S13-Se22480
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Heavy Metals						
Cadmium	0.4	mg/kg	0.6	0.4	< 0.4	< 0.4
Chromium	5	mg/kg	13	15	7.8	10
Copper	5	mg/kg	15	17	8.2	8.1
Lead	5	mg/kg	11	74	7.2	24
Mercury	0.05	mg/kg	< 0.05	0.15	< 0.05	0.06
Nickel	5	mg/kg	< 5	5.7	< 5	< 5
Zinc	5	mg/kg	< 5	67	< 5	24

Client Sample ID			BH14 0.7-0.8	BH15 0.4-0.6	BH15 0.8-1.0	BH15 1.3-1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22481	S13-Se22482	S13-Se22483	S13-Se22484
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	-
TRH C10-C14	20	mg/kg	-	< 20	< 20	-
TRH C15-C28	50	mg/kg	-	< 50	< 50	-
TRH C29-C36	50	mg/kg	-	< 50	< 50	-
TRH C10-36 (Total)	50	mg/kg	-	< 50	< 50	-
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	122	106	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	-	< 20	< 20	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	< 20	-
TRH >C10-C16	50	mg/kg	-	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	< 50	-
TRH >C16-C34	100	mg/kg	-	< 100	< 100	-
TRH >C34-C40	100	mg/kg	-	< 100	< 100	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	-
Anthracene	0.5	mg/kg	-	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	-	0.6	-	-
Benzo(a)pyrene	0.5	mg/kg	-	0.8	-	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	0.7	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	-	0.6	-	-
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	-	-
Chrysene	0.5	mg/kg	-	0.7	-	-

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH14 0.7-0.8 Soil S13-Se22481 Sep 25, 2013	BH15 0.4-0.6 Soil S13-Se22482 Sep 25, 2013	BH15 0.8-1.0 Soil S13-Se22483 Sep 25, 2013	BH15 1.3-1.5 Soil S13-Se22484 Sep 25, 2013
Polycyclic Aromatic Hydrocarbons						
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	-	-
Fluoranthene	0.5	mg/kg	-	1.1	-	-
Fluorene	0.5	mg/kg	-	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	0.5	-	-
Naphthalene	0.5	mg/kg	-	< 0.5	-	-
Phenanthrene	0.5	mg/kg	-	0.7	-	-
Pyrene	0.5	mg/kg	-	1.1	-	-
Total PAH	0.5	mg/kg	-	6.8	-	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	1.2	-	-
2-Fluorobiphenyl (surr.)	1	%	-	88	-	-
p-Terphenyl-d14 (surr.)	1	%	-	77	-	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Chromium (trivalent)	5	mg/kg	12	8.8	19	21
% Moisture	0.1	%	17	15	18	18
Asbestos (% weight as per WA Guidelines)			-	See attached	-	-
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	4.8	2.9
Cadmium	0.4	mg/kg	< 0.4	0.7	1.2	0.7
Chromium	5	mg/kg	12	8.8	19	21
Copper	5	mg/kg	15	260	460	68
Lead	5	mg/kg	31	720	1300	68
Mercury	0.05	mg/kg	< 0.05	0.27	0.31	< 0.05
Nickel	5	mg/kg	< 5	8.0	15	< 5
Zinc	5	mg/kg	18	420	700	38

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH16 0.4-0.5 Soil S13-Se22486 Sep 25, 2013	BH16 1.2-1.4 Soil S13-Se22487 Sep 25, 2013	BH17 0.4-0.6 Soil S13-Se22488 Sep 25, 2013	BH17 0.9-1.0 Soil S13-Se22489 Sep 25, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	-	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	-	74	< 50
TRH C29-C36	50	mg/kg	< 50	-	51	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	-	130	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	-	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	120	-	123	119

Client Sample ID			BH16 0.4-0.5 Soil	BH16 1.2-1.4 Soil	BH17 0.4-0.6 Soil	BH17 0.9-1.0 Soil
Sample Matrix			S13-Se22486	S13-Se22487	S13-Se22488	S13-Se22489
Eurofins mgt Sample No.			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	-	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	-	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	-	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	-	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	-	120	< 100
TRH >C34-C40	100	mg/kg	< 100	-	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	-	0.9	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	2.0	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	1.8	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	-	1.9	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	1.1	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	2.3	-
Chrysene	0.5	mg/kg	< 0.5	-	2.2	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-	4.7	-
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	1.0	-
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	-	2.8	-
Pyrene	0.5	mg/kg	< 0.5	-	5.2	-
Total PAH	0.5	mg/kg	< 0.5	-	26	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	-	2.8	-
2-Fluorobiphenyl (surr.)	1	%	90	-	95	-
p-Terphenyl-d14 (surr.)	1	%	77	-	79	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	-
4,4'-DDD	0.05	mg/kg	-	-	< 0.05	-
4,4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4,4'-DDT	0.05	mg/kg	-	-	< 0.05	-
α-BHC	0.05	mg/kg	-	-	< 0.05	-
Aldrin	0.05	mg/kg	-	-	< 0.05	-
β-BHC	0.05	mg/kg	-	-	< 0.05	-
δ-BHC	0.05	mg/kg	-	-	< 0.05	-
Dieldrin	0.05	mg/kg	-	-	< 0.05	-
Endosulfan I	0.05	mg/kg	-	-	< 0.05	-
Endosulfan II	0.05	mg/kg	-	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	-
Endrin	0.05	mg/kg	-	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	-
Endrin ketone	0.05	mg/kg	-	-	< 0.05	-
γ-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Methoxychlor	0.2	mg/kg	-	-	< 0.2	-

Client Sample ID			BH16 0.4-0.5	BH16 1.2-1.4	BH17 0.4-0.6	BH17 0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22486	S13-Se22487	S13-Se22488	S13-Se22489
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Methoxychlor	0.2	mg/kg	-	-	< 0.2	-
Toxaphene	1	mg/kg	-	-	< 1	-
Dibutylchloredate (surr.)	1	%	-	-	120	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	117	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1232	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	-	-	< 0.5	-
Total PCB	0.5	mg/kg	-	-	< 0.5	-
Dibutylchloredate (surr.)	1	%	-	-	120	-
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	-
2,4-Dimethylphenol	0.5	mg/kg	-	-	< 0.5	-
2,4,5-Trichlorophenol	0.5	mg/kg	-	-	< 0.5	-
2,4,6-Trichlorophenol	0.5	mg/kg	-	-	< 0.5	-
Phenol	0.5	mg/kg	-	-	< 0.5	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	-	-	< 0.5	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	-	-	< 1	-
2-Chlorophenol	0.5	mg/kg	-	-	< 0.5	-
2-Nitrophenol	0.5	mg/kg	-	-	< 0.5	-
4-Chloro-3-methylphenol	0.5	mg/kg	-	-	< 0.5	-
Pentachlorophenol	1	mg/kg	-	-	< 1	-
Phenol-d5 (surr.)	1	%	-	-	84	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	1	mg/kg	-	-	< 1	-
Chromium (trivalent)	5	mg/kg	17	6.1	14	20
% Moisture	0.1	%	18	17	21	22
Asbestos (% weight as per WA Guidelines)			See attached	-	See attached	-
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	5.3
Cadmium	0.4	mg/kg	0.6	< 0.4	1.0	1.5
Chromium	5	mg/kg	17	6.1	14	20
Copper	5	mg/kg	28	< 5	53	180
Lead	5	mg/kg	65	5.5	180	730
Mercury	0.05	mg/kg	0.09	< 0.05	0.37	0.77
Nickel	5	mg/kg	< 5	< 5	9.2	16
Zinc	5	mg/kg	85	< 5	210	830

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH17 2.2-2.5 Soil S13-Se22490 Sep 25, 2013	BH18 0.4-0.6 Soil S13-Se22491 Sep 25, 2013	BH18 0.9-1.0 Soil S13-Se22492 Sep 25, 2013	BH18 1.5-1.6 Soil S13-Se22493 Sep 25, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	85	89	< 50
TRH C29-C36	50	mg/kg	-	< 50	54	< 50
TRH C10-36 (Total)	50	mg/kg	-	85	140	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	126	107	119
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	130	140	< 100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	< 0.5	0.7	-
Anthracene	0.5	mg/kg	-	1.3	1.2	-
Benz(a)anthracene	0.5	mg/kg	-	2.9	3.8	-
Benzo(a)pyrene	0.5	mg/kg	-	2.0	3.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	2.2	3.0	-
Benzo(g,h,i)perylene	0.5	mg/kg	-	1.0	1.7	-
Benzo(k)fluoranthene	0.5	mg/kg	-	2.1	3.5	-
Chrysene	0.5	mg/kg	-	2.3	3.0	-
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	-	6.3	7.2	-
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	1.0	1.4	-
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	-	4.2	4.2	-
Pyrene	0.5	mg/kg	-	5.9	6.3	-
Total PAH	0.5	mg/kg	-	31	40	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	3.1	5.0	-
2-Fluorobiphenyl (surr.)	1	%	-	93	90	-
p-Terphenyl-d14 (surr.)	1	%	-	85	94	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4,4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4,4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4,4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-BHC	0.05	mg/kg	-	< 0.05	-	-

Client Sample ID			BH17 2.2-2.5	BH18 0.4-0.6	BH18 0.9-1.0	BH18 1.5-1.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22490	S13-Se22491	S13-Se22492	S13-Se22493
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-BHC	0.05	mg/kg	-	< 0.05	-	-
d-BHC	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.2	mg/kg	-	< 0.2	-	-
Toxaphene	1	mg/kg	-	< 1	-	-
Dibutylchloredate (surr.)	1	%	-	129	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	111	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1232	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	-
Total PCB	0.5	mg/kg	-	< 0.5	-	-
Dibutylchloredate (surr.)	1	%	-	129	-	-
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2,4-Dimethylphenol	0.5	mg/kg	-	< 0.5	-	-
2,4,5-Trichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2,4,6-Trichlorophenol	0.5	mg/kg	-	< 0.5	-	-
Phenol	0.5	mg/kg	-	< 0.5	-	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	-	< 0.5	-	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	-	< 1	-	-
2-Chlorophenol	0.5	mg/kg	-	< 0.5	-	-
2-Nitrophenol	0.5	mg/kg	-	< 0.5	-	-
4-Chloro-3-methylphenol	0.5	mg/kg	-	< 0.5	-	-
Pentachlorophenol	1	mg/kg	-	< 1	-	-
Phenol-d5 (surr.)	1	%	-	83	-	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	1	mg/kg	-	< 1	-	-
pH (1:5 Aqueous extract)	0.1	units	5.6	-	-	-
Chromium (trivalent)	5	mg/kg	< 5	19	12	18
% Moisture	0.1	%	19	20	23	20
Asbestos (% weight as per WA Guidelines)			-	See attached	See attached	-
Clay Content (%)			See attached	-	-	-

Client Sample ID			BH17 2.2-2.5	BH18 0.4-0.6	BH18 0.9-1.0	BH18 1.5-1.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22490	S13-Se22491	S13-Se22492	S13-Se22493
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Cation Exchange Capacity						
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	36	-	-	-
Cation Exchange Capacity	0.05	meq/100g	24	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	< 2	8.3	7.0	16
Cadmium	0.4	mg/kg	< 0.4	0.9	0.9	1.5
Chromium	5	mg/kg	< 5	19	12	18
Copper	5	mg/kg	37	190	360	280
Lead	5	mg/kg	21	1100	750	1400
Mercury	0.05	mg/kg	< 0.05	1.3	5.0	3.1
Nickel	5	mg/kg	< 5	14	9.3	12
Zinc	5	mg/kg	41	320	510	670

Client Sample ID			BH18 2.3-2.5	BH19 0.7-0.9	BH19 1.5-1.6	BH20 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22494	S13-Se22495	S13-Se22496	S13-Se22497
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	-	< 20
TRH C10-C14	20	mg/kg	-	< 20	-	< 20
TRH C15-C28	50	mg/kg	-	190	-	< 50
TRH C29-C36	50	mg/kg	-	150	-	< 50
TRH C10-36 (Total)	50	mg/kg	-	340	-	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	-	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	120	-	117
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	300	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	0.6	-	< 0.5
Anthracene	0.5	mg/kg	-	1.9	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	5.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	5.5	-	< 0.5

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH18 2.3-2.5 Soil S13-Se22494 Sep 25, 2013	BH19 0.7-0.9 Soil S13-Se22495 Sep 25, 2013	BH19 1.5-1.6 Soil S13-Se22496 Sep 25, 2013	BH20 0.3-0.4 Soil S13-Se22497 Sep 25, 2013
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	4.6	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	3.0	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	5.3	-	< 0.5
Chrysene	0.5	mg/kg	-	4.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	0.9	-	< 0.5
Fluoranthene	0.5	mg/kg	-	9.5	-	< 0.5
Fluorene	0.5	mg/kg	-	0.8	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	2.8	-	< 0.5
Naphthalene	0.5	mg/kg	-	0.7	-	< 0.5
Phenanthrene	0.5	mg/kg	-	6.8	-	< 0.5
Pyrene	0.5	mg/kg	-	8.8	-	< 0.5
Total PAH	0.5	mg/kg	-	61	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	8.3	-	0.6
2-Fluorobiphenyl (surr.)	1	%	-	95	-	90
p-Terphenyl-d14 (surr.)	1	%	-	97	-	91
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Chromium (trivalent)	5	mg/kg	16	56	9.5	13
% Moisture	0.1	%	16	16	14	15
Asbestos (% weight as per WA Guidelines)			-	See attached	-	See attached
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	0.8	2.3	1.0	0.6
Chromium	5	mg/kg	16	56	9.5	13
Copper	5	mg/kg	250	1300	30	5.8
Lead	5	mg/kg	2900	2100	180	36
Mercury	0.05	mg/kg	2.4	3.2	0.51	0.07
Nickel	5	mg/kg	7.5	11	< 5	< 5
Zinc	5	mg/kg	390	1700	240	47

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH20 0.8-0.9 Soil S13-Se22498 Sep 25, 2013	BH21 0.5-0.7 Soil S13-Se22499 Sep 25, 2013	BH21 1.2-1.4 Soil S13-Se22500 Sep 25, 2013	BH22 0.4-0.6 Soil S13-Se22501 Sep 25, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	-	< 20
TRH C10-C14	20	mg/kg	-	28	-	27
TRH C15-C28	50	mg/kg	-	260	-	99
TRH C29-C36	50	mg/kg	-	200	-	70
TRH C10-36 (Total)	50	mg/kg	-	490	-	200
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	< 0.1

Client Sample ID			BH20 0.8-0.9 Soil	BH21 0.5-0.7 Soil	BH21 1.2-1.4 Soil	BH22 0.4-0.6 Soil
Sample Matrix			S13-Se22498	S13-Se22499	S13-Se22500	S13-Se22501
Eurofins mgt Sample No.			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Date Sampled						
Test/Reference	LOR	Unit				
BTEX						
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	-	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	123	-	117
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	440	-	160
TRH >C34-C40	100	mg/kg	-	< 100	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	0.7	-	< 0.5
Anthracene	0.5	mg/kg	-	2.0	-	1.2
Benz(a)anthracene	0.5	mg/kg	-	4.8	-	2.1
Benzo(a)pyrene	0.5	mg/kg	-	4.5	-	1.7
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	2.9	-	1.7
Benzo(g,h,i)perylene	0.5	mg/kg	-	2.5	-	0.8
Benzo(k)fluoranthene	0.5	mg/kg	-	2.6	-	1.9
Chrysene	0.5	mg/kg	-	4.0	-	1.8
Dibenz(a,h)anthracene	0.5	mg/kg	-	0.8	-	< 0.5
Fluoranthene	0.5	mg/kg	-	8.4	-	4.7
Fluorene	0.5	mg/kg	-	1.0	-	0.6
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	-	2.3	-	0.8
Naphthalene	0.5	mg/kg	-	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	-	7.6	-	4.0
Pyrene	0.5	mg/kg	-	7.9	-	4.4
Total PAH	0.5	mg/kg	-	52	-	26
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	6.6	-	2.6
2-Fluorobiphenyl (surr.)	1	%	-	88	-	94
p-Terphenyl-d14 (surr.)	1	%	-	86	-	80
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 0.1
4,4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4,4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4,4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-BHC	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-BHC	0.05	mg/kg	-	-	-	< 0.05
d-BHC	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05

Client Sample ID			BH20 0.8-0.9	BH21 0.5-0.7	BH21 1.2-1.4	BH22 0.4-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22498	S13-Se22499	S13-Se22500	S13-Se22501
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.2	mg/kg	-	-	-	< 0.2
Toxaphene	1	mg/kg	-	-	-	< 1
Dibutylchloredate (surr.)	1	%	-	-	-	118
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	117
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	-	< 0.5
Total PCB	0.5	mg/kg	-	-	-	< 0.5
Dibutylchloredate (surr.)	1	%	-	-	-	118
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	-	-	-	< 0.5
2,4-Dimethylphenol	0.5	mg/kg	-	-	-	< 0.5
2,4,5-Trichlorophenol	0.5	mg/kg	-	-	-	< 0.5
2,4,6-Trichlorophenol	0.5	mg/kg	-	-	-	< 0.5
Phenol	0.5	mg/kg	-	-	-	< 0.5
2-Methylphenol (o-Cresol)	0.5	mg/kg	-	-	-	< 0.5
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	-	-	-	< 1
2-Chlorophenol	0.5	mg/kg	-	-	-	< 0.5
2-Nitrophenol	0.5	mg/kg	-	-	-	< 0.5
4-Chloro-3-methylphenol	0.5	mg/kg	-	-	-	< 0.5
Pentachlorophenol	1	mg/kg	-	-	-	< 1
Phenol-d5 (surr.)	1	%	-	-	-	80
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	1	mg/kg	-	-	-	< 1
Chromium (trivalent)	5	mg/kg	21	16	30	18
% Moisture	0.1	%	15	24	23	22
Asbestos (% weight as per WA Guidelines)			-	See attached	-	See attached
Heavy Metals						
Arsenic	2	mg/kg	< 2	2.9	19	7.5
Cadmium	0.4	mg/kg	0.8	0.6	1.8	0.9
Chromium	5	mg/kg	21	16	30	18
Copper	5	mg/kg	12	140	160	150
Lead	5	mg/kg	30	1500	1400	400
Mercury	0.05	mg/kg	0.08	0.66	2.3	1.4
Nickel	5	mg/kg	< 5	11	23	8.4
Zinc	5	mg/kg	59	450	1400	440

Client Sample ID			BH22 1.2-1.3	BH22 1.8-2.0	BH23 0.1-0.2	BH23 0.4-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22502	S13-Se22503	S13-Se22504	S13-Se22505
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	-
TRH C10-C14	20	mg/kg	< 20	-	22	-
TRH C15-C28	50	mg/kg	< 50	-	< 50	-
TRH C29-C36	50	mg/kg	< 50	-	< 50	-
TRH C10-36 (Total)	50	mg/kg	< 50	-	< 50	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	110	-	117	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	-	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	-	< 20	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	-
Anthracene	0.5	mg/kg	-	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	-	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	-	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Chrysene	0.5	mg/kg	-	-	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	-	-	< 0.5	-
Fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Fluorene	0.5	mg/kg	-	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	-
Naphthalene	0.5	mg/kg	-	-	< 0.5	-
Phenanthrene	0.5	mg/kg	-	-	< 0.5	-
Pyrene	0.5	mg/kg	-	-	< 0.5	-
Total PAH	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	-	0.6	-
2-Fluorobiphenyl (surr.)	1	%	-	-	87	-
p-Terphenyl-d14 (surr.)	1	%	-	-	88	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
pH (1:5 Aqueous extract)	0.1	units	-	6.4	-	-
Chromium (trivalent)	5	mg/kg	17	13	15	30
% Moisture	0.1	%	25	22	18	22
Asbestos (% weight as per WA Guidelines)			-	-	See attached	-

Client Sample ID			BH22 1.2-1.3	BH22 1.8-2.0	BH23 0.1-0.2	BH23 0.4-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22502	S13-Se22503	S13-Se22504	S13-Se22505
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Clay Content (%)			-	See attached	-	-
Cation Exchange Capacity						
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	78	-	-
Cation Exchange Capacity	0.05	meq/100g	-	31	-	-
Heavy Metals						
Arsenic	2	mg/kg	14	2.1	2.2	5.1
Cadmium	0.4	mg/kg	3.3	1.0	< 0.4	0.9
Chromium	5	mg/kg	17	13	15	30
Copper	5	mg/kg	720	240	5.0	< 5
Lead	5	mg/kg	2900	410	46	23
Mercury	0.05	mg/kg	2.8	1.1	< 0.05	< 0.05
Nickel	5	mg/kg	19	5.0	< 5	< 5
Zinc	5	mg/kg	3300	460	25	11

Client Sample ID			BH24 0.6-0.7	BH24 1.4-1.5	BH24 2.4-2.5	BH25 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22506	S13-Se22507	S13-Se22508	S13-Se22509
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	31	< 20	-	-
TRH C15-C28	50	mg/kg	120	< 50	-	-
TRH C29-C36	50	mg/kg	70	< 50	-	-
TRH C10-36 (Total)	50	mg/kg	220	< 50	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	122	114	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	180	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	1.2	-	-	-

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH24 0.6-0.7 Soil S13-Se22506 Sep 25, 2013	BH24 1.4-1.5 Soil S13-Se22507 Sep 25, 2013	BH24 2.4-2.5 Soil S13-Se22508 Sep 25, 2013	BH25 0.4-0.5 Soil S13-Se22509 Sep 25, 2013
Polycyclic Aromatic Hydrocarbons						
Benz(a)anthracene	0.5	mg/kg	2.7	-	-	-
Benzo(a)pyrene	0.5	mg/kg	2.2	-	-	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	2.0	-	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	1.0	-	-	-
Benzo(k)fluoranthene	0.5	mg/kg	1.8	-	-	-
Chrysene	0.5	mg/kg	2.2	-	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	5.7	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	1.0	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	3.7	-	-	-
Pyrene	0.5	mg/kg	5.5	-	-	-
Total PAH	0.5	mg/kg	29	-	-	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	3.2	-	-	-
2-Fluorobiphenyl (surr.)	1	%	90	-	-	-
p-Terphenyl-d14 (surr.)	1	%	84	-	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	-	-	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	-	-	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	-	-	< 0.05
α-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
β-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
δ-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	-	< 0.05
γ-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	-	-	< 0.2
Toxaphene	1	mg/kg	< 1	-	-	< 1
Dibutylchlorodate (surr.)	1	%	120	-	-	124
Tetrachloro-m-xylene (surr.)	1	%	117	-	-	118
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	-
Total PCB	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			BH24 0.6-0.7	BH24 1.4-1.5	BH24 2.4-2.5	BH25 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22506	S13-Se22507	S13-Se22508	S13-Se22509
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls (PCB)						
Total PCB	0.5	mg/kg	< 0.5	-	-	-
Dibutylchloredate (surr.)	1	%	120	-	-	-
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	-	-	-
2,4,5-Trichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2,4,6-Trichlorophenol	0.5	mg/kg	< 0.5	-	-	-
Phenol	0.5	mg/kg	< 0.5	-	-	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	< 0.5	-	-	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	< 1	-	-	-
2-Chlorophenol	0.5	mg/kg	< 0.5	-	-	-
2-Nitrophenol	0.5	mg/kg	< 0.5	-	-	-
4-Chloro-3-methylphenol	0.5	mg/kg	< 0.5	-	-	-
Pentachlorophenol	1	mg/kg	< 1	-	-	-
Phenol-d5 (surr.)	1	%	84	-	-	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	1	mg/kg	< 1	-	-	-
Chromium (trivalent)	5	mg/kg	18	19	19	17
% Moisture	0.1	%	24	27	32	25
Asbestos (% weight as per WA Guidelines)			See attached	-	-	See attached
Heavy Metals						
Arsenic	2	mg/kg	< 2	2.4	6.1	6.0
Cadmium	0.4	mg/kg	1.2	0.8	1.1	1.2
Chromium	5	mg/kg	18	19	19	17
Copper	5	mg/kg	520	180	200	180
Lead	5	mg/kg	840	470	790	1000
Mercury	0.05	mg/kg	1.6	2.2	5.2	0.34
Nickel	5	mg/kg	19	9.7	5.8	11
Zinc	5	mg/kg	620	520	520	550

Client Sample ID			BH25 0.7-0.8	BH26 0.3-0.4	BH26 0.5-0.6	BH27 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22510	S13-Se22511	S13-Se22512	S13-Se22513
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	-	-	< 20
TRH C10-C14	20	mg/kg	-	-	-	< 20
TRH C15-C28	50	mg/kg	-	-	-	60
TRH C29-C36	50	mg/kg	-	-	-	68
TRH C10-36 (Total)	50	mg/kg	-	-	-	130
BTEX						
Benzene	0.1	mg/kg	-	-	-	< 0.1
Toluene	0.1	mg/kg	-	-	-	< 0.1

Client Sample ID			BH25 0.7-0.8	BH26 0.3-0.4	BH26 0.5-0.6	BH27 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22510	S13-Se22511	S13-Se22512	S13-Se22513
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
BTEX						
Ethylbenzene	0.1	mg/kg	-	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	-	< 0.2
o-Xylene	0.1	mg/kg	-	-	-	< 0.1
Xylenes - Total	0.3	mg/kg	-	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	-	125
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	-	-	< 0.5
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	120
TRH >C34-C40	100	mg/kg	-	-	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	-	1.1
Benzo(a)pyrene	0.5	mg/kg	-	-	-	1.2
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	-	-	1.4
Benzo(g,h,i)perylene	0.5	mg/kg	-	-	-	0.8
Benzo(k)fluoranthene	0.5	mg/kg	-	-	-	1.4
Chrysene	0.5	mg/kg	-	-	-	1.2
Dibenz(a,h)anthracene	0.5	mg/kg	-	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	-	2.2
Fluorene	0.5	mg/kg	-	-	-	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	-	-	-	0.8
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	1.1
Pyrene	0.5	mg/kg	-	-	-	2.1
Total PAH	0.5	mg/kg	-	-	-	13
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	-	-	1.9
2-Fluorobiphenyl (surr.)	1	%	-	-	-	92
p-Terphenyl-d14 (surr.)	1	%	-	-	-	73
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05

Client Sample ID			BH25 0.7-0.8	BH26 0.3-0.4	BH26 0.5-0.6	BH27 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22510	S13-Se22511	S13-Se22512	S13-Se22513
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	-	< 1	-	< 1
Dibutylchloredate (surr.)	1	%	-	95	-	94
Tetrachloro-m-xylene (surr.)	1	%	-	105	-	98
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	-	< 0.5
Total PCB	0.5	mg/kg	-	-	-	< 0.5
Dibutylchloredate (surr.)	1	%	-	-	-	94
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	-	-	-	< 0.5
2,4-Dimethylphenol	0.5	mg/kg	-	-	-	< 0.5
2,4,5-Trichlorophenol	0.5	mg/kg	-	-	-	< 0.5
2,4,6-Trichlorophenol	0.5	mg/kg	-	-	-	< 0.5
Phenol	0.5	mg/kg	-	-	-	< 0.5
2-Methylphenol (o-Cresol)	0.5	mg/kg	-	-	-	< 0.5
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	-	-	-	< 1
2-Chlorophenol	0.5	mg/kg	-	-	-	< 0.5
2-Nitrophenol	0.5	mg/kg	-	-	-	< 0.5
4-Chloro-3-methylphenol	0.5	mg/kg	-	-	-	< 0.5
Pentachlorophenol	1	mg/kg	-	-	-	< 1
Phenol-d5 (surr.)	1	%	-	-	-	83
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	1	mg/kg	-	-	-	< 1
Chromium (trivalent)	5	mg/kg	21	34	30	14
% Moisture	0.1	%	18	17	15	2.4
Asbestos (% weight as per WA Guidelines)			-	See attached	-	See attached
Heavy Metals						
Arsenic	2	mg/kg	< 2	8.5	< 2	2.6
Cadmium	0.4	mg/kg	0.5	1.4	0.7	3.5
Chromium	5	mg/kg	21	34	30	14
Copper	5	mg/kg	6.0	170	< 5	190
Lead	5	mg/kg	27	660	28	660
Mercury	0.05	mg/kg	< 0.05	0.52	< 0.05	0.72
Nickel	5	mg/kg	< 5	12	< 5	10
Zinc	5	mg/kg	13	630	21	1300

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	D1 Soil S13-Se22514 Sep 25, 2013	D2 Soil S13-Se22515 Sep 25, 2013	D3 Soil S13-Se22516 Sep 25, 2013	D4 Soil S13-Se22517 Sep 25, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	21	21	22	22
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	117	118	122	129
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	0.6	0.6
2-Fluorobiphenyl (surr.)	1	%	87	86	88	89
p-Terphenyl-d14 (surr.)	1	%	88	86	88	88
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	-
4,4'-DDD	0.05	mg/kg	-	-	< 0.05	-
4,4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4,4'-DDT	0.05	mg/kg	-	-	< 0.05	-
a-BHC	0.05	mg/kg	-	-	< 0.05	-

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	D1 Soil S13-Se22514 Sep 25, 2013	D2 Soil S13-Se22515 Sep 25, 2013	D3 Soil S13-Se22516 Sep 25, 2013	D4 Soil S13-Se22517 Sep 25, 2013
Organochlorine Pesticides						
Aldrin	0.05	mg/kg	-	-	< 0.05	-
b-BHC	0.05	mg/kg	-	-	< 0.05	-
d-BHC	0.05	mg/kg	-	-	< 0.05	-
Dieldrin	0.05	mg/kg	-	-	< 0.05	-
Endosulfan I	0.05	mg/kg	-	-	< 0.05	-
Endosulfan II	0.05	mg/kg	-	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	-
Endrin	0.05	mg/kg	-	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	-
Endrin ketone	0.05	mg/kg	-	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Methoxychlor	0.2	mg/kg	-	-	< 0.2	-
Toxaphene	1	mg/kg	-	-	< 1	-
Dibutylchloredate (surr.)	1	%	-	-	113	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	130	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1232	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	-	-	< 0.5	-
Total PCB	0.5	mg/kg	-	-	< 0.5	-
Dibutylchloredate (surr.)	1	%	-	-	113	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Chromium (trivalent)	5	mg/kg	16	39	25	9.7
% Moisture	0.1	%	18	20	24	14
Heavy Metals						
Arsenic	2	mg/kg	< 2	7.9	12	< 2
Cadmium	0.4	mg/kg	0.7	4.1	1.3	< 0.4
Chromium	5	mg/kg	16	39	25	9.7
Copper	5	mg/kg	31	200	22	12
Lead	5	mg/kg	82	950	140	53
Mercury	0.05	mg/kg	0.12	0.62	0.20	0.08
Nickel	5	mg/kg	< 5	38	5.8	< 5
Zinc	5	mg/kg	250	1100	46	35

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	D5 Soil S13-Se22518 Sep 25, 2013	TB1130925-1 Soil S13-Se22521 Sep 25, 2013	TS1130925-1 Soil S13-Se22522 Sep 25, 2013	TB2 130925-2 Soil S13-Se22523 Sep 25, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	130%	< 20
TRH C10-C14	20	mg/kg	< 20	-	-	-
TRH C15-C28	50	mg/kg	55	-	-	-
TRH C29-C36	50	mg/kg	< 50	-	-	-
TRH C10-36 (Total)	50	mg/kg	55	-	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	130%	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	128%	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	129%	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	131%	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	129%	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	130%	< 0.3
4-Bromofluorobenzene (surr.)	1	%	122	123	125	128
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	-	-	-
TRH C6-C10	20	mg/kg	< 20	-	-	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	-	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	-	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	1.3	-	-	-
Benzo(a)pyrene	0.5	mg/kg	1.5	-	-	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	1.3	-	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	0.8	-	-	-
Benzo(k)fluoranthene	0.5	mg/kg	1.9	-	-	-
Chrysene	0.5	mg/kg	1.5	-	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	2.7	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	0.8	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	1.7	-	-	-
Pyrene	0.5	mg/kg	2.8	-	-	-
Total PAH	0.5	mg/kg	16	-	-	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	2.3	-	-	-
2-Fluorobiphenyl (surr.)	1	%	94	-	-	-
p-Terphenyl-d14 (surr.)	1	%	71	-	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4,4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4,4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4,4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	D5 Soil S13-Sc22518 Sep 25, 2013	TB1130925-1 Soil S13-Sc22521 Sep 25, 2013	TS1130925-1 Soil S13-Sc22522 Sep 25, 2013	TB2 130925-2 Soil S13-Sc22523 Sep 25, 2013
Organochlorine Pesticides						
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Dibutylchlorodate (surr.)	1	%	127	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	111	-	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	-
Total PCB	0.5	mg/kg	< 0.5	-	-	-
Dibutylchlorodate (surr.)	1	%	127	-	-	-
Speciated Phenols						
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	-	-	-
2,4,5-Trichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2,4,6-Trichlorophenol	0.5	mg/kg	< 0.5	-	-	-
Phenol	0.5	mg/kg	< 0.5	-	-	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	< 0.5	-	-	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	< 1	-	-	-
2-Chlorophenol	0.5	mg/kg	< 0.5	-	-	-
2-Nitrophenol	0.5	mg/kg	< 0.5	-	-	-
4-Chloro-3-methylphenol	0.5	mg/kg	< 0.5	-	-	-
Pentachlorophenol	1	mg/kg	< 1	-	-	-
Phenol-d5 (surr.)	1	%	83	-	-	-
Chromium (hexavalent)	1	mg/kg	< 1	-	-	-
Cyanide (total)	1	mg/kg	< 1	-	-	-
Chromium (trivalent)	5	mg/kg	17	-	-	-
% Moisture	0.1	%	8.7	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	3.6	-	-	-
Cadmium	0.4	mg/kg	0.8	-	-	-

Client Sample ID			D5	TB1130925-1	TS1130925-1	TB2 130925-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S13-Se22518	S13-Se22521	S13-Se22522	S13-Se22523
Date Sampled			Sep 25, 2013	Sep 25, 2013	Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit				
Heavy Metals						
Chromium	5	mg/kg	17	-	-	-
Copper	5	mg/kg	63	-	-	-
Lead	5	mg/kg	240	-	-	-
Mercury	0.05	mg/kg	0.49	-	-	-
Nickel	5	mg/kg	10	-	-	-
Zinc	5	mg/kg	230	-	-	-

Client Sample ID			TS2 130925-2
Sample Matrix			Soil
Eurofins mgt Sample No.			S13-Se22524
Date Sampled			Sep 25, 2013
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	109%
BTEX			
Benzene	0.1	mg/kg	109%
Toluene	0.1	mg/kg	108%
Ethylbenzene	0.1	mg/kg	108%
m&p-Xylenes	0.2	mg/kg	108%
o-Xylene	0.1	mg/kg	106%
Xylenes - Total	0.3	mg/kg	107%
4-Bromofluorobenzene (surr.)	1	%	122

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

Description	Testing Site	Extracted	Holding Time
Eurofins mgt Suite 6			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Oct 08, 2013	14 Day
BTEX - Method: E029/E016 BTEX	Sydney	Oct 08, 2013	14 Day
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LM-LTM-ORG2010	Sydney	Oct 08, 2013	14 Day
Metals M8 - Method: E022 Acid Extractable metals in Soils & E026 Mercury	Sydney	Oct 01, 2013	28 Day
Eurofins mgt Suite 7 (filtered metals)			
Polycyclic Aromatic Hydrocarbons - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Oct 02, 2013	14 Day
Eurofins mgt Suite 13			
Organochlorine Pesticides - Method: E013 Organochlorine Pesticides (OC)	Sydney	Oct 02, 2013	14 Day
Polychlorinated Biphenyls (PCB) - Method: E013 Polychlorinated Biphenyls (PCB)	Sydney	Oct 02, 2013	28 Day
Speciated Phenols - Method: E008 Speciated Phenols	Sydney	Oct 02, 2013	14 Day
Cyanide (total) - Method: E040 /E054 Total Cyanide	Sydney	Oct 01, 2013	14 Day
pH (1:5 Aqueous extract) - Method: E018.2 pH	Sydney	Oct 02, 2013	7 Day
% Moisture - Method: E005 Moisture Content	Sydney	Oct 01, 2013	28 Day
Cation Exchange Capacity - Method: 15B1, 15B2, 15B3 Soil Chemical Methods - Method: Rayment and Lyons	Melbourne	Oct 03, 2013	28 Day
Chromium (speciated)			
Chromium (hexavalent) - Method: E043 /E057 Total Speciated Chromium	Sydney	Oct 01, 2013	28 Day
Chromium (trivalent) - Method: E043 /E057 Total Speciated Chromium	Sydney	Sep 30, 2013	28 Day
Heavy Metals - Method: E022 Acid Extractable metals in Soils	Sydney	Oct 01, 2013	180 Day

Company Name: Aargus P/L Address: 446 Parramatta Road Petersham NSW 2049				Order No.: 394524 Report #: 1300 137 038 Phone: 1300 136 038 Fax:				Received: Sep 30, 2013 2:45 PM Due: Oct 8, 2013 Priority: 5 Day Contact Name: Mark Kelly													
Client Job No.: MARRICKVILLE ES5610-2				Eurofins mgt Client Manager: Ruth Callander																	
Sample Detail																					
Laboratory where analysis is conducted																					
Melbourne Laboratory - NATA Site # 1254 & 14271																					
Sydney Laboratory - NATA Site # 18217																					
Brisbane Laboratory - NATA Site # 20794																					
External Laboratory																					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	% Moisture	Asbestos (% weight as per WA Guidelines)	Clay Content (%)	Cyanide (total)	HOLD	pH (1:5 Aqueous extract)	TRH C6-C9	Organochlorine Pesticides	Metals M8	BTEX	Speciated Phenols	Chromium (speciated)	Eurofins mgt Suite 7	Eurofins mgt Suite 7 (filtered metals)	Cation Exchange Capacity	Eurofins mgt Suite 13	Eurofins mgt Suite 6
BH1 0.1-0.5	Sep 25, 2013		Soil	S13-Se22454	X	X											X				X
BH1 0.5-1.0	Sep 25, 2013		Soil	S13-Se22455	X								X				X				X
BH2 0.5-1.0	Sep 25, 2013		Soil	S13-Se22456	X	X								X			X				
BH2 2-2.5	Sep 25, 2013		Soil	S13-Se22457					X												
BH3 0.5-1.0	Sep 25, 2013		Soil	S13-Se22458	X												X				
BH3 2-2.5	Sep 25, 2013		Soil	S13-Se22459					X												
BH4 0.5-1.0	Sep 25, 2013		Soil	S13-Se22460	X											X	X				
BH4 2-2.5	Sep 25, 2013		Soil	S13-Se22461					X												
BH5 0.2-0.4	Sep 25, 2013		Soil	S13-Se22462	X	X											X	X			
BH5 0.8-1.0	Sep 25, 2013		Soil	S13-Se22463	X		X						X				X			X	

Company Name: Aargus P/L
Address: 446 Parramatta Road
Petersham
NSW 2049

Client Job No.: MARRICKVILLE ES5610-2

Order No.: 394524
Report #: 1300 137 038
Phone: 1300 136 038
Fax: 1300 136 038

Received: Sep 30, 2013 2:45 PM
Due: Oct 8, 2013
Priority: 5 Day
Contact Name: Mark Kelly

Eurofins | mgt Client Manager: Ruth Callander

Sample Detail

Laboratory where analysis is conducted																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Company Name: Aargus P/L
Address: 446 Parramatta Road
Petersham
NSW 2049

Client Job No.: MARRICKVILLE ES5610-2

Order No.: 394524
Report #: 1300 137 038
Phone: 1300 136 038
Fax: 1300 136 038

Received: Sep 30, 2013 2:45 PM
Due: Oct 8, 2013
Priority: 5 Day
Contact Name: Mark Kelly

Eurofins | mgt Client Manager: Ruth Callander

Sample Detail				Eurofins mgt Suite 6													
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271																	
Sydney Laboratory - NATA Site # 18217																	
Brisbane Laboratory - NATA Site # 20794																	
External Laboratory																	
BH20 0.3-0.4	Sep 25, 2013	Soil		S13-Se22497													X
BH20 0.8-0.9	Sep 25, 2013	Soil		S13-Se22498													
BH21 0.5-0.7	Sep 25, 2013	Soil		S13-Se22499													
BH21 1.2-1.4	Sep 25, 2013	Soil		S13-Se22500													
BH22 0.4-0.6	Sep 25, 2013	Soil		S13-Se22501												X	
BH22 1.2-1.3	Sep 25, 2013	Soil		S13-Se22502													X
BH22 1.8-2.0	Sep 25, 2013	Soil		S13-Se22503											X		
BH23 0.1-0.2	Sep 25, 2013	Soil		S13-Se22504													
BH23 0.4-0.6	Sep 25, 2013	Soil		S13-Se22505													
BH24 0.6-0.7	Sep 25, 2013	Soil		S13-Se22506												X	
BH24 1.4-1.5	Sep 25, 2013	Soil		S13-Se22507													X

Company Name: Aargus P/L Address: 446 Parramatta Road Petersham NSW 2049 Client Job No.: MARRICKVILLE ES5610-2	Order No.: 394524 Report #: 1300 137 038 Phone: 1300 136 038 Fax:	Received: Sep 30, 2013 2:45 PM Due: Oct 8, 2013 Priority: 5 Day Contact Name: Mark Kelly
---	--	---

Eurofins mgt Client Manager: Ruth Callander			
Sample Detail			
Laboratory where analysis is conducted			
Melbourne Laboratory - NATA Site # 1254 & 14271			
Sydney Laboratory - NATA Site # 18217			
Brisbane Laboratory - NATA Site # 20794			
External Laboratory			
R1	Sep 25, 2013	Water	S13-Se22519
R2	Sep 25, 2013	Water	S13-Se22520
TB1130925-1	Sep 25, 2013	Soil	S13-Se22521
TS1130925-1	Sep 25, 2013	Soil	S13-Se22522
TB2 130925-2	Sep 25, 2013	Soil	S13-Se22523
TS2 130925-2	Sep 25, 2013	Soil	S13-Se22524
Eurofins mgt Suite 6			
Eurofins mgt Suite 13			
Cation Exchange Capacity			
Eurofins mgt Suite 7 (filtered metals)			
Eurofins mgt Suite 7			
Chromium (speciated)			
Speciated Phenols			
BTEX			
Metals M8			
Organochlorine Pesticides			
TRH C6-C9			
pH (1:5 Aqueous extract)			
HOLD			
Cyanide (total)			
Clay Content (%)			
Asbestos (% weight as per WA Guidelines)			
% Moisture			

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

MPN/100mL: Most Probable Number of organisms per 100 millilitres

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environment Protection Authority
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX E029/E016 BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides E013 Organochlorine Pesticides (OC)							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4,4'-DDD	mg/kg	< 0.05			0.05	Pass	
4,4'-DDE	mg/kg	< 0.05			0.05	Pass	
4,4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Speciated Phenols E008 Speciated Phenols							
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,6-Trichlorophenol	mg/kg	< 0.5			0.5	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.5			0.5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 1			1	Pass	
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2-Nitrophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 0.5			0.5	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 1			1	Pass	
Method Blank							
Cation Exchange Capacity 15B1, 15B2, 15B3 Soil Chemical Methods Rayment and Lyons							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
Method Blank							
Metals M8 E022 Acid Extractable metals in Soils & E026 Mercury							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9	%	94			70-130	Pass	
TRH C10-C14	%	75			70-130	Pass	
LCS - % Recovery							
BTEX E029/E016 BTEX							
Benzene	%	106			70-130	Pass	
Toluene	%	100			70-130	Pass	
Ethylbenzene	%	96			70-130	Pass	
m&p-Xylenes	%	79			70-130	Pass	
o-Xylene	%	112			70-130	Pass	
Xylenes - Total	%	90			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010							
Naphthalene	%	98			70-130	Pass	
TRH C6-C10	%	94			70-130	Pass	
TRH >C10-C16	%	83			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	%	106			70-130	Pass	
Acenaphthylene	%	100			70-130	Pass	
Anthracene	%	107			70-130	Pass	
Benz(a)anthracene	%	78			70-130	Pass	
Benzo(a)pyrene	%	111			70-130	Pass	
Benzo(b&j)fluoranthene	%	77			70-130	Pass	
Benzo(g,h,i)perylene	%	107			70-130	Pass	
Benzo(k)fluoranthene	%	92			70-130	Pass	
Chrysene	%	113			70-130	Pass	
Dibenz(a,h)anthracene	%	110			70-130	Pass	
Fluoranthene	%	91			70-130	Pass	
Fluorene	%	100			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	107			70-130	Pass	
Naphthalene	%	106			70-130	Pass	
Phenanthrene	%	101			70-130	Pass	
Pyrene	%	93			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides E013 Organochlorine Pesticides (OC)							
4,4'-DDD	%	83			70-130	Pass	
4,4'-DDE	%	99			70-130	Pass	
4,4'-DDT	%	78			70-130	Pass	
a-BHC	%	87			70-130	Pass	
Aldrin	%	93			70-130	Pass	
b-BHC	%	74			70-130	Pass	
d-BHC	%	77			70-130	Pass	
Dieldrin	%	88			70-130	Pass	
Endosulfan I	%	100			70-130	Pass	
Endosulfan II	%	80			70-130	Pass	
Endosulfan sulphate	%	74			70-130	Pass	
Endrin	%	84			70-130	Pass	
Endrin aldehyde	%	72			70-130	Pass	
Endrin ketone	%	110			70-130	Pass	
g-BHC (Lindane)	%	84			70-130	Pass	
Heptachlor	%	84			70-130	Pass	
Heptachlor epoxide	%	85			70-130	Pass	
Hexachlorobenzene	%	91			70-130	Pass	

Test		Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Methoxychlor		%	74			70-130	Pass	
LCS - % Recovery								
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphenyls (PCB)								
Aroclor-1260		%	113			70-130	Pass	
LCS - % Recovery								
Speciated Phenols E008 Speciated Phenols								
2,4-Dichlorophenol		%	116			30-130	Pass	
2,4-Dimethylphenol		%	128			30-130	Pass	
2,4,5-Trichlorophenol		%	122			30-130	Pass	
2,4,6-Trichlorophenol		%	120			30-130	Pass	
Phenol		%	130			30-130	Pass	
2-Methylphenol (o-Cresol)		%	119			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)		%	119			30-130	Pass	
2-Chlorophenol		%	123			30-130	Pass	
2-Nitrophenol		%	123			30-130	Pass	
4-Chloro-3-methylphenol		%	127			30-130	Pass	
Pentachlorophenol		%	93			30-130	Pass	
LCS - % Recovery								
Chromium (hexavalent)		%	98			70-130	Pass	
Cyanide (total)		%	80			70-130	Pass	
LCS - % Recovery								
Metals M8 E022 Acid Extractable metals in Soils & E026 Mercury								
Arsenic		%	75			70-130	Pass	
Cadmium		%	86			70-130	Pass	
Chromium		%	92			70-130	Pass	
Chromium		%	89			70-130	Pass	
Copper		%	95			70-130	Pass	
Lead		%	80			70-130	Pass	
Mercury		%	88			70-130	Pass	
Nickel		%	93			70-130	Pass	
Zinc		%	88			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C6-C9	S13-Se22454	CP	%	91		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S13-Se22454	CP	%	93		70-130	Pass	
Toluene	S13-Se22454	CP	%	95		70-130	Pass	
Ethylbenzene	S13-Se22454	CP	%	99		70-130	Pass	
m&p-Xylenes	S13-Se22454	CP	%	101		70-130	Pass	
o-Xylene	S13-Se22454	CP	%	99		70-130	Pass	
Xylenes - Total	S13-Se22454	CP	%	100		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
Naphthalene	S13-Se22454	CP	%	102		70-130	Pass	
TRH C6-C10	S13-Se22454	CP	%	90		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	S13-Se22454	CP	%	97		70-130	Pass	
Acenaphthylene	S13-Se22454	CP	%	96		70-130	Pass	
Anthracene	S13-Se22454	CP	%	96		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benz(a)anthracene	S13-Se22454	CP	%	87			70-130	Pass	
Benzo(a)pyrene	S13-Se22454	CP	%	95			70-130	Pass	
Benzo(b&j)fluoranthene	S13-Se22454	CP	%	99			70-130	Pass	
Benzo(g,h,i)perylene	S13-Se22454	CP	%	91			70-130	Pass	
Benzo(k)fluoranthene	S13-Se22454	CP	%	94			70-130	Pass	
Chrysene	S13-Se22454	CP	%	100			70-130	Pass	
Dibenz(a,h)anthracene	S13-Se22454	CP	%	95			70-130	Pass	
Fluoranthene	S13-Se22454	CP	%	102			70-130	Pass	
Fluorene	S13-Se22454	CP	%	94			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S13-Se22454	CP	%	95			70-130	Pass	
Naphthalene	S13-Se22454	CP	%	99			70-130	Pass	
Phenanthrene	S13-Se22454	CP	%	102			70-130	Pass	
Pyrene	S13-Se22454	CP	%	98			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	S13-Se22454	CP	%	74			70-130	Pass	
Cadmium	S13-Se22454	CP	%	96			70-130	Pass	
Chromium	S13-Se22454	CP	%	104			70-130	Pass	
Mercury	S13-Se22454	CP	%	85			70-130	Pass	
Nickel	S13-Se22454	CP	%	78			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S13-Se20501	NCP	%	99			70-130	Pass	
4,4'-DDD	S13-Se20501	NCP	%	101			70-130	Pass	
4,4'-DDE	S13-Se20501	NCP	%	96			70-130	Pass	
4,4'-DDT	S13-Se20501	NCP	%	72			70-130	Pass	
α-BHC	S13-Se20501	NCP	%	91			70-130	Pass	
Aldrin	S13-Se20501	NCP	%	99			70-130	Pass	
β-BHC	S13-Se20501	NCP	%	81			70-130	Pass	
δ-BHC	S13-Se20501	NCP	%	83			70-130	Pass	
Dieldrin	S13-Se20501	NCP	%	110			70-130	Pass	
Endosulfan I	S13-Se20501	NCP	%	96			70-130	Pass	
Endosulfan II	S13-Se20501	NCP	%	90			70-130	Pass	
Endosulfan sulphate	S13-Se20501	NCP	%	75			70-130	Pass	
Endrin	S13-Se20501	NCP	%	92			70-130	Pass	
Endrin aldehyde	S13-Se20501	NCP	%	78			70-130	Pass	
Endrin ketone	S13-Se20501	NCP	%	94			70-130	Pass	
γ-BHC (Lindane)	S13-Se20501	NCP	%	88			70-130	Pass	
Heptachlor	S13-Se20501	NCP	%	89			70-130	Pass	
Heptachlor epoxide	S13-Se20501	NCP	%	96			70-130	Pass	
Hexachlorobenzene	S13-Se20501	NCP	%	94			70-130	Pass	
Methoxychlor	S13-Se20501	NCP	%	79			70-130	Pass	
Toxaphene	S13-Se20501	NCP	%	0.0000000			70-130	Fail	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	S13-Se22467	CP	%	79			70-130	Pass	
Cadmium	S13-Se22467	CP	%	101			70-130	Pass	
Chromium	S13-Se22467	CP	%	84			70-130	Pass	
Chromium	S13-Se22467	CP	%	84			70-130	Pass	
Copper	S13-Se22467	CP	%	105			70-130	Pass	
Lead	S13-Se22467	CP	%	105			70-130	Pass	
Mercury	S13-Se22467	CP	%	89			70-130	Pass	
Nickel	S13-Se22467	CP	%	93			70-130	Pass	
Zinc	S13-Se22467	CP	%	88			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S13-Se22472	CP	%	78			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S13-Se22472	CP	%	83			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-Se22472	CP	%	100			70-130	Pass	
Acenaphthylene	S13-Se22472	CP	%	99			70-130	Pass	
Anthracene	S13-Se22472	CP	%	101			70-130	Pass	
Benz(a)anthracene	S13-Se22472	CP	%	75			70-130	Pass	
Benzo(a)pyrene	S13-Se22472	CP	%	101			70-130	Pass	
Benzo(b&j)fluoranthene	S13-Se22472	CP	%	125			70-130	Pass	
Benzo(g,h,i)perylene	S13-Se22472	CP	%	100			70-130	Pass	
Benzo(k)fluoranthene	S13-Se22472	CP	%	100			70-130	Pass	
Chrysene	S13-Se22472	CP	%	105			70-130	Pass	
Dibenz(a,h)anthracene	S13-Se22472	CP	%	99			70-130	Pass	
Fluoranthene	S13-Se22472	CP	%	91			70-130	Pass	
Fluorene	S13-Se22472	CP	%	97			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S13-Se22472	CP	%	99			70-130	Pass	
Naphthalene	S13-Se22472	CP	%	102			70-130	Pass	
Phenanthrene	S13-Se22472	CP	%	100			70-130	Pass	
Pyrene	S13-Se22472	CP	%	87			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S13-Se22472	CP	%	123			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	S13-Se22477	CP	%	103			70-130	Pass	
Cadmium	S13-Se22477	CP	%	95			70-130	Pass	
Chromium	S13-Se22477	CP	%	115			70-130	Pass	
Chromium	S13-Se22477	CP	%	115			70-130	Pass	
Copper	S13-Se22477	CP	%	105			70-130	Pass	
Lead	S13-Se22477	CP	%	98			70-130	Pass	
Mercury	S13-Se22477	CP	%	90			70-130	Pass	
Nickel	S13-Se22477	CP	%	100			70-130	Pass	
Zinc	S13-Se22477	CP	%	99			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	S13-Se22488	CP	%	107			70-130	Pass	
Cadmium	S13-Se22488	CP	%	90			70-130	Pass	
Chromium	S13-Se22488	CP	%	114			70-130	Pass	
Chromium	S13-Se22488	CP	%	114			70-130	Pass	
Copper	S13-Se22488	CP	%	120			70-130	Pass	
Mercury	S13-Se22488	CP	%	93			70-130	Pass	
Nickel	S13-Se22488	CP	%	96			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-Se22491	CP	%	79			70-130	Pass	
TRH C10-C14	S13-Se22491	CP	%	111			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-Se22491	CP	%	84			70-130	Pass	
Toluene	S13-Se22491	CP	%	85			70-130	Pass	
Ethylbenzene	S13-Se22491	CP	%	89			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	S13-Se22491	CP	%	89			70-130	Pass	
o-Xylene	S13-Se22491	CP	%	88			70-130	Pass	
Xylenes - Total	S13-Se22491	CP	%	89			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-Se22491	CP	%	90			70-130	Pass	
TRH C6-C10	S13-Se22491	CP	%	79			70-130	Pass	
TRH >C10-C16	S13-Se22491	CP	%	121			70-130	Pass	
Spike - % Recovery									
Speciated Phenols				Result 1					
2,4-Dichlorophenol	S13-Se22491	CP	%	80			30-130	Pass	
2,4-Dimethylphenol	S13-Se22491	CP	%	99			30-130	Pass	
2,4,5-Trichlorophenol	S13-Se22491	CP	%	72			30-130	Pass	
2,4,6-Trichlorophenol	S13-Se22491	CP	%	79			30-130	Pass	
Phenol	S13-Se22491	CP	%	85			30-130	Pass	
2-Methylphenol (o-Cresol)	S13-Se22491	CP	%	76			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S13-Se22491	CP	%	79			30-130	Pass	
2-Chlorophenol	S13-Se22491	CP	%	81			30-130	Pass	
2-Nitrophenol	S13-Se22491	CP	%	77			30-130	Pass	
4-Chloro-3-methylphenol	S13-Se22491	CP	%	80			30-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	S13-Se22498	CP	%	99			70-130	Pass	
Cadmium	S13-Se22498	CP	%	106			70-130	Pass	
Chromium	S13-Se22498	CP	%	92			70-130	Pass	
Chromium	S13-Se22498	CP	%	92			70-130	Pass	
Copper	S13-Se22498	CP	%	80			70-130	Pass	
Mercury	S13-Se22498	CP	%	87			70-130	Pass	
Nickel	S13-Se22498	CP	%	93			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-Se22507	CP	%	81			70-130	Pass	
TRH C10-C14	S13-Se22507	CP	%	85			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-Se22507	CP	%	90			70-130	Pass	
Toluene	S13-Se22507	CP	%	90			70-130	Pass	
Ethylbenzene	S13-Se22507	CP	%	92			70-130	Pass	
m&p-Xylenes	S13-Se22507	CP	%	91			70-130	Pass	
o-Xylene	S13-Se22507	CP	%	89			70-130	Pass	
Xylenes - Total	S13-Se22507	CP	%	90			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-Se22507	CP	%	84			70-130	Pass	
TRH C6-C10	S13-Se22507	CP	%	78			70-130	Pass	
TRH >C10-C16	S13-Se22507	CP	%	91			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	S13-Se22508	CP	%	83			70-130	Pass	
Cadmium	S13-Se22508	CP	%	96			70-130	Pass	
Chromium	S13-Se22508	CP	%	91			70-130	Pass	
Chromium	S13-Se22508	CP	%	91			70-130	Pass	
Copper	S13-Se22508	CP	%	74			70-130	Pass	
Nickel	S13-Se22508	CP	%	91			70-130	Pass	
Zinc	S13-Se22508	CP	%	101			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	S13-Se22518	CP	%	104			70-130	Pass	
Cadmium	S13-Se22518	CP	%	98			70-130	Pass	
Chromium	S13-Se22518	CP	%	92			70-130	Pass	
Chromium	S13-Se22518	CP	%	92			70-130	Pass	
Mercury	S13-Se22518	CP	%	79			70-130	Pass	
Nickel	S13-Se22518	CP	%	104			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-Se22454	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-Se22454	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S13-Se22454	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S13-Se22454	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S13-Se22454	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S13-Se22454	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S13-Se22454	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S13-Se22454	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-Se22454	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S13-Se22454	CP	mg/kg	0.6	< 0.5	29	30%	Pass	
Benzo(g,h,i)perylene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S13-Se22454	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S13-Se22454	CP	mg/kg	2.3	< 2	76	30%	Fail	Q15
Cadmium	S13-Se22454	CP	mg/kg	1.2	2.0	48	30%	Fail	Q15
Chromium	S13-Se22454	CP	mg/kg	16	14	9.0	30%	Pass	
Copper	S13-Se22454	CP	mg/kg	150	190	25	30%	Pass	
Lead	S13-Se22454	CP	mg/kg	580	640	10	30%	Pass	
Mercury	S13-Se22454	CP	mg/kg	0.34	0.40	16	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S13-Se22466	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
4,4'-DDD	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S13-Se22466	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S13-Se22466	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Toxaphene	S13-Se22466	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD		
Aroclor-1016	S13-Se22466	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1232	S13-Se22466	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S13-Se22466	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S13-Se22466	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S13-Se22466	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S13-Se22466	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Metals M8				Result 1	Result 2	RPD		
Arsenic	S13-Se22467	CP	mg/kg	< 2	< 2	<1	30%	Pass
Cadmium	S13-Se22467	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S13-Se22467	CP	mg/kg	21	13	45	30%	Fail Q15
Chromium	S13-Se22467	CP	mg/kg	21	13	45	30%	Fail Q15
Copper	S13-Se22467	CP	mg/kg	13	9.6	27	30%	Pass
Lead	S13-Se22467	CP	mg/kg	19	10	64	30%	Fail Q15
Mercury	S13-Se22467	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Nickel	S13-Se22467	CP	mg/kg	< 5	< 5	<1	30%	Pass
Zinc	S13-Se22467	CP	mg/kg	11	6.9	43	30%	Fail Q15
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C10-C14	S13-Se22472	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S13-Se22472	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	S13-Se22472	CP	mg/kg	< 50	< 50	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
TRH >C10-C16	S13-Se22472	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S13-Se22472	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S13-Se22472	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Benz(a)anthracene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S13-Se22472	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S13-Se22472	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S13-Se22472	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Toxaphene	S13-Se22472	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD		
Aroclor-1016	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1232	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S13-Se22472	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Metals M8				Result 1	Result 2	RPD		
Arsenic	S13-Se22477	CP	mg/kg	< 2	< 2	<1	30%	Pass
Cadmium	S13-Se22477	CP	mg/kg	0.6	0.6	9.0	30%	Pass
Chromium	S13-Se22477	CP	mg/kg	13	16	20	30%	Pass
Chromium	S13-Se22477	CP	mg/kg	13	16	20	30%	Pass
Copper	S13-Se22477	CP	mg/kg	15	13	13	30%	Pass
Lead	S13-Se22477	CP	mg/kg	11	12	5.0	30%	Pass
Mercury	S13-Se22477	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Nickel	S13-Se22477	CP	mg/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Metals M8				Result 1	Result 2	RPD		
Zinc	S13-Se22477	CP	mg/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Metals M8				Result 1	Result 2	RPD		
Arsenic	S13-Se22488	CP	mg/kg	< 2	7.8	200	30%	Fail
Cadmium	S13-Se22488	CP	mg/kg	1.0	1.3	22	30%	Pass
Copper	S13-Se22488	CP	mg/kg	53	63	18	30%	Pass
Lead	S13-Se22488	CP	mg/kg	180	240	28	30%	Pass
Mercury	S13-Se22488	CP	mg/kg	0.37	0.46	21	30%	Pass
Nickel	S13-Se22488	CP	mg/kg	9.2	13	31	30%	Fail
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S13-Se22491	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C10-C14	S13-Se22491	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S13-Se22491	CP	mg/kg	85	59	36	30%	Fail
TRH C29-C36	S13-Se22491	CP	mg/kg	< 50	< 50	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S13-Se22491	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S13-Se22491	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S13-Se22491	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S13-Se22491	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S13-Se22491	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total	S13-Se22491	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S13-Se22491	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C6-C10 less BTEX (F1)	S13-Se22491	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	S13-Se22491	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S13-Se22491	CP	mg/kg	130	< 100	43	30%	Fail
TRH >C34-C40	S13-Se22491	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S13-Se22491	CP	mg/kg	1.3	1.1	11	30%	Pass
Benz(a)anthracene	S13-Se22491	CP	mg/kg	2.9	2.0	37	30%	Fail
Benzo(a)pyrene	S13-Se22491	CP	mg/kg	2.0	1.5	29	30%	Pass
Benzo(b&j)fluoranthene	S13-Se22491	CP	mg/kg	2.2	1.5	42	30%	Fail
Benzo(g,h,i)perylene	S13-Se22491	CP	mg/kg	1.0	0.7	37	30%	Fail
Benzo(k)fluoranthene	S13-Se22491	CP	mg/kg	2.1	1.7	20	30%	Pass
Chrysene	S13-Se22491	CP	mg/kg	2.3	1.7	30	30%	Pass
Dibenz(a,h)anthracene	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S13-Se22491	CP	mg/kg	6.3	4.5	32	30%	Fail
Fluorene	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S13-Se22491	CP	mg/kg	1.0	0.7	28	30%	Pass
Naphthalene	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S13-Se22491	CP	mg/kg	4.2	3.6	14	30%	Pass
Pyrene	S13-Se22491	CP	mg/kg	5.9	4.2	33	30%	Fail
Duplicate								
Speciated Phenols				Result 1	Result 2	RPD		
2,4-Dichlorophenol	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dimethylphenol	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate									
Speciated Phenols				Result 1	Result 2	RPD			
2,4,6-Trichlorophenol	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenol	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S13-Se22491	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Chlorophenol	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitrophenol	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S13-Se22491	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorophenol	S13-Se22491	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S13-Se22498	CP	mg/kg	< 2	5.9	120	30%	Fail	Q15
Cadmium	S13-Se22498	CP	mg/kg	0.8	0.5	50	30%	Fail	Q15
Chromium	S13-Se22498	CP	mg/kg	21	16	29	30%	Pass	
Chromium	S13-Se22498	CP	mg/kg	21	16	29	30%	Pass	
Copper	S13-Se22498	CP	mg/kg	12	16	33	30%	Fail	Q15
Mercury	S13-Se22498	CP	mg/kg	0.08	0.11	36	30%	Fail	Q15
Nickel	S13-Se22498	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	S13-Se22506	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-Se22507	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S13-Se22507	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S13-Se22507	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S13-Se22507	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-Se22507	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S13-Se22507	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S13-Se22507	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S13-Se22507	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S13-Se22507	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S13-Se22507	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-Se22507	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S13-Se22507	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-Se22507	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S13-Se22507	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S13-Se22507	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S13-Se22507	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S13-Se22508	CP	mg/kg	6.1	2.1	98	30%	Fail	Q15
Cadmium	S13-Se22508	CP	mg/kg	1.1	1.9	57	30%	Fail	Q15
Chromium	S13-Se22508	CP	mg/kg	19	16	15	30%	Pass	
Chromium	S13-Se22508	CP	mg/kg	19	16	15	30%	Pass	
Copper	S13-Se22508	CP	mg/kg	200	180	6.0	30%	Pass	
Nickel	S13-Se22508	CP	mg/kg	5.8	6.2	7.0	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S13-Se22518	CP	mg/kg	3.6	4.9	28	30%	Pass	
Cadmium	S13-Se22518	CP	mg/kg	0.8	0.6	20	30%	Pass	

Duplicate									
Metals M8				Result 1	Result 2	RPD			
Chromium	S13-Se22518	CP	mg/kg	17	22	21	30%	Pass	
Chromium	S13-Se22518	CP	mg/kg	17	22	21	30%	Pass	
Copper	S13-Se22518	CP	mg/kg	63	63	<1	30%	Pass	
Lead	S13-Se22518	CP	mg/kg	240	180	25	30%	Pass	
Mercury	S13-Se22518	CP	mg/kg	0.49	0.34	36	30%	Fail	Q15
Nickel	S13-Se22518	CP	mg/kg	10	11	3.0	30%	Pass	
Zinc	S13-Se22518	CP	mg/kg	230	250	7.0	30%	Pass	

Comments

Asbestos: ASET Pty Ltd, NATA accreditation no. 14484, report number ASET35424/ 38604.
Clay Content: SESL Australia, report number 27889.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference
Q15	The RPD reported passes Eurofins mgt's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Ruth Callander	Client Services
Bob Symons	Senior Analyst-Inorganic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)



Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Aargus P/L
446 Parramatta Road
Petersham
NSW 2049

Attention: Mark Kelly

Report 394524-W
Client Reference MARRICKVILLE ES5610-2
Received Date Sep 30, 2013



Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	R1 Water S13-Se22519 Sep 25, 2013	R2 Water S13-Se22520 Sep 25, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1	< 0.1
BTEX				
Benzene	0.001	mg/L	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	74	73
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene ^{N02}	0.02	mg/L	< 0.02	< 0.02
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2) ^{N01}	0.05	mg/L	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.001	mg/L	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001
Indeno(1,2,3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001

Client Sample ID			R1	R2
Sample Matrix			Water	Water
Eurofins mgt Sample No.			S13-Se22519	S13-Se22520
Date Sampled			Sep 25, 2013	Sep 25, 2013
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Phenanthrene	0.001	mg/L	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001
Total PAH	0.001	mg/L	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	95	73
p-Terphenyl-d14 (surr.)	1	%	103	73
Chromium (hexavalent)	0.005	mg/L	< 0.005	< 0.005
Chromium (trivalent)	0.005	mg/L	< 0.005	< 0.005
Heavy Metals				
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001
Cadmium (filtered)	0.0001	mg/L	< 0.0001	< 0.0001
Chromium	0.005	mg/L	< 0.005	< 0.005
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001
Mercury (filtered)	0.0001	mg/L	0.0001	0.0001
Nickel (filtered)	0.001	mg/L	< 0.001	< 0.001
Zinc (filtered)	0.005	mg/L	< 0.005	< 0.005

Description	Testing Site	Extracted	Holding Time
Eurofins mgt Suite 6			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Sep 30, 2013	7 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
BTEX	Sydney	Sep 30, 2013	14 Day
- Method: E029/E016 BTEX			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Sep 30, 2013	7 Day
- Method: LM-LTM-ORG2010			
Eurofins mgt Suite 7 (filtered metals)			
Polycyclic Aromatic Hydrocarbons	Sydney	Sep 30, 2013	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Metals M8 filtered	Sydney	Oct 01, 2013	28 Day
- Method: E020/E030 Filtered Metals in Water & E026 Mercury			
Chromium (speciated)			
Chromium (hexavalent)	Sydney	Sep 30, 2013	28 Day
- Method: E043 /E057 Total Speciated Chromium			
Chromium (trivalent)	Sydney	Sep 30, 2013	28 Day
- Method: E043 /E057 Total Speciated Chromium			
Heavy Metals	Sydney	Oct 01, 2013	180 Day
- Method: E022/E030 Unfiltered Metals in Water			

Company Name: Aargus P/L Address: 446 Parramatta Road Petersham NSW 2049			Order No.: 394524 Report #: 1300 137 038 Phone: 1300 136 038 Fax:			Received: Sep 30, 2013 2:45 PM Due: Oct 8, 2013 Priority: 5 Day Contact Name: Mark Kelly						
Client Job No.: MARRICKVILLE ES5610-2			Eurofins mgt Client Manager: Ruth Callander									
Sample Detail						Eurofins mgt Suite 6						
						Eurofins mgt Suite 13						
						Cation Exchange Capacity			X			
						Eurofins mgt Suite 7 (filtered metals)			X			
						Eurofins mgt Suite 7			X			
						Chromium (speciated)			X			
						Speciated Phenols			X			
						BTEX			X			
						Metals M8			X			
						Organochlorine Pesticides			X			
						TRH C6-C9			X			
						pH (1:5 Aqueous extract)			X			
						HOLD			X			
						Cyanide (total)			X			
						Clay Content (%)			X			
			Asbestos (% weight as per WA Guidelines)			X						
			% Moisture			X						
Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217			X									
Brisbane Laboratory - NATA Site # 20794												
External Laboratory			X									
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID								
BH1 0.1-0.5	Sep 25, 2013		Soil	S13-Se22454	X							
BH1 0.5-1.0	Sep 25, 2013		Soil	S13-Se22455	X							
BH2 0.5-1.0	Sep 25, 2013		Soil	S13-Se22456	X							
BH2 2-2.5	Sep 25, 2013		Soil	S13-Se22457		X						
BH3 0.5-1.0	Sep 25, 2013		Soil	S13-Se22458	X							
BH3 2-2.5	Sep 25, 2013		Soil	S13-Se22459		X						
BH4 0.5-1.0	Sep 25, 2013		Soil	S13-Se22460	X							
BH4 2-2.5	Sep 25, 2013		Soil	S13-Se22461		X						
BH5 0.2-0.4	Sep 25, 2013		Soil	S13-Se22462	X							
BH5 0.8-1.0	Sep 25, 2013		Soil	S13-Se22463	X				X			

Page 7 of 16
 Report Number: 394524-W
 Date Reported: Oct 11, 2013
 Date Reported: Oct 11, 2013

Company Name: Aargus P/L
Address: 446 Parramatta Road
Petersham
NSW 2049

Client Job No.: MARRICKVILLE ES5610-2

Order No.: 394524
Report #: 1300 137 038
Phone: 1300 136 038
Fax:

Received: Sep 30, 2013 2:45 PM
Due: Oct 8, 2013
Priority: 5 Day
Contact Name: Mark Kelly

Eurofins | mgt Client Manager: Ruth Callander

Sample Detail	Eurofins mgt Suite 6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
---------------	------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Company Name: Aargus P/L
Address: 446 Parramatta Road
 Petersham
 NSW 2049
Client Job No.: MARRICKVILLE ES5610-2

Order No.: 394524
Report #: 1300 137 038
Phone: 1300 136 038
Fax:

Received: Sep 30, 2013 2:45 PM
Due: Oct 8, 2013
Priority: 5 Day
Contact Name: Mark Kelly

Eurofins | mgt Client Manager: Ruth Callander

Sample Detail															
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
R1	Sep 25, 2013	Water	S13-Se22519												
R2	Sep 25, 2013	Water	S13-Se22520												
TB1130925-1	Sep 25, 2013	Soil	S13-Se22521						X						
TS1130925-1	Sep 25, 2013	Soil	S13-Se22522						X						
TB2 130925-2	Sep 25, 2013	Soil	S13-Se22523						X						
TS2 130925-2	Sep 25, 2013	Soil	S13-Se22524						X						
				% Moisture											
				Asbestos (% weight as per WA Guidelines)				X							
				Clay Content (%)					X						
				Cyanide (total)				X							
				HOLD				X							
				pH (1:5 Aqueous extract)				X							
				TRH C6-C9				X							
				Organochlorine Pesticides				X							
				Metals M8				X							
				BTEX				X							
				Speciated Phenols				X							
				Chromium (speciated)				X			X	X			
				Eurofins mgt Suite 7				X							
				Eurofins mgt Suite 7 (filtered metals)				X			X	X			
				Cation Exchange Capacity				X							
				Eurofins mgt Suite 13					X						
				Eurofins mgt Suite 6						X					

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

MPN/100mL: Most Probable Number of organisms per 100 millilitres

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environment Protection Authority
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX E029/E016 BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010							
Naphthalene	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10 less BTEX (F1)	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Chromium (hexavalent)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Metals M8 filtered E020/E030 Filtered Metals in Water & E026 Mercury							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0001			0.0001	Pass	
Chromium	mg/L	< 0.005			0.005	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	%	97			70-130	Pass	
TRH C10-C14	%	105			70-130	Pass	
LCS - % Recovery							
BTEX E029/E016 BTEX							
Benzene	%	99			70-130	Pass	
Toluene	%	97			70-130	Pass	
Ethylbenzene	%	97			70-130	Pass	
m&p-Xylenes	%	101			70-130	Pass	
o-Xylene	%	102			70-130	Pass	
Xylenes - Total	%	101			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010							
Naphthalene	%	108			70-130	Pass	
TRH C6-C10	%	96			70-130	Pass	
TRH >C10-C16	%	111			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	%	79			70-130	Pass	
Acenaphthylene	%	79			70-130	Pass	
Anthracene	%	79			70-130	Pass	
Benz(a)anthracene	%	83			70-130	Pass	
Benzo(a)pyrene	%	78			70-130	Pass	
Benzo(b&j)fluoranthene	%	75			70-130	Pass	
Benzo(g,h,i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	90			70-130	Pass	
Chrysene	%	76			70-130	Pass	
Dibenz(a,h)anthracene	%	92			70-130	Pass	
Fluoranthene	%	81			70-130	Pass	
Fluorene	%	76			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	92			70-130	Pass	
Naphthalene	%	78			70-130	Pass	
Phenanthrene	%	80			70-130	Pass	
Pyrene	%	85			70-130	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	104			70-130	Pass	
LCS - % Recovery							
Metals M8 filtered E020/E030 Filtered Metals in Water & E026 Mercury							
Arsenic (filtered)	%	101			70-130	Pass	
Cadmium (filtered)	%	108			70-130	Pass	
Chromium	%	101			70-130	Pass	
Chromium (filtered)	%	106			70-130	Pass	
Copper (filtered)	%	106			70-130	Pass	
Lead (filtered)	%	104			70-130	Pass	
Mercury (filtered)	%	98			70-130	Pass	
Nickel (filtered)	%	102			70-130	Pass	
Zinc (filtered)	%	102			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S13-Se20621	NCP	%	109			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S13-Se20621	NCP	%	115			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-Se19857	NCP	%	80			70-130	Pass	
Acenaphthylene	S13-Se19857	NCP	%	85			70-130	Pass	
Anthracene	S13-Se19857	NCP	%	74			70-130	Pass	
Benz(a)anthracene	S13-Se19857	NCP	%	85			70-130	Pass	
Benzo(a)pyrene	S13-Se19857	NCP	%	78			70-130	Pass	
Benzo(b&j)fluoranthene	S13-Se19857	NCP	%	92			70-130	Pass	
Benzo(g,h,i)perylene	S13-Se19857	NCP	%	79			70-130	Pass	
Benzo(k)fluoranthene	S13-Se19857	NCP	%	80			70-130	Pass	
Chrysene	S13-Se19857	NCP	%	72			70-130	Pass	
Dibenz(a,h)anthracene	S13-Se19857	NCP	%	73			70-130	Pass	
Fluoranthene	S13-Se19857	NCP	%	83			70-130	Pass	
Fluorene	S13-Se19857	NCP	%	81			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S13-Se19857	NCP	%	84			70-130	Pass	
Naphthalene	S13-Se19857	NCP	%	79			70-130	Pass	
Phenanthrene	S13-Se19857	NCP	%	81			70-130	Pass	
Pyrene	S13-Se19857	NCP	%	82			70-130	Pass	
Spike - % Recovery									
				Result 1					
Chromium (hexavalent)	S13-Oc00256	NCP	%	103			70-130	Pass	
Spike - % Recovery									
Metals M8 filtered				Result 1					
Arsenic (filtered)	S13-Se21209	NCP	%	104			70-130	Pass	
Cadmium (filtered)	S13-Se21209	NCP	%	111			70-130	Pass	
Chromium	S13-Oc00849	NCP	%	97			70-130	Pass	
Chromium (filtered)	S13-Se21209	NCP	%	105			70-130	Pass	
Copper (filtered)	S13-Se21209	NCP	%	102			70-130	Pass	
Lead (filtered)	S13-Se21209	NCP	%	98			70-130	Pass	
Mercury (filtered)	S13-Oc00125	NCP	%	101			70-130	Pass	
Nickel (filtered)	S13-Se21209	NCP	%	98			70-130	Pass	
Zinc (filtered)	S13-Se21209	NCP	%	109			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-Se22520	CP	%	80			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-Se22520	CP	%	81			70-130	Pass	
Toluene	S13-Se22520	CP	%	89			70-130	Pass	
Ethylbenzene	S13-Se22520	CP	%	93			70-130	Pass	
m&p-Xylenes	S13-Se22520	CP	%	99			70-130	Pass	
o-Xylene	S13-Se22520	CP	%	101			70-130	Pass	
Xylenes - Total	S13-Se22520	CP	%	100			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-Se22520	CP	%	100			70-130	Pass	
TRH C6-C10	S13-Se22520	CP	%	79			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code

Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S13-Se22519	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass
TRH C10-C14	S13-Se21101	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass
TRH C15-C28	S13-Se21101	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH C29-C36	S13-Se21101	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S13-Se22519	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Toluene	S13-Se22519	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Ethylbenzene	S13-Se22519	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
m&p-Xylenes	S13-Se22519	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass
o-Xylene	S13-Se22519	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Xylenes - Total	S13-Se22519	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S13-Se22519	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass
TRH C6-C10	S13-Se22519	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass
TRH C6-C10 less BTEX (F1)	S13-Se22519	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass
TRH >C10-C16	S13-Se21101	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass
TRH >C16-C34	S13-Se21101	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH >C34-C40	S13-Se21101	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Acenaphthylene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Anthracene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benz(a)anthracene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(a)pyrene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(b&j)fluoranthene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(g,h,i)perylene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(k)fluoranthene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Chrysene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Dibenz(a,h)anthracene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Fluoranthene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Fluorene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Naphthalene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Phenanthrene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Pyrene	S13-Se19858	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	S13-Oc00256	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Duplicate								
Metals M8 filtered				Result 1	Result 2	RPD		
Arsenic (filtered)	S13-Se21208	NCP	mg/L	0.0030	0.0030	5.0	30%	Pass
Cadmium (filtered)	S13-Se21208	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Chromium	S13-Oc00848	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass
Chromium (filtered)	S13-Se21208	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Copper (filtered)	S13-Se21208	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Lead (filtered)	S13-Se21208	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Mercury (filtered)	S13-Oc00063	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Nickel (filtered)	S13-Se21208	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Zinc (filtered)	S13-Se21208	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Ruth Callander	Client Services
Bob Symons	Senior Analyst-Inorganic (NSW)
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)



Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Clay Content Assessment

Sample Drop Off: 16 Chilvers Road
Thornleigh NSW 2120
Mailing Address: PO Box 357
Pennant Hills NSW 1715

Tel: 1300 30 40 80
Fax: 1300 64 46 89
Em: info@sesl.com.au
Web: www.sesl.com.au

Client Name: Eurofins - MGT Environment Testing
Client Contact: MGT Report
Client Job N°:
Client Order N°: 13-735-394524 (SES�)
Address: Unit F3, Building F
16 Mars Rd
Lane Cove West NSW 2066

Project Name: REF: 394524
Location:
SES� Quote N°:
Date Received: 3-10-2013
Test Type: PSA_SC

Batch N°	Sample N°	Sample Name	Description	Clay Content (%)
27889	1	BH5 0.8-1.0/Se22463	Soil	42.4
27889	2	BH17 2.2-2.5/Se22490	Soil	36.7
27889	3	BH22 1.8-2.0/Se22503	Soil	27.5

SUMMARY AND RECOMMENDATIONS

Analysed by SES� Australia NATA #15633

Consultant: Kelly Lee



Authorised Signatory: Ryan Jacka



Date of Report
09/10/2013

Report Status:
☐ Draft ☒ Final



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET35424/ 38604 / 1 – 26

Your ref : 394524

NATA Accreditation No: 14484

8 October 2013

Eurofins | mgt
Unit F3, 16 Mars Road
Lane Cove West NSW 2066

Attn: Dr Robert Symons

Dear Robert

Asbestos Identification

This report presents the results of twenty six samples, forwarded by Eurofins | mgt on 1 October 2013, for analysis for asbestos.

1.Introduction: Twenty six samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method.
(Safer Environment Method 1 and Australian Standard AS 4964-2004.)

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites in Western Australia.

3. Results : **Sample No. 1. ASET35424 / 38604 / 1. BH1 - 0.1 - 0.5 - Se22454.**
Approx dimensions 7.4 cm x 7.3 cm x 6.5 cm
The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of glass and brick.
No asbestos detected.

Sample No. 2. ASET35424 / 38604 / 2. BH2 - 0.5 - 1.0 - Se22456.
Approx dimensions 7.6 cm x 7.2 cm x 6.4 cm
The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of bitumin and brick.
No asbestos detected.

Sample No. 3. ASET35424 / 38604 / 3. BH5 - 0.2 - 0.4 - Se22462.
Approx dimensions 7.5 cm x 7.4 cm x 6.6 cm
The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of coal like material.
No asbestos detected.

Sample No. 4. ASET35424 / 38604 / 4. BH6 - 0.1 - 0.3 - Se22464.
Approx dimensions 8.2 cm x 7.6 cm x 6.3 cm
The sample consisted of a mixture of clayish soil, stones and plant matter.
No asbestos detected.

Sample No. 5. ASET35424 / 38604 / 5. BH7 - 0.4 - 0.6 - Se22466.
Approx dimensions 8.4 cm x 7.3 cm x 6.6 cm
The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of coal like material.
No asbestos detected.

SUITE 710 / 90 GEORGE STREET, HORNSBY NSW 2077 – P.O. BOX 1644 HORNSBY WESTFIELD NSW 1635

PHONE: (02) 99872183 FAX: (02)99872151 EMAIL: aset@bigpond.net.au WEBSITE: www.Ausset.com.au

OCCUPATIONAL HEALTH & SAFETY STUDIES • INDOOR AIR QUALITY SURVEYS • HAZARDOUS MATERIAL SURVEYS • RADIATION SURVEYS • ASBESTOS SURVEYS
ASBESTOS DETECTION & IDENTIFICATION • REPAIR & CALIBRATION OF SCIENTIFIC EQUIPMENT • AIRBORNE FIBRE & SILICA MONITORING



Sample No. 6. ASET35424 / 38604 / 6. BH8 - 0.2 - 0.4 - Se22468.

Approx dimensions 7.6 cm x 7.5 cm x 6.5 cm

The sample consisted of a mixture of clayish soil, stones and plant matter.

No asbestos detected.

Sample No. 7. ASET35424 / 38604 / 7. BH9 - 0.2 - 0.4 - Se22470.

Approx dimensions 7.5 cm x 7.4 cm x 6.7 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of glass and cement.

No asbestos detected.

Sample No. 8. ASET35424 / 38604 / 8. BH10 - 0.3 - 0.5 - Se22472.

Approx dimensions 8.3 cm x 7.5 cm x 6.6 cm

The sample consisted of a mixture of clayish soil, stones and plant matter.

No asbestos detected.

Sample No. 9. ASET35424 / 38604 / 9. BH11 - 0.3 - 0.5 - Se22474.

Approx dimensions 7.8 cm x 6.5 cm x 6.4 cm

The sample consisted of a mixture of clayish soil, stones and plant matter.

No asbestos detected.

Sample No. 10. ASET35424 / 38604 / 10. BH12 - 0.3 - 0.5 - Se22476.

Approx dimensions 7.6 cm x 7.2 cm x 7.1 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of brick.

No asbestos detected.

Sample No. 11. ASET35424 / 38604 / 11. BH13 - 0.3 - 0.5 - Se22478.

Approx dimensions 8.1 cm x 7.5 cm x 6.5 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of plaster.

No asbestos detected.

Sample No. 12. ASET35424 / 38604 / 12. BH14 - 0.2 - 0.4 - Se22480.

Approx dimensions 7.4 cm x 6.9 cm x 6.5 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of brick.

No asbestos detected.

Sample No. 13. ASET35424 / 38604 / 13. BH15 - 0.4 - 0.6 - Se22482.

Approx dimensions 7.3 cm x 7.2 cm x 6.6 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of ceramic tile and brick.

No asbestos detected.

Sample No. 14. ASET35424 / 38604 / 14. BH16 - 0.4 - 0.5 - Se22486.

Approx dimensions 8.3 cm x 7.4 cm x 6.5 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of ceramic tile and brick.

No asbestos detected.

Sample No. 15. ASET35424 / 38604 / 15. BH17 - 0.4 - 0.6 - Se22488.

Approx dimensions 7.1 cm x 6.8 cm x 6.4 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of ceramic tile and brick.

No asbestos detected.



Sample No. 16. ASET35424 / 38604 / 16. BH18 - 0.4 - 0.6 - Se22491.

Approx dimensions 6.7 cm x 6.5 cm x 6.3 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of ceramic tile, plaster, coal like material, glass and brick.

No asbestos detected.

Sample No. 17. ASET35424 / 38604 / 17. BH18 - 0.9 - 1.0 - Se22492.

Approx dimensions 7.5 cm x 7.4 cm x 6.8 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, coal like material, glass and brick.

No asbestos detected.

Sample No. 18. ASET35424 / 38604 / 18. BH19 - 0.7 - 0.9 - Se22495.

Approx dimensions 7.5 cm x 7.2 cm x 6.1 cm

The sample consisted of a mixture of soil, stones, plant matter, fragments of fibre plaster cement*, ceramic tile, plaster, coal like material, glass and brick.

Chrysotile* (Estimated approximate weight = 0.06g) asbestos detected.

Estimated approximate total weight of asbestos = 0.06g.

Approximate total weight of ACM(Fibre Plaster Cement > 7mmx7mm) = 0.55g.

Approximate total weight of soil = 359g.

Estimated approximate w/w % = 0.017%

Sample No. 19. ASET35424 / 38604 / 19. BH20 - 0.3 - 0.4 - Se22497.

Approx dimensions 7.3 cm x 6.8 cm x 6.4 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of coal like material.

No asbestos detected.

Sample No. 20. ASET35424 / 38604 / 20. BH21 - 0.5 - 0.7 - Se22499.

Approx dimensions 7.5 cm x 6.6 cm x 6.4 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, coal like material, glass and brick.

No asbestos detected.

Sample No. 21. ASET35424 / 38604 / 21. BH22 - 0.4 - 0.6 - Se22501.

Approx dimensions 7.4 cm x 6.7 cm x 6.4 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, coal like material, glass and brick.

No asbestos detected.

Sample No. 22. ASET35424 / 38604 / 22. BH23 - 0.1 - 0.2 - Se22504.

Approx dimensions 7.6 cm x 7.5 cm x 7.3 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, glass and brick.

No asbestos detected.

Sample No. 23. ASET35424 / 38604 / 23. BH24 - 0.6 - 0.7 - Se22506.

Approx dimensions 7.4 cm x 6.8 cm x 6.5 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, coal like material, glass and brick.

No asbestos detected.



Sample No. 24. ASET35424 / 38604 / 24. BH25 - 0.4 - 0.5 - Se22509.

Approx dimensions 8.2 cm x 7.6 cm x 7.3 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, coal like material and glass.

No asbestos detected.

Sample No. 25. ASET35424 / 38604 / 25. BH26 - 0.3 - 0.4 - Se22511.

Approx dimensions 7.8 cm x 7.5 cm x 7.2 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, glass and brick.

No asbestos detected.

Sample No. 26. ASET35424 / 38604 / 26. BH27 - 0.3 - 0.4 - Se22513.

Approx dimensions 6.8 cm x 6.4 cm x 5.5 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, coal like material and brick.

No asbestos detected.

Analysed and reported by,

Laxman Dias. BSc
Analyst / Approved Identifier
Approved Signatory



This document is issued in accordance with
NATA's Accreditation requirements. Accredited
for compliance with ISO/IEC 17025.

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation covers only the qualitative part of the results reported.

ACM - Asbestos Containing Material - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

***denotes fibres in bonded form in fragments**

All samples indicating " No asbestos detected" are assumed to be less than 0.001 % unless the actual approximate weight is given.

Sample Receipt Advice

Company name: **Aargus P/L**
Contact name: Mark Kelly
Client job number: MARRICKVILLE ES5610-2
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Sep 30, 2013 2:45 PM
Eurofins | mgt reference: **394524**

Sample information

- ☒ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ☒ All samples have been received as described on the above COC.
- ☒ COC has been completed correctly.
- ☒ Attempt to chill was evident.
- ☒ Appropriately preserved sample containers have been used.
- ☒ All samples were received in good condition.
- ☒ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ☒ Organic samples had Teflon liners.
- ☒ Sample containers for volatile analysis received with zero headspace.
- ☒ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

%Clay performed by SESL | CEC analysis conducted by Eurofins | mgt Melbourne | Asbestos absence/presence included in Asbestos WA Guidelines; performed by ASET | Bag received sample ID BH2 0.4-0.6 thought to be that of BH22 0.4-0.6 and labeled as such | Two jars received for sample BH5 0.8-1.0, BH17 2.2-2.5 and BH22 1.8-2.0 | Sample ID discrepancy: COC: BH18 0.4-0.6 JAR: BH18 0.4-0.5, labeled as per COC | Sampling date as per email from client

Contact notes

If you have any questions with respect to these samples please contact:

Ruth Callander on Phone : (+61) (3) 8564 5000 or by e.mail: RuthCallander@eurofins.com.au

Results will be delivered electronically via e.mail to Mark Kelly - mark.kelly@aargus.net.

Note: A copy of these results will also be delivered to the general Aargus P/L email address.

Company Name: Aargus P/L
Address: 446 Parramatta Road
 Petersham
 NSW 2049

Client Job No.: MARRICKVILLE ES5610-2

Order No.: 394524
Report #: 1300 137 038
Phone: 1300 136 038
Fax: 1300 136 038

Received: Sep 30, 2013 2:45 PM
Due: Oct 8, 2013
Priority: 5 Day
Contact Name: Mark Kelly

Eurofins | mgt Client Manager: Ruth Callander

Sample Detail	Laboratory where analysis is conducted																						
	Melbourne Laboratory - NATA Site # 1254 & 14271																						
	Sydney Laboratory - NATA Site # 18217																						
	Brisbane Laboratory - NATA Site # 20794																						
	External Laboratory																						
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID																			
BH1 0.1-0.5	Sep 25, 2013		Soil	S13-Se22454	X	X										X							
BH1 0.5-1.0	Sep 25, 2013		Soil	S13-Se22455	X											X							
BH2 0.5-1.0	Sep 25, 2013		Soil	S13-Se22456	X	X										X							
BH2 2-2.5	Sep 25, 2013		Soil	S13-Se22457												X							
BH3 0.5-1.0	Sep 25, 2013		Soil	S13-Se22458	X												X						
BH3 2-2.5	Sep 25, 2013		Soil	S13-Se22459												X							
BH4 0.5-1.0	Sep 25, 2013		Soil	S13-Se22460	X												X						
BH4 2-2.5	Sep 25, 2013		Soil	S13-Se22461													X						
BH5 0.2-0.4	Sep 25, 2013		Soil	S13-Se22462	X	X												X					
BH5 0.8-1.0	Sep 25, 2013		Soil	S13-Se22463	X		X										X			X			

[illegible]

[illegible]

[illegible]

[illegible]

Company Name: Aargus P/L
Address: 446 Parramatta Road
Petersham
NSW 2049

Client Job No.: MARRICKVILLE ES5610-2

Order No.: 394524
Report #: 1300 137 038
Phone: 1300 136 038
Fax: 1300 136 038

Received: Sep 30, 2013 2:45 PM
Due: Oct 8, 2013
Priority: 5 Day
Contact Name: Mark Kelly

Eurofins | mgt Client Manager: Ruth Callander

Sample Detail	Eurofins mgt Suite 6						X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
---------------	------------------------	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Company Name: Aargus P/L Address: 446 Parramatta Road Petersham NSW 2049		Order No.: 394524 Report #: 1300 137 038 Phone: 1300 136 038 Fax: 1300 136 038		Received: Sep 30, 2013 2:45 PM Due: Oct 8, 2013 Priority: 5 Day Contact Name: Mark Kelly	
Client Job No.: MARRICKVILLE ES5610-2		Eurofins mgt Client Manager: Ruth Callander			
Sample Detail			Eurofins mgt Suite 6		
			Eurofins mgt Suite 13		
			Cation Exchange Capacity	X	
			Eurofins mgt Suite 7 (filtered metals)	X	
			Eurofins mgt Suite 7	X	
			Chromium (speciated)	X	
			Speciated Phenols	X	
			BTEX	X	
			Metals M8	X	
			Organochlorine Pesticides	X	
			TRH C6-C9	X	
			pH (1:5 Aqueous extract)	X	
			HOLD	X	
			Cyanide (total)	X	
			Clay Content (%)		X
	Asbestos (% weight as per WA Guidelines)		X		
	% Moisture	X			
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
R1	Sep 25, 2013	Water	S13-Se22519		
R2	Sep 25, 2013	Water	S13-Se22520		
TB1130925-1	Sep 25, 2013	Soil	S13-Se22521		
TS1130925-1	Sep 25, 2013	Soil	S13-Se22522		
TB2 130925-2	Sep 25, 2013	Soil	S13-Se22523		
TS2 130925-2	Sep 25, 2013	Soil	S13-Se22524		

AARGUS PTY LTD

Laboratory Test Request / Chain of Custody Record

446 Parramatta Road
PETERSHAM NSW 2049
Tel: 1300 137 038
Fax: 1300 136 038
email: admin@aargus.net & michael@aargus.net

P O Box 398
DRUMMOYNE NSW 1470

TO: MGT LABMARK
UNIT F3, BUILDING F
16 MARS ROAD
LANE COVE WEST NSW 2066

Sampling Date: 25-26.09.13 Job No: ES5610-2
Sampled By: MS Project: MARRICKVILLE
Project Manager: MK Location: MARRICKVILLE

Page 1 of 6

#394524

PH: 028215 6222 FAX: 02 9420 2977

ATTN:

Results required by: STANDARD

Sampling details		Sample type		Results required by: STANDARD												
Location	Depth (m)	Soil	Water	Heavy Metals As, Cd, Cr, Cu, Pb, Hg, Ni and Zn	Cr III	pH, CEC & % Clay	TPH and BTEX	PAH	OCP	PCB	Phenols	Cyanide	ASBESTOS PRESENCE	ABESTOS %	SUITES	KEEP SAMPLE
BH1	0.1-0.5	DSG		✓	✓		✓	✓					✓	✓	B7	YES
BH1	0.5-1.0	DSG		✓	✓		✓	✓					✓	✓	B7	YES
BH2	0.5-1.0	DSG		✓	✓		✓	✓					✓	✓	B7	YES
BH2	2-2.5	DSG														YES
BH3	0.5-1.0	DSG		✓	✓		✓	✓							B7	YES
BH3	2-2.5	DSG														YES
BH4	0.5-1.0	DSG		✓	✓		✓	✓			✓				B7A	YES
BH4	2-2.5	DSG														YES
BH5	0.2-0.4	DSG		✓	✓		✓	✓					✓	✓	B7	YES
BH5	0.8-1.0	DSG		✓	✓	✓										YES
BH6	0.1-0.3	DSG		✓	✓		✓	✓					✓	✓	B7	YES
BH6	1.0-1.2	DSG		✓	✓											YES

Relinquished by		Received by	
Name	Signature	Name	Signature
Michael Silk	MS	AKO WA GPMGT	AKO
Date	30.09.2013	Date	30/9/13

Legend:
WG Water sample, glass bottle
WP Water sample, plastic bottle
USG Undisturbed soil sample (glass jar)
DSG Disturbed soil sample (glass jar)
DSP Disturbed soil sample (small plastic bag)
Test required

9 mole H⁺/tonne

30/9/13
6.5
2.45pm

AARGUS PTY LTD

Laboratory Test Request / Chain of Custody Record

446 Parramatta Road
PETERSHAM NSW 2049
Tel: 1300 137 038
Fax: 1300 136 038
email: admin@aargus.net & michael@aargus.net

P O Box 398
DRUMMOYNE NSW 1470

Page 2 of 6

TO: MGT LABMARK
UNIT F3, BUILDING F
16 MARS ROAD
LANE COVE WEST NSW 2066

PH: 028215 6222 FAX: 02 9420 2977

Project Manager: MK Location: MARRICKVILLE

Sampling Date: 23.07.2013 Job No: ES5544

Sampled By: MS Project: MARRICKVILLE

Results required by: STANDARD

sampling details		sample type		Results required by: STANDARD												
Location	Depth (m)	Soil	Water	Heavy Metals As, Cd, Cr, Cu, Pb, Hg, Ni and Zn	Cr III	pH, CEC & % Clay	TPH and BTEX	PAH	OCP	PCB	Phenols	Cyanide	ASBESTOS PRESENCE	ABESTOS %	SUITES	KEEP SAMPLE
BH7	0.4-0.6	DSG		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	B7A & B13	YES
BH7	0.8-1.0	DSG		✓	✓											YES
BH8	0.2-0.4	DSG		✓	✓		✓	✓	✓	✓			✓	✓	B7 & B13	YES
BH8	0.6-0.8	DSG		✓	✓											YES
BH9	0.2-0.4	DSG		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	B7A & B13	YES
BH9	0.7-0.9	DSG		✓	✓		✓								B6	YES
BH10	0.3-0.5	DSG		✓	✓		✓	✓	✓	✓			✓	✓	B7 & B13	YES
BH10	1.5-1.7	DSG		✓	✓		✓									YES
BH11	0.3-0.5	DSG		✓	✓		✓	✓	✓	✓			✓	✓	B7 & B13	YES
BH11	1.5-1.7	DSG		✓	✓											YES
BH12	0.3-0.5	DSG		✓	✓		✓	✓	✓	✓			✓	✓	B7 & B13	YES
BH12	1.3-1.5	DSG		✓	✓											YES
Relinquished by				Received by												
Name	Signature	Date		Name	Signature			Date								
Michael Silk	MS	30.09.2013														

Legend:

WG	Water sample, glass bottle	USG	Undisturbed soil sample (glass jar)	DSP	Disturbed soil sample (small plastic bag)	e mole H ⁺ /tonne
WP	Water sample, plastic bottle	DSG	Disturbed soil sample (glass jar)	✓	Test required	

AARGUS PTY LTD

Laboratory Test Request / Chain of Custody Record

446 Parramatta Road PETERSHAM NSW 2049 TO: MGT LABMARK UNIT F3, BUILDING F 16 MARS ROAD LANE COVE WEST NSW 2066		P O Box 398 DRUMMOYNE NSW 1470 email: admin@aargus.net & michael@aargus.net		Tel: 1300 137 038 Fax: 1300 136 038		Page 3 of 6	
PH: 028245 6222		FAX: 02 9420 2977		Sampling Date: 23.07.2013		Job No: ES5544	
ATTN:				Sampled By: MS		Project: MARRICKVILLE	
				Project Manager: MK		Location: MARRICKVILLE	

Results required by: STANDARD																
Location	Sampling details	Depth (m)	Sample type Soil Water	Heavy Metals As, Cd, Cr, Cu, Pb, Hg, Ni and Zn	Cr III	pH, CEC & % Clay	TPH and BTEX	PAH	OCP	PCB	Phenols	Cyanide	ASBESTOS PRESENCE	ABESTOS %	SUITES	KEEP SAMPLE
BH13		0.3-0.5	DSG	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	B7A & B13	YES
BH13		1.0-1.2	DSG	✓	✓		✓	✓					✓	✓	B7	YES
BH14		0.2-0.4	DSG	✓	✓		✓	✓					✓	✓		YES
BH14		0.7-0.8	DSG	✓	✓		✓	✓					✓	✓	B7	YES
BH15		0.4-0.6	DSG	✓	✓		✓	✓					✓	✓	B6	YES
BH15		0.8-1.0	DSG	✓	✓		✓	✓								YES
BH15		1.3-1.5	DSG	✓	✓											YES
BH15		4.0-4.2	DSG		✓											YES
BH16		0.4-0.5	DSG	✓	✓		✓	✓					✓	✓	B7	YES
BH16		1.2-1.4	DSG	✓	✓											YES
BH17		0.4-0.5	DSG	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	B7A & B13	YES
BH17		0.9-1.0	DSG	✓	✓		✓								B6	YES

Name: Michael Silk		Signature: MS		Date: 30.09.2013		Relinquished by	
Name		Signature		Date		Received by	

Legend:	WG	Water sample, glass bottle	USG	Undisturbed soil sample (glass jar)	DSP	Disturbed soil sample (small plastic bag)	6 mole H ⁺ /litre
	WP	Water sample, plastic bottle	DSG	Disturbed soil sample (glass jar)	✓	Test required	

AARGUS PTY LTD

Laboratory Test Request / Chain of Custody Record

446 Parramatta Road
PETERSHAM NSW 2049
Tel: 1300 137 038
Fax: 1300 136 038
email: admin@aargus.net & michael@aargus.net

P O Box 398
DRUMMOYNE NSW 1470

TO: MGT LABMARK
UNIT F3, BUILDING F
16 MARS ROAD
LANE COVE WEST NSW 2066

PH: 028215 6222 FAX: 02 9420 2977

ATTN:

Sampling Date: 23.07.2013

Job No: ES5544

Page 4 of 6

Sampled By: MS

Project: MARRICKVILLE

Project Manager: MK Location: MARRICKVILLE

Results required by: STANDARD

Results required by: STANDARD																		
Sampling details			Sample type		Heavy Metals As, Cd, Cr, Cu, Pb, Hg, Ni and Zn	Cr III	pH, CEC & % Clay	TPH and BTEX	PAH	OCP	PCB	Phenols	Cyanide	ASBESTOS PRESENCE	ABESTOS %	SUITES	KEEP SAMPLE	
Location	Depth (m)		Soil	Water														
BH17	2.2-2.5		DSG		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	B7A & B13	YES	
BH18	0.4-0.5		DSG		✓	✓	✓	✓	✓					✓	✓	B7	YES	
BH18	0.9-1.0		DSG		✓	✓	✓	✓	✓							B6	YES	
BH18	1.5-1.6		DSG		✓	✓	✓	✓										
BH18	2.3-2.5		DSG		✓	✓	✓	✓	✓					✓	✓	B7	YES	
BH19	0.7-0.9		DSG		✓	✓	✓	✓										
BH19	1.5-1.6		DSG		✓	✓	✓	✓	✓					✓	✓			
BH20	0.3-0.4		DSG		✓	✓	✓	✓	✓					✓	✓	B7	YES	
BH20	0.8-0.9		DSG		✓	✓	✓	✓										
BH21	0.5-0.7		DSG		✓	✓	✓	✓	✓					✓	✓	B7	YES	
BH21	1.2-1.4		DSG		✓	✓	✓											
Relinquished by			Signature		Date			Name				Signature		Received by				
Michael Silk			MS		30.09.2013											Date		
Legend:			USG		Undisturbed soil sample (glass jar)		DSP		Disturbed soil sample (small plastic bag)								⊙ mole H ⁺ /tonne	
WG			Water sample, glass bottle		USG		Disturbed soil sample (glass jar)		✓		Test required							
W/P			Water sample, plastic bottle		DSG		Disturbed soil sample (glass jar)											

AARGUS PTY LTD

Laboratory Test Request / Chain of Custody Record

Tel: 1300 137 038
Fax: 1300 136 038

446 Paramatta Road
PETERSHAM NSW 2049
P.O. Box 398
DRUMMOYNE NSW 1470

email: admin@aargus.net & michael@aargus.net

Page 5 of 6

TO: MGT LABMARK
UNIT F3, BUILDING F
16 MARS ROAD
LANE COVE WEST NSW 2066

PH: 028215 6222
ATTN:

Project Manager: MK Location: MARRICKVILLE

Sampling Date: 23.07.2013 Job No: ES5544

Sampled By: MS Project: MARRICKVILLE

Results required by: STANDARD

Sampling details		Sample type		Heavy Metals As, Cd, Cr, Cu, Pb, Hg, Ni and Zn	Cr III	pH, CEC & % Clay	TPH and BTEX	PAH	OCP	PCB	Phenols	Cyanide	ASBESTOS PRESENCE	ABESTOS %	SUITES	KEEP SAMPLE
Location	Depth (m)	Soil	Water													
BH22	0.4-0.6	DSG		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	B7A & B13	YES
BH22	1.2-1.3	DSG		✓	✓		✓								B6	YES
BH22	1.8-2.0	DSG		✓	✓	✓	✓	✓								
BH23	0.1-0.2	DSG		✓	✓		✓						✓	✓	B7	YES
BH23	0.4-0.6	DSG		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	B7A & B13	YES
BH24	0.6-0.7	DSG		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	b6	YES
BH24	1.4-1.5	DSG		✓	✓		✓									YES
BH24	2.4-2.5	DSG		✓	✓		✓									YES
BH25	0.4-0.5	DSG		✓	✓		✓		✓				✓	✓		YES
BH25	0.7-0.8	DSG		✓	✓		✓		✓				✓	✓		YES
BH26	0.3-0.4	DSG		✓	✓		✓		✓				✓	✓		YES
BH26	0.5-0.6	DSG		✓	✓		✓		✓				✓	✓		YES
BH27	0.3-0.4	DSG		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	B7A & B13	YES

Relinquished by: Michael Silk Signature: MS Date: 30.09.2013

Received by: Name: Signature: Date:

Legend:
WG Water sample, glass bottle
WP Water sample, plastic bottle
USG Undisturbed soil sample (glass jar)
DSG Disturbed soil sample (glass jar)

DSP Disturbed soil sample (small plastic bag) ✓ Test required

0 mole H⁺/tonne

AARGUS PTY LTD

446 Parramatta Road
PETERSHAM NSW 2049 P O Box 398
Tel: 1300 137 038
Fax: 1300 136 038
email: admin@aargus.net & michael@aargus.net

DRUMMOYNE NSW 1470

TO: MGT LABMARK
UNIT F3, BUILDING F
16 MARS ROAD
LANE COVE WEST NSW 2066

PH: 028215 6222 FAX: 02 9420 2977

ATTN:

Laboratory Test Request / Chain of Custody Record

Page 6 of 6

Job No: ES544

Sampling Date: 23.07.2013

email: admin@aargus.net & michael@aargus.net

Project: MARRICKVILLE

Sampled By: MS

Location: MARRICKVILLE

Project Manager: MK

Results required by: STANDARD

Location	Sampling details	Depth (m)	Sample type	Heavy Metals As, Cd, Cr, Cu, Pb, Hg, Ni and Zn	Cr III	pH, CEC & % Clay	TPH and BTEX	PAH	OCP	PCB	Phenols	Cyanide	ASBESTOS PRESENCE	C6-C9	BTEX	ABESTOS %	SUITES	KEEP SAMPLE
D1		-	DSG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	B7	YES
D2		-	DSG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	B7	YES
D3		-	DSG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	B7 & B13	YES
D4		-	DSG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	B7	YES
D5		-	DSG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	B7A & B13	YES
R1		-	WG/WF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	B7	YES
R2		-	WG/WF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	B7	YES
TB1		-												✓	✓	✓		YES
TS1		-												✓	✓	✓		YES
TB2		-												✓	✓	✓		YES
TS2		-												✓	✓	✓		YES

Relinquished by				Received by			
Name	Signature	Date	Relinquished by	Name	Signature	Date	Received by
Michael Silk	MS	30.09.2013	Michael Silk	MS	30.09.2013 14:45		
Legend:	WG	Water sample, glass bottle	USG	Undisturbed soil sample (glass jar)			
	WP	Water sample, plastic bottle	DSG	Disturbed soil sample (glass jar)			
				DSP	Disturbed soil sample (small plastic bag)		
				✓	Test required		

4 mole H⁺/tonne

Aargus P/L
446 Parramatta Road
Petersham
NSW 2049

Attention: Mark Kelly

Report 395768-W
Client Reference MARRICKVILLE ES5610-2
Received Date Oct 10, 2013



Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Client Sample ID			GSS1
Sample Matrix			Water
Eurofins mgt Sample No.			S13-Oc08107
Date Sampled			Oct 09, 2013
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	0.03
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1
BTEX			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003
4-Bromofluorobenzene (surr.)	1	%	78
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene ^{N02}	0.02	mg/L	< 0.02
TRH C6-C10	0.02	mg/L	0.03
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	0.03
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2) ^{N01}	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001

Client Sample ID			GSS1
Sample Matrix			Water
Eurofins mgt Sample No.			S13-Oc08107
Date Sampled			Oct 09, 2013
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	107
p-Terphenyl-d14 (surr.)	1	%	100
Heavy Metals			
Arsenic (filtered)	0.001	mg/L	< 0.001
Cadmium (filtered)	0.0001	mg/L	< 0.0001
Chromium (filtered)	0.001	mg/L	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001
Nickel (filtered)	0.001	mg/L	0.011
Zinc (filtered)	0.005	mg/L	0.071

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

Description	Testing Site	Extracted	Holding Time
Eurofins mgt Suite 7 (filtered metals)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 10, 2013	7 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
BTEX	Sydney	Oct 10, 2013	14 Day
- Method: E029/E016 BTEX			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 10, 2013	7 Day
- Method: LM-LTM-ORG2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 10, 2013	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Metals M8 filtered	Sydney	Oct 10, 2013	28 Day
- Method: E020/E030 Filtered Metals in Water & E026 Mercury			

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : 13 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove NSW 2066
Phone : 13 8564 5000
NATA # 1261
Site # 1261

Brisbane
1/21 Smallwood Place
Murrumbidgee QLD 4172
Phone : 13 8564 5000
NATA # 1261 Site # 20794

Company Name: Aargus P/L
Address: 446 Parramatta Road
Petersham
NSW 2049

Client Job No.: MARRICKVILLE ES5610-2

Order No.:
Report #:
Phone:
Fax:

395768
1300 137 038
1300 136 038

Received: Oct 10, 2013 2:10 PM
Due: Oct 17, 2013
Priority: 5 Day
Contact Name: Mark Kelly

Eurofins | mgt Client Manager: Ruth Callander

Sample Detail					Eurofins mgt Suite 7 (filtered metals)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
GSS1	Oct 09, 2013		Water	S13-Oct08107	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

UNITS

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environment Protection Authority
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX E029/E016 BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010							
Naphthalene	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10 less BTEX (F1)	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Metals M8 filtered E020/E030 Filtered Metals in Water & E026 Mercury							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0001			0.0001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004							

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Petroleum Hydrocarbons (TPH)										
TRH C6-C9				%	97			70-130	Pass	
TRH C10-C14				%	108			70-130	Pass	
LCS - % Recovery										
BTEX E029/E016 BTEX										
Benzene				%	116			70-130	Pass	
Toluene				%	111			70-130	Pass	
Ethylbenzene				%	111			70-130	Pass	
m&p-Xylenes				%	116			70-130	Pass	
o-Xylene				%	115			70-130	Pass	
Xylenes - Total				%	116			70-130	Pass	
LCS - % Recovery										
Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010										
Naphthalene				%	79			70-130	Pass	
TRH C6-C10				%	106			70-130	Pass	
TRH >C10-C16				%	114			70-130	Pass	
LCS - % Recovery										
Polycyclic Aromatic Hydrocarbons E007 Polyaromatic Hydrocarbons (PAH)										
Acenaphthene				%	99			70-130	Pass	
Acenaphthylene				%	91			70-130	Pass	
Anthracene				%	99			70-130	Pass	
Benz(a)anthracene				%	82			70-130	Pass	
Benzo(a)pyrene				%	87			70-130	Pass	
Benzo(b&j)fluoranthene				%	86			70-130	Pass	
Benzo(g,h,i)perylene				%	100			70-130	Pass	
Benzo(k)fluoranthene				%	96			70-130	Pass	
Chrysene				%	95			70-130	Pass	
Dibenz(a,h)anthracene				%	101			70-130	Pass	
Fluoranthene				%	101			70-130	Pass	
Fluorene				%	98			70-130	Pass	
Indeno(1,2,3-cd)pyrene				%	104			70-130	Pass	
Naphthalene				%	99			70-130	Pass	
Phenanthrene				%	96			70-130	Pass	
Pyrene				%	103			70-130	Pass	
LCS - % Recovery										
Metals M8 filtered E020/E030 Filtered Metals in Water & E026 Mercury										
Arsenic (filtered)				%	103			70-130	Pass	
Cadmium (filtered)				%	105			70-130	Pass	
Chromium (filtered)				%	99			70-130	Pass	
Copper (filtered)				%	100			70-130	Pass	
Lead (filtered)				%	100			70-130	Pass	
Mercury (filtered)				%	103			70-130	Pass	
Nickel (filtered)				%	100			70-130	Pass	
Zinc (filtered)				%	104			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					Result 1					
TRH C6-C9	S13-Oc07698	NCP	%	94				70-130	Pass	
TRH C10-C14	S13-Oc06732	NCP	%	108				70-130	Pass	
Spike - % Recovery										
BTEX					Result 1					
Benzene	S13-Oc07698	NCP	%	111				70-130	Pass	
Toluene	S13-Oc07698	NCP	%	108				70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethylbenzene	S13-Oc07698	NCP	%	108			70-130	Pass	
m&p-Xylenes	S13-Oc07698	NCP	%	114			70-130	Pass	
o-Xylene	S13-Oc07698	NCP	%	115			70-130	Pass	
Xylenes - Total	S13-Oc07698	NCP	%	115			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-Oc07698	NCP	%	77			70-130	Pass	
TRH C6-C10	S13-Oc07698	NCP	%	103			70-130	Pass	
TRH >C10-C16	S13-Oc06732	NCP	%	114			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-Oc06731	NCP	%	102			70-130	Pass	
Acenaphthylene	S13-Oc06731	NCP	%	98			70-130	Pass	
Anthracene	S13-Oc06731	NCP	%	100			70-130	Pass	
Benz(a)anthracene	S13-Oc06731	NCP	%	104			70-130	Pass	
Benzo(a)pyrene	S13-Oc06731	NCP	%	82			70-130	Pass	
Benzo(b&j)fluoranthene	S13-Oc06731	NCP	%	119			70-130	Pass	
Benzo(g,h,i)perylene	S13-Oc06731	NCP	%	91			70-130	Pass	
Benzo(k)fluoranthene	S13-Oc06731	NCP	%	100			70-130	Pass	
Chrysene	S13-Oc06731	NCP	%	95			70-130	Pass	
Dibenz(a,h)anthracene	S13-Oc06731	NCP	%	101			70-130	Pass	
Fluoranthene	S13-Oc06731	NCP	%	107			70-130	Pass	
Fluorene	S13-Oc06731	NCP	%	104			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S13-Oc06731	NCP	%	112			70-130	Pass	
Naphthalene	S13-Oc06731	NCP	%	103			70-130	Pass	
Phenanthrene	S13-Oc06731	NCP	%	99			70-130	Pass	
Pyrene	S13-Oc06731	NCP	%	110			70-130	Pass	
Spike - % Recovery									
Metals M8 filtered				Result 1					
Arsenic (filtered)	S13-Oc08107	CP	%	104			70-130	Pass	
Cadmium (filtered)	S13-Oc08107	CP	%	106			70-130	Pass	
Chromium (filtered)	S13-Oc08107	CP	%	99			70-130	Pass	
Copper (filtered)	S13-Oc08107	CP	%	96			70-130	Pass	
Lead (filtered)	S13-Oc08107	CP	%	94			70-130	Pass	
Mercury (filtered)	S13-Oc08107	CP	%	101			70-130	Pass	
Nickel (filtered)	S13-Oc08107	CP	%	97			70-130	Pass	
Zinc (filtered)	S13-Oc08107	CP	%	102			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-Oc07697	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S13-Oc07412	NCP	mg/L	19	18	4.0	30%	Pass	
TRH C15-C28	S13-Oc07412	NCP	mg/L	85	83	3.0	30%	Pass	
TRH C29-C36	S13-Oc07412	NCP	mg/L	0.50	0.50	10	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-Oc07697	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S13-Oc07697	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S13-Oc07697	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S13-Oc07697	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S13-Oc07697	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S13-Oc07697	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S13-Oc07697	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass
TRH C6-C10	S13-Oc07697	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass
TRH C6-C10 less BTEX (F1)	S13-Oc07697	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass
TRH >C10-C16	S13-Oc07412	NCP	mg/L	50	49	2.0	30%	Pass
TRH >C16-C34	S13-Oc07412	NCP	mg/L	60	58	4.0	30%	Pass
TRH >C34-C40	S13-Oc07412	NCP	mg/L	0.20	0.20	10	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Acenaphthylene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Anthracene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benz(a)anthracene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(a)pyrene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(b&j)fluoranthene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(g,h,i)perylene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(k)fluoranthene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Chrysene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Dibenz(a,h)anthracene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Fluoranthene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Fluorene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Naphthalene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Phenanthrene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Pyrene	S13-Oc04168	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Duplicate								
Metals M8 filtered				Result 1	Result 2	RPD		
Arsenic (filtered)	S13-Oc06583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Cadmium (filtered)	S13-Oc06583	NCP	mg/L	0.00022	0.00020	10	30%	Pass
Chromium (filtered)	S13-Oc06583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Copper (filtered)	S13-Oc06583	NCP	mg/L	0.018	0.018	<1	30%	Pass
Lead (filtered)	S13-Oc06583	NCP	mg/L	0.0015	0.0015	2.0	30%	Pass
Mercury (filtered)	S13-Oc06583	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Nickel (filtered)	S13-Oc06583	NCP	mg/L	0.029	0.028	1.0	30%	Pass
Zinc (filtered)	S13-Oc06583	NCP	mg/L	0.050	0.049	3.0	30%	Pass

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Ruth Callander	Client Services
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)



Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

34.
10/10/13 2-10pm

Sample Receipt Advice

Company name: **Aargus P/L**
Contact name: Mark Kelly
Client job number: MARRICKVILLE ES5610-2
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Oct 10, 2013 2:10 PM
Eurofins | mgt reference: **395768**

Sample information

- ☒ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ☒ All samples have been received as described on the above COC.
- ☒ COC has been completed correctly.
- ☒ Attempt to chill was evident.
- ☒ Appropriately preserved sample containers have been used.
- ☒ All samples were received in good condition.
- ☒ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ☒ Organic samples had Teflon liners.
- ☒ Sample containers for volatile analysis received with zero headspace.
- ☒ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Ruth Callander on Phone : (+61) (3) 8564 5000 or by e.mail: RuthCallander@eurofins.com.au

Results will be delivered electronically via e.mail to Mark Kelly - mark.kelly@aargus.net.

Note: A copy of these results will also be delivered to the general Aargus P/L email address.

Eurofins | mgt Sample Receipt

Melbourne
 3-5 Kingston Town Close
 Oakleigh VIC 3166
 Phone : 13 8564 5000
 NATA # 1261
 Site # 1254 & 14271

Sydney
 Unit F6, Building F
 16 Mars Road
 Lane Cove West NSW 2066
 Phone : 13 8564 5000
 NATA # 1261
 Site # 18217

Brisbane
 1/21 Smallwood Place
 Murrumbidgee QLD 4172
 Phone : 13 8564 5000
 NATA # 1261
 Site # 20794

ABN - 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Company Name: Aargus P/L
Address: 446 Parramatta Road
 Petersham
 NSW 2049

Client Job No.: MARRICKVILLE ES5610-2

Order No.:
Report #:
Phone:
Fax:

395768
 1300 137 038
 1300 136 038

Received: Oct 10, 2013 2:10 PM
Due: Oct 17, 2013
Priority: 5 Day
Contact Name: Mark Kelly

Eurofins | mgt Client Manager: Ruth Callander

Sample Detail					Eurofins mgt Suite 7 (filtered metals)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
GSS1	Oct 09, 2013		Water	S13-Oct08107	X

APPENDIX M

QA/QC ASSESSMENT



1 FIELD DATA QUALITY ASSESSMENT SOILS

1.1 Field Data Completeness

Field Sample Category - Soils	Number (Target)	Non-conformances	Number (Useable)	Overall Completeness %
Primary Samples	56	0	56	100%
Intra-Lab Duplicates	5	0	3	100%
Inter-Lab Duplicates	3	0	3	100%
Rinsate Blanks	2	0	2	100%
Trip Spikes	2	0	2	100%
Trip Blank	2	0	2	100%

Note: (*) – Overall Completeness is calculated as a percentage of the number of useable samples over the target number of samples required. The required percentage completeness is specified in the DQOs.

Field Consideration	Yes / No	Comments / Non-Conformances
Were all critical locations sampled?	Y	All critical locations were sampled as per the DQOs.
Were all samples collected from critical densities and depths?	Y	All sampled were recovered as per DQOs.
Were the Standard Operating Procedures (SOPs) appropriate and complied with?	Y	The Aargus Fieldwork Protocols were appropriate and complied with.
Were the samplers adequately experienced?	Y	Sampling was conducted by Aargus Environmental Scientist, Michael Silk. Please refer to the CVs appended to the report.
Was field documentation complete and correct?	Y	Field records can be found within their respective appendices of the report.
Were an adequate number of intra-laboratory duplicate samples collected?	Y	100% of intra-laboratory duplicate samples required were collected as the table above.
Were an adequate number of inter-laboratory duplicate samples collected?	Y	100% of inter-laboratory duplicate samples required were collected as per the table above.
Were an adequate number of rinsate samples collected?	Y	100% of rinsate samples required were collected as per the table above.
Were an adequate number of trip blanks collected?	Y	100% of trip blanks required were collected as per the table above.
Were an adequate number of trip spikes collected?	Y	100% of trip spikes required were collected as per the table above.

1.2 Field Data Comparability

Field Consideration	Yes / No	Comments / Non-Conformances
Were the same SOPs used on each occasion?	Y	Aargus Fieldwork Protocols were utilised throughout each sampling event.
Was all sampling undertaken by the same person?	Y	Sampling was undertaken by the same scientist.
Could climatic conditions (such as temperature, rainfall, etc.) influence data comparability?	N	All sampling was undertaken on days without rain.
Were the same types of samples collected (filtered, size, fractions, etc.) for each media?	Y	Samples were collected in the same types of containers provided by the laboratory.
Was each field parameter measured using the same equipment?	Y	Headspace analysis was carried out using the same PID meter.
Was the same method and equipment used for extraction of samples?	N	Soil samples from shallow depths were recovered by the same hand auger and soil samples collected from monitoring well locations were recovered with the aid of flight augers attached to a drill rig. However, this was not considered to affect data comparability given that the same sampling techniques were used.

1.3 Field Data Representativeness

Laboratory Batch	Laboratory	Sample Medium	Container Breakages	Sample Preservation	Headspace Temperature /
394524-S	Eurofins	Soil and Water (rinsate)	Compliant	Compliant	Compliant
GS13445	Groundswell	Soil	Compliant	Compliant	Compliant

Field Consideration	Yes / No	Comments / Non-Conformances
Was appropriate media sampled in accordance with the DQOs?	Y	All soil samples were sampled in accordance with the DQOs.
Was all media identified in the DQOs sampled?	Y	All soil samples specified in the DQO were sampled.
Were all samples the samples appropriately handled?	Y	All samples collected were received by the laboratories intact.
Were all samples preserved appropriately?	Y	All samples collected were received by laboratories in the correct temperature. Where relevant, samples were stored in acid-preserved containers supplied by laboratories.

1.4 Field Data Precision

Field Consideration	Yes / No	Comments / Non-Conformances
Were the SOPs appropriate and complied with?	Y	The recovery of field duplicates was conducted in accordance with Aargus Fieldwork Protocols to allow for the assessment of field precision.

1.5 Field Data Accuracy

Field Consideration	Yes / No	Comments / Non-Conformances
Were the SOPs appropriate and complied with?	Y	The recovery of trip blanks and rinsate blanks was conducted in accordance with Aargus Fieldwork Protocols to allow for the assessment of field accuracy.

2 LABORATORY DATA QUALITY ASSESSMENT

2.1 Laboratory Data Completeness

Primary Samples - Soils			
TOTAL (Target)	NCs	TOTAL (Useable)	Overall Completeness
2272	0	2272	100%

Field QA/QC Samples - Soils				
Sample Type	TOTAL (Target)	NCs	TOTAL (Useable)	Overall Completeness
Intra-Lab. Dup.	322	0	322	100%
Inter-Lab. Dup.	284	0	284	100%
Rinsates	92	0	92	100%
Trip Blanks	14	0	14	100%
Trip Spikes	14	0	14	100%

Laboratory QA/QC Samples - Soils				
Sample Type	TOTAL (Target)	NCs	TOTAL (Useable)	Overall Completeness
Lab. Duplicates	10	0	10	100%
Lab. Control Samples	37	0	37	100%
Method Blanks	42	0	42	100%
Matrix Spikes	141	0	141	100%
Surrogates	121	0	121	100%

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were all critical samples analysed according to the DQOs?	Y	All critical samples analysed according to DQOs.
Were all analytes analysed according to the DQOs?	Y	All analytes analysed according to DQOs.
Were the laboratory methods and PQLs appropriate?	Y	US EPA Analytical Methods were used. PQLs were below their respective assessment criteria
Was sample documentation complete?	Y	The sample documentation was correctly completed on the COC's.
Were sample holding times complied with?	Y	All the samples were within holding times.
Were an adequate number of laboratory duplicates analysed?	Y	An adequate number of laboratory duplicates were analysed.
Were an adequate number of laboratory blank samples analysed?	Y	An adequate number of laboratory blank samples were analysed.
Were an adequate number of Laboratory Control Samples analysed?	Y	An adequate number of Laboratory Control Samples were analysed.
Were an adequate number of	Y	An adequate number of laboratory matrix spikes / duplicates were analysed.

Laboratory Considerations	Yes / No	Comments / Non-Conformances
laboratory matrix spikes/duplicates analysed?		
Were an adequate number of surrogates analysed?	Y	An adequate number of surrogates were analysed.

2.2 Laboratory Data Comparability

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were the same analytical methods used for each analyte?	Y	All analytical methods used between laboratories were based on the USEPA/APHA methods.
Were the PQLs used for each analyte less than 20% of their respective assessment criteria?	Y	The PQLs for analytes in soil samples were below 20% of their respective assessment criteria.
Were the sample PQLs used for each analyte the same?	N	Sample PQL's were the same within each laboratory but differed between the primary and secondary laboratories. However, this was considered to be a minor non-conformance given that the results of the samples were either less than the laboratory PQL or well below the assessment criteria.
Were the same laboratories used for analyses of each contaminant type?	Y	Eurofins was the primary and Groundswell was the secondary laboratories.
Were the units reported for each analyte the same?	Y	Analytical units of measurement for soil were mg/kg.

2.3 Laboratory Data Representativeness

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were all samples analysed according to the DQOs?	Y	The majority of the samples were analysed according to the DQOs.

2.4 Laboratory Data Precision

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were the RPDs of the field duplicates within control limits?	N	RPDs of >50% were identified in a number of samples analysed for PAH and metals, and were likely due to heterogeneity between samples collected. Given that the majority of RPDs for the remaining analytes were <50%, the data set was considered to be adequately precise.
Were the RPDs of the laboratory duplicates within control limits?	N	The majority of RPDs of all laboratory duplicates were within control limits, with the exception of the following: Arsenic in soil for one sample (394524-S) The high RPDs were likely to be due to sample heterogeneity. Given that the majority of RPDs for the remaining analytes were <50%, the data set was considered to be adequately precise.

Note: Please refer to the tables attached at the end of this QA/QC assessment for calculations of the field RPDs.

2.5 Laboratory Data Accuracy

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were the rinsates free of contaminants?	Y	The concentrations of the analytes were below or equalled the PQLs.
Were the trip blanks free of contaminants?	Y	The test results for the trip blank samples, reported concentrations to be less than the PQL's, therefore cross contamination has not occurred.
Were the laboratory blanks free of contaminants?	Y	Laboratory blanks were free of contaminants.
Were the surrogate spikes within control limits?	Y	Surrogate spikes were within control limits.
Were laboratory control samples within control limits?	Y	Laboratory control samples were within control limits.
Were matrix spike recoveries within control limits?	Y	Matrix spikes were within control limits
Were the trip spike recoveries within the control limits?	Y	The results show a recovery of trip spike concentrations, ranging between 107-130%. Based on the above, it is considered that no loss of volatiles from the recovered samples occurred.

Note: Please refer to the tables attached at the end of this QA/QC assessment for tables showing results of field blanks.

TABLE M1: Field Duplicates Summary Tables

Insert table M1

TABLE M2: Rinsate Summary Tables

Field Blanks (WATER)			SDG	30/09/2013	30/09/2013
Filter: SDG in('30/09/2013')			Field_ID	R1	R2
			Sampled_Date-Time	25/09/2013	
			Sample_Type	Rinsate	Rinsate
Method_Type	ChemName	Units	EQL		
Heavy Metal	Chromium (III+VI)	mg/l	0.005	<0.005	<0.005
	Mercury (Filtered)	mg/l	0.0001	0.0001	0.0001
Heavy Metals	Arsenic (Filtered)	mg/l	0.001	<0.001	<0.001
	Cadmium (Filtered)	mg/l	0.0001	<0.0001	<0.0001
	Chromium (III+VI) (Filtered)	mg/l	0.001	<0.001	<0.001
	Copper (Filtered)	mg/l	0.001	<0.001	<0.001
	Lead (Filtered)	mg/l	0.001	<0.001	<0.001
Inorganic	Nickel (Filtered)	mg/l	0.001	<0.001	<0.001
	Zinc (Filtered)	mg/l	0.005	<0.005	<0.005
	Chromium (hexavalent)	mg/l	0.005	<0.005	<0.005
	Chromium (Trivalent)	mg/l	0.005	<0.005	<0.005
Organic	C10-C16	mg/l	0.05	<0.05	<0.05
	C16-C34	mg/l	0.1	<0.1	<0.1
	C34-C40	mg/l	0.1	<0.1	<0.1
	F2-NAPHTHALENE	mg/l	0.05	<0.05	<0.05
	Naphthalene	µg/l	20	<20	<20
	C6 - C9	µg/l	20	<20	<20
	C6-C10 less BTEX (F1)	mg/l	0.02	<0.02	<0.02
	C6-C10	mg/l	0.02	<0.02	<0.02
	PAH				
	Benzo[b+j]fluoranthene	mg/l	0.001	<0.001	<0.001
	Acenaphthene	µg/l	1	<1	<1
	Acenaphthylene	µg/l	1	<1	<1
	Anthracene	µg/l	1	<1	<1
	Benz(a)anthracene	µg/l	1	<1	<1
	Benzo(a) pyrene	µg/l	1	<1	<1
	Benzo(g,h,i)perylene	µg/l	1	<1	<1
	Benzo(k)fluoranthene	µg/l	1	<1	<1
	Chrysene	µg/l	1	<1	<1
	Dibenz(a,h)anthracene	µg/l	1	<1	<1
	Fluoranthene	µg/l	1	<1	<1
	Fluorene	µg/l	1	<1	<1
	Indeno(1,2,3-c,d)pyrene	µg/l	1	<1	<1
	Naphthalene	µg/l	1	<1	<1
	PAHs (Sum of total)	µg/l	1	<1	<1
	Phenanthrene	µg/l	1	<1	<1
	Pyrene	µg/l	1	<1	<1
TPH	C10 - C14	µg/l	50	<50	<50
	C15 - C28	µg/l	100	<100	<100
	C29-C36	µg/l	100	<100	<100
	+C10 - C36 (Sum of total)	µg/l	100	<100	<100
Volatile	Benzene	µg/l	1	<1	<1
	Ethylbenzene	µg/l	1	<1	<1
	Toluene	µg/l	1	<1	<1
	Xylene (m & p)	µg/l	2	<2	<2
	Xylene (o)	µg/l	1	<1	<1
	Xylene Total	µg/l	3	<3	<3

TABLE M3: Trip Blank and Trip Spike Summary Tables

ANALYTE	TRIP SPIKE	TRIP SPIKE
	TS1	TS2
	%	%
	25.9.13	25.9.13
C6-C9	130	109
BTEX		
Benzene	130	109
Toluene	128	108
Ethyl Benzene	129	108
Total Xylenes	130	107

ANALYTE	TRIP BLANK	TRIP BLANK	Practical Quantitation Limits (PQL)
	TB1	TB2	
	(mg/L)	(mg/L)	
	25.9.13	25.9.13	
C6-C9	<20	<20	20
BTEX			
Benzene	<0.1	<0.1	0.1
Toluene	<0.1	<0.1	0.1
Ethyl Benzene	<0.1	<0.1	0.1
Total Xylenes	<0.3	<0.3	0.3

1 FIELD DATA QUALITY ASSESSMENT WATER

1.1 Field Data Completeness

Field Sample Category - Soils	Number (Target)	Non-conformances	Number (Useable)	Overall Completeness %
Primary Samples	3	0	3	100%
Intra-Lab Duplicates	1	0	1	100%
Inter-Lab Duplicates	1	0	1	100%
Rinsate Blanks	1	0	1	100%
Trip Spikes	0	0	0	0%
Trip Blank	0	0	1	0%

Note: (*) – Overall Completeness is calculated as a percentage of the number of useable samples over the target number of samples required. The required percentage completeness is specified in the DQOs.

Field Consideration	Yes / No	Comments / Non-Conformances
Were all critical locations sampled?	Y	All critical locations were sampled as per the DQOs.
Were all samples collected from critical densities and depths?	Y	All sampled were recovered as per DQOs.
Were the Standard Operating Procedures (SOPs) appropriate and complied with?	Y	The Aargus Fieldwork Protocols were appropriate and complied with.
Were the samplers adequately experienced?	Y	Sampling was conducted by Aargus Environmental Scientist, Michael Silk. Please refer to the CVs appended to the report.
Was field documentation complete and correct?	Y	Field records can be found within their respective appendices of the report.
Were an adequate number of intra-laboratory duplicate samples collected?	Y	100% of intra-laboratory duplicate samples required were collected as the table above.
Were an adequate number of inter-laboratory duplicate samples collected?	Y	100% of inter-laboratory duplicate samples required were collected as per the table above.
Were an adequate number of rinsate samples collected?	Y	100% of rinsate samples required were collected as per the table above.
Were an adequate number of trip blanks collected?	N	No trip blanks required were collected as per the table above.
Were an adequate number of trip spikes collected?	N	No trip spikes required were collected as per the table above.

1.2 Field Data Comparability

Field Consideration	Yes / No	Comments / Non-Conformances
Were the same SOPs used on each occasion?	Y	Aargus Fieldwork Protocols were utilised throughout each sampling event.
Was all sampling undertaken by the same person?	Y	Sampling was undertaken by the same scientist.
Could climatic conditions (such as temperature, rainfall, etc.) influence data comparability?	N	All sampling was undertaken on days without rain.
Were the same types of samples collected (filtered, size, fractions, etc.) for each media?	Y	Samples were collected in the same types of containers provided by the laboratory.
Was each field parameter measured using the same equipment?	Y	Headspace analysis was carried out using the same PID meter.
Was the same method and equipment used for extraction of samples?	Y	Samples recovered using the same equipment.

1.3 Field Data Representativeness

Laboratory Batch	Laboratory	Sample Medium	Container Breakages	Sample Preservation	Headspace Temperature /
GS13460	Groundswell	Groundwater and Water (rinsate)	Compliant	Compliant	Compliant
395768-W	Eurofins	Groundwater	Compliant	Compliant	Compliant

Field Consideration	Yes / No	Comments / Non-Conformances
Was appropriate media sampled in accordance with the DQOs?	Y	All soil samples were sampled in accordance with the DQOs.
Was all media identified in the DQOs sampled?	Y	All soil samples specified in the DQO were sampled.
Were all samples the samples appropriately handled?	Y	All samples collected were received by the laboratories intact.
Were all samples preserved appropriately?	Y	All samples collected were received by laboratories in the correct temperature. Where relevant, samples were stored in acid-preserved containers supplied by laboratories.

1.4 Field Data Precision

Field Consideration	Yes / No	Comments / Non-Conformances
Were the SOPs appropriate and complied with?	Y	The recovery of field duplicates was conducted in accordance with Aargus Fieldwork Protocols to allow for the assessment of field precision.

1.5 Field Data Accuracy

Field Consideration	Yes / No	Comments / Non-Conformances
Were the SOPs appropriate and complied with?	N	The recovery rinsate blanks was conducted in accordance with Aargus Fieldwork Protocols to allow for the assessment of field accuracy. However no trip spikes or trip blanks were recovered.

2 LABORATORY DATA QUALITY ASSESSMENT

2.1 Laboratory Data Completeness

Primary Samples - GW			
TOTAL (Target)	NCs	TOTAL (Useable)	Overall Completeness
78	0	78	100%

Field QA/QC Samples - GW				
Sample Type	TOTAL (Target)	NCs	TOTAL (Useable)	Overall Completeness
Intra-Lab. Dup.	26	0	26	100%
Inter-Lab. Dup.	46	0	46	100%
Rinsates	25	0	25	100%

Laboratory QA/QC Samples - GW				
Sample Type	TOTAL (Target)	NCs	TOTAL (Useable)	Overall Completeness
Lab. Duplicates	8	0	8	100%
Lab. Control Samples	0	0	0	0%
Method Blanks	25	0	25	100%
Matrix Spikes	16	0	16	100%
Surrogates	5	0	5	100%

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were all critical samples analysed according to the DQOs?	Y	All critical samples analysed according to DQOs.
Were all analytes analysed according to the DQOs?	Y	All analytes analysed according to DQOs.
Were the laboratory methods and PQLs appropriate?	Y	US EPA Analytical Methods were used. PQLs were below their respective assessment criteria.
Was sample documentation complete?	Y	The sample documentation was correctly completed on the COC's.
Were sample holding times complied with?	Y	All the samples were within holding times.
Were an adequate number of laboratory duplicates analysed?	Y	An adequate number of laboratory duplicates were analysed.
Were an adequate number of laboratory blank samples analysed?	Y	An adequate number of laboratory blank samples were analysed.
Were an adequate number of Laboratory Control Samples analysed?	Y	An adequate number of Laboratory Control Samples were analysed.
Were an adequate number of laboratory matrix spikes/duplicates analysed?	Y	An adequate number of laboratory matrix spikes / duplicates were analysed.
Were an adequate number of	Y	An adequate number of surrogates were analysed.

Laboratory Considerations	Yes / No	Comments / Non-Conformances
surrogates analysed?		

2.2 Laboratory Data Comparability

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were the same analytical methods used for each analyte?	Y	All analytical methods used between laboratories were based on the USEPA/APHA methods.
Were the PQLs used for each analyte less than 20% of their respective assessment criteria?	Y	The PQLs for analytes in soil samples were below 20% of their respective assessment criteria.
Were the sample PQLs used for each analyte the same?	N	Sample PQL's were the same within each laboratory but differed between the primary and secondary laboratories. However, this was considered to be a minor non-conformance given that the results of the samples were either less than the laboratory PQL or well below the assessment criteria.
Were the same laboratories used for analyses of each contaminant type?	Y	Eurofins was the primary and Groundswell was the secondary laboratory.
Were the units reported for each analyte the same?	N	Analytical units of measurement for water were ug/l by Groundswell & mg/l by Eurofins.

2.3 Laboratory Data Representativeness

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were all samples analysed according to the DQOs?	Y	The majority of the samples were analysed according to the DQOs.

2.4 Laboratory Data Precision

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were the RPDs of the field duplicates within control limits?	Y	The RPDs of all field duplicates were within control limits.
Were the RPDs of the laboratory duplicates within control limits?	Y	The RPDs of all laboratory duplicates were within control limits.

Note: Please refer to the tables attached at the end of this QA/QC assessment for calculations of the field RPDs.

2.5 Laboratory Data Accuracy

Laboratory Considerations	Yes / No	Comments / Non-Conformances
Were the rinsates free of	Y	The concentrations of the analytes were below the

Laboratory Considerations	Yes / No	Comments / Non-Conformances
contaminants?		PQLs.
Were the trip blanks free of contaminants?	N	No trip blank was analysed.
Were the laboratory blanks free of contaminants?	Y	Laboratory blanks were free of contaminants.
Were the surrogate spikes within control limits?	Y	Surrogate spikes were within control limits.
Were laboratory control samples within control limits?	Y	Laboratory control samples were within control limits.
Were matrix spike recoveries within control limits?	Y	Matrix spikes were within control limits
Were the trip spike recoveries within the control limits?	N	No trip spike was analysed.

Note: Please refer to the tables attached at the end of this QA/QC assessment for tables showing results of field blanks.

TABLE M4: Field Duplicate Summary Table

Insert table M4

TABLE M5: Rinsate Summary Table

Field Blanks (Water)			SDG	13460
Filter: SDG in('13460')			Field ID	R1
			Sampled Date-Time	9/10/2013
			Sample Type	Rinsate
Method Type	ChemName	Units	EQL	
500.1 C	TRH	mg/l	0.1	<0.1
550.2 C	Acenaphthene	µg/L	0.5	<0.5
	Acenaphthylene	µg/L	0.5	<0.5
	Anthracene	µg/L	0.5	<0.5
	Benz(a)anthracene	µg/L	0.5	<0.5
	Benzo(a) pyrene	µg/L	0.5	<0.5
	Benzo(b)&(k)fluoranthene	µg/l	500	<500
	Benzo(g,h,i)perylene	µg/L	0.5	<0.5
	Chrysene	µg/L	0.5	<0.5
	Dibenz(a,h)anthracene	µg/L	0.5	<0.5
	Fluoranthene	µg/L	0.5	<0.5
	Fluorene	µg/L	0.5	<0.5
	Indeno(1,2,3-c,d)pyrene	µg/L	0.5	<0.5
	Naphthalene	µg/L	0.5	<0.5
	PAHs (Sum of total)	µg/L	0.5	<0.5
	Phenanthrene	µg/L	0.5	<0.5
	Pyrene	µg/L	0.5	<0.5
EPA200.8	Arsenic	mg/l	0.005	<0.005
	Cadmium	mg/l	0.0001	<0.0001
	Chromium (III+VI)	mg/l	0.001	<0.001
	Copper	mg/l	0.001	<0.001
	Lead	mg/l	0.001	<0.001
	Mercury	mg/l	0.0001	<0.0001
	Nickel	mg/l	0.001	<0.001
	Zinc	mg/l	0.005	<0.005
EPA200.8: Metals	Arsenic	mg/l	0.005	
	Cadmium	mg/l	0.0001	
	Chromium (III+VI)	mg/l	0.001	
	Copper	mg/l	0.001	
	Lead	mg/l	0.001	
	Mercury	mg/l	0.0001	
	Nickel	mg/l	0.001	
	Zinc	mg/l	0.005	
Metals	Arsenic	mg/l	0.005	
	Cadmium	mg/l	0.0001	
	Chromium (III+VI)	mg/l	0.001	
	Copper	mg/l	0.001	
	Lead	mg/l	0.001	
	Mercury	mg/l	0.0001	
	Nickel	mg/l	0.001	
	Zinc	mg/l	0.005	
PAHs C	Acenaphthene	µg/L	0.5	
	Acenaphthylene	µg/L	0.5	
	Anthracene	µg/L	0.5	
	Benz(a)anthracene	µg/L	0.5	
	Benzo(a) pyrene	µg/L	0.5	
	Benzo(b)&(k)fluoranthene	µg/l	500	
	Benzo(g,h,i)perylene	µg/L	0.5	
	Chrysene	µg/L	0.5	
	Dibenz(a,h)anthracene	µg/L	0.5	
	Fluoranthene	µg/L	0.5	
	Fluorene	µg/L	0.5	
	Indeno(1,2,3-c,d)pyrene	µg/L	0.5	
	Naphthalene	µg/L	0.5	
	PAHs (Sum of total)	µg/L	0.5	
	Phenanthrene	µg/L	0.5	
	Pyrene	µg/L	0.5	
TRH_C	TRH	mg/l	0.1	

TABLE M4: Field Duplicates Summary Tables

Field Duplicates (Water)		SDG	13460	13460	13460	Interlab_D
Filter: SDG in('13460')		Field ID	GW3	GD1	GW3	GSS1
		Sampled_Date-Time	9/10/2013	9/10/2013	9/10/2013	9/10/2013
Method	ChemName	Units	EQL			
500.1 C	TRH	mg/l	0.1			
			<0.017	<0.018	0	<0.017
550.2 C	Acenaphth	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Acenaphth	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Anthracen	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Benz(a)an	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Benzo(a)	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Benzo(b)&	µg/l	500	<500.0	0	<500.0
	Benzo(g,h	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Chrysene	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Dibenz(a,f	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Fluoranth	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Fluorene	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Indeno(1,2	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Naphthalen	µg/L	0.5 (Primary): 20 (Interl	<0.5	0	<0.5
	PAHs (Suif	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Phenanthr	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
	Pyrene	µg/L	0.5 (Primary): 1 (Interla	<0.5	0	<0.5
EPA200.8	Arsenic	mg/l	0.005	<0.005	0	<0.005
	Cadmium	mg/l	0.0001	0.0001	11	0.0001
	Chromium	mg/l	0.001	<0.001	0	<0.001
	Copper	mg/l	0.001	<0.001	0	<0.001
	Lead	mg/l	0.001	<0.001	0	<0.001
	Mercury	mg/l	0.0001	<0.0001	13	0.0001
	Nickel	mg/l	0.001	0.0136	15	0.0116
	Zinc	mg/l	0.005	0.0875	12	0.0777

APPENDIX N

SUMMARY OF LABORATORY RESULTS



SCHEDULE OF LABORATORY TESTING - SOIL

Sample ID	Analyte / Analyte Group		TYPE	SAMPLING DATE	MET-8	Chromium III	TPH & BTEX	PAH	OCP	PCB	PHENOL	CYANIDE	pHCEC & % Clay	ASBESTOS PRESENCE	ASBESTOS %
	Surveys	Depth(ft)													
August 25-26,09,2013															
BH1	0.1-0.5		25-26,09,2013	✓		✓	✓							✓	✓
BH1	0.5-1.0		25-26,09,2013	✓											
BH2	0.5-1.0		25-26,09,2013	✓		✓	✓							✓	✓
BH2	2-2.5		25-26,09,2013	✓											
BH3	0.5-1.0		25-26,09,2013	✓		✓	✓								
BH3	2-2.5		25-26,09,2013	✓											
BH4	0.5-1.0		25-26,09,2013	✓							✓				
BH4	2-2.5		25-26,09,2013	✓										✓	✓
BH5	0.5-0.4		25-26,09,2013	✓										✓	
BH5	0.6-1.0		25-26,09,2013	✓		✓							✓		
BH6	0.1-0.3		25-26,09,2013	✓										✓	
BH6	1.0-1.2		25-26,09,2013	✓										✓	
BH7	0.4-0.6		25-26,09,2013	✓		✓	✓							✓	
BH7	0.8-1.0		25-26,09,2013	✓										✓	
BH8	0.5-0.4		25-26,09,2013	✓		✓	✓							✓	
BH8	0.5-0.4		25-26,09,2013	✓		✓	✓							✓	
BH9	0.5-0.4		25-26,09,2013	✓		✓	✓							✓	
BH9	0.7-0.9		25-26,09,2013	✓										✓	
BH10	0.3-0.5		25-26,09,2013	✓		✓	✓							✓	
BH10	1.5-1.7		25-26,09,2013	✓		✓	✓							✓	
BH11	0.3-0.5		25-26,09,2013	✓										✓	
BH11	1.5-1.7		25-26,09,2013	✓										✓	
BH12	0.3-0.5		25-26,09,2013	✓		✓	✓							✓	
BH12	1.3-1.5		25-26,09,2013	✓		✓	✓							✓	
BH13	0.3-0.5		25-26,09,2013	✓										✓	
BH13	1.0-1.2		25-26,09,2013	✓		✓	✓							✓	
BH14	0.5-0.4		25-26,09,2013	✓		✓	✓							✓	
BH14	0.7-0.9		25-26,09,2013	✓		✓	✓							✓	
BH15	0.4-0.6		25-26,09,2013	✓		✓	✓							✓	
BH15	0.8-1.0		25-26,09,2013	✓		✓	✓							✓	
BH15	1.2-1.5		25-26,09,2013	✓		✓	✓							✓	
BH16	0.4-0.6		25-26,09,2013	✓		✓	✓							✓	
BH16	0.4-0.6		25-26,09,2013	✓		✓	✓							✓	
BH16	1.3-1.4		25-26,09,2013	✓		✓	✓							✓	
BH17	0.4-0.5		25-26,09,2013	✓		✓	✓							✓	
BH17	0.9-1.0		25-26,09,2013	✓		✓	✓							✓	
BH17	2-2-2.5		25-26,09,2013	✓										✓	
BH18	0.4-0.5		25-26,09,2013	✓		✓	✓							✓	
BH18	0.9-1.0		25-26,09,2013	✓										✓	
BH18	1.5-1.6		25-26,09,2013	✓		✓	✓							✓	
BH18	2.3-2.5		25-26,09,2013	✓		✓	✓							✓	
BH19	0.7-0.9		25-26,09,2013	✓		✓	✓							✓	
BH19	1.5-1.6		25-26,09,2013	✓		✓	✓							✓	
BH20	0.3-0.4		25-26,09,2013	✓		✓	✓							✓	
BH20	0.8-0.9		25-26,09,2013	✓		✓	✓							✓	
BH21	0.5-0.7		25-26,09,2013	✓		✓	✓							✓	
BH21	1.2-1.4		25-26,09,2013	✓		✓	✓							✓	
BH22	0.9-1.0		25-26,09,2013	✓		✓	✓							✓	
BH22	1.6-2.0		25-26,09,2013	✓		✓	✓							✓	
BH23	1.0-1.2		25-26,09,2013	✓		✓	✓						✓		
BH23	0.4-0.6		25-26,09,2013	✓		✓	✓							✓	
BH24	0.6-0.7		25-26,09,2013	✓		✓	✓							✓	
BH24	1.4-1.5		25-26,09,2013	✓										✓	
BH24	2.4-2.5		25-26,09,2013	✓										✓	
BH25	0.4-0.5		25-26,09,2013	✓		✓	✓							✓	
BH25	0.7-0.9		25-26,09,2013	✓		✓	✓							✓	
BH26	0.3-0.4		25-26,09,2013	✓		✓	✓							✓	
BH26	0.5-0.6		25-26,09,2013	✓		✓	✓							✓	
BH27	0.3-0.4		25-26,09,2013	✓		✓	✓							✓	
D1			25-26,09,2013	✓		✓	✓							✓	
D2			25-26,09,2013	✓		✓	✓							✓	
D3			25-26,09,2013	✓		✓	✓							✓	
D4			25-26,09,2013	✓		✓	✓							✓	
D5			25-26,09,2013	✓		✓	✓							✓	
R1			25-26,09,2013	✓		✓	✓							✓	
R2			25-26,09,2013	✓		✓	✓							✓	
SS1			25-26,09,2013	✓		✓	✓							✓	
SS2			25-26,09,2013	✓		✓	✓							✓	
SS3			25-26,09,2013	✓		✓	✓							✓	

Notes	MET-8: arsenic, cadmium, chromium, copper, lead, mercury, nickel, antimony, selenium, vanadium, zinc PAH: Polycyclic Aromatic Hydrocarbons TPH: Total Petroleum Hydrocarbons BTEX: Benzene, Toluene, Ethyl Benzene, Xylene F-T-N: Fil, Topsoil, Natural D: Duplicate (blend) SS: Split Sample
-------	--

SCHEDULE OF LABORATORY TESTING - GROUNDWATER

Analyte / Analyte Group		TYPE	SAMPLING DATE	MET-8	TPH & BTEX	PAH
Sample	Depth (m)					
Groundwater						
GW1	-	GW	9.10.2013	✓	✓	✓
GW2	-	GW	9.10.2013	✓	✓	✓
GW3	-	GW	9.10.2013	✓	✓	✓
GD1	-	GW	9.10.2013	✓	✓	✓
R1	-	WG/WP	9.10.2013	✓	✓	✓
GSS1	-	GW	9.10.2013	✓	✓	✓

Notes

MET-8: arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc
 PAH: Polycyclic Aromatic Hydrocarbons
 TPH: Total Petroleum Hydrocarbons
 BTEX: Benzene, Toluene, Ethyl Benzene, Xylene
 GW: Groundwater

TABLE A1
HEAVY METALS TEST RESULTS FOR HILs & ESLs

		Analyte	HEAVY METALS (mg/kg)							
		ARSENIC	CADMIUM	CHROMIUM	COPPER	MERCURY	NICKEL	LEAD ^g	ZINC	
Sample Location	Depth (m)									
BH1	0.1-0.5	2.3	1.2	16	150	0.34	19	580	280	
BH1	0.5-1.0	< 2	0.5	17	5.9	< 0.05	< 5	21	14	
BH2	0.5-1.0	2.5	0.5	17	27	0.08	< 5	130	140	
BH2	2-2.5	-	-	-	-	-	-	-	-	
BH3	0.5-1.0	2.2	< 0.4	14	7.3	< 0.05	< 5	23	28	
BH3	2-2.5	-	-	-	-	-	-	-	-	
BH4	0.5-1.0	2.2	0.7	28	< 5	< 0.05	< 5	17	7.2	
BH4	2-2.5	-	-	-	-	-	-	-	-	
BH5	0.2-0.4	< 2	0.5	16	12	< 0.05	< 5	37	99	
BH5	0.8-1.0	< 2	< 0.4	12	5	< 0.05	< 5	11	36	
BH6	0.1-0.3	< 2	1.7	22	200	0.23	9.4	350	390	
BH6	1.0-1.2	4.1	< 0.4	19	11	< 0.05	< 5	38	45	
BH7	0.4-0.6	< 2	< 0.4	11	22	0.13	< 5	59	89	
BH7	0.8-1.0	< 2	< 0.4	21	13	< 0.05	< 5	19	11	
BH8	0.2-0.4	2.8	< 0.4	17	22	0.11	< 5	64	50	
BH8	0.6-0.8	< 2	< 0.4	8.9	< 5	< 0.05	< 5	7.3	6.4	
BH9	0.2-0.4	2	0.6	23	20	0.06	< 5	20	72	
BH9	0.7-0.9	26	1.4	51	< 5	< 0.05	< 5	17	< 5	
BH10	0.3-0.5	< 2	0.5	19	< 5	< 0.05	< 5	14	< 5	
BH10	1.5-1.7	< 2	< 0.4	12	7.9	< 0.05	< 5	19	7.3	
BH11	0.3-0.5	< 2	< 0.4	14	< 5	< 0.05	< 5	13	< 5	
BH11	1.5-1.7	< 2	0.8	19	9.7	< 0.05	< 5	13	< 5	
BH12	0.3-0.5	< 2	< 0.4	17	5.5	< 0.05	< 5	21	9.5	
BH12	1.3-1.5	< 2	0.6	13	15	< 0.05	< 5	11	< 5	
BH13	0.3-0.5	< 2	0.4	15	17	0.15	5.7	74	67	
BH13	1.0-1.2	< 2	< 0.4	7.8	8.2	< 0.05	< 5	7.2	< 5	
BH14	0.2-0.4	< 2	< 0.4	10	8.1	0.06	< 5	24	24	
BH14	0.7-0.8	< 2	< 0.4	12	15	< 0.05	< 5	31	18	
BH15	0.4-0.6	< 2	0.7	8.8	260	0.27	8	720	420	
BH15	0.8-1.0	4.8	1.2	19	460	0.31	15	1300	700	
BH15	1.3-1.5	2.9	0.7	21	68	< 0.05	< 5	68	38	
BH15	4.0-4.2	-	-	-	-	-	-	-	-	
BH16	0.4-0.5	< 2	0.6	17	28	0.09	< 5	65	85	
BH16	1.2-1.4	< 2	< 0.4	6.1	< 5	< 0.05	< 5	5.5	< 5	
BH17	0.4-0.5	< 2	1	14	53	0.37	9.2	180	210	
BH17	0.9-1.0	5.3	1.5	20	180	0.77	16	730	830	
BH17	2.2-2.5	< 2	< 0.4	< 5	37	< 0.05	< 5	21	41	
BH18	0.4-0.5	8.3	0.9	19	190	1.3	14	1100	320	
BH18	0.9-1.0	7	0.9	12	360	5	9.3	750	510	
BH18	1.5-1.6	16	1.5	18	280	3.1	12	1400	670	
BH18	2.3-2.5	< 2	0.8	16	250	2.4	7.5	2900	390	
BH19	0.7-0.9	< 2	2.3	56	1300	3.2	11	2100	1700	
BH19	1.5-1.6	< 2	1	9.5	30	0.51	< 5	180	240	
BH20	0.3-0.4	< 2	0.6	13	5.8	0.07	< 5	36	47	
BH20	0.8-0.9	< 2	0.8	21	12	0.08	< 5	30	59	
BH21	0.5-0.7	2.9	0.6	16	140	0.66	11	1500	450	
BH21	1.2-1.4	19	1.8	30	160	2.3	23	1400	1400	
BH22	0.4-0.6	7.5	0.9	18	150	1.4	8.4	400	440	
BH22	1.2-1.3	14	3.3	17	720	2.8	19	2900	3300	
BH22	1.8-2.0	2.1	1	13	240	1.1	5	410	460	
BH23	0.1-0.2	2.2	< 0.4	15	5	< 0.05	< 5	46	25	
BH23	0.4-0.6	5.1	0.9	30	< 5	< 0.05	< 5	23	11	
BH24	0.6-0.7	< 2	1.2	18	520	1.6	19	840	620	
BH24	1.4-1.5	2.4	0.8	19	180	2.2	9.7	470	520	
BH24	2.4-2.5	6.1	1.1	19	200	5.2	5.8	790	520	
BH25	0.4-0.5	6	1.2	17	180	0.34	11	1000	550	
BH25	0.7-0.8	< 2	0.5	21	6	< 0.05	< 5	27	13	
BH26	0.3-0.4	8.5	1.4	34	170	0.52	12	660	630	
BH26	0.5-0.6	< 2	0.7	30	< 5	< 0.05	< 5	28	21	
BH27	0.3-0.4	2.6	3.5	14	190	0.72	10	660	1300	
Practical Quantitation Limits (PQL)		1	0.1	1	1	0.1	1	1	1.0	
NATIONAL ENVIRONMENT PROTECTION MEASURE (2013)										
Health Investigation Levels (HIL) - Table 1A (1)										
HIL A ^a		100	20	100	6000	40 ^f / 10 ^f	400	300	7400	
HIL B ^b		500	150	500	30,000	120 ^f / 30 ^f	1200	1200	60,000	
HIL C ^c		300	90	300	17,000	80 ^f / 13 ^f	1200	600	30,000	
HIL D ^d		3000	900	3600	240,000	730 ^f / 180 ^f	6000	1500	400,000	
Ecological Investigation Levels (EIL) - Table 1B (5)										
Areas of ecological significance		40 ^h								
Urban residential and public open space ⁱ		100 ^h		225		270		1100	310	
Commercial and industrial		160 ^h								

- Notes
- a: Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry), also includes childcare centres, preschools and primary schools.
 - b: Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high rise buildings and apartments.
 - c: Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. This does not include undeveloped public open space where the potential for exposure is lower and where a site-specific assessment may be more appropriate
 - d: Commercial/industrial, includes premises such as shops, offices, factories and industrial sites
 - e: Elemental mercury; HIL does not address elemental mercury. A site-specific assessment should be considered if elemental mercury is present, or suspected to be present.
 - f: Methyl mercury; assessment of methyl mercury should only occur where there is evidence of its potential source. It may be associated with inorganic mercury and anaerobic microorganism activity in aquatic environments. In addition the reliability and quality of sampling/analysis should be considered.
 - g: Lead: HIL is based on blood lead models (IEUBK for HILs A, B and C and adult lead model for HIL D where 50% oral bioavailability has been considered. Site-specific bioavailability may be important and should be considered where appropriate.
 - h: Aged values are applicable to arsenic contamination present in soil for at least two years. For fresh contamination refer to Schedule B5c.

TABLE A2
CATION EXCHANGE CAPACITY (CEC), pH & % CLAY TEST RESULTS
FOR THE SOIL PROPERTIES FOR EILs

Analyte		CEC (cmol/kg)	pH (pH units)	% CLAY (%)
Sample Location	Depth (m)			
BH5	0.8-1.0	32	5.8	42.4
BH17	2.2-2.5	24	5.6	36.7
BH22	1.8-2.0	31	6.4	27.5

TABLE A3
SITE DERIVED EILs

Analyte		HEAVY METALS (mg/kg)				
		COPPER	ZINC	NICKEL	CHROMIUM III	LEAD
Sample Location	Depth (m)					
Added Contaminant Limit (ACL) ^a						
BH5	0.8-1.0	220	400	350	400	1100
BH17	2.2-2.5	210	270	270	400	1100
BH22	1.8-2.0	220	920	350	400	1100
Ambient Background Concentration (ABC)						
BH5	0.8-1.0	5	36	<5	<1	11
BH17	2.2-2.5	37	41	<5	<1	21
BH22	1.8-2.0	240	460	5	<1	410
Calculated EIL (ABC + ACL)						
BH5	0.8-1.0	225	436	350	400	1111
BH17	2.2-2.5	247	311	270	400	1121
BH22	1.8-2.0	440	1380	355	400	1510
FINAL SITE EIL AFTER ROUNDING ^b						
BH5	0.8-1.0	225	440	350	400	1100
BH17	2.2-2.5	250	310	270	400	1100
BH22	1.8-2.0	440	1380	355	400	1500

Notes a: The ACL for Cu may be determined by pH or CEC and the lower of the determined values should be selected for EIL calculation.

 b: The following rounding rules are applicable to the EILs:

<1	to nearest 0.1
1 - <10	to nearest interger
10 - <100	to nearest 5
100 - <1000	to nearest 10
>1000	to nearest 100

TABLE B1
TOTAL RECOVERABLE HYDROCARBONS (TRH), BTEX AND NAPHTHALENE TEST RESULTS
FOR HSLs IN CLAY

Analyte		TRH (mg/kg)		BTEX (mg/kg)				PAH (mg/kg)
		F1 ^a	F2 ^b	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	NAPHTHALENE
Sample Location	Depth (m)							
BH1	0.1-0.5	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH2	0.5-1.0	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH3	0.5-1.0	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH4	0.5-1.0	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH5	0.2-0.4	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH6	0.1-0.3	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH7	0.4-0.6	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH8	0.2-0.4	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH9	0.2-0.4	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH9	0.7-0.9	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	-
BH10	0.3-0.5	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH11	0.3-0.5	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH12	0.3-0.5	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH13	0.3-0.5	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH14	0.2-0.4	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH15	0.4-0.6	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH15	0.8-1.0	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	-
BH16	0.4-0.5	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH17	0.4-0.5	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH17	0.9-1.0	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	-
BH18	0.4-0.5	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH18	0.9-1.0	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH18	1.5-1.6	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	-
BH19	0.7-0.9	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	0.7
BH20	0.3-0.4	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH21	0.5-0.7	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH22	0.4-0.6	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH22	1.2-1.3	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	-
BH23	0.1-0.2	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH24	0.6-0.7	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH24	1.4-1.5	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	-
BH27	0.3-0.4	< 20	< 50	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
Practical Quantitation Limits (PQL)		20	50	0.1	0.1	0.1	0.3	0.5
NATIONAL ENVIRONMENT PROTECTION MEASURE (2013)								
Health Screening Levels (HSL) - Table 1A (3)								
<i>HSL A & HSL B: Low-high density residential</i>								
Source depth - 0m to <1m		50	280	0.7	480	NL	110	5
Source depth - 1m to <2m		90	NL	1	NL	NL	310	NL
Source depth - 2m to <4m		150	NL	2	NL	NL	NL	NL
Source depth - 4m +		290	NL	3	NL	NL	NL	NL
<i>HSL C: recreational / open space</i>								
Source depth - 0m to <1m		NL	NL	NL	NL	NL	NL	NL
Source depth - 1m to <2m		NL	NL	NL	NL	NL	NL	NL
Source depth - 2m to <4m		NL	NL	NL	NL	NL	NL	NL
Source depth - 4m +		NL	NL	NL	NL	NL	NL	NL
<i>HSL D: Commercial / Industrial</i>								
Source depth - 0m to <1m		310	NL	4	NL	NL	NL	NL
Source depth - 1m to <2m		480	NL	6	NL	NL	NL	NL
Source depth - 2m to <4m		NL	NL	9	NL	NL	NL	NL
Source depth - 4m +		NL	NL	20	NL	NL	NL	NL

Notes

a: To obtain F1 subtract the sum of BTEX concentrations from the C₆-C₁₀ fraction.

b: To obtain F2 subtract naphthalene from the >C₁₀-C₁₆ fraction.

NL: Not Limiting

TABLE B2
TOTAL RECOVERABLE HYDROCARBONS (TRH), BTEX AND BENZO(a)PYRENE TEST RESULTS
ESLs FOR FINE GRAINED SOIL TEXTURE

Analyte		TRH (mg/kg)				BTEX (mg/kg)				PAH (mg/kg)
		F1 (C ₆ -C ₁₀) ^a	F2 (>C ₁₀ -C ₁₆) ^b	F3 (C ₁₆ -C ₃₄)	F4 (C ₃₄ -C ₄₀)	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	BENZO(a)PYRENE
Sample Location	Depth (m)									
BH1	0.1-0.5	< 20	< 50	1000	300	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH2	0.5-1.0	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH3	0.5-1.0	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	0.7
BH4	0.5-1.0	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH5	0.2-0.4	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH6	0.1-0.3	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH7	0.4-0.6	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH8	0.2-0.4	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH9	0.2-0.4	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH9	0.7-0.9	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	-
BH10	0.3-0.5	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH11	0.3-0.5	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH12	0.3-0.5	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH13	0.3-0.5	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH14	0.2-0.4	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH15	0.4-0.6	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	0.8
BH15	0.8-1.0	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	-
BH16	0.4-0.5	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH17	0.4-0.5	< 20	< 50	120	< 100	< 0.1	< 0.1	< 0.1	< 0.3	1.8
BH17	0.9-1.0	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	-
BH18	0.4-0.5	< 20	< 50	130	< 100	< 0.1	< 0.1	< 0.1	< 0.3	2
BH18	0.9-1.0	< 20	< 50	140	< 100	< 0.1	< 0.1	< 0.1	< 0.3	3.5
BH18	1.5-1.6	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	-
BH19	0.7-0.9	< 20	< 50	300	< 100	< 0.1	< 0.1	< 0.1	< 0.3	5.5
BH20	0.3-0.4	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH21	0.5-0.7	< 20	< 50	440	< 100	< 0.1	< 0.1	< 0.1	< 0.3	4.5
BH22	0.4-0.6	< 20	< 50	160	< 100	< 0.1	< 0.1	< 0.1	< 0.3	1.7
BH22	1.2-1.3	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	-
BH23	0.1-0.2	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5
BH24	0.6-0.7	< 20	< 50	180	< 100	< 0.1	< 0.1	< 0.1	< 0.3	2.2
BH24	1.4-1.5	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	-
BH27	0.3-0.4	< 20	< 50	120	< 100	< 0.1	< 0.1	< 0.1	< 0.3	1.2
Practical Quantitation Limits (PQL)		20	50	100	100	0.1	0.1	0.1	0.3	0.5
NATIONAL ENVIRONMENT PROTECTION MEASURE (2013)										
Ecological Screening Levels (ESL) - Table 1B (6)										
Areas of ecological significance		125*	25*	-	-	10	65	40	1.6	0.7
Urban residential and public open space		180*	120*	1300	5600	65	105	125	45	0.7
Commercial and industrial		215*	170*	2500	6600	95	135	185	95	0.7

Notes

a: To obtain F1 subtract the sum of BTEX concentrations from the C₆-C₁₀ fraction.

b: To obtain F2 subtract naphthalene from the >C₁₀-C₁₆ fraction.

*: ESLs are of low reliability except where indicated by * which indicates that the ESL is of moderate reliability.

"-": "-" indicates that insufficient data was available to derive a value.

TABLE B3
TOTAL RECOVERABLE HYDROCARBONS (TRH) TEST RESULTS
MANAGEMENT LIMITS FOR FINE GRAINED SOIL TEXTURE

Analyte		TRH (mg/kg)			
		F1 (C ₆ -C ₁₀) ^a	F2 (>C ₁₀ -C ₁₆) ^a	F3 (C ₁₆ -C ₃₄)	F4 (C ₃₄ -C ₄₀)
Sample Location	Depth (m)				
BH1	0.1-0.5	< 20	< 50	1000	300
BH2	0.5-1.0	< 20	< 50	< 100	< 100
BH3	0.5-1.0	< 20	< 50	< 100	< 100
BH4	0.5-1.0	< 20	< 50	< 100	< 100
BH5	0.2-0.4	< 20	< 50	< 100	< 100
BH6	0.1-0.3	< 20	< 50	< 100	< 100
BH7	0.4-0.6	< 20	< 50	< 100	< 100
BH8	0.2-0.4	< 20	< 50	< 100	< 100
BH9	0.2-0.4	< 20	< 50	< 100	< 100
BH9	0.7-0.9	< 20	< 50	< 100	< 100
BH10	0.3-0.5	< 20	< 50	< 100	< 100
BH11	0.3-0.5	< 20	< 50	< 100	< 100
BH12	0.3-0.5	< 20	< 50	< 100	< 100
BH13	0.3-0.5	< 20	< 50	< 100	< 100
BH14	0.2-0.4	< 20	< 50	< 100	< 100
BH15	0.4-0.6	< 20	< 50	< 100	< 100
BH15	0.8-1.0	< 20	< 50	< 100	< 100
BH16	0.4-0.5	< 20	< 50	< 100	< 100
BH17	0.4-0.5	< 20	< 50	120	< 100
BH17	0.9-1.0	< 20	< 50	< 100	< 100
BH18	0.4-0.5	< 20	< 50	130	< 100
BH18	0.9-1.0	< 20	< 50	140	< 100
BH18	1.5-1.6	< 20	< 50	< 100	< 100
BH19	0.7-0.9	< 20	< 50	300	< 100
BH20	0.3-0.4	< 20	< 50	< 100	< 100
BH21	0.5-0.7	< 20	< 50	440	< 100
BH22	0.4-0.6	< 20	< 50	160	< 100
BH22	1.2-1.3	< 20	< 50	< 100	< 100
BH23	0.1-0.2	< 20	< 50	< 100	< 100
BH24	0.6-0.7	< 20	< 50	180	< 100
BH24	1.4-1.5	< 20	< 50	< 100	< 100
BH27	0.3-0.4	< 20	< 50	120	< 100
Practical Quantitation Limits (PQL)		20	50	100	100
NATIONAL ENVIRONMENT PROTECTION MEASURE (2013)					
Management Limits - Table 1B (7)					
Residential parkland and public open space		800	1000	3500	10,000
Commercial and industrial		800	1000	5000	10,000

- Notes
- a: Separate management limits for BTEX and naphthalene are not available hence these should not be subtracted from the relevant fractions to obtain F1 and F2.
- b: Management limits are applied after consideration of relevant ESLs and HSLs.

TABLE C
POLYCYCLIC AROMATIC HYDROCARBONS (PAH), ORGANOCHLORINE PESTICIDES (OCP), POLYCHLORINATED BIPHENYLS (PCB), PHENOLS AND CYANIDES TEST RESULTS
FOR HILs, EILs & ESLs

Analyte		PAH (mg/kg)				Organochlorine Pesticides (mg/kg)								Phenols (mg/kg)								
		Carcinogenic PAHs (as B[a]P TEQ) ^e	TOTAL PAHs ^f	BENZO(a)PYRENE	NAPHTHALENE	DDT + DDE + DDD	ALDRIN & DIELDRIN	CHLORDANE	ENDOSULFAN	ENDRIN	HEPTACHLOR	HCB	METHOXYCHLOR	PCB ^l	PHENOL	PENTACHLOROPHENOL	CRESOLS	CYANIDE (free)				
Sample Location	Depth (m)																					
BH1	0.1-0.5	0.6	0.6	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH2	0.5-1.0	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH3	0.5-1.0	1.1	4.5	0.7	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH4	0.5-1.0	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<1	<1.5	-				
BH5	0.2-0.4	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH6	0.1-0.3	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH7	0.4-0.6	0.6	<0.5	<0.5	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	<0.5	<1	<1.5	<1				
BH8	0.2-0.4	0.6	<0.5	<0.5	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	-	-	-	-				
BH9	0.2-0.4	0.6	<0.5	<0.5	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	<0.5	<1	<1.5	<1				
BH10	0.3-0.5	0.6	<0.5	<0.5	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	-	-	-	-				
BH11	0.3-0.5	0.6	<0.5	<0.5	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	-	-	-	-				
BH12	0.3-0.5	0.6	<0.5	<0.5	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	-	-	-	-				
BH13	0.3-0.5	0.6	<0.5	<0.5	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	<0.5	<1	<1.5	<1				
BH14	0.2-0.4	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH15	0.4-0.6	1.2	6.8	0.8	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH16	0.4-0.5	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH17	0.4-0.5	2.8	26	1.8	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	<0.5	<1	<1.5	<1				
BH18	0.4-0.5	3.1	31	2	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	<0.5	<1	<1.5	<1				
BH18	0.9-1.0	5	40	3.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH19	0.7-0.9	8.3	61	5.5	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH20	0.3-0.4	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH21	0.5-0.7	6.6	52	4.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH22	0.4-0.6	2.6	26	1.7	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	<0.5	<1	<1.5	<1				
BH23	0.1-0.2	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-				
BH24	0.6-0.7	3.2	29	2.2	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	<0.5	<1	<1.5	<1				
BH25	0.4-0.5	-	-	-	-	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	-	-	-	-	-				
BH26	0.3-0.4	-	-	-	-	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	-	-	-	-	-				
BH27	0.3-0.4	1.9	13	1.2	<0.5	<0.15	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.2	<0.5	<0.5	<1	<1.5	<1				
Practical Quantitation Limits (PQL)		0.5	0.5	0.5	0.5	0.15	0.1	0.1	0.1	0.05	0.05	0.05	0.2	0.5	0.5	1	1.5	1				
NATIONAL ENVIRONMENT PROTECTION MEASURE (2013)																						
Health Investigation Levels (HIL) - Table 1A (1)																						
HIL A ^a						3	300			240	6	50	270	10	6	10	300	1	3000	100	400	250
HIL B ^b						4	400			600	10	90	400	20	10	15	500	1	45,000	130	4700	300
HIL C ^c						3	300			400	10	70	340	20	10	10	400	1	40,000	120	4000	240
HIL D ^d						40	4000			3600	45	530	2000	100	50	80	2500	7	240,000	660	25,000	1,500
Ecological Investigation Levels (EIL) - Table 1B (5)																						
Areas of ecological significance										10 ^g				3 ^{h,k}								
Urban residential and public open space ^h										170 ^g				180 ^{h,k}								
Commercial and industrial														370 ^g								
Ecological Screening Levels (ESL) - Table 1B (6)																						
Areas of ecological significance														0.7 ⁱ								
Urban residential and public open space														0.7 ⁱ								
Commercial and industrial														0.7 ⁱ								

- Notes
- Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry), also includes childcare centres, preschools and primary schools.
 - Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high rise buildings and apartments.
 - Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. This does not include undeveloped public open space where the potential for exposure is lower and where a site-specific assessment may be more appropriate.
 - Commercial/industrial, includes premises such as shops, offices, factories and industrial sites
 - Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)P) adopted by CCME 2008 (refer Schedule B7). The B(a)P TEQ is calculated by multiplying the concentration of each carcinogenic PAH in the sample by its B(a)P TEF, given below, and summing these products.
- | PAH species | TEF | PAH species | TEF |
|------------------------|-----|-------------------------|------|
| Benzo(a)anthracene | 0.1 | Benzo(g,h,i)perylene | 0.01 |
| Benzo(a)pyrene | 1 | Chrysene | 0.01 |
| Benzo(b+j)fluoranthene | 0.1 | Dibenz(a,h)anthracene | 1 |
| Benzo(k)fluoranthene | 0.1 | Indeno(1,2,3-c,d)pyrene | 0.1 |
- Where the B(a)P occurs in bitumen fragments it is relatively immobile and does not represent a significant health risk.
- Total PAHs: HIL is based on the sum of the 16 PAHs most commonly reported for contaminated sites (WHO 1998). The application of the total PAH HIL should consider the presence of carcinogenic PAHs and naphthalene (the most volatile PAH). Carcinogenic PAHs reported in the total PAHs should meet the B(a)P TEQ HIL. Naphthalene reported in the total PAHs should meet the relevant HSL.
 - Insufficient data was available to calculate aged values for DDT and naphthalene, consequently the values for fresh contamination should be used.
 - Urban residential / public open space is broadly equivalent to the HIL-A, HIL-B and HIL-C land use scenarios in Table 1A(1) Footnote 1 and as described in Schedule B7.
 - For coarse and fine grained texture soils.
 - PCBs: HIL relates to non-dioxin-like PCBs only. Where a PCB source is known, or suspected, to be present at a site, a site-specific assessment of exposure to all PCBs (including dioxin-like PCBs) should be undertaken.
 - For DDT only.

TABLE D
ASBESTOS TEST RESULTS

Analyte		Field Observations*	Laboratory Results Asbestos Type Present / Absent	Laboratory Results Asbestos %w/w
Sample Location	Depth (m)			
BH1	0.1-0.5	No visible fibro cement pieces observed	No asbestos detected	NT
BH2	0.5-1.0	No visible fibro cement pieces observed	No asbestos detected	NT
BH5	0.2-0.4	No visible fibro cement pieces observed	No asbestos detected	NT
BH6	0.1-0.3	No visible fibro cement pieces observed	No asbestos detected	NT
BH7	0.4-0.6	No visible fibro cement pieces observed	No asbestos detected	NT
BH8	0.2-0.4	No visible fibro cement pieces observed	No asbestos detected	NT
BH9	0.2-0.4	No visible fibro cement pieces observed	No asbestos detected	NT
BH10	0.3-0.5	No visible fibro cement pieces observed	No asbestos detected	NT
BH11	0.3-0.5	No visible fibro cement pieces observed	No asbestos detected	NT
BH12	0.3-0.5	No visible fibro cement pieces observed	No asbestos detected	NT
BH13	0.3-0.5	No visible fibro cement pieces observed	No asbestos detected	NT
BH14	0.2-0.4	No visible fibro cement pieces observed	No asbestos detected	NT
BH15	0.4-0.6	No visible fibro cement pieces observed	No asbestos detected	NT
BH16	0.4-0.5	No visible fibro cement pieces observed	No asbestos detected	NT
BH17	0.4-0.6	No visible fibro cement pieces observed	No asbestos detected	NT
BH18	0.4-0.6	No visible fibro cement pieces observed	No asbestos detected	NT
BH18	0.9-1.0	No visible fibro cement pieces observed	No asbestos detected	NT
BH19	0.7-0.9	No visible fibro cement pieces observed	Chrysotile asbestos detected	0.017% bonded AF & 0.15% bonded ACM
BH20	0.3-0.4	No visible fibro cement pieces observed	No asbestos detected	NT
BH21	0.5-0.7	No visible fibro cement pieces observed	No asbestos detected	NT
BH22	0.4-0.6	No visible fibro cement pieces observed	No asbestos detected	NT
BH23	0.1-0.2	No visible fibro cement pieces observed	No asbestos detected	NT
BH24	0.6-0.7	No visible fibro cement pieces observed	No asbestos detected	NT
BH25	0.4-0.5	No visible fibro cement pieces observed	No asbestos detected	NT
BH26	0.3-0.4	No visible fibro cement pieces observed	No asbestos detected	NT
BH27	0.3-0.4	No visible fibro cement pieces observed	No asbestos detected	NT
WA Guidelines for the Assessment, Remediation and Management of Asbestos - Contaminated Sites in Western Australia - May 2009				
National Environment Protection (Assessment of Site Contamination) Measure 2013 Schedule B1				
%w/w asbestos for FA and AF				0.001%
%w/w asbestos for ACM - Residential use, childcare centres, preschools etc.				0.01%
%w/w asbestos for ACM - Residential, minimal soil access (fully sealed surfaces)				0.04%
%w/w asbestos for ACM - Parks, public open spaces, playing fields etc.				0.02%
%w/w asbestos for ACM - Commercial / Industrial				0.05%

Note:

ACM = Asbestos Containing Materials >7mm x 7mm (visible by eye)

FA = Friable and Fibrous Asbestos Materials >7mm x 7mm (visible by eye)

AF = Asbestos Fines <7mm x 7mm ACM including free fibres (visible by microscope only)

* Field Observations: All fibro-cement fragments observed are assumed to contain Asbestos until otherwise tested and recorded as such.

NT = Not Tested

TABLE E
HEAVY METALS TEST RESULTS (GROUNDWATER SAMPLES)

Analyte	HEAVY METALS (µg/L)							
	ARSENIC (As) - Total	CADMIUM (Cd)	CHROMIUM (Cr) - Total	COPPER (Cu)	LEAD (Pb)	MERCURY (Hg) - Total	NICKEL (Ni)	ZINC (Zn)
Sample Location								
GW1	<5	0.4	<1	3	<1	0.50	3	127
GW2	<5	0.2	<1	<1	<1	0.40	3	36
GW3	<5	0.1	<1	<1	<1	0.10	12	78
Practical Quantitation Limits (PQL)	5	0.1	1	1	1	0.1	1	5
ANZECC & ARMCANZ ^a Guidelines for Fresh and Marine Water Quality (2000)								
Aquatic Ecosystems (Trigger Values)								
Fresh Water	24 ^b 13 ^c	0.2	NV ^d 1 ^e	1.4	3.4	0.06	11	8
Water for recreational purposes	50	5	50	1000	50	1	100	5000

Notes

a: Investigation levels apply to typical slightly-moderated disturbed systems.

b: as As (III)

c: as As (V)

d: as Cr (III)

e: as Cr (VI)

NV: No value derived

TABLE F
TOTAL RECOVERABLE HYDROCARBONS (TRH), BTEX AND NAPHTHALENE TEST RESULTS
FOR GROUNDWATER HSLs IN CLAY

Analyte		TRH (mg/L)		BTEX (mg/L)				PAH (mg/L)
		F1 ^a	F2 ^b	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	NAPHTHALENE
Sample Location	Depth (m)							
GW1	-	<10	<100	<1	<1	<1	<2	<1
GW2	-	<10	<100	<1	<1	<1	<2	<1
GW3	-	17	<100	<1	<1	<1	<2	<1
Practical Quantitation Limits (PQL)		10	100	1	1	1	2	1
NATIONAL ENVIRONMENT PROTECTION MEASURE (2013)								
Health Screening Levels (HSL) - Table 1A (4)								
<i>HSL A & HSL B: Low-high density residential</i>								
Source depth - 2m to <4m		NL	NL	5	NL	NL	NL	NL
Source depth - 4m to <8m		NL	NL	5	NL	NL	NL	NL
Source depth - 8m +		NL	NL	5	NL	NL	NL	NL
<i>HSL C: recreational / open space</i>								
Source depth - 2m to <4m		NL	NL	NL	NL	NL	NL	NL
Source depth - 4m to <8m		NL	NL	NL	NL	NL	NL	NL
Source depth - 8m +		NL	NL	NL	NL	NL	NL	NL
<i>HSL D: Commercial / Industrial</i>								
Source depth - 2m to <4m		NL	NL	30	NL	NL	NL	NL
Source depth - 4m to <8m		NL	NL	30	NL	NL	NL	NL
Source depth - 8m +		NL	NL	35	NL	NL	NL	NL

Notes

a: To obtain F1 subtract the sum of BTEX concentrations from the C₆-C₁₀ fraction.

b: To obtain F2 subtract naphthalene from the >C₁₀-C₁₆ fraction.

NL: Not Limiting

TABLE G
PAH
TEST RESULTS (GROUNDWATER SAMPLES)

Analyte	PAH (µg/L)	
	NAPHTHALENE	BENZO(a)PYRENE
Sample Location		
GW1	<0.5	<0.5
GW2	<0.5	<0.5
GW3	<0.5	<0.5
Practical Quantitation Limits (PQL)	0.5	0.5
ANZECC & ARMCANZ a Guidelines for Fresh and Marine Water Quality (2000)		
Aquatic Ecosystems (Trigger Values)		
Fresh	16	NV
Water for recreational purposes		0.01

Notes a: Investigation levels apply to typical slightly-moderated disturbed systems.
 b: PCB - Arochlor 1242
 c: PCB - Arochlor 1254
 NV: No Value derived

APPENDIX O

BOREHOLE LOGS





Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH1

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 23/9/13 COMPLETED 23/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MM CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
ADWT			1		CH	Concrete Fill: Silty Sandy Clay, low to medium plasticity, dark grey, with some gravel.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed No hydrocarbon odour, No Staining, No fibro-cement material observed
						Silty CLAY, medium to high plasticity, grey to light brown, red mottling, traces of siltstone.		M	F	
ADT			6		CH	Silty Clay, medium to high plasticity, reddish grey, traces of ironstone.		W	VSt	
ADT			9		SC	Clayey SAND, fine to coarse grained, yellow and brown.		W	D	
			10			Borehole BH1 terminated at 9.4m				



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH10

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Clay, high plasticity, grey/brown/yellow, with gravel & rock.		M	VS	
			0.5							No hydrocarbon odour, No Staining, No fibro-cement material observed
					CI	Silty CLAY, medium plasticity, brown/light brown, red, traces of gravel.		M	S	
			1.0							
					CI	CLAY, medium plasticity, brown/orange/light brown/grey, traces of sand.		D	F	
			1.5							No hydrocarbon odour, No Staining, No fibro-cement material observed
			2.0							
						Borehole BH10 terminated at 2m				
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH11

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT			0.5			Fill: Clay, high plasticity, grey/brown/yellow, with gravel and rock.		M	VS	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0		CL	Silty CLAY, medium plasticity, brown to light brown, red, traces of gravel.		M	S	
			1.5		CI	CLAY, medium plasticity, brown/orange/light brown/grey, traces of sand.		D	F	No hydrocarbon odour, No Staining, No fibro-cement material observed
			2.0			Borehole BH11 terminated at 2m				
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH12

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT			0.5			Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen & siltstone.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0		CL	Silty CLAY, low to medium plasticity, orange/brown, grey mottling, traces of shale and siltstone.		D	F	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.5			Borehole BH12 terminated at 1.5m				
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH13

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT			0.5			Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen & siltstone.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0		CL	Silty CLAY, low to medium plasticity, orange/brown, grey mottling, traces of shale and siltstone.		D	F	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.5			Borehole BH13 terminated at 1.3m				
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH14

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen & siltstone.	D4	D	Fb	No hydrocarbon odour, No Staining, No fibro-cement material observed
			0.5		CL	Silty CLAY, medium plasticity, brown/light brown, red, traces of gravel.		D	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0			Borehole BH14 terminated at 1m				
			1.5							
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH15/GW2

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT							Concrete				
ADT				0.5			Fill: Silty Clay, low to medium plasticity, grey/brown/yellow, traces of gravel and bitumen.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
				1.0		CI	Silty CLAY, medium plasticity, red/brown/grey, traces of siltstone and shale.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
				1.5							No hydrocarbon odour, No Staining, No fibro-cement material observed
				2.0							
				2.5		CL	CLAY, low to medium plasticity, grey/red/brown.		M	Fb	
				3.0							
				3.5							
				4.0		CH	CLAY, medium to high plasticity, red/brown.		W	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
				4.5			Due to refusal on rock Borehole BH15/GW2 terminated at 4.5m				
				5.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH16

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen & siltstone.		M	S	
			0.5		CL	Silty CLAY, medium plasticity, brown to light brown, red, traces of gravel.		M	F	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0							
			1.5							No hydrocarbon odour, No Staining, No fibro-cement material observed
						Borehole BH16 terminated at 1.5m				
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH17

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT			0.5			Fill: Silty Gravelly Clay, medium to high plasticity, brown to dark brown, with angular gravel.	D5	M	S	Hydrocarbon odour noticed, No Staining, No fibro-cement material observed
			1.0							Hydrocarbon odour noticed, No Staining, No fibro-cement material observed
			1.5		CI	CLAY, medium plasticity, grey/yellow/brown, with shale mottling.		M	F	
			2.0							No hydrocarbon odour, No Staining, No fibro-cement material observed
			2.5			Borehole BH17 terminated at 2.5m				
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH18

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low plasticity, brown, traces of angular gravel, ceramic, root fibres & glass.		M	S	
			0.5			Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen & siltstone.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0							No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.5							No hydrocarbon odour, No Staining, No fibro-cement material observed
					CL	Silty CLAY, low to medium plasticity, orange/brown, grey mottling, traces of shale and siltstone.		D	Fb	
			2.0							No hydrocarbon odour, No Staining, No fibro-cement material observed
			2.5			Borehole BH18 terminated at 2.5m				
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH19

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
HA						Fill: Silty Clay, low plasticity, brown, traces of angular gravel, ceramic, root fibres & glass.		D	Fb	
			0.5							
			1.0							No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.5		CL	Silty CLAY, low plasticity, grey/white/brown, traces of shale.		D	Fb	No hydrocarbon odour, No Staining, No fibro-cement material observed
			2.0			Borehole BH19 terminated at 2m				
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH2

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 24/9/13 COMPLETED 24/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MM CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
ADVT	Seepage ▼		0		CI	Concrete		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1		CI	Silty CLAY, medium plasticity, dark grey, yellow & brown mottling, with some sand, fine to coarse grained.		M	F	
			2		CI	Silty CLAY, medium to high plasticity, grey, red and yellow mottling.		M	F	No hydrocarbon odour, No Staining, No fibro-cement material observed
			3		CI	Silty CLAY, medium to high plasticity, grey, red mottling with trace of siltstone.		W	VSt	
ADT			4		CI	Silty Sandy CLAY, medium to high plasticity, reddish grey, yellow and red mottling, traces of siltstone.		W	VSt	
			4.5			CLAYSTONE, dark grey, red mottling, traces of siltstone.		W	H	
			5			Borehole BH2 terminated at 4.5m				
			6							
			7							
			8							
			9							
			10							



PAGE 1 OF 1

PROJECT NAME Detailed Site Investigation

PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATUM

BEARING ---

HOLE LOCATION

CHECKED BY MK

NOTES

BOREHOLE / TEST PIT ES5610 GINT.GPJ GINT STD AUSTRALIA.GDT 4/4/14



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH21

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen & siltstone.		M	S	
			0.5							No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0							
					CL	Silty Sandy CLAY, low plasticity, orange, white, traces of sandstone pieces.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.5							
						Borehole BH21 terminated at 1.5m				
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH22

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen, siltstone.		M	S	
			0.5							No hydrocarbon odour, No Staining, No fibro-cement material observed
						Fill: Clay, high plasticity, grey/brown/yellow, with gravel and rock.		M-W	S	
			1.0							No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.5							
					CI	CLAY, medium plasticity, brown/orange/light brown/grey, traces of sand		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			2.0							
						Borehole BH22 terminated at 2m				
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH23

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen & siltstone.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			0.5		CI	Silty CLAY, low to medium plasticity, orange/brown with grey mottling, traces of shale and siltstone.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0							
			1.5							
			2.0							
			2.5							
			3.0							
						Borehole BH23 terminated at 0.6m				



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH24

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
ADT DT						Concrete				
			0.5			Fill: Silty Clay, low plasticity, brown, traces of angular gravel, ceramic, root fibres & glass.				No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0							
			1.5							No hydrocarbon odour, No Staining, No fibro-cement material observed
			2.0		CI	Silty CLAY, low to medium plasticity, orange/brown, with grey mottling, traces of shale and siltstone.				
			2.5			Borehole BH24 terminated at 2.5m				No hydrocarbon odour, No Staining, No fibro-cement material observed
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH25

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Hand Auger HOLE LOCATION _____
HOLE SIZE 50mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
HA						Garden bed				
			0.5			Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen, siltstone & organic matters.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
					CL	Silty CLAY, medium plasticity, brown/light brown, red, traces of gravel.		M	VS	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0			Borehole BH25 terminated at 0.9m				
			1.5							
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH26

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Hand Auger HOLE LOCATION _____
HOLE SIZE 50mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
HA						Fill: Silty Clay, low plasticity, brown, traces of angular gravel, ceramic, roots fibres & glass.		D	Fb	
			0.5			Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen, siltstone.		D	Fb	No hydrocarbon odour, No Staining, No fibro-cement material observed
						Due to refusal in garden bed Borehole BH26 terminated at 0.6m				No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0							
			1.5							
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH27

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Hand Auger HOLE LOCATION _____
HOLE SIZE 50mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
HA						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen, siltstone.				No hydrocarbon odour, No Staining, No fibro-cement material observed
			0.5			Due to auger refusal Borehole BH27 terminated at 0.5m				
			1.0							
			1.5							
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH3

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 24/9/13 COMPLETED 24/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MM CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
ADVT	Seepage ▼		0		CI	Concrete		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1		CI	Silty CLAY, low to medium plasticity, dark grey with yellow & red mottling, with some gravel.				
			2		CI	Silty CLAY, medium to high plasticity, grey with red and yellow mottling, traces of siltstone.		W	F	No hydrocarbon odour, No Staining, No fibro-cement material observed
			3			SILTSTONE, with some Silty clay, light red with grey and yellow mottling, low plasticity.		W	VSt	
			4		SC	Clayey SAND, fine to coarse grained, grey, red & yellow mottling, traces of siltstone.		W	VD	
ADT			5							
			6			Borehole BH3 terminated at 5.9m				
			7							
			8							
			9							
			10							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH4

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 24/9/13 COMPLETED 24/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MM CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
ADV/DT			0.0			Concrete				
			0.5		CI	Silty CLAY, low to medium plasticity, dark grey with yellow and red mottling.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0							
ADT	Seepage ▼		1.5		CI	Silty CLAY, medium to high plasticity, grey with red mottling, with some siltstone.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			2.0							
			2.5		SC	Clayey SAND, grey with red mottling.		M	VD	
			3.0							
			3.5			Borehole BH4 terminated at 3.2m				
			4.0							
			4.5							
			5.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH5

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 50mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen, siltstone.	D1	D	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			0.5		CI	Silty CLAY, low to medium plasticity, orange/brown with grey mottling, traces of shale and siltstone.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0			Borehole BH5 terminated at 1m				
			1.5							
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH6/GW1

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES _____

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
ADDT							Concrete		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
						Fill: Silty Clay, low to medium plasticity, orange/brown/grey, traces of gravel.	M		S		
				1		CLAY, medium to high plasticity, orange/brown/grey with shale mottling.					No hydrocarbon odour, No Staining, No fibro-cement material observed
				2							
3											
Seepage				4		CI	CLAY, medium to high plasticity, red/brown, with shale mottling.		M	S	
				5							
				6		CH	CLAY, high plasticity, orange/brown, traces of weathered sandstone.		W	S	
				7			Due to refusal on weathered sandstone, Borehole BH6/GW1 terminated at 6m				
				8							
				9							
				10							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH7

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen, siltstone.		M	S	
			0.5				SS1			No hydrocarbon odour, No Staining, No fibro-cement material observed
					CL	Silty CLAY, medium plasticity, brown/light brown, red, traces of gravel.		M	S	
			1.0							No hydrocarbon odour, No Staining, No fibro-cement material observed
						Borehole BH7 terminated at 1m				
			1.5							
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH8

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen, siltstone.	SS3/D3	M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			0.5		CL	Silty CLAY, medium plasticity, brown/light brown, red, traces of gravel.		M	S	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0			Borehole BH8 terminated at 1m				
			1.5							
			2.0							
			2.5							
			3.0							



Aargus Pty Ltd
446 Parramatta Road
PETERSHAM N.S.W.
Telephone: (61) 1300137038
Fax: (61) 1300136038

BOREHOLE NUMBER BH9

PAGE 1 OF 1

CLIENT E & D Danias Pty Ltd PROJECT NAME Detailed Site Investigation
PROJECT NUMBER ES5610-2 PROJECT LOCATION Victoria Rd, Mitchell St & Farr St

DATE STARTED 25/9/13 COMPLETED 25/9/13 R.L. SURFACE _____ DATUM _____
DRILLING CONTRACTOR Aargus SLOPE 90° BEARING ---
EQUIPMENT Drilling Rig HOLE LOCATION _____
HOLE SIZE 100mm LOGGED BY MS CHECKED BY MK

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture	Cons./Dens.	Additional Observations
DT						Concrete				
ADT						Fill: Silty Clay, low to medium plasticity, orange/grey/brown, traces of angular gravel, bitumen, siltstone.		M	S	Slight hydrocarbon odour, No Staining, No fibro-cement material observed
			0.5		CI	CLAY, medium plasticity, brown/orange/light brown/grey, traces of sand		M	F	No hydrocarbon odour, No Staining, No fibro-cement material observed
			1.0			Borehole BH9 terminated at 1m				
			1.5							
			2.0							
			2.5							
			3.0							

APPENDIX P

CALIBRATION RECORDS



PID Calibration Certificate

Instrument PhoCheck Tiger
Serial No. T-106368



Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6 ev			
Alarms	Beeper	✓	Low	High	TWA	STEL
	Settings	✓	50ppm	100ppm		
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading	
PID Lamp		100ppm Isobutylene	NIST	953SY	99.6ppm	

Calibrated by:

Jacob Arnott

Calibration date:

24/09/2013

Next calibration due:

24/10/2013

APPENDIX Q

REGULATORY CRITERIA



Table 1A (1) Health-based Investigation Levels (mg/kg)

	Residential A	Residential B	Recreational C	Commercial / Industrial D
Metals & Inorganics				
Arsenic (total)	100	500	300	3,000
Beryllium	60	90	90	500
Boron	4,500	40,000	20,000	300,000
Cadmium	20	150	90	900
Chromium (VI)	100	500	300	3,600
Cobalt	100	600	300	4,000
Copper	6,000	30,000	17,000	240,000
Lead	300	1,200	600	1,500
Manganese	3,800	14,000	19,000	60,000
Mercury (inorganic)	40	120	80	730
Methyl mercury	10	30	13	180
Nickel	400	1,200	1,200	6,000
Selenium	200	1,400	700	10,000
Zinc	7,400	60,000	30,000	400,000
Cyanide (free)	250	300	240	1,500
Polycyclic Aromatic Hydrocarbons				
Carcinogenic PAHs (as BaP TEQ)	3	4	3	40
Total PAHs	300	400	300	4,000
Phenols				
Phenols	3,000	45,000	40,000	240,000
Pentachlorophenol	100	130	120	660
Cresols	400	4,700	4,000	25,000
Organochlorine Pesticides				
DDT+DDD+DDE	240	600	400	3,600
Aldrin & Dieldrin	6	10	10	45
Chlordane	50	90	70	530
Endosulfan	270	400	340	2,000
Endrin	10	20	20	100
Heptachlor	6	10	10	50
HCB	10	15	10	80
Methoxychlor	300	500	400	2,500
Mirex	10	20	20	100
Toxaphene	20	30	30	160
Herbicides				
2,4,5-T	600	900	800	5,000
2,4-D	900	1,600	1,300	9,000
MCPA	600	900	800	5,000
MCPB	600	900	800	5,000
Mecoprop	600	900	800	5,000
Picloram	4,500	6,600	5,700	35,000
Other Pesticides				
Atrazine	320	470	400	2,500

Chlorpyrifos	160	340	250	2,000
Bifenthrin	600	840	730	4,500
Other Organics				
PCBs	1	1	1	7
PBDE Flame Retardants (Br1-Br9)	1	2	2	10

Table 1A(3) Soil HSLs for vapour intrusion (mg/kg)

Table 1A(4) Groundwater HSLs for vapour intrusion (mg/L)

	HSL A & HSL B Low - high density residential			HSL C Recreational / open space			HSL D Commercial / industrial			Solubility Limit
Chemical	2 m to <4 m	4 m to <8 m	8 m+	2 m to <4 m	4 m to <8 m	8 m+	2 m to <4 m	4 m to <8 m	8 m+	
SAND										
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	NL	61
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	NL	3.9
Xylenes	NL	NL	NL	NL	NL	NL	NL	NL	NL	21
Naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	NL	0.17
Benzene	0.8	0.8	0.9	NL	NL	NL	5	5	5	59
F1	1	1	1	NL	NL	NL	6	6	7	9.0
F2	1	1	1	NL	NL	NL	NL	NL	NL	3.0
SILT										
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	NL	61
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	NL	3.9
Xylenes	NL	NL	NL	NL	NL	NL	NL	NL	NL	21
Naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	NL	0.17
Benzene	4	5	5	NL	NL	NL	30	30	30	59
F1	6	6	6	NL	NL	NL	NL	NL	NL	9.0
F2	NL	NL	NL	NL	NL	NL	NL	NL	NL	3.0
CLAY										
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	NL	61
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	NL	3.9
Xylenes	NL	NL	NL	NL	NL	NL	NL	NL	NL	21
Naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	NL	0.17
Benzene	5	5	5	NL	NL	NL	30	30	35	59
F1	NL	NL	NL	NL	NL	NL	NL	NL	NL	9.0
F2	NL	NL	NL	NL	NL	NL	NL	NL	NL	3.0

To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction

To obtain F2 subtract naphthalene from the >C6 - C10 fraction

Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil

Zn added contaminant limits (ACL, mg added contaminant/kg)						
Areas of ecological significance						
pH ^a	CEC ^b (cmol/kg)					
	5	10	20	30	40	60
4.0	15	20	20	20	20	20
4.5	20	25	25	25	25	25
5.0	30	40	40	40	40	40
5.5	40	60	60	60	60	60
6.0	50	90	90	90	90	90
6.5	50	90	130	130	130	130
7.0	50	90	130	190	190	190
7.5	50	90	130	210	260	280
Urban residential/public open space ¹						
pH ^a	CEC ^b (cmol/kg)					
	5	10	20	30	40	60
4.0	70	85	85	85	85	85
4.5	100	120	120	120	120	120
5.0	130	180	180	180	180	180
5.5	180	270	270	270	270	270
6.0	230	400	400	400	400	400
6.5	230	400	590	590	590	590
7.0	230	400	700	880	880	880
7.5	230	400	700	960	1200	1300
Commercial/Industrial						
pH ^a	CEC ^b (cmol/kg)					
	5	10	20	30	40	60
4.0	110	130	130	130	130	130
4.5	150	190	190	190	190	190
5.0	210	290	290	290	290	290
5.5	280	420	420	420	420	420
6.0	360	620	620	620	620	620
6.5	360	620	920	920	920	920
7.0	360	620	1100	1400	1400	1400
7.5	360	620	1100	1500	1900	2000

1: Urban residential/public open space is broadly equivalent to the HIL A, HIL B and HIL C land use scenarios in Table 1A(1) Footnote 1 and as described in Schedule B7.

2: Aged values apply to contamination present in soil for at least two years. For fresh contamination refer to Schedule B5c.

3: The EIL is calculated from summing the ACL and the ABC.

a: pH measured using the CaCl₂ method (Rayment & Higginson 1992).

b: CEC measured using the silver thiourea method (Chabra et al. 1972).

Table 1B(2): Soil-specific added contaminant limits for aged copper in soil

Cu added contaminant limits (ACL, mg added contaminant/kg)					
Areas of ecological significance					
CEC (cmol/kg) ^a based					
5	10	20	30	40	60
30	65	70	70	75	80
pH ^b based					
4.5	5.5	6	6.5	7.5	8
20	45	65	90	190	270
Urban residential/public open space ¹					
CEC (cmol/kg) ^a based					
5	10	20	30	40	60
95	190	210	220	220	230
pH ^b based					
4.5	5.5	6	6.5	7.5	8
60	130	190	280	560	800
Commercial/industrial					
CEC (cmol/kg) ^a based					
5	10	20	30	40	60
140	280	300	320	330	340
pH ^b based					
4.5	5.5	6	6.5	7.5	8
85	190	280	400	830	1200

1. Urban residential/public open space is broadly equivalent to the HIL A, HIL B and HIL C land use scenarios in Table 1A(1) Footnote 1 and as described in Schedule B7.
 2. The lower of the CEC or the pH-based ACLs for the land use and soil conditions is the ACL to be used.
 3. Aged values apply to contamination present in soil for at least two years. For fresh contamination refer to Schedule B5c.
 4. The EIL is calculated from summing the ACL and the ABC.
- a = CEC measured using the silver thiourea method (Chabra et al. 1972)
- b = pH measured using the CaCl₂ method (Rayment & Higginson 1992)

Table 1B(3): Soil-specific added contaminant limits for aged chromium III and nickel in soil

CHEMICAL	Clay content (%clay)	Added contaminant limits (mg added contaminant/kg) for various land uses		
		Areas of ecological significance	Urban residential and public open space	Commercial and industrial
Chromium III	1	60	190	310
	2.5	80	250	420
	5	100	320	530
	≥10	130	400	660
Nickel	CEC^a (cmol_c/kg)	Areas of ecological significance	Urban residential and public open space	Commercial and industrial
	5	5	30	55
	10	30	170	290
	20	45	270	460
	30	60	350	600
	40	70	420	730
	60	95	560	960

Notes:

1. Urban residential/public open space is broadly equivalent to the HIL A, HIL B and HIL C land use scenarios in Table 1A(1) Footnote 1 and as described in Schedule B7.
 2. Aged values apply to contamination present in soil for at least two years. For fresh contamination refer to Schedule B5c.
 3. The EIL is calculated from summing the ACL and the ABC.
- a = CEC measured using the silver thiourea method (Chabra et al. 1972)

Table 1B(4): Generic added contaminant limits for lead in soils irrespective of their physicochemical properties

Pb added contaminant limit (ACL, mg added contaminant/kg) for various land uses			
CHEMICAL	Area of ecological significance	Urban residential and public open space	Commercial and industrial
LEAD	470	1100	1800

Notes:

1. Urban residential/public open space is broadly equivalent to the HIL A, HIL B and HIL C land use scenarios in Table 1A(1) Footnote 1 and as described in Schedule B7.
2. Aged values are applicable to lead contamination present in soil for at least two years. For fresh contamination refer to Schedule B5c.
3. The EIL is calculated from summing the ACL and the ABC.

Table 1B(6): ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil

CHEMICAL	Soil texture	ESLs (mg/kg dry soil)		
		Areas of ecological significance	Urban residential and public open space	Commercial and industrial
F1 C6-C10	Coarse/	125*	180*	215*
F2 >C10-C16	Fine	25*	120*	170*
F3 >C16-C34	Coarse	-	300	1700
	Fine	-	1300	2500
F4 >C34-C40	Coarse	-	2800	3300
	Fine	-	5600	6600
Benzene	Coarse	10	50	75
	Fine	10	65	95
Toluene	Coarse	10	85	135
	Fine	65	105	135
Ethylbenzene	Coarse	1.5	70	165
	Fine	40	125	185
Xylenes	Coarse	10	105	180
	Fine	1.6	45	95
Benzo(a)pyrene	Coarse	0.7	0.7	0.7
	Fine	0.7	0.7	0.7

Notes:

ESLs are of low reliability except where indicated by * which indicates that the ESL is of moderate reliability.

'-' indicates that insufficient data was available to derive a value.

To obtain F1, subtract the sum of BTEX concentrations from C6-C10 fraction and subtract naphthalene from >C10-C16 to obtain F2.

Table 1 B(7): Management Limits for TPH fractions F1 - F4 in soil

TPH fraction	Soil texture	Management Limits ¹ (mg/kg dry soil)	
		Residential, parkland and public open space	Commercial and industrial
F1² C6- C10	Coarse	700	700
	Fine	800	800
F2² >C10-C16	Coarse	1000	1000
	Fine	1000	1000
F3 >C16-C34	Coarse	2500	3500
	Fine	3500	5000
F4 >C34-C40	Coarse	10 000	10 000
	Fine	10 000	10 000

Analyte	ANZECC 2000 Freshwater 95%	ANZECC 2000 Freshwater 90%	ANZECC 2000 Marine Water 95%	ANZECC 2000 Marine Water 90%	ANZECC 2000 Recreational Water & Aesthetics	ADWG 2011 Health	Dutch Intervention Value
HEAVY METALS							
Arsenic (III)	24	94	2.3 ^a	ID	50	10	
Arsenic (V)	13	42	4.5 ^a	ID	50	10	
Cadmium	0.2	0.4	5.5	14	5	2	
Chromium (III)	3.3 ^a	ID	27.4	48.6	-	-	
Chromium (VI)	1	6	4.4	20	50	50	
Copper	1.4	1.8	1.3	3	1,000	2,000	
Lead	3.4	5.6	4.4	6.6	50	10	
Mercury (Inorganic)	0.6	1.9	0.4	0.7	-	-	
Mercury (Total)	-	-	-	-	1	1	
Nickel	11	13	70	200	100	20	
Zinc	8	15	15	23	5,000	-	
TOTAL PETROLEUM HYDROCARBONS							
(C6-C36)	-	-	-	-	-	-	600
BTEX							
Benzene	950	1,300	700	900	10	1	
Toluene	180 ^a	230 ^a	180 ^a	ID	-	800	
Ethyl Benzene	80 ^a	110 ^a	5 ^a	ID	-	300	
Xylene (m)	75 ^a	100 ^a	75 ^a	ID	-	-	
Xylene (o)	350	470	350	ID	-	-	
Xylene (p)	200	250	200	ID	-	-	
Total Xylene	-	-	-	-	-	600	
POLYCYCLIC AROMATIC HYDROCARBONS (PAH)							
Anthracene	0.4 ^a	1.5 ^a	0.4 ^a	1.5 ^a	-	-	
Benzo(a)pyrene	0.2 ^a	0.4 ^a	0.2 ^a	0.4 ^a	0.01	0.01	
Fluoranthene	1.4 ^a	1.7 ^a	1.4 ^a	1.7 ^a	-	-	
Naphthalene	16	37	70	90	-	-	
Phenanthrene	2 ^a	4 ^a	2 ^a	4 ^a	-	-	
PAH Total	-	-	-	-	-	0.01	
NON-METALLIC INORGANICS							
Cyanide	7	11	4	7	100	80	
CHLOROBENZENES							
HCB	0.1 ^a	0.2 ^a	0.1 ^a	0.2 ^b	-	0.7	
ORGANOCHLORINE PESTICIDES (OCP)							
Aldrin	0.001 ^a	ID	0.003 ^a	ID	1	0.3	
Chlordane	0.08	0.14	0.001 ^a	ID	6	2	
DDE	0.03 ^a	ID	0.0005 ^a	ID	-	-	
DDT	0.01	0.02	0.0004 ^a	ID	3	9	
Dieldrin	0.01 ^a	ID	0.01 ^a	ID	1	0.3	
Endrin	0.02	0.04	0.008	0.01	1	-	
Endosulfan	0.2	0.6	0.01	0.02	40	20	
Heptachlor	0.09	0.25	0.004 ^a	ID	3	0.3	
Lindane	0.2	0.4	0.007 ^a	ID	10	10	
Methoxychlor	0.005 ^a	ID	0.004 ^a	ID	-		
ORGANOPHOSPHATE PESTICIDES (OPP)							
Azinphos-methyl	0.02	0.05	0.001 ^a	ID	10	30	
Chlorpyrifos	0.01	0.11	0.009	0.04	2	10	
Dichlorvos	-	-	-	-	20	5	
Dimethoate	0.15	0.2	0.15 ^a	ID	100	7	
Diazinon	0.01	0.2	0.01 ^a	ID	10	4	
Fenitrothion	0.2	0.3	0.001 ^a	ID	20	7	
Malathion	0.05	0.2	0.05 ^a	ID	-	-	
Parathion	0.004	0.01	0.004 ^a	ID	30	20	
Bromofos	-	-	-	-	20	-	
Methidathion	-	-	-	-	60	6	
Ethion	-	-	-	-	6	4	
POLYCHLORINATED BIPHENYLS (PCBs)							
Arochlor 1016	0.001 ^a	ID	0.009 ^a	ID	-	-	
Arochlor 1221	1.0 ^a	ID	1.0 ^a	ID	-	-	
Arochlor 1232	0.3 ^a	ID	0.3 ^a	ID	-	-	
Arochlor 1242	0.6	1.0	0.3a	ID	-	-	
Arochlor 1248	0.03 ^a	ID	0.03 ^a	ID	-	-	
Arochlor 1254	0.03	0.07	0.01 ^a	ID	-	-	
Arochlor 1260	25 ^a	ID	ID	ID	-	-	
Arochlor 1262	50 ^a	ID	ID	ID	-	-	
Arochlor 1268	50 ^a	ID	ID	ID	-	-	
Total PCB	ID	ID	ID	ID	0.1	-	
CHLORINATED ALKANES/ALKENES							
1,1-Dichloroethane	90 ^a	ID	250 ^a	ID	-	-	
1,2-Dichloroethane	1,900 ^a	ID	1,900 ^a	ID	-	3	
1,1,1-Trichloroethane	270 ^a	ID	270 ^a	ID	-	-	
1,1,2-Trichloroethane	6,500	7,300	1,900	5,800	-	-	

Analyte	ANZECC 2000 Freshwater 95%	ANZECC 2000 Freshwater 90%	ANZECC 2000 Marine Water 95%	ANZECC 2000 Marine Water 90%	ANZECC 2000 Recreational Water & Aesthetics	ADWG 2011 Health	Dutch Intervention Value
Chloroethene	100 ^a	ID	100 ^a	ID	-	-	
1,1-Dichloroethene	700 ^a	ID	700 ^a	ID	-	30	
1,2-Dichloroethene	-	-	-	-	-	60	
1,1,2- Trichloroethene	330 ^a	ID	330 ^a	ID	-	-	
Tetrachloroethene	70 ^a	ID	70 ^a	ID	-	50	
Vinyl chloride	-	-	-	-	-	0.3	
PHENOLS							
Phenol	320	600	400	520	-	-	
2-chlorophenol	340*	630	340 ^a	ID	-	300	
4-chlorophenol	220	280	220 ^a	ID	-	-	
2,4-dichlorophenol	120*	200	120 ^a	ID	-	200	
2,4,6-trichlorophenol	3*	40	3 ^a	ID	10	20	
2,3,4,6-tetrachlorophenol	10*	25	10 ^a	ID	1	-	
Pentachlorophenol	3.6*	17	22	33	10	10	

Notes:
 All units for trigger values are in µg/L
 a = Interim working values (low reliability) in the absence of reliable trigger values (as referenced from the ANZECC 2000 Guidelines - Section 8.3.7).
 ID = Insufficient Data to derive a reliable trigger value
 * = 99% protection level for slightly to moderately disturbed ecosystem value (as referenced from ANZECC 2000 Guidelines)

Table 11: Health screening levels for asbestos contamination in soil

Form of asbestos	Health Screening Level (w/w)			
	Residential A ¹	Residential B ²	Recreational C ³	Commercial/ Industrial D ⁴
Bonded ACM	0.01%	0.04%	0.02%	0.05%
FA and AF5 (friable asbestos)		0.001%		
All forms of asbestos		No visible asbestos for surface soil		

Notes:

1. Residential A with garden/accessible soil also includes children's day care centres, preschools and primary schools.
2. Residential B with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and apartments.
3. Recreational C includes public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and unpaved footpaths.
4. Commercial/industrial D includes premises such as shops, offices, factories and industrial sites.
5. The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures (refer Section 4.10). This screening level is not applicable to free fibres.

Analyte	NEPM Groundwater Investigation Levels (µg/L)		
	Fresh Waters	Marine Waters	Drinking water)
HEAVY METALS			
Aluminium, Al pH>6.5	55	-	-
Antimony	-	-	3
Arsenic (III)	24	-	10
Arsenic (V)	13	-	10
Barium	-	-	2,000
Beryllium	-	-	60
Boron	370	-	4,000
Cadmium	0.2	0.7	2
Chromium (III)	-	27	-
Chromium (VI)	1	4.4	50
Cobalt	-	1	-
Copper	1.4	1.3	2,000
Lead	3.4	4.4	10
Manganese	1,900	-	500
Mercury (Inorganic)	-	-	-
Mercury (Total)	0.06	0.1	1
Molybdenum	-	-	50
Nickel	11	7	20
Selenium (Total)	5	-	10
Silver	0.05	1.4	100
Tributyl tin (as Sn)	-	0.006	-
Tributyl tin oxide	-	-	1
Uranium	-	-	17
Vanadium	-	100	-
Zinc	8	15	-
NON-METALLIC INORGANICS			
Ammonia (as NH3-N at pH 8)	900	91	-
Bromate	-	-	20
Chloride	-	-	-
Cyanide (as un-ionised Cn)	7	4	80
Fluoride	-	-	1,500
Hydrogen sulphide (un-ionised H2S-S)	1	-	-
Iodide	-	-	500
Nitrate (as NO3)	Refer to guideline	Refer to guideline	-
Nitrite (as NO2)	Refer to guideline	Refer to guideline	3,000
Nitrogen	Refer to guideline	Refer to guideline	-
Phosphorus	Refer to guideline	Refer to guideline	-
Sulphate (as SO4)	-	-	500,000
Organic alcohols/other organics			
Ethanol	1,400	-	-
Ethylenediamine tetra-acetic acid (EDTA)	-	-	250
Formaldehyde	-	-	500

Analyte	NEPM Groundwater Investigation Levels (µg/L)		
	Fresh Waters	Marine Waters	Drinking water)
Nitritotriacetic acid	-	-	200
ANILINES			
Aniline	8	-	-
2,4-Dichloroaniline	7	-	-
3,4-Dichloroaniline	3	150	-
CHLORINATED ALKANES/ALKENES			
Dichloromethane	-	-	4
Trichloromethane (chloroform)	-	-	3
Trihalomethanes (total)	-	-	250
Tetrachloromethane (carbon tetrachloride)	-	-	3
1,2-Dichloroethane	-	-	3
1,1,2-Trichloroethane	6,500	1,900	-
Hexachloroethane	290	-	-
Chloroethene (Vinyl chloride)	-	-	0.3
1,1-Dichloroethene	-	-	30
1,2-Dichloroethene	-	-	60
Tetrachloroethene	-	-	50
Chlorinate Benzenes			
Chlorobenzene	-	-	300
1,2-Dichlorobenzene	160	-	1,500
1,3-Dichlorobenzene	260	-	-
1,4-Dichlorobenzene	60	-	40
1,2,3-Trichlorobenzene	3	-	30 for individual or total
1,2,4-Trichlorobenzene	85	20	
1,3,5-Trichlorobenzene	-	-	
POLYCHLORINATED BIPHENYLS (PCBs)			
Arochlor 1242	0.3	-	-
Arochlor 1254	0.01	-	-
Other Chlorinated Compounds			
Epichlorohydrin	-	-	100
Hexachlorobutadiene	-	-	0.7
Monochloramine	-	-	3
Monocyclic Aromatic Hydrocarbons			
Benzene	950	500	1
Toluene	-	-	800
Ethyl Benzene	-	-	300
Xylene (o)	350	-	600
Xylene (p)	200	-	
Styrene (Vinyl benzene)	-	-	30
POLYCYCLIC AROMATIC HYDROCARBONS (PAH)			
Benzo(a)pyrene	-	-	0.01
Naphthalene	16	50	-
PHENOLS			
Phenol	320	400	-

Analyte	NEPM Groundwater Investigation Levels (µg/L)		
	Fresh Waters	Marine Waters	Drinking water)
2-chlorophenol	340	-	300
4-chlorophenol	220	-	-
2,4-dichlorophenol	120	-	200
2,4,6-trichlorophenol	3	-	20
2,3,4,6-tetrachlorophenol	10	-	-
Pentachlorophenol	3.6	11	10
2,4-Dinitrophenol	45	-	-
PHTHALATES			
Dimethylphthalate	3,700	-	-
Diethylphthalate	1,000	-	-
Dibutylphthalate	10	-	-
Di(2-ethylhexyl) phthalate	-	-	10
PESTICIDES			
Acephate	-	-	8
Aldicarb	-	-	4
Aldrin plus Dieldrin	-	-	0.3
Ametryn	-	-	70
Amitraz	-	-	9
Amitrole	-	-	0.9
Asulam	-	-	70
Atrazine	13	-	20
Azinphos-methyl	-	-	30
Benomyl	-	-	90
Bentazone	-	-	400
Bioresmethrin	-	-	100
Bromacil	-	-	400
Bromoxynil	-	-	10
Captan	-	-	400
Carbaryl	-	-	30
Carbendazim (Thiophanate-methyl)	-	-	90
Carbofuran	0.06	-	10
Carboxin	-	-	300
Carfentrazone-ethyl	-	-	100
Chlorantraniliprole	-	-	6,000
Chlordane	0.03	-	2
Chlorfevinphos	-	-	2
Chlorothalonil	-	-	50
Chlorpyrifos	0.01	0.009	10
Chlorsulfuron	-	-	200
Clopyralid	-	-	2,000
Cyfluthrin, Beta-Cyfluthrin	-	-	50
Cypermethrin isomers	-	-	200
Cyridinil	-	-	90
1,3-Dichloropropene	-	-	100

Analyte	NEPM Groundwater Investigation Levels (µg/L)		
	Fresh Waters	Marine Waters	Drinking water)
2,2-DPA	-	-	500
2,4-D [2,4-dichlorophenoxy acetic acid]	280	-	30
DDT	0.006	-	9
Deltramethrin	-	-	40
Diazinon	0.01	-	4
Dicamba	-	-	100
Dichloroprop	-	-	100
Dichlorvos	-	-	5
Dicofol	-	-	4
Diclofop-methyl	-	-	5
Dieldrin plus Aldrin	-	-	0.3
Diflubenzuron	-	-	70
Dimethoate	0.15	-	7
Diquat	1.4	-	7
Disulfoton	-	-	4
Diuron	-	-	20
Endosulfan	0.03	0.005	20
Endothal	-	-	100
Endrin	0.01	0.004	-
EPTC	-	-	300
Esfenvalerate	-	-	30
Ethion	-	-	4
Ethoprophos	-	-	1
Etridiazole	-	-	100
Fenamiphos	-	-	0.5
Fenarimol	-	-	40
Fenitrothion	0.2	-	7
Fenthion	-	-	7
Fenvalerate	-	-	60
Fipronil	-	-	0.7
Flamprop-methyl	-	-	4
Fluometuron	-	-	70
Fluproponate	-	-	9
Glyphosate	370	-	1,000
Haloxyfop	-	-	1
Heptachlor	0.01	-	-
Heptachlor epoxide	-	-	0.3
Hexazinone	-	-	400
Imazapyr	-	-	9,000
Iprodione	-	-	100
Lindane (γ-HCH)	0.2	-	10
Malathion	0.05	-	70
Mancozeb (as ETU, ethylene thiourea)	-	-	9
MCPA	-	-	40

Analyte	NEPM Groundwater Investigation Levels (µg/L)		
	Fresh Waters	Marine Waters	Drinking water)
Metaldehyde	-	-	20
Metham (as methylisothiocyanate, MITC)	-	-	1
Methidathion	-	-	6
Methiocarb	-	-	7
Methomyl	3.5	-	20
Methyl bromide	-	-	1
Metiram (as ETU, ethylene thiourea)	-	-	9
Metolachlor/s–Metolachlor	-	-	300
Metribuzin	-	-	70
Metsulfuron-methyl	-	-	40
Mevinphos	-	-	6
Molinate	3.4	-	4
Napropamide	-	-	400
Nicarbazin	-	-	1,000
Norflurazon	-	-	50
Omethoate	-	-	1
Oryzalin	-	-	400
Oxamyl	-	-	7
Paraquat	-	-	20
Parathion	0.004	-	20
Parathion methyl	-	-	0.7
Pebulate	-	-	30
Pendimethalin	-	-	400
Pentachlorophenol	-	-	10
Permethrin	-	-	200
Picloram	-	-	300
Piperonyl butoxide	-	-	600
Pirimicarb	-	-	7
Pirimiphos methyl	-	-	90
Polihexanide	-	-	700
Profenofos	-	-	0.3
Propachlor	-	-	70
Propanil	-	-	700
Propargite	-	-	7
Propazine	-	-	50
Propiconazole	-	-	100
Propyzamide	-	-	70
Pyrasulfatole	-	-	40
Pyrazophos	-	-	20
Pyroxsulam	-	-	4,000
Quintozene	-	-	30
Simazine	3.2	-	20
Spirotetramat	-	-	200
Sulprofos	-	-	10

Analyte	NEPM Groundwater Investigation Levels (µg/L)		
	Fresh Waters	Marine Waters	Drinking water)
2,4,5-T	36	-	100
Tebuthiuron	2.2	-	-
Temephos	-	0.05	400
Terbacil	-	-	200
Terbufos	-	-	0.9
Terbuthylazine	-	-	10
Terbutryn	-	-	400
Thiobencarb	2.8	-	40
Thiometon	-	-	4
Thiram	0.01	-	7
Toltrazuril	-	-	4
Toxafene	0.1	-	-
Triadimefon	-	-	90
Trichlorfon	-	-	7
Triclopyr	-	-	20
Trifluralin	2.6	-	90
Vernolate	-	-	40
SURFACTANTS			
Linear alkylbenzene sulfonates (LAS)	280	-	-
Alcohol ethoxylated sulfate (AES)	650	-	-
Alcohol ethoxylated surfactants (AE)	140	-	-

Table 1: Contaminant threshold values (CT1 & CT2) for classifying waste by chemical assessment without the leaching (TCLP) test

For disposal requirements for organic and inorganic chemical contaminants not listed below, contact DECC. Aluminium, barium, boron, chromium (0 and III oxidation states), cobalt, copper, iron, manganese, vanadium and zinc have not been listed with values in this table and need not be tested for.

	Maximum values of <i>specific contaminant concentration</i> (SCC) for classification without TCLP		
Contaminant	General solid waste¹	Restricted solid waste	CAS Registry Number
	CT1 (mg/kg)	CT2 (mg/kg)	
Arsenic	100	400	
Benzene	10	40	71-43-2
Benzo(a)pyrene ²	0.8	3.2	50-32-8
Beryllium	20	80	
Cadmium	20	80	
Carbon tetrachloride	10	40	56-23-5
Chlorobenzene	2000	8000	108-90-7
Chloroform	120	480	67-66-3
Chlorpyrifos	4	16	2921-88-2
Chromium (VI) ³	100	400	
m-Cresol	4000	16000	108-39-4
o-Cresol	4000	16000	95-48-7
p-Cresol	4000	16000	106-44-5
Cresol (total)	4000	16000	1319-77-3
Cyanide (amenable) ⁴	70	280	
Cyanide (total)	320	1280	
2,4-D	200	800	94-75-7
1,2-Dichlorobenzene	86	344	95-50-1
1,4-Dichlorobenzene	150	600	106-46-7
1,2-Dichloroethane	10	40	107-06-2
1,1-Dichloroethylene	14	56	75-35-4
Dichloromethane	172	688	75-09-2
2,4-Dinitrotoluene	2.6	10.4	121-14-2
Endosulfan ⁵	60	240	See below ⁵
Ethylbenzene	600	2400	100-41-4
Fluoride	3000	12000	
Fluroxypyr	40	160	69377-81-7

Waste Classification Guidelines

	Maximum values of <i>specific contaminant concentration</i> (SCC) for classification without TCLP		
Contaminant	General solid waste¹	Restricted solid waste	CAS Registry Number
	CT1 (mg/kg)	CT2 (mg/kg)	
Lead	100	400	
Mercury	4	16	
Methyl ethyl ketone	4000	16000	78-93-3
Moderately harmful pesticides ⁶ (total)	N/A ⁷	N/A ⁷	See below ⁶
Molybdenum	100	400	
Nickel	40	160	
Nitrobenzene	40	160	98-95-3
C6-C9 petroleum hydrocarbons	N/A ⁷	N/A ⁷	
C10-C36 petroleum hydrocarbons	N/A ⁷	N/A ⁷	
Phenol (non-halogenated)	288	1152	108-95-2
Picloram	60	240	1918-02-1
Plasticiser compounds ⁸	20	80	See below ⁸
Polychlorinated biphenyls	N/A ⁷	N/A ⁷	1336-36-3
Polycyclic aromatic hydrocarbons (total)	N/A ⁷	N/A ⁷	
Scheduled chemicals	N/A ⁷	N/A ⁷	
Selenium	20	80	
Silver	100	400	
Styrene (vinyl benzene)	60	240	100-42-5
Tebuconazole	128	512	107534-96-3
1,2,3,4-Tetrachlorobenzene	10	40	634-66-2
1,1,1,2-Tetrachloroethane	200	800	630-20-6
1,1,2,2-Tetrachloroethane	26	104	79-34-5
Tetrachloroethylene	14	56	127-18-4
Toluene	288	1152	108-88-3
1,1,1-Trichloroethane	600	2400	71-55-6
1,1,2-Trichloroethane	24	96	79-00-5
Trichloroethylene	10	40	79-01-6
2,4,5-Trichlorophenol	8000	32000	95-95-4
2,4,6-Trichlorophenol	40	160	88-06-2

	Maximum values of <i>specific contaminant concentration</i> (SCC) for classification without TCLP		
Contaminant	General solid waste¹	Restricted solid waste	CAS Registry Number
	CT1 (mg/kg)	CT2 (mg/kg)	
Triclopyr	40	160	55335-06-3
Vinyl chloride	4	16	75-01-4
Xylenes (total)	1000	4000	1330-20-7

Notes

1. Values are the same for both general solid waste (putrescible) and general solid waste (non-putrescible).
2. There may be a need for the laboratory to concentrate the sample to achieve the TCLP limit value for benzo(a)pyrene with confidence.
3. These limits apply to chromium in the +6 oxidation state only.
4. Analysis for cyanide (amenable) is the established method for assessing potentially leachable cyanide. DECC may consider other methods if it can be demonstrated that these methods yield the same information.
5. Endosulfan (CAS Registry Number 115-29-7) means the total of Endosulfan I (CAS Registry Number 959-98-8), Endosulfan II (CAS Registry Number 891-86-1) and Endosulfan sulfate (CAS Registry Number 1031-07-8).
6. The following moderately harmful pesticides (CAS Registry Number) are to be included in the total values specified:

Atrazine (1912-24-9), Azoxystrobin (131860-33-8), Bifenthrin (82657-04-3), Brodifacoum (56073-10-0), Carboxin (5234-68-4), Copper naphthenate (1338-02-9), Cyfluthrin (68359-37-5), Cyhalothrin (68085-85-8), Cypermethrin (52315-07-08), Deltamethrin (52918-63-5), Dichlofluanid (1085-98-9), Dichlorvos (62-73-7), Difenoconazole (119446-68-3), Dimethoate (60-51-5), Diquat dibromide (85-00-7), Emamectin benzoate (137515-75-4 & 155569-91-8), Ethion (563-12-2), Fenthion (55-38-9), Fenitrothion (122-14-5), Fipronil (120068-37-3), Fluazifop-P-butyl (79241-46-6), Fludioxonil (131341-86-1), Glyphosate (1071-83-6), Imidacloprid (138261-41-3), Indoxacarb (173584-44-6), Malathion (Maldison) (121-75-5), Metalaxyl (57837-19-1), Metalaxyl-M (70630-17-0), Methidathion (950-37-8), 3-Methyl-4-chlorophenol (59-50-7), Methyl chlorpyrifos (5598-13-0), N-Methyl pyrrolidone (872-50-4), 2-octylthiazol-3-one (26530-20-1), Oxyfluorfen (42874-03-3), Paraquat dichloride (1910-42-5), Parathion methyl (298-00-0), Permethrin (52645-53-1), Profenofos (41198-08-7), Prometryn (7287-19-6), Propargite (2312-35-8), Pentachloronitrobenzene (Quintozone) (82-68-8), Simazine (122-34-9), Thiabendazole (148-79-8), Thiamethoxam (153719-23-4), Thiodicarb (59669-26-0) and Thiram (137-26-8).

7. N/A means not applicable, because these contaminants are only assessed using SCC - see Table 2 for SCC criteria.
8. Plasticiser compounds means the total of di-2-ethyl hexyl phthalate (CAS Registry Number 117-81-7) and di-2-ethyl hexyl adipate (CAS Registry Number 103-23-1) contained within a waste.

Table 2: Leachable concentration (TCLP) and specific contaminant concentration (SCC) values for classifying waste by chemical assessment

For disposal requirements for organic and inorganic chemical contaminants not listed below, contact DECC. Aluminium, barium, boron, chromium (0 and III oxidation states), cobalt, copper, iron, manganese, vanadium and zinc have not been listed with values in this table and need not be tested for.

	Maximum values for <i>leachable concentration</i> and <i>specific contaminant concentration</i> when used together				
	General solid waste ¹		Restricted solid waste		
Contaminant	Leachable concentration	Specific contaminant concentration	Leachable concentration	Specific contaminant concentration	CAS Registry Number
	TCLP1 (mg/L)	SCC1 (mg/kg)	TCLP2 (mg/L)	SCC2 (mg/kg)	
Arsenic	5.0 ²	500	20	2000	
Benzene	0.5 ²	18	2	72	71-43-2
Benzo(a)pyrene ³	0.04 ⁴	10	0.16	23	50-32-8
Beryllium	1.0 ⁵	100	4	400	
Cadmium	1.0 ²	100	4	400	
Carbon tetrachloride	0.5 ²	18	2	72	56-23-5
Chlorobenzene	100 ²	3600	400	14400	108-90-7
Chloroform	6 ²	216	24	864	67-66-3
Chlorpyrifos	0.2	7.5	0.8	30	2921-88-2
Chromium (VI) ⁶	5 ²	1900	20	7600	
m-Cresol	200 ²	7200	800	28800	108-39-4
o-Cresol	200 ²	7200	800	28800	95-48-7
p-Cresol	200 ²	7200	800	28800	106-44-5
Cresol (total)	200 ²	7200	800	28800	1319-77-3
Cyanide (amenable) ^{7, 8}	3.5 ⁷	300	14	1200	
Cyanide (total) ⁷	16 ⁷	5900	64	23600	
2,4-D	10 ²	360	40	1440	94-75-7
1,2-Dichlorobenzene	4.3 ²	155	17.2	620	95-50-1
1,4-Dichlorobenzene	7.5 ²	270	30	1080	106-46-7
1,2-Dichloroethane	0.5 ²	18	2	72	107-06-2
1,1-Dichloro-ethylene	0.7 ²	25	2.8	100	75-35-4
Dichloromethane	8.6 ²	310	34.4	1240	75-09-2

	Maximum values for <i>leachable concentration</i> and <i>specific contaminant concentration</i> when used together				
	General solid waste ¹		Restricted solid waste		
Contaminant	Leachable concentration	Specific contaminant concentration	Leachable concentration	Specific contaminant concentration	CAS Registry Number
	TCLP1 (mg/L)	SCC1 (mg/kg)	TCLP2 (mg/L)	SCC2 (mg/kg)	
2,4-Dinitrotoluene	0.13 ²	4.68	0.52	18.7	121-14-2
Endosulfan ⁹	3	108	12	432	See below ⁹
Ethylbenzene	30 ¹⁰	1080	120	4320	100-41-4
Fluoride	150 ¹⁰	10000	600	40000	
Fluroxypyr	2	75	8	300	69377-81-7
Lead	5 ²	1500	20	6000	
Mercury	0.2 ²	50	0.8	200	
Methyl ethyl ketone	200 ²	7200	800	28800	78-93-3
Moderately harmful pesticides ¹¹ (total)	N/A ¹²	250	N/A ¹²	1000	See below ¹¹
Molybdenum	5 ¹⁰	1000	20	4000	
Nickel	2 ¹⁰	1050	8	4200	
Nitrobenzene	2 ²	72	8	288	98-95-3
C6-C9 petroleum hydrocarbons ¹³	N/A ¹²	650	N/A ¹²	2600	
C10-C36 petroleum hydrocarbons ¹³	N/A ¹²	10000	N/A ¹²	40000	
Phenol (non-halogenated)	14.4 ¹⁴	518	57.6	2073	108-95-2
Picloram	3	110	12	440	1918-02-1
Plasticiser compounds ¹⁵	1	600	4	2400	See below ¹⁵
Polychlorinated biphenyls ¹²	N/A ¹²	< 50	N/A ¹²	< 50	1336-36-3
Polycyclic aromatic hydrocarbons (total) ¹⁶	N/A ¹²	200	N/A ¹²	800	
Scheduled chemicals ¹⁷	N/A ¹²	< 50	N/A ¹²	< 50	See below ¹⁷
Selenium	1 ²	50	4	200	

	Maximum values for <i>leachable concentration</i> and <i>specific contaminant concentration</i> when used together				
	General solid waste ¹		Restricted solid waste		
Contaminant	Leachable concentration	Specific contaminant concentration	Leachable concentration	Specific contaminant concentration	CAS Registry Number
	TCLP1 (mg/L)	SCC1 (mg/kg)	TCLP2 (mg/L)	SCC2 (mg/kg)	
Silver	5.0 ²	180	20	720	
Styrene (vinyl benzene)	3 ¹⁰	108	12	432	100-42-5
Tebuconazole	6.4	230	25.6	920	107534-96-3
1,2,3,4-Tetrachloro-benzene	0.5	18	2	72	634-66-2
1,1,1,2-Tetrachloro-ethane	10 ²	360	40	1440	630-20-6
1,1,2,2-Tetrachloro-ethane	1.3 ²	46.8	5.2	187.2	79-34-5
Tetrachloro-ethylene	0.7 ²	25.2	2.8	100.8	127-18-4
Toluene	14.4 ¹⁴	518	57.6	2073	108-88-3
1,1,1-Trichloroethane	30 ²	1080	120	4320	71-55-6
1,1,2-Trichloroethane	1.2 ²	43.2	4.8	172.8	79-00-5
Trichloroethylene	0.5 ²	18	2	72	79-01-6
2,4,5-Trichlorophenol	400 ²	14400	1600	57600	95-95-4
2,4,6-Trichlorophenol	2 ²	72	8	288	88-06-2
Triclopyr	2	75	8	300	55335-06-3
Vinyl chloride	0.2 ²	7.2	0.8	28.8	75-01-4
Xylenes (total)	50 ¹⁸	1800	200	7200	1330-20-7

Notes

1. Values are the same for general solid waste (putrescible) and general solid waste (non-putrescible).
2. See *Hazardous Waste Management System: Identification and Listing of Hazardous Waste – Toxicity Characteristics Revisions, Final Rule* (USEPA 1990) for TCLP levels.
3. There may be a need for the laboratory to concentrate the sample to achieve the TCLP limit value for benzo(a)pyrene with confidence.

4. Calculated from *Hazardous Waste: Identification and Listing – Proposed Rule* (USEPA 1995)
5. Calculated from 'Beryllium' in *The Health Risk Assessment and Management of Contaminated Sites* (DiMarco & Buckett 1996)
6. These limits apply to chromium in the +6 oxidation state only.
7. Taken from the *Land Disposal Restrictions for Newly Identified and Listed Hazardous Wastes and Hazardous Soil: Proposed Rule* (USEPA 1993)
8. Analysis for cyanide (amenable) is the established method used to assess the potentially leachable cyanide. DECC may consider other methods if it can be demonstrated that these methods yield the same information.
9. Endosulfan (CAS Registry Number 115-29-7) means the total of Endosulfan I (CAS Registry Number 959-98-8), Endosulfan II (CAS Registry Number 891-86-1) and Endosulfan sulfate (CAS Registry Number 1031-07-8).
10. Calculated from *Australian Drinking Water Guidelines* (NHMRC 1994)
11. The following moderately harmful pesticides (CAS Registry Number) are to be included in the total values specified:

Atrazine (1912-24-9), Azoxystrobin (131860-33-8), Bifenthrin (82657-04-3), Brodifacoum (56073-10-0), Carboxin (5234-68-4), Copper naphthenate (1338-02-9), Cyfluthrin (68359-37-5), Cyhalothrin (68085-85-8), Cypermethrin (52315-07-08), Deltamethrin (52918-63-5), Dichlofluanid (1085-98-9), Dichlorvos (62-73-7), Difenoconazole (119446-68-3), Dimethoate (60-51-5), Diquat dibromide (85-00-7), Emamectin benzoate (137515-75-4 & 155569-91-8), Ethion (563-12-2), Fenthion (55-38-9), Fenitrothion (122-14-5), Fipronil (120068-37-3), Fluazifop-P-butyl (79241-46-6), Fludioxonil (131341-86-1), Glyphosate (1071-83-6), Imidacloprid (138261-41-3), Indoxacarb (173584-44-6), Malathion (Maldison) (121-75-5), Metalaxyl (57837-19-1), Metalaxyl-M (70630-17-0), Methidathion (950-37-8), 3-Methyl-4-chlorophenol (59-50-7), Methyl chlorpyrifos (5598-13-0), N-Methyl pyrrolidone (872-50-4), 2-octylthiazol-3-one (26530-20-1), Oxyfluorfen (42874-03-3), Paraquat dichloride (1910-42-5), Parathion methyl (298-00-0), Permethrin (52645-53-1), Profenofos (41198-08-7), Prometryn (7287-19-6), Propargite (2312-35-8), Pentachloronitrobenzene (Quintozone) (82-68-8), Simazine (122-34-9), Thiabendazole (148-79-8), Thiamethoxam (153719-23-4), Thiodicarb (59669-26-0) and Thiram (137-26-8).
12. No TCLP analysis is required. Moderately harmful pesticides, petroleum hydrocarbons, polychlorinated biphenyls, polycyclic aromatic hydrocarbons and scheduled chemicals are assessed using SCC1 and SCC2.
13. Approximate range of petroleum hydrocarbon fractions: petrol C6-C9, kerosene C10-C18, diesel C12-C18, and lubricating oils above C18. Laboratory results are reported as four different fractions: C6-C9, C10-C14, C15-C28 and C29-C36. The results of total petroleum hydrocarbons (C10-C36) analyses are reported as a sum of the relevant three fractions. Please note that hydrocarbons are defined as molecules that only contain carbon and hydrogen atoms. Prior to TPH (C10-C36) analysis, cleanup may be necessary to remove non-petroleum hydrocarbon compounds. Where the presence of other materials that will interfere with the analysis may be present, such as oils and fats from food sources, you are advised to treat the extract that has been solvent exchanged to hexane with silica gel as described in *USEPA Method 1664A* (USEPA 1999).
14. Proposed level for phenol and toluene in *Hazardous Waste Management System: Identification and Listing of Hazardous Waste – Toxicity Characteristics Revisions, Final Rule* (USEPA 1990)
15. Plasticiser compounds means the total of di-2-ethyl hexyl phthalate (CAS Registry Number 117-81-7) and di-2-ethyl hexyl adipate (CAS Registry Number 103-23-1) contained within a waste.

16. The following polycyclic aromatic hydrocarbons (CAS number) are assessed as the total concentration of 16 USEPA Priority Pollutant PAHs, as follows:

Polycyclic aromatic hydrocarbons (total)			
PAH name	CAS Registry Number	PAH name	CAS Registry Number
Acenaphthene	83-32-9	Chrysene	218-01-9
Acenaphthylene	208-96-8	Dibenzo(a,h)anthracene	53-70-3
Anthracene	120-12-7	Fluoranthene	206-44-0
Benzo(a)anthracene	56-55-3	Fluorene	86-73-7
Benzo(a)pyrene	50-32-8	Indeno(1,2,3-cd)pyrene	193-39-5
Benzo(b)fluoranthene	205-99-2	Naphthalene	91-20-3
Benzo(ghi)perylene	191-24-2	Phenanthrene	85-01-8
Benzo(k)fluoranthene	207-08-9	Pyrene	129-00-0

17. The following Scheduled Chemicals (CAS Registry Number) are to be included in the total values specified:

Aldrin (309-00-2), Alpha-BHC (319-84-6), Beta-BHC (319-85-7), Gamma-BHC (Lindane) (58-89-9), Delta-BHC (319-86-8), Chlordane (57-74-9), DDD (72-54-8), DDE (72-55-9), DDT (50-29-3), Dieldrin (60-57-1), Endrin (72-20-8), Endrin aldehyde (7421-93-4), Heptachlor (76-44-8), Heptachlor epoxide (1024-57-3), Hexachlorobenzene (118-74-1), Hexachlorophene (70-30-4), Isodrin (465-73-6), Pentachlorobenzene (608-93-5), Pentachloronitrobenzene (82-68-8), Pentachlorophenol (87-86-5), 1,2,4,5-Tetrachlorobenzene (95-94-3), 2,3,4,6 Tetrachlorophenol (58-90-2), 1,2,4-Trichlorobenzene (120-82-1), 2,4,5-Trichlorophenoxyacetic acid, salts and esters (93-76-5).

18. Calculated from *Guidelines for Drinking Water Quality* (WHO 1993)

Table 3: Summary of criteria for chemical assessment to determine waste classification

Waste classification ¹	Criteria ² for classification by chemical assessment (any of the alternative options given)	Comments
General solid waste	1. SCC test values $\leq$ CT1	TCLP test not required
	2. TCLP test values $\leq$ TCLP1 and SCC test values $\leq$ SCC1	
	3. TCLP test values $\leq$ TCLP1 and SCC test values $>$ SCC1 and DECC approves immobilisation ³	Without DECC approval of immobilisation, classify as restricted solid or hazardous (as applicable)
Restricted solid waste	1. SCC test values $\leq$ CT2	TCLP test not required
	2. TCLP1 $<$ TCLP test values $\leq$ TCLP2 and SCC test values $\leq$ SCC2	
	3. TCLP test values $\leq$ TCLP2 and SCC1 $<$ SCC test values $\leq$ SCC2	
	4. TCLP1 $<$ TCLP test values $\leq$ TCLP2 and SCC test values $>$ SCC2 and DECC approves immobilisation ³	Without DECC approval of immobilisation, classify as hazardous
Hazardous waste	1. TCLP test values $>$ TCLP 2	
	2. TCLP test values $\leq$ TCLP2 and SCC test values $>$ SCC2 and no DECC approval for immobilisation	

Notes:

1. See also the general waste classification principles on page 2 for other criteria that must be satisfied before the waste can be classified.
2. These criteria apply to each toxic and ecotoxic contaminant present in the waste (see Tables 1 and 2).
3. In certain cases DECC will consider specific conditions, such as segregation of the waste from all other types of waste in a monofill or monocell in order to achieve a greater margin of safety against a possible failure of the immobilisation in the future. Information about the construction and operation of a monofill/monocell is available in the *Draft Environmental Guidelines for Industrial Waste Landfilling* (EPA 1998).

APPENDIX R

IMPORTANT INFORMATION ABOUT YOUR REPORT





IMPORTANT INFORMATION ABOUT YOUR ENVIRONMENTAL SITE ASSESSMENT

These notes have been prepared by Aargus (Australia) Pty Ltd and its associated companies using guidelines prepared by ASFE (The Association) of Engineering Firms Practising in the Geo-sciences. They are offered to help you in the interpretation of your Environmental Site Assessment (ESA) reports.

REASONS FOR CONDUCTING AN ESA

ESA's are typically, though not exclusively, carried out in the following circumstances:

- as pre-acquisition assessments, on behalf of either purchaser or vender, when a property is to be sold;
- as pre-development assessments, when a property or area of land is to be redeveloped or have its use changed for example, from a factory to a residential subdivision;
- as pre-development assessments of greenfield sites, to establish "baseline" conditions and assess environmental, geological and hydrological constraints to the development of, for example, a landfill; and
- as audits of the environmental effects of an ongoing operation.

Each of these circumstances requires a specific approach to the assessment of soil and groundwater contamination. In all cases however, the objective is to identify and if possible quantify the risks that unrecognised contamination poses to the proposed activity. Such risks may be both financial, for example, cleanup costs or limitations on site use, and physical, for example, health risks to site users or the public.

THE LIMITATIONS OF AN ESA

Although the information provided by an ESA could reduce exposure to such risks, no ESA, however, diligently carried out can eliminate them. Even a rigorous professional assessment may fail to detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled,

or may migrate to areas which showed no signs of contamination when sampled.

AN ESA REPORT IS BASED ON A UNIQUE SET OF PROJECT SPECIFIC FACTORS

Your environmental report should not be used:

- when the nature of the proposed development is changed, for example, if a residential development is proposed instead of a commercial one;
- when the size or configuration of the proposed development is altered;
- when the location or orientation of the proposed structure is modified;
- when there is a change of ownership
- or for application to an adjacent site.

To help avoid costly problems, refer to your consultant to determine how any factors, which have changed subsequent to the date of the report, may affect its recommendations.

ESA "FINDINGS" ARE PROFESSIONAL ESTIMATES

Site assessment identifies actual subsurface conditions only at those points where samples are taken, when they are taken. Data derived through sampling and subsequent laboratory testing are interpreted by geologists, engineers or scientists who then render an opinion about overall subsurface conditions, the nature and extent of contamination, its likely impact on the proposed development and appropriate remediation measures. Actual conditions may differ from those inferred to exist, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than a report indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to help minimise its impact. For this reason owners should retain the services of their consultants

through the development stage, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

SUBSURFACE CONDITIONS CAN CHANGE

Natural processes and the activity of man change subsurface conditions. As an ESA report is based on conditions, which existed at the time of subsurface exploration, decisions should not be based on an ESA report whose adequacy may have been affected by time. Speak with the consultant to learn if additional tests are advisable.

ESA SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND PERSONS

Every study and ESA report is prepared in response to a specific brief to meet the specific needs of specific individuals. A report prepared for a consulting civil engineer may not be adequate for a construction contractor, or even some other consulting civil engineer. Other persons should not use a report for any purpose, or by the client for a different purpose. No individual other than the client should apply a report even apparently for its intended purpose without first conferring with the consultant. No person should apply a report for any purpose other than that originally contemplated without first conferring with the consultant.

AN ESA REPORT IS SUBJECT TO MISINTERPRETATION

Costly problems can occur when design professionals develop their plans based on misinterpretations of an ESA. To help avoid these problems, the environmental consultant should be retained to work with appropriate design professionals to explain relevant findings and to review the adequacy of their plans and specifications relative to contamination issues.

LOGS SHOULD NOT BE SEPARATED FROM THE ENGINEERING REPORT

Final borehole or test pit logs are developed by environmental scientists, engineers or geologists based upon their interpretation of field logs (assembled by site personnel) and laboratory evaluation of field samples. Only final logs customarily included in our reports. These logs should not under any circumstances be redrawn for inclusion in site remediation or other design drawings, because drafters may commit errors or omissions in the transfer process. Although photographic reproduction eliminates this problem, it does nothing to minimise the possibility of contractors misinterpreting the logs during bid preparation. When this occurs, delays, disputes and unanticipated costs are the all-too-frequent result.

To reduce the likelihood of boring log misinterpretation, the complete report must be available to persons or organisations involved in the project, such as contractors, for their use. Those who do not provide such access may proceed under the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing all the available information to persons and organisations such as contractors helps prevent costly construction problems and the adversarial attitudes that may aggravate them to disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY

Because an ESA is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in transmittals. These are not exculpatory clauses designed to foist liabilities onto some other party. Rather, they are definitive clauses that identify where your consultant's responsibilities begin and end. Their use helps all parties involved recognise their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your ESA report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.