PHASE 2 SITE CONTAMINATION ASSESSMENT

19 Queen Street
NARELLAN NSW 2567

GETEX

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PHASE 2 SITE CONTAMINATION ASSESSMENT

CLIENT:	**Primary Health Care** **C/O Shellshear Young Pty Ltd**
SITE:	**19 Queen Street,** **NARELLAN NSW 2567**
REPORT NUMBER:	**9528.01b.TSCA**
DATE OF REPORT:	**17 October 2016**
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1. EXECUTIVE SUMMARY

GETEX PTY LTD was engaged by Shellshear Young Pty Ltd on behalf of Primary Health Care to undertake a Phase 2 Site Contamination Assessment of the property located at 19 Queen Street, NARELLAN NSW 2567 (the Site). The objective of the investigation was to determine the type, extent and level of below ground contamination to determine the likelihood for the Project Area within the Site to be suitable for a proposed development. The Project Area is a proposed development which involves the alterations, additions and fit out for a new medical centre within the existing two storey commercial building. The new facility will generally be contained within the footprint of the existing building. The project includes reconfiguration of the existing external carpark and grounds to provide dedicated parking associated with the medical centre.

The assessment was based on information obtained from a soil and groundwater sampling and analysis regime focusing on the issues that were raised in the Phase 1 Preliminary Site Contamination Investigation Report prepared by Getex (Report No 9528.01.PSCA dated 16th of June 2016).

The scope of the investigation comprised of:

- A review of the Phase 1 Preliminary Site Contamination Investigation Report prepared by Getex Pty Ltd;
- Undertaking a subsurface soil sampling and analysis regime on the Site that included:
    - The collection of samples from 16 locations selected to focus on the soil affected by sources of potential contamination.
    - The following analysis regime:

        i. 41 Samples analysed for Metals (As, Cd, Cr, Cu, Hg, Pb, Ni & Zn);
        ii. 33 Samples analysed for Total Recoverable Hydrocarbons (TRH);
        iii. 33 Samples analysed for Benzene, Toluene, Ethyl Benzene and Xylenes (BTEX);
        iv. 30 Samples analysed for Polycyclic Aromatic Hydrocarbons (PAHs);
        v. 12 Samples analysed for Phenols;
        vi. 4 Samples analysed for Organochloride Pesticides / Organophosphate Pesticides (OCPs/OPPs);
        vii. 8 Samples analysed for Polychlorinated Biphenyls (PCBs);
        viii. 6 Samples analysed for Volatile Organic Compounds (VOCs) (other than BTEX);
        ix. 6 Samples analysed for Ammonia; and
        x. 8 Samples analysed for Asbestos.

- Undertaking a groundwater sampling and analysis regime on the Site that included:
    - The collection of samples from 3 locations selected to focus on migrating groundwater from the former landfill east of the Site.
    - The following analysis regime:

        i. 3 samples analysed for Total Petroleum Hydrocarbons (TPH);
        ii. 3 samples analysed for Benzene Toluene Ethyl-Benzene Xylenes (BTEX);
        iii. 3 sample analysed for Metals;
        iv. 3 sample analysed for Polycyclic Aromatic Hydrocarbons (PAHs);

v. 3 sample analysed for Phenols;
vi. 3 sample analysed for Volatile Organic Compounds (VOCs); and
vii. 3 sample analysed for EC and pH.

- Undertaking a water sampling and analysis regime on the Underground Detention Tank that included:
  - The collection of a water sample from 1 location selected within the Underground Detention Tank
  - The following water analysis regime:

    i. 1 sample analysed for Total Petroleum Hydrocarbons (TPH);
    ii. 1 sample analysed for Benzene Toluene Ethyl-Benzene Xylenes (BTEX);
    iii. 1 sample analysed for Metals;
    iv. 1 sample analysed for Polycyclic Aromatic Hydrocarbons (PAHs);
    v. 1 sample analysed for Phenols;
    vi. 1 sample analysed for Volatile Organic Compounds (VOCs); and
    vii. 1 sample analysed for EC and pH.

- Prepare a report for the purpose of determining the likelihood for the Project Area to be suitable for the proposed development based on the results of the investigation.

- The results from the soil sampling and analysis will also be used to provide a soil classification for offsite disposal of soil.

The investigation was limited to assessing the suitability of the Project Area within the Site as illustrated in Figure 2 of this report.

The soil profile at the Site consisted of a dark brown loam topsoil where no hardstand cover was present. At locations BH6 and BH14 beneath the topsoil was brownish yellow sand with rock fragments and gravel to a depth ranging between 0.8-1.2m. In areas with the bitumen and roadbase ground cover, beneath this cover fill material was encountered to between 0.3m and 1.2m. Strong brown silty clay was then encountered across the Site to between 0.4m and 1.1m followed by shale that generally increased in strength as depth increased.

Groundwater was encountered at depths ranging from 7.5m (GW1), 8m (GW2) and 9.5m (GW1).

Soil samples taken from locations across the Project Area were analysed for a broad range of identified potential contaminants. All chemical contaminant concentrations were below the adopted criteria and PID and Landfill Gas analysis of soil headspace for VOCs and CH_4 respectively was within acceptable levels. As such, the detected chemical contaminant concentrations within soils do not indicate an unacceptable risk to human and environmental health with respect to the proposed future Site use.

Groundwater samples taken from locations along the eastern boundary of the Project Area were analysed for a broad range of identified potential contaminants. All chemical contaminant concentrations were below the adopted criteria with the exception of Copper, Nickel and Zinc. Although the concentration of these metals were detected above the criteria, the levels detected are considered indicative of disturbed urban ecosystems such as the location of the Site which is known to be impacted by metals contamination.

As the depth of the water bearing zone is below the maximum depth of construction works, there is no expected human contact with the groundwater. Therefore it is the opinion of the

consultant that the elevated concentrations of Copper, Nickel and Zinc are acceptable provided:

- The groundwater is not used as a drinking water source; and
- A follow-up groundwater monitoring round is completed prior to construction works commencing for Metals to confirm the metal concentrations within the groundwater.

All detected chemical contaminant concentrations in the water sample collected from the underground detention tank were below the adopted criteria. As such, the detected chemical contaminant concentrations within the underground detention tank water do not indicate a risk to human and environmental health with respect to the proposed future Site use.

Therefore, based on the findings of this investigation and subject to the limitations in Section 4, it is concluded that the Project Area would be suitable for the proposed development

This Executive Summary should be read in conjunction with all sections of this report.

2. BACKGROUND

Shellshear Young Pty Ltd on behalf of Primary Health Care is proposing a project development of the property located at 19 Queen Street, NARELLAN NSW 2567 (the Site). It is the understanding of Getex Pty Ltd that the Site has a total area of approximately 2.2Ha while the Project Area is approximately 6,550m^2. The Project Area is a proposed development involving the alterations, additions and fit out for a new medical centre within the existing two storey commercial building. The new facility will generally be contained within the footprint of the existing building. The project includes reconfiguration of the existing external carpark and grounds to provide dedicated parking associated with the medical centre.

In June 2016 a Phase 1 Preliminary Site Contamination Investigation Report (Getex Report 9528.01.PSCA) was prepared by GETEX Pty Ltd (GETEX). Consequently the report recommended that a Phase 2 Contamination Investigation be undertaken within the soil (and groundwater, if encountered) to confirm the extent of contamination (if any).

3. SCOPE

GETEX PTY LTD was engaged by Shellshear Young Pty Ltd on behalf of Primary Health Care to undertake a Phase 2 Site Contamination Assessment of the property located at 19 Queen Street, NARELLAN NSW 2567 (the Site). The objective of the investigation was to determine the type, extent and level of below ground contamination to determine the likelihood for the Project Area within the Site to be suitable for a proposed development. The Project Area is a proposed development which involves the alterations, additions and fit out for a new medical centre within the existing two storey commercial building. The new facility will generally be contained within the footprint of the existing building. The project includes reconfiguration of the existing external carpark and grounds to provide dedicated parking associated with the medical centre.

The assessment was based on information obtained from a soil and groundwater sampling and analysis regime focusing on the issues that were raised in the Phase 1 Preliminary Site

Contamination Investigation Report prepared by Getex (Report No 9528.01.PSCA dated 16th of June 2016).

The scope of the investigation comprised of:

- A review of the Phase 1 Preliminary Site Contamination Investigation Report prepared by Getex Pty Ltd;
- Undertaking a subsurface soil sampling and analysis regime on the Site that included:
    - The collection of samples from 16 locations selected to focus on the soil affected by sources of potential contamination.
    - The following analysis regime:

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        vii. 8 Samples analysed for Polychlorinated Biphenyls (PCBs);
        viii. 6 Samples analysed for Volatile Organic Compounds (VOCs) (other than BTEX);
        ix. 6 Samples analysed for Ammonia; and
        x. 8 Samples analysed for Asbestos.

- Undertaking a groundwater sampling and analysis regime on the Site that included:
    - The collection of samples from 3 locations selected to focus on migrating groundwater from the former landfill east of the Site.
    - The following analysis regime:

        i. 3 samples analysed for Total Petroleum Hydrocarbons (TPH);
        ii. 3 samples analysed for Benzene Toluene Ethyl-Benzene Xylenes (BTEX);
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        iv. 3 sample analysed for Polycyclic Aromatic Hydrocarbons (PAHs);
        v. 3 sample analysed for Phenols;
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        vii. 3 sample analysed for EC and pH.

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    - The collection of a water sample from 1 location selected within the Underground Detention Tank
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        v. 1 sample analysed for Phenols;
        vi. 1 sample analysed for Volatile Organic Compounds (VOCs); and

vii. 1 sample analysed for EC and pH.

- Prepare a report for the purpose of determining the likelihood for the Project Area to be suitable for the proposed development based on the results of the investigation.
- The results from the soil sampling and analysis will also be used to provide a soil classification for offsite disposal of soil.

4. LIMITATIONS

The investigation conducted was limited in scope. The area considered in the investigation was limited to assessing the suitability of the Project Area within 19 Queen Street, NARELLAN NSW 2567 (the Site) as illustrated in Figure 2 within Section 5 of this report.

The investigation involved the inspection/sampling of a selected number of locations/materials at the time of inspection which may or may not be representative of conditions between the locations/materials assessed. Furthermore conditions on site may also change over time subsequent to the GETEX PTY LTD assessment.

The investigation is limited to a soil assessment depth of 8.0m and groundwater well depth of 10.0m.

As such, although all work is performed to a professional and diligent standard, the potential variance between the practical limitations of the scope of work undertaken, the cost of our services, all possible issues of concern, and any loss or damages which may be associated with our work are such that we cannot warrant that all issues of concern/contamination or potential contamination have been identified. We therefore limit any potential liability associated with our work to the cost of our services.

All work conducted and/or reports/information produced by GETEX PTY LTD are prepared for a specific objective and within a specified scope of work as agreed between the Client and GETEX PTY LTD. As such this document is only for the use of the Client for the intended objective and may not be suitable for any other purpose. No parties other than the client may use this document without first conferring with GETEX PTY LTD. Before passing this document onto a third party, the third party must be informed by the client of any relevant information relating to this document. It is the responsibility of any party using this report to fully check to their satisfaction if this report is suitable for their intended use.

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5. SITE IDENTIFICATION

The investigation area of this assessment is the Project Area within 19 Queen Street, NARELLAN NSW 2567 (the Site), which is located within the Parish of Narellan, County of Cumberland. The local government authority is Camden Council. Camden Council zoned the Site as B2 Local Centre and B5 Business Development within the Camden Local Environment Plan (2010).

The Project Area is depicted in Figure 2 bordered by the red shaded line.

The site identification details are summarised in the following table.

Site Address:	19 Queen Street, NARELLAN NSW 2567
Lot & Deposited Plan:	Lot 2 DP 1085432
Local Government Authority:	Camden Council
Geographical Location (MGA56):	Easting: 291134 Northing: 6230601 (approximately)
Site Area:	Approximately 2.2Ha
Project Area:	Approximately 6,550m^2
Current Land Use:	Former two storey council building with associated carpark
Proposed Land Use:	Two storey Medical Centre with associated carpark

Table 5-1: Site Identification Details

Refer to Figure 1 for the general location of the Site.

*Aerial image derived under license from Google and is indicative of on-ground locations only.

Figure 1. Site Locality Map

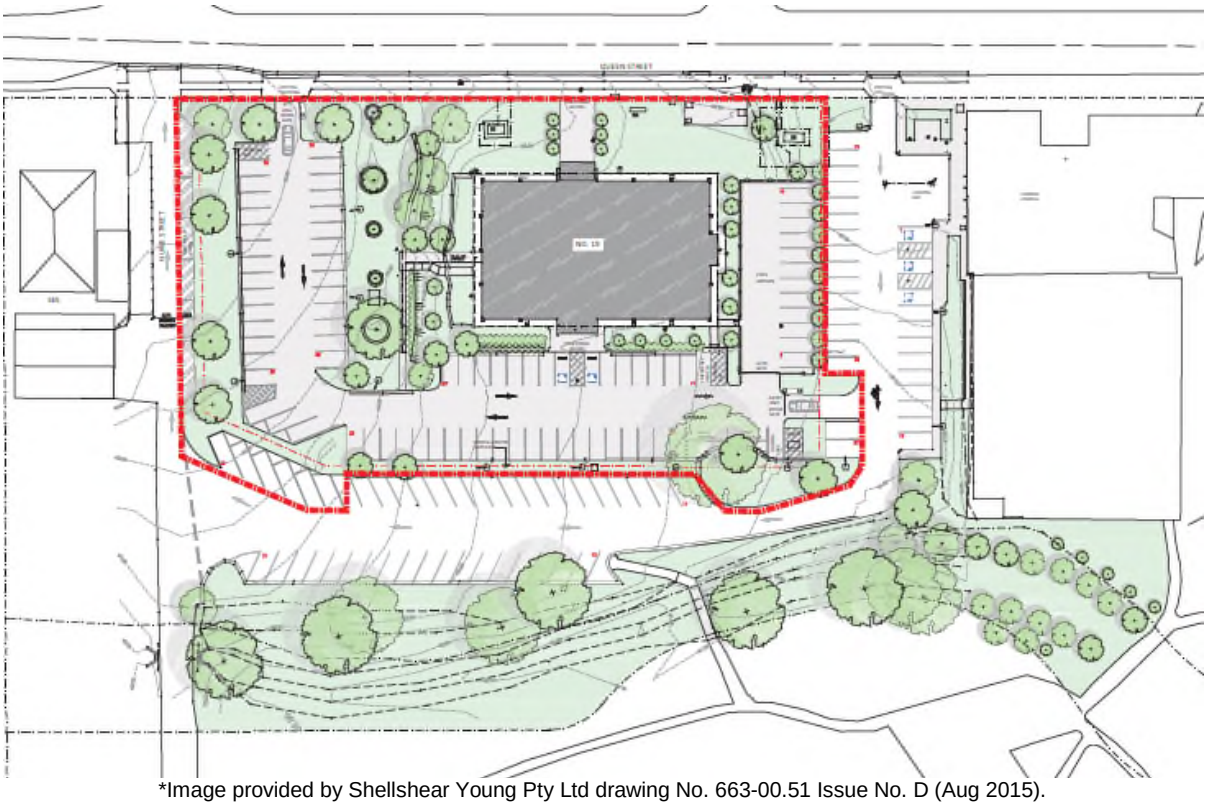

*Image provided by Shellshear Young Pty Ltd drawing No. 663-00.51 Issue No. D (Aug 2015).

Figure 2. Project Area and Proposed Project Plan

6. DESCRIPTION OF SITE AND SURROUNDING ENVIRONMENT

A limited surface walkover inspection of the Site and surrounding area was conducted on the 9th of August 2016. The Site is also identified as Lot 2 DP 1085432. The Site is made up of two multi-storey buildings and one single storey building and a carpark.

The Site is surrounded by a public park, residential houses and a shopping centre.

6.1 Lot 2 DP 1085432

The site walkover confirmed the description of the Site as reported within the Phase 1 Preliminary Site Contamination Investigation Report.

Lot 2 DP 1085432 is currently occupied by two multi-storey buildings and one single storey building. The buildings are occupied/used by Camden Council and the State Emergency Services (SES). The building that occupies the north-west section of the Site is Narellan Library. This building is a modern-looking building built around 2004. The second building was used as a Council building and is located in a central position along the western boundary. The third building was a single storey building used by the SES. All buildings were built from predominantly brick, metal and concrete.

Between the first and second buildings and continuing around the east and south sides of the second building is an asphalt covered carpark. Throughout the carpark are stormwater drains. Directly adjacent east of the carpark, located in a central position, was a pit for an unknown use.

The remaining exposed areas on the Site were covered by either landscape gardens or grass.

Located along the western boundary of the Site, north-west of the second building, was a large underground storage tank (UST). The use of the storage tank is unknown. The vegetation on top of the tank location appeared to be dead.

Two substations were identified along the western boundary of the Site. One substation was located north-west of the second building. The other substation was identified south-west of the second building.

Bordering the east side of the Site was a dry creek bed. Within the creek bed were several discharge points coming from beneath the carpark. Also within the creek was a sewer manhole.

No olfactory indications of contamination were present during the site walkover.

6.2 Surrounding Area

The lands immediately surrounding the Site are a public park, residential houses and a shopping centre.

North of the Site is Elyard Street. On the opposite side of the road is a shopping centre.

The property east of the Site is a public park followed by a former landfill currently used for vehicle parking. Monitoring wells and several soil mounds were observed along the west boundary of this property.

South of the Site are residential properties.

The western boundary of the Site is bound by Queen Street. Opposite the Site are residential properties.

6.3 Proposed Development

The proposed development involves the alterations, additions and fit out for a new medical centre within an existing two storey commercial building. The new facility will generally be contained within the footprint of the existing building. The project includes reconfiguration of the existing external carpark and grounds to provide dedicated parking associated with the medical centre.

7. TOPOGRAPHY, GEOLOGY, HYDROLOGY AND HYDROGEOLOGY

7.1 Topography

As reported in the Phase 1 Preliminary Site Contamination Investigation Report, the Site appears to grade gently down towards the east-northeast to the dry creek bed, however the western boundary grades down towards the west to Queen Street. The properties east of the creek bed, including the former landfill, grade gently down towards the dry creek bed. The overall surrounding area gently grades towards the north.

7.2 Geology

The Soil Landscapes of the Sydney 1:100,000 Sheet maps show the site to be within an area of the Residual Blacktown Soil Landscape.

The Residual Blacktown Soil Landscape is characterised by gently undulating rises on Wianamatta Group shales and Hawkesbury shale. Local relief is up to 30m with slopes usually <5%. The landscape contains broad rounded crests and ridges with gently inclined slopes. Native vegetation is cleared eucalypt woodland and tall open-forest (wet sclerophyll forests). Soils are shallow to moderately deep (<100cm) with red and brown podzolic soil on crests, upper slopes and well-drained areas, yellow podzolic soils and soloths on lower slopes and in areas of poor drainage. Landscape limitations include moderately reactive highly plastic subsoil, low soil fertility and poor soil drainage.

The geology in the area is associated with the following Wianamatta Group Units; Ashfield Shale consisting of laminite and dark grey siltstone; Bringelly Shale which consists of shale with occasional calcareous claystone, laminite and infrequent coal; and Minchinbury Sandstone consisting of fine to medium-grained quartz lithic sandstone.

(Chapman, G.A. and Murphy, C.L., 1989)

From field observations the geological profile was as following:

Fill

Beneath the bitumen and road base the following was encountered:

- Mottled brown and dark grey clay to a depth of 0.4m (BH1);
- Light brown clay to a depth of 0.3m (BH2);
- Light yellowish brown silty clay with rock fragments to a depth ranging between 0.3-0.8m (BH3);
- Light yellowish brown silty sand to a depth of 1.2m (BH5).

Within the grass covered areas the surface soil was dark brown loam topsoil to a depth ranging between 0.1-0.2m.

At locations BH6 and BH14 beneath the topsoil was brownish yellow sand with rock fragments and gravel to a depth ranging between 0.8-1.2m.

Natural Soils

- Strong brown silty clay was encountered across the Site to between 0.4m and 1.1m.

Bedrock

- Shale was encountered in all locations ranging between 0.4m and 1.1m.

Groundwater

- Water bearing zone was encountered at depths ranging from 7.5m (GW1), 8m (GW2) and 9.5m (GW1).

7.3 Hydrology

According to the Phase 1 Preliminary Site Contamination Investigation Report there was a dry creek bed identified along the east boundary of the Site. The creek bed appears to be the natural drainage line for the area.

Within the Site, surface runoff is expected to run towards the east-northeast into drainage located on the eastern edge of the carpark or, where no hardstand is present, into the creek. Along the western boundary of the Site surface runoff is expected to run towards stormwater drains along Queen Street.

The above characteristics were confirmed while onsite during this investigation.

7.4 Hydrogeology

According to the Phase 1 Preliminary Site Contamination Investigation Report there were were four (4) registered bores located within a 500m radius of the Site. However no information regarding water levels was provided. The nearest borehole location providing water information is located approximately 850m north-east. A summary of these bores is presented in Table 7.1.

Bore ID	Use	Approximate Distance from Site	Bore Depth	Water Bearing Zones
GW075057	Monitoring Bore	850m north-east	11m	5-6m
				9-11m
GW113315	Monitoring Bore	50 east	N/A	N/A
GW113316	Monitoring Bore	190 east	N/A	N/A
GW113317	Monitoring Bore	170 east	N/A	N/A
GW113318	Monitoring Bore	70 east	N/A	N/A

Table 7-1: Summary of Groundwater Bores

From field observations the water bearing zone was encountered at depths ranging from 7.5m (GW1), 8m (GW2) and 9.5m (GW1).

8. SITE HISTORY

A detailed site history review of the Site was undertaken by Getex and prepared within the Phase 1 Preliminary Contamination Investigation Report (Report No. 9528.01.PSCA). The known history of the Site is summarised within Table 8.1.

Years	Land Use	Source
1899 – ~1947	Site is farmland	Land Titles, Aerial Photography
~1947 – 1969	Building onsite in south-west corner. Site still for farmland.	Land Titles, Aerial Photography, Council Records
Between 1947-1961 – between 1972-1990	A quarry/extractive activity appears to be the use of the property west of the Site.	Aerial Photography
1969 – ~1975	Site used for a coal analytical laboratory	Land Titles, Aerial Photography, Council Records
1973	Building application for what appears to be the current existing building. Used as an administration and office building	Land Titles, Council Records
Between 1972-1990 – pre 2016	The property west of the Site appears to be used as a landfill.	Aerial Photography, Site Walkover
1997 - ~2000	Site used for a chemical testing laboratory	Council Records
~2000 - Present	Site used for Council office	Land Titles, Site Walkover

Table 8-1: Site History Summary

8.1 SafeWork NSW Records

SafeWork NSW undertook a search for information on licenses to keep dangerous goods for the site. The search of the Stored Chemical Information Database and the microfiche records did not locate any records pertaining to the Site (refer to Appendix VI).

8.2 Contamination Records Pertaining to Landfill Property East of the Site

The Landfill Property is approximately 100m east from the Project Area.

A number of investigations have been completed previously within the Landfill Property East of the Site (3 Elyard Street NARELLAN NSW). These investigations include:

- SMEC, 2003. 1 Elyard Street, Narellan Preliminary Environmental Investigation Final Report. Reference 31342.033;
- Environmental and Earth Sciences (EES), 2004. Detailed Site Assessment of 1 Elyard Street, Narellan, New South Wales. Report No. 104080;
- EES, 2006. Remediation Action Plan for Elyard Garden Residential Development, 1 Elyard Street, Narellan, NSW. Report No 105082_RAP;
- Emerson Associates, July 2011, Elyard Street Joint Venture, No 1 Elyard Street, Narellan, NSW, Groundwater Report. Reference 1111/JE/110706/C;
- DLA Environmental, July 2011. Remediation Action Plan, 1 Elyard Street, Narellan, NSW. Reference DL2664;
- Environmental Investigations, EI (31st January 2012) Former Landfill 1 Elyard Street, Narellan, NSW, Gas And Groundwater Monitoring Investigation. Report No E1445.1 GW; and
- Environmental Investigations, EI (19th November 2015) Remediation Action Plan, 3 Elyard Street, Narellan, NSW. Report No E1445 AT RAP Rev1.

At the time of the above assessments, the Landfill Property comprises two distinct halves.

The northern half was predominantly level and covered in concrete that was a combination of yard areas and building slabs associated with the former use as a Steel Yard and Hardware Store. The former buildings have now been demolished. Discrete and localised stockpiles of demolition rubble (bricks, concrete, asphalt, steel and wood etc.) were present in this half of the property.

The southern half of the Landfill Property is unsurfaced and is occupied by locally vegetated stockpiles of soil materials, which are up to approximately 10m high in places and comprise imported natural excavated materials that may be used to construct a clay cap across the former landfilled portion of the property.

The above assessments identified that the groundwater within the property is contaminated with heavy metals and ammonia. The assessments also identified that the expected groundwater flow was in a north-west direction. Therefore, there is the potential for the contaminated groundwater to migrate into the Project Area.

9. POTENTIAL CONTAMINATION ISSUES

Table 9.1 provides a summary of the potential contamination issues that had been identified which require further investigation involving the collection and chemical analysis of belowground samples in order to determine if the site would be considered suitable, from a contamination perspective, for the proposed development.

Source	Contaminants	Location	Affected Media	Migration Potential	Current Receptors	Current Exposure Pathway	Future Potential Receptors	Future Potential Exposure Pathway
Historical ownership by a car wrecker, transport company, coal analytical laboratory, chemical testing laboratory and farmer/grazier	TRH, BTEX, Metals, PAHs, Phenols, OCP/OPP	Entire Site	Surface soil; Underlying natural soils and bedrock; Groundwater (dependant on depth and ground profile/pathway to contamination source).	Surface water and dust - low potential; Vertical/horizontal migration; Utility Corridor; Groundwater (dependant on depth and ground profile/pathway to contamination source).	Site Occupants; Neighbouring properties; Flora and Fauna; Creek.	Skin contact with potentially contaminated soil; Inhalation of dust particles; Vapour Inhalation; Ingestion of potentially contaminated soil.	Site Occupants; Neighbouring properties; Construction workers; Flora and Fauna; Creek.	Skin contact with potentially contaminated soil; Inhalation of dust particles; Vapour Inhalation; Ingestion of potentially contaminated soil.
Presence of underground detention tank	TRH/BTEX, PAHs, Metals, Phenols, VOCCs	• North-west of second (central) building	Surface soil; Underlying natural soils and bedrock; Groundwater (dependant on depth and ground profile/pathway to contamination source).	Surface water and dust - low potential; Vertical/horizontal migration; Utility Corridor; Groundwater.	Site Occupants; Neighbouring properties; Flora and Fauna; Creek.	Inhalation of dust particles; Vapour Inhalation.	Site Occupants; Neighbouring properties; Construction workers; Flora and Fauna; Creek.	Skin contact with potentially contaminated soil; Inhalation of dust particles; Vapour Inhalation; Ingestion of potentially contaminated soil and groundwater.
Presence of Substations on the Site	PCBs, Metals, Asbestos	Two locations: • North-west of second (central) building; and • South-west of second (central) building	Surface soil; Underlying natural soils and bedrock; Groundwater (dependant on depth and ground profile/pathway to contamination source).	Surface water and dust - low potential; Vertical/horizontal migration; Utility Corridor; Groundwater.	Site Occupants; Neighbouring properties; Flora and Fauna; Creek.	Inhalation of dust particles; Vapour Inhalation.	Site Occupants; Neighbouring properties; Construction workers; Flora and Fauna; Creek.	Skin contact with potentially contaminated soil; Inhalation of dust particles; Ingestion of potentially contaminated soil.

Source	Contaminants	Location	Affected Media	Migration Potential	Current Receptors	Current Exposure Pathway	Future Potential Receptors	Future Potential Exposure Pathway
Potential contamination from former landfill.	TRH, BTEX, PAHs, Metals, Methane, Ammonia, Organic Acids, Alkanes, Sulphides, Nutrients, TDS, TSS	1-3 Elyard Street (adjacent northeast-east of the Site)	Surface soil; Underlying natural soils and bedrock; Surface water; Groundwater (dependant on depth and ground profile/pathway to contamination source).	Surface water and dust - low potential; Vertical/horizontal migration; Groundwater (dependant on depth and ground profile/pathway to contamination source).	Site Occupants; Flora and Fauna; Creek.	Skin contact with potentially contaminated soil and water; Ingestion of potentially contaminated soil and water; Landfill gas inhalation.	Site Occupants; Construction workers; Flora and Fauna; Creek.	Skin contact with potentially contaminated soil and water; Ingestion of potentially contaminated soil and water; Landfill gas inhalation.

Table 9-1: Conceptual Site Model Summary

10. SAMPLING AND ANALYSIS PLAN

10.1 Data Quality Objectives

The methodology employed to design an appropriate sampling and analysis plan for this investigation involves firstly defining the Data Quality Objectives (DQOs) for the sampling (Sections 10.1.1 to 10.1.6), then selecting a sampling strategy (Section 10.1.7) and corresponding sampling points (Section 10.2) to best achieve the DQOs. This methodology is described in sequence in the following sections.

10.1.1 State the Problem

The Phase 1 Preliminary Contamination Investigation Report has identified the potential for Site contamination conditions to occur at the Site which may impact upon the suitability of the Project Area for the proposed development of alterations, additions and fit out for a new medical centre within an existing two storey commercial building, including reconfiguration of the existing external carpark and grounds to provide dedicated parking associated with the medical centre (**Section 9**).

The former landfill east of the Site contains contaminated groundwater. Due to expected groundwater flow directions, there is the potential for the contaminated groundwater to migrate into the Project Area.

Assessment of contamination conditions is necessary to assess the presence of below ground contamination of the Project Area and draw conclusions regarding if there is contamination that will affect the suitability, or otherwise, for the Project Area to be used as a Medical Centre.

Information on Site contamination conditions presented in earlier sections of this report resulted in the conceptual site contamination model presented in **Section 9** of this report.

10.1.2 Identify the Decision

Based on the decision making process for assessing urban redevelopment sites detailed in *Guidelines for the NSW Site Auditor Scheme (2nd edition),* Department of Environment and Conservation (April 2006), and the recommendations within the Phase 1 Preliminary Contamination Investigation Report, the following decisions were required to be made as part of the Site assessment:

- Is there any contamination within the Project Area soil that will pose a risk to future onsite and offsite receptors?
- Is there any contamination within the Project Area groundwater that will pose a risk to future onsite and offsite receptors?
- Is there any contamination within the underground detention tank that will pose a risk to future onsite and offsite receptors?

10.1.3 Identify Inputs into the Decision

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

- The Site description and history as provided in **Section 6, 7 and 8** respectively;
- Potential contamination issues as described in **Section 9**;
- Visual and olfactory indications;
- PID and Landfill Gas screening data in **Appendix II**;
- Soil environmental data as collected by soil sampling and analysis in **Appendix III**;
- Groundwater environmental data as collected by groundwater sampling and analysis in **Appendix III**;
- Soil and water criteria to be achieved on the Site as based on a proposed future land-use as defined by assessment criteria prepared in **Section 11**; and
- Confirmation that data generated by sample analysis are of a sufficient quality to allow reliable comparison to assessment criteria as undertaken by assessment of quality assurance / quality control as per the data quality indicators established in **Sections 10.1.6 & 12 and Appendix V**.

10.1.4 Define the Study Boundaries

The study area is defined as the Project Area within 19 Queen Street, NARELLAN NSW 2567 as shown in **Figure 2**. The area is approximately 6,550m^2.

The vertical extent of the soil investigation was to a maximum depth of 8.0m below the existing ground level.

Groundwater monitoring wells were installed to a depth of 10.0m below the existing ground level.

Due to the nature of potential contaminants identified and project deadline requirements, seasonality and other temporal variables were not assessed as part of this investigation.

The temporal boundaries of this investigation are limited to the period of field investigation during August 2016 and September 2016 and reported during October 2016.

10.1.5 Develop a Decision Rule

Soil analytical data was assessed against NSW Environmental Protection Authority (EPA) endorsed criteria including:

- *National Environment Protection (Assessment of Site Contamination) Measure,* National Environment Protection Council, 1999, as amended 2013.

The decision rules adopted to answer the decisions identified in **Section 10.1.2** are summarised in the following table.

Decision Required to be Made	Decision Rule
1. Is there any contamination within the Site soil that will pose a risk to future onsite and offsite receptors?	*Soil analytical data will be compared against EPA endorsed criteria.* *Statistical analyses of the data in accordance with relevant guidance documents will be undertaken, if appropriate, to facilitate the decisions.* *The following statistical criteria will be adopted with respect to soils:* *Either: the reported concentrations are all below the site criteria;* *Or: the average site concentration for each analyte must be below the adopted site criterion; no single analyte concentration exceeds 250% of the adopted site criterion; and the standard deviation of the results must be less than 50% of the site criteria.* *And: the 95% upper confidence limit (UCL) of the average concentration for each analyte must be below the adopted site criterion as per the NSW EPA Contaminated Sites - Sampling Design Guidelines, 1995.* *If the statistical criteria stated above are satisfied, the decision is No.* *If the statistical criteria are not satisfied, the decision is Yes.*
2. Is there any contamination within the Site groundwater that will pose a risk to future onsite and offsite receptors?	*Soil analytical data will be compared against EPA endorsed criteria.* *Statistical analyses of the data in accordance with relevant guidance documents will be undertaken, if appropriate, to facilitate the decisions.* *The following statistical criteria will be adopted with respect to groundwater:* *The average site concentration for each analyte must be below the adopted site criterion; no single analyte concentration exceeds the adopted site criterion.* *If the statistical criteria stated above are satisfied, the decision is No.* *If the statistical criteria are not satisfied, the decision is Yes.*
3. Is there any contamination within the underground detention tank that will pose a risk to future onsite and offsite receptors?	*Water analytical data will be compared against ANZECC endorsed criteria.* *Statistical analyses of the data in accordance with relevant guidance documents will be undertaken, if appropriate, to facilitate the decisions.* *The following statistical criteria will be adopted with respect to water: the reported concentrations are all below the criteria.* *If the statistical criteria stated above are satisfied, the decision is No.* *If the statistical criteria are not satisfied, the decision is Yes.*

Table 10-1: Decision Rules

10.1.6 Specify Limits on Decision Errors

The DQOs for the assessment of the laboratory analytical data include the following conditions:

- Maximum sample holding times for organics were 14 days. Metals and metalliods holding times were 6 months. Mercury (Hg) holding time was 28 days;
- Sample preservation and handling were conducted in accordance with industry accepted standards;
- All sample analyses were conducted by NATA accredited laboratories;
- Laboratory blank analysis to be below PQLs; and
- The relative percentage difference (RPD) of duplicates/replicates and percent recoveries of control spikes to be calculated and compared to the following criteria:
    - Less than 30% for field replicates;
    - Less than 40% for internal duplicate samples and less than 44% on duplicates with 10 times the limit of reporting; and
    - 75-125% recovery for internal recovery samples.

Results Accuracy	
Adequate Sampling Density	Sampling locations were selected in accordance with procedures outlined within NSW EPA Contaminated Sites: Sampling Design Guidelines, 1995.
Acceptable field and laboratory Relative Percentage Difference (RPD) for duplicate comparison	<30% inorganics and <50% for organics and low concentration analytes for field replicates <40% for internal duplicate samples and <44% on duplicates with 10 times the limit of reporting.
Trip Spikes	Recoverable concentrations of analytes between 75 – 125%.
Adequate laboratory performance	Based on acceptance criteria of laboratory as specified on certificate of analysis: includes: blank samples, matrix spikes, control samples, and surrogate spike samples .
Results Suitability	
Sample type and analyte selection	Sample types and analytes selected to reflect all potential sources.
Trip Spikes	Recoverable concentrations of analytes between 75 – 125%.
Duplicate Samples	One duplicate and split replicate per 20 samples.
Laboratory selection	Laboratory internal quality control and quality assurance methods comply with appropriate standards.
Documentation	
Chain of Custody records	Laboratory sample receipt information received confirming receipt of samples intact and appropriate chain of custody.
	NATA registered laboratory results certificates provided.
Comparability	
	Use of NATA registered laboratories.
	Test methods consistent for each sample in accordance with the Sampling and Analysis Plan.

	Detailed records of all field work including borehole logs, sample data and groundwater monitoring data.
	Ensure test methods used between primary and secondary lab are equivalent.
	Acceptable RPD's for all replicates and laboratory duplicates.

Table 10-2: Sampling and Analysis DQO Summary

10.1.7 Optimise the Design for Obtaining Data

Various strategies for developing a statistically based sampling plan are identified in NSW EPA Contaminated Sites - Sampling Design Guidelines, 1995, including judgemental, random, systematic and stratified sampling patterns.

Since the Phase 1 Preliminary Contamination Investigation Report stated that the potential contaminants are potentially throughout the Site, systematic sampling by an orthogonal grid across the Site was considered to be the most appropriate for the current investigation.

Additional sample locations were also conducted surrounding point sources of potential contamination (e.g. substations and UST).

Soil samples were collected using a drill rig with solid flight auger technique at selected locations across the Project Area at multiple depths within fill and natural material (up to a maximum depth of 8 metres) to allow for evaluation of the strata as recommended in the Phase 1 Preliminary Contamination Investigation Report.

The former landfill east of the Site contains contaminated groundwater. Due to expected groundwater flow directions, there is the potential for the contaminated groundwater to migrate into the Project Area.

Groundwater wells were installed along the eastern boundary of the Project Area to intersect potentially contaminated groundwater from the former landfill east of the Site.

A water sample was collected from the water detention tank.

Based upon the objectives of this investigation and the recommendations from the Phase 1 Preliminary Contamination Investigation Report, the density of the investigation to be undertaken as part of this investigation is considered appropriate.

10.2 Soil Sampling Program

Justin Thompson-Laing of Getex Pty Ltd attended the site on the 9th and 10th of August 2016.

The soil profile at the Site consisted of a dark brown loam topsoil where no hardstand cover was present. At locations BH6 and BH14 beneath the topsoil was brownish yellow sand with rock fragments and gravel to a depth ranging between 0.8-1.2m. Beneath the bitumen and roadbase fill material was encountered to between 0.3m and 1.2m. Strong brown silty clay was then encountered across the Site to between 0.4m and 1.1m followed by shale that generally increased in strength as depth increased.

Saturated soil was encountered at depths ranging from 6.4m (BH3) and 7.3m (BH5).

No olfactory indications of contamination were noted during the site visits. In addition, no visible signs of contamination such as asbestos, unnatural discoloration or major hydro-carbon related stains were present on the ground surface.

A Photo-Ionisation Detector (PID) was used to screen soils via head space analysis for VOCs at 1m intervals at each sampling location. A Landfill Gas Analyser was used to screen soils via head space analysis for CH_4 and H_2S at 1m intervals at sampling locations along the eastern boundary. Small samples of soil were collected and placed within zip-loc plastic bags, each bag was then sealed. Samples were then disturbed to release any gas held within the void space between grains. The PID and Landfill Gas Analyser intake were then inserted into the bag via a small gap and the VOC, CH_4 and H_2S levels were recorded. Results are noted within the Borehole Logs in Appendix II.

The following table presents a summary of the locations for the eighty-eight (88) samples collected and analysed within the Site. Please refer to **Appendix I** for the Site Map and **Appendix II** for Borehole Logs.

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/BH1/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 8.5m north of the southern carpark's southern boundary and 2m east of the eastern inner carpark's western boundary. (BH1)	TRH/BTEX, PAHs, Metals, Phenols
9528/BH1/1.0	Primary Sample	Sample taken at a depth of 1m at a location 8.5m north of the southern carpark's southern boundary and 2m east of the eastern inner carpark's western boundary. (BH1)	PAHs, Metals
9528/BH1/2.0	Primary Sample	Sample taken at a depth of 2m at a location 8.5m north of the southern carpark's southern boundary and 2m east of the eastern inner carpark's western boundary. (BH1)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH1/3.0	Primary Sample	Sample taken at a depth of 3m at a location 8.5m north of the southern carpark's southern boundary and 2m east of the eastern inner carpark's western boundary. (BH1)	TRH/BTEX, PAHs, Phenols, VOCs
9528/BH1/4.0	Primary Sample	Sample taken at a depth of 4m at a location 8.5m north of the southern carpark's southern boundary and 2m east of the eastern inner carpark's western boundary. (BH1)	TRH/BTEX, Metals
9528/BH2/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 39m south of eastern inner carpark's exit and 5m west of eastern inner carpark's eastern boundary. (BH2)	TRH/BTEX, PAHs, VOCs

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/BH2/1.0	Primary Sample	Sample taken at a depth of 1m at a location 39m south of eastern inner carpark's exit and 5m west of eastern inner carpark's eastern boundary. (BH2)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH2/2.0	Primary Sample	Sample taken at a depth of 2m at a location 39m south of eastern inner carpark's exit and 5m west of eastern inner carpark's eastern boundary. (BH2)	PAHs, Metals
9528/BH2/3.0	Primary Sample	Sample taken at a depth of 3m at a location 39m south of eastern inner carpark's exit and 5m west of eastern inner carpark's eastern boundary. (BH2)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH2/4.0	Primary Sample	Sample taken at a depth of 4m at a location 39m south of eastern inner carpark's exit and 5m west of eastern inner carpark's eastern boundary. (BH2)	TRH/BTEX, Metals
9528/BH3/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 15m south of eastern inner carpark's exit and 5.5m west of eastern inner carpark's eastern boundary. (BH3)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH3/1.0	Primary Sample	Sample taken at a depth of 1m at a location 15m south of eastern inner carpark's exit and 5.5m west of eastern inner carpark's eastern boundary. (BH3)	TRH/BTEX
9528/BH3/2.0	Primary Sample	Sample taken at a depth of 2m at a location 15m south of eastern inner carpark's exit and 5.5m west of eastern inner carpark's eastern boundary. (BH3)	TRH/BTEX, PAHs, Metals
9528/BH3/3.0	Primary Sample	Sample taken at a depth of 3m at a location 15m south of eastern inner carpark's exit and 5.5m west of eastern inner carpark's eastern boundary. (BH3)	TRH/BTEX, PAHs, Metals, Phenols
9528/BH3/4.0	Primary Sample	Sample taken at a depth of 4m at a location 15m south of eastern inner carpark's exit and 5.5m west of eastern inner carpark's eastern boundary. (BH3)	PAHs, Metals
9528/BH4/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 2.5m south and 2m east of the entry ramp to the building. (BH4)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH4/1.0	Primary Sample	Sample taken at a depth of 1m at a location 2.5m south and 2m east of the entry ramp to the building. (BH4)	TRH/BTEX, PAHs, Phenols, VOCs

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/BH4/2.0	Primary Sample	Sample taken at a depth of 2m at a location 2.5m south and 2m east of the entry ramp to the building. (BH4)	TRH/BTEX, Metals
9528/BH4/3.0	Primary Sample	Sample taken at a depth of 3m at a location 2.5m south and 2m east of the entry ramp to the building. (BH4)	TRH/BTEX, PAHs, VOCs
9528/BH4/4.0	Primary Sample	Sample taken at a depth of 4m at a location 2.5m south and 2m east of the entry ramp to the building. (BH4)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH5/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 4m north of eastern inner carpark's southern boundary and 2m east of eastern inner carpark's western boundary. (BH5)	PAHs, Metals
9528/BH5/1.0	Primary Sample	Sample taken at a depth of 1m at a location 4m north of eastern inner carpark's southern boundary and 2m east of eastern inner carpark's western boundary. (BH5)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH5/2.0	Primary Sample	Sample taken at a depth of 2m at a location 4m north of eastern inner carpark's southern boundary and 2m east of eastern inner carpark's western boundary. (BH5)	TRH/BTEX, Metals
9528/BH5/3.0	Primary Sample	Sample taken at a depth of 3m at a location 4m north of eastern inner carpark's southern boundary and 2m east of eastern inner carpark's western boundary. (BH5)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH5/4.0	Primary Sample	Sample taken at a depth of 4m at a location 4m north of eastern inner carpark's southern boundary and 2m east of eastern inner carpark's western boundary. (BH5)	TRH/BTEX
9528/BH5/7.4	Primary Sample	Sample taken at a depth of 7.4m at a location 4m north of eastern inner carpark's southern boundary and 2m east of eastern inner carpark's western boundary. (BH5)	TRH/BTEX, PAHs, Metals
9528/BH6/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 3m north and 1m west of north-east corner of the building. (BH6)	TRH/BTEX, PAHs, Metals, Phenols
9528/BH6/1.0	Primary Sample	Sample taken at a depth of 1m at a location 3m north and 1m west of north-east corner of the building. (BH6)	PAHs, Metals
9528/BH6/2.0	Primary Sample	Sample taken at a depth of 1m at a location 3m north and 1m west of north-east corner of the building. (BH6)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH6/3.0	Primary Sample	Sample taken at a depth of 1m at a location 3m north and 1m west of north-east corner of the building. (BH6)	TRH/BTEX, PAHs, Phenols, VOCs

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/BH6/4.0	Primary Sample	Sample taken at a depth of 4m at a location 3m north and 1m west of north-east corner of the building. (BH6)	TRH/BTEX, Metals
9528/BH7/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 6.5m east of footpath and 1m south of southern carpark. (BH7)	TRH/BTEX, PAHs, VOCs
9528/BH7/1.0	Primary Sample	Sample taken at a depth of 1m at a location 6.5m east of footpath and 1m south of southern carpark. (BH7)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH7/2.0	Primary Sample	Sample taken at a depth of 2m at a location 6.5m east of footpath and 1m south of southern carpark. (BH7)	PAHs, Metals
9528/BH7/3.0	Primary Sample	Sample taken at a depth of 3m at a location 6.5m east of footpath and 1m south of southern carpark. (BH7)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH7/4.0	Primary Sample	Sample taken at a depth of 4m at a location 6.5m east of footpath and 1m south of southern carpark. (BH7)	TRH/BTEX, Metals
9528/BH8/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 24m east of footpath and 2m south of northern carpark's southern boundary. (BH8)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH8/1.0	Primary Sample	Sample taken at a depth of 1m at a location 24m east of footpath and 2m south of northern carpark's southern boundary. (BH8)	TRH/BTEX
9528/BH8/2.0	Primary Sample	Sample taken at a depth of 2m at a location 24m east of footpath and 2m south of northern carpark's southern boundary. (BH8)	TRH/BTEX, PAHs, Metals
9528/BH8/3.0	Primary Sample	Sample taken at a depth of 3m at a location 24m east of footpath and 2m south of northern carpark's southern boundary. (BH8)	TRH/BTEX, PAHs, Metals, Phenols
9528/BH8/4.0	Primary Sample	Sample taken at a depth of 4m at a location 24m east of footpath and 2m south of northern carpark's southern boundary. (BH8)	PAHs, Metals
9528/BH9/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 4.5m east from footpath and 4.5m south of the building. (BH9)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH9/1.0	Primary Sample	Sample taken at a depth of 1m at a location 4.5m east from footpath and 4.5m south of the building. (BH9)	TRH/BTEX, PAHs, Phenols, VOCs
9528/BH9/2.0	Primary Sample	Sample taken at a depth of 2m at a location 4.5m east from footpath and 4.5m south of the building. (BH9)	TRH/BTEX, Metals
9528/BH9/3.0	Primary Sample	Sample taken at a depth of 3m at a location 4.5m east from footpath and 4.5m south of the building. (BH9)	TRH/BTEX, PAHs, VOCs

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/BH9/4.0	Primary Sample	Sample taken at a depth of 4m at a location 4.5m east from footpath and 4.5m south of the building. (BH9)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH9a/0.1	Primary Sample	Sample taken at a depth of 0.1m at a location adj south of the southern substation. (BH9a)	PAHs, Metals
9528/BH10/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 6.5m east of footpath and 4.5m north of the southern substation. (BH10)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH10/1.0	Primary Sample	Sample taken at a depth of 1m at a location 6.5m east of footpath and 4.5m north of the southern substation. (BH10)	TRH/BTEX, Metals
9528/BH10/2.0	Primary Sample	Sample taken at a depth of 2m at a location 6.5m east of footpath and 4.5m north of the southern substation. (BH10)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH10/3.0	Primary Sample	Sample taken at a depth of 3m at a location 6.5m east of footpath and 4.5m north of the southern substation. (BH10)	TRH/BTEX
9528/BH10/4.0	Primary Sample	Sample taken at a depth of 4m at a location 6.5m east of footpath and 4.5m north of the southern substation. (BH10)	TRH/BTEX, PAHs, Metals
9528/BH10a/0.1	Primary Sample	Sample taken at a depth of 0.1m at a location adj north of southern substation. (BH10a)	PAHs, Metals
9528/BH11/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 2m south of northern carpark's southern boundary and 10m east of footpath. (BH11)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH11/1.0	Primary Sample	Sample taken at a depth of 1m at a location 2m south of northern carpark's southern boundary and 10m east of footpath. (BH11)	TRH/BTEX, PAHs, Phenols, VOCs
9528/BH11/2.0	Primary Sample	Sample taken at a depth of 2m at a location 2m south of northern carpark's southern boundary and 10m east of footpath. (BH11)	TRH/BTEX, Metals
9528/BH11/3.0	Primary Sample	Sample taken at a depth of 3m at a location 2m south of northern carpark's southern boundary and 10m east of footpath. (BH11)	TRH/BTEX, PAHs, VOCs
9528/BH11/4.0	Primary Sample	Sample taken at a depth of 4m at a location 2m south of northern carpark's southern boundary and 10m east of footpath. (BH11)	TRH/BTEX, PAHs, Metals, Phenols, VOCs

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/BH12/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 5.5m east of footpath and 2m south of northern carpark's southern boundary. (BH12)	PAHs, Metals
9528/BH12/1.0	Primary Sample	Sample taken at a depth of 1m at a location 5.5m east of footpath and 2m south of northern carpark's southern boundary. (BH12)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH12/2.0	Primary Sample	Sample taken at a depth of 2m at a location 5.5m east of footpath and 2m south of northern carpark's southern boundary. (BH12)	TRH/BTEX, Metals
9528/BH12/3.0	Primary Sample	Sample taken at a depth of 3m at a location 5.5m east of footpath and 2m south of northern carpark's southern boundary. (BH12)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH12/4.0	Primary Sample	Sample taken at a depth of 4m at a location 5.5m east of footpath and 2m south of northern carpark's southern boundary. (BH12)	TRH/BTEX
9528/BH13/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 5m east of footpath and 9m south of north-west corner of the building. (BH13)	TRH/BTEX, PAHs, Metals
9528/BH13/1.0	Primary Sample	Sample taken at a depth of 1m at a location 5m east of footpath and 9m south of north-west corner of the building. (BH13)	TRH/BTEX, PAHs, Metals, Phenols
9528/BH13/1.0	Primary Sample	Sample taken at a depth of 1m at a location 5m east of footpath and 9m south of north-west corner of the building. (BH13)	PAHs, Metals
9528/BH13/2.0	Primary Sample	Sample taken at a depth of 2m at a location 5m east of footpath and 9m south of north-west corner of the building. (BH13)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH13/3.0	Primary Sample	Sample taken at a depth of 3m at a location 5m east of footpath and 9m south of north-west corner of the building. (BH13)	TRH/BTEX, PAHs, Phenols, VOCs
9528/BH13/4.0	Primary Sample	Sample taken at a depth of 4m at a location 5m east of footpath and 9m south of north-west corner of the building. (BH13)	TRH/BTEX, Metals
9528/BH14/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 4.5m west and 3m north of north-west corner of the building. (BH14)	TRH/BTEX, PAHs, VOCs

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/BH14/1.0	Primary Sample	Sample taken at a depth of 1m at a location 4.5m west and 3m north of north-west corner of the building. (BH14)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH14/2.0	Primary Sample	Sample taken at a depth of 2m at a location 4.5m west and 3m north of north-west corner of the building. (BH14)	PAHs, Metals
9528/BH14/3.0	Primary Sample	Sample taken at a depth of 3m at a location 4.5m west and 3m north of north-west corner of the building. (BH14)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH14/4.0	Primary Sample	Sample taken at a depth of 4m at a location 4.5m west and 3m north of north-west corner of the building. (BH14)	TRH/BTEX, Metals
9528/BH15/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 5m east of footpath and 15m south of north-west corner of the building. (BH15)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH15/1.0	Primary Sample	Sample taken at a depth of 1m at a location 5m east of footpath and 15m south of north-west corner of the building. (BH15)	TRH/BTEX
9528/BH15/2.0	Primary Sample	Sample taken at a depth of 2m at a location 5m east of footpath and 15m south of north-west corner of the building. (BH15)	TRH/BTEX, PAHs, Metals
9528/BH15/3.0	Primary Sample	Sample taken at a depth of 3m at a location 5m east of footpath and 15m south of north-west corner of the building. (BH15)	TRH/BTEX, PAHs, Metals, Phenols
9528/BH15/4.0	Primary Sample	Sample taken at a depth of 4m at a location 5m east of footpath and 15m south of north-west corner of the building. (BH15)	PAHs, Metals
9528/BH16/0.2-0.3	Primary Sample	Sample taken at a depth of 0.2-0.3m at a location 3m east of footpath and 7m north of north-west corner of the building. (BH16)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH16/1.0	Primary Sample	Sample taken at a depth of 1m at a location 3m east of footpath and 7m north of north-west corner of the building. (BH16)	TRH/BTEX, PAHs, Phenols, VOCs
9528/BH16/2.0	Primary Sample	Sample taken at a depth of 2m at a location 3m east of footpath and 7m north of north-west corner of the building. (BH16)	TRH/BTEX, Metals

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/BH16/3.0	Primary Sample	Sample taken at a depth of 3m at a location 3m east of footpath and 7m north of north-west corner of the building. (BH16)	TRH/BTEX, PAHs, VOCs
9528/BH16/4.0	Primary Sample	Sample taken at a depth of 4m at a location 3m east of footpath and 7m north of north-west corner of the building. (BH16)	TRH/BTEX, PAHs, Metals, Phenols, VOCs
9528/BH1/0.2-0.3a	Blind Replicate	Blind Replicate of 9528/BH1/0.2-0.3 (BH1)	TRH/BTEX, PAHs, Metals
9528/BH1/0.2-0.3b	Split Replicate	Split Replicate of 9528/BH1/0.2-0.3 (BH1)	TRH/BTEX, PAHs, Metals
9528/BH14/1.0a	Blind Replicate	Blind Replicate of 9528/BH14/1.0 (BH14)	TRH/BTEX, PAHs, Metals
9528/BH14/1.0b	Split Replicate	Split Replicate of 9528/BH14/1.0 (BH14)	TRH/BTEX, PAHs, Metals

Table 10-3: Sample Information

Primary and replicate soil samples that were to be analysed were sampled directly off the auger using a stainless steel trowel and placed directly into new 250mL clean glass jars with screw top plastic lids with inert plastic inserts. Samples of soil for analysis of asbestos content were collected and placed within zip-loc bags.

Between samples sampling equipment was decontaminated using a 5% Decon 90 solution, rinsed with Milli Q water and dried with Kimberly Clark Epic Wipes.

The glass jars and zip-loc bags were labelled using a waterproof permanent marker pen with the date, a Getex unique reference number that indicated the sampling location, and a sub sample number. The samples were then stored on ice in an insulated container until they were delivered to the laboratory within acceptable holding times.

The chain of custody process involved writing the Getex unique reference number on the sample jars at the time of sampling and on the chain of custody form. The chain of custody form remained with the samples until they were delivered to the laboratory. Once delivered to the laboratory the officer at sample receipt signed the chain of custody form taking responsibility for the samples. A copy of the chain of custody showing the time of delivery, condition of samples (cold etc) and the unique laboratory number was emailed to Getex by the laboratory. On receipt Getex checked that the laboratory details were correct.

10.3 Groundwater Sampling Program

Three monitoring wells were installed on the 27th of September 2016 to enable the sampling and analysis of groundwater beneath the Site. The wells were installed to intersect a shale aquifer.

Groundwater sampling was conducted on the site from three (3) groundwater monitoring wells to assess potential groundwater impacts on the 29th of September 2016.

The wells were identified as GW1 – GW3. Monitoring well locations are shown on the Groundwater Well Site Map in **Appendix I**.

The borehole drilling and monitoring well installation was undertaken by Stratacore Drilling Pty Ltd using an COMACCHIO GEO205 drill rig with a 100mm solid flight auger under the supervision and instruction of Getex.

The following steps were undertaken during borehole drilling and monitoring well installation:

- The borehole was drilled with a 100mm solid flight auger to an approximate maximum depth of 10m.

- The monitoring well consisted of a slotted 50mm PVC screen and casing. Each section of pipe was screw-threaded to avoid the use of solvents.

- A filter screen of graded, washed and sorted 5mm sand was poured into the borehole annular to cover the screened section of the casing. Bentonite was used to seal the borehole and prevent fluid inflow into target water bearing zones from higher strata via the borehole. Finally cement was used to seal the remainder of the borehole.

- Each well was installed with a gatic to protect the well head which was sealed with a cap.

Between 7m and 10m of 50mm slotted PVC screen was installed, with the remainder of the borehole cased off with 50mm PVC pipe.

On the 27th of September 2016, following the installation of the well, groundwater level measurements were taken using a water level metre and well development was then undertaken using a submersible pump. All wells were purged until dry.

On 29th of September 2016, following the well development period, the ground water level measurements were taken again using a water level meter. Wells GW1 – GW5 were then sampled with a low-flow bladder pump at one height using the low-flow bladder pump. The groundwater monitoring wells produced a sufficient volume of water for sampling.

The groundwater samples to be analysed for heavy metals TRHs (C10-C36) and PAHs were collected in a clean non-treated 500mL amber glass organics bottles. Groundwater samples to be analysed for TRHs (C6-C9), BTEX and VOCs were collected in two preserved 40mL zero head space vials with Teflon septums. Groundwater samples to be analysed for Heavy Metals were collected in an inert plastic 50mL bottle with preservative and a clean non-treated 500mL amber glass bottles. Groundwater samples to be analysed for Phenols were collected in an inert plastic 50mL bottle with preservative. Groundwater samples to be analysed for EC, pH were collected in an inert plastic 50mL bottle.

The bottles and vials were labelled using a waterproof permanent marker pen with the date, a Getex unique reference number that indicated the sampling location and sub sample number. The samples were then stored on ice in an insulated container. The samples remained on ice until they were delivered to the laboratory under chain of custody.

The chain of custody process involved writing the Getex unique reference number on the sample bottle/vial at the time of sampling and on the chain of custody form. The chain of custody form remained with the samples until they were delivered to the laboratory. Once delivered to the laboratory the officer at the sample receipt signed the chain of custody form taking responsibility for the samples. A copy of the chain of custody showing the time of

delivery, condition of samples (cold etc) and the unique laboratory number was emailed to Getex by the laboratory. On receipt Getex checked that the laboratory details were correct.

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/W1	Primary Sample	Sample taken from a depth of 6m BGL at location GW1	TRH/BTEX, Metals, PAHs, Phenols, VOCs, pH, EC
9528/W2	Primary Sample	Sample taken from a depth of 6m BGL at location GW2	TRH/BTEX, Metals, PAHs, Phenols, VOCs, pH, EC
9528/W3	Primary Sample	Sample taken from a depth of 6m BGL at location GW3	TRH/BTEX, Metals, PAHs, Phenols, VOCs, pH, EC
9528/W2a	Replicate Sample	Blind Sample of 9528/W2	TRH/BTEX, Metals, PAHs, pH, EC
9528/W2b	Replicate Sample	Split Sample of 9528/W2	TRH/BTEX, Metals, PAHs, pH, EC

Table 10-4: Groundwater Sample Information

10.4 Tank Water Sampling Program

Justin Thompson-Laing of Getex Pty Ltd attended the site on the 9th and 10th of August 2016.

The underground water detention tank was located approximately 10m west of the north-west corner of the building. The tank was approximately 10.5m x 4.5m. The depth of the tank is unknown. The surface water within the tank was found to contained clear water with low turbidity. There was no sheen observed on the surface. No aquatic life was observed.

The following table presents a summary of the locations for the three (3) samples collected within the Site. Please refer to **Appendix I** for the Site Map.

Sample Number	Sample Type	Location Collected	Analysis Performed
9528/WDT/W1	Primary Sample	Sample taken from the south-east access of the Water Detention Tank.	TRH, BTEX, Metals, PAHs, Phenols, pH, EC, VOCs
9528/WDT/W1a	Replicate Sample	Blind Sample of 9528/WDT/W1	TRH, BTEX, Metals, PAHs, Phenols, pH, EC
9528/WDT/W1b	Replicate Sample	Split Sample of 9528/WDT/W1	TRH, BTEX, Metals, PAHs, Phenols, pH, EC

Table 10-5: Surface Water Sample Information

The surface water samples to be analysed for heavy metals, TRHs (C10-C36), PAHs, EC and pH were collected in a clean non-treated 500mL amber glass organics bottles. Surface water samples to be analysed for TRHs (C6-C9), BTEX and VOCs were collected in two preserved 40mL zero head space vials with Teflon septums. Surface water samples to be analysed for Phenols were collected in an inert plastic 50mL bottle with preservative.

The bottles and vials were labelled using a waterproof permanent marker pen with the date, a Getex unique reference number that indicated the sampling location and sub sample number. The samples were then stored on ice in an insulated container. The samples remained on ice until they were delivered to the laboratory under chain of custody.

The chain of custody process involved writing the Getex unique reference number on the sample bottle/vial at the time of sampling and on the chain of custody form. The chain of custody form remained with the samples until they were delivered to the laboratory. Once delivered to the laboratory the officer at the sample receipt signed the chain of custody form taking responsibility for the samples. A copy of the chain of custody showing the time of delivery, condition of samples (cold etc) and the unique laboratory number was emailed to Getex by the laboratory. On receipt Getex checked that the laboratory details were correct.

Samples were filtered within the laboratory where necessary.

11. ASSESSMENT CRITERIA

11.1 Regulatory Guidelines

The investigation was undertaken in general accordance with the following guidelines, as relevant:

- *Contaminated Sites: Sampling Design Guidelines,* NSW EPA, 1995;
- *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*, NSW EPA, 2011;
- *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme, 2nd Edition,* NSW EPA, 2006;
- *Contaminated Sites: Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997*, NSW EPA, 2015;
- *National Environment Protection (Assessment of Site Contamination) Measure,* National Environment Protection Council, 1999, as amended 2013;
- *National Water Quality Management Strategy, Paper No. 4, Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Australian and New Zealand Environment and Conservation Council (ANZECC) and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ), October 2000;
- *Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards,* Department of Health and Ageing and EnHealth Council, Commonwealth of Australia, June 2002; *and*
- *Waste Classification Guidelines: Part 1 Classifying Waste*, NSW EPA, 2014.

11.2 Soil Aesthetic Considerations

The *National Environment Protection (Assessment of Site Contamination) Measure*, 1999, as amended 2013 states, "*aesthetic issues generally relate to the presence of low-concern or non-hazardous inert foreign material in soil or fill resulting from human activity*". Caution is also recommended when assessing a site for potentially sensitive land uses (such as residential) when significant quantities of fill or demolition materials are present.

Soil or fill material tested to be within accepted human health and environmental guideline levels may still contain low-concern or non-hazardous inert foreign material. Examples of these foreign materials include bricks, tiles, metal piping, glass, concrete, bitumen and plastics.

The quantity, type and distribution of foreign materials identified within the soil profile will be considered in relation to the future land use. In assessing the sensitivity of future site users to aesthetic issues consideration will be given to the depth of the material in relation to the future site levels following any development, the practicality of management options and the ability of the foreign materials to cause concern.

11.3 Soil Analysis Criteria

Health-based soil Criteria Levels can be applied for a range of different exposure settings, which are based on the nature of the use(s) for which the land is currently used and/or its approved use(s).

Given that the proposed development is a Medical Centre, therefore the assessment criteria are based on exposure setting D.

Health Investigation Levels (HILs) are based on Commercial/Industrial D from Table 1A(1) from the *National Environment Protection (Assessment of Site Contamination) Measure,* National Environment Protection Council, 1999, as amended 2013*.*

Health Screening Levels (HSLs) petroleum hydrocarbon compounds are based on Commercial/Industrial and soil classification Sand, Silt or Clay (dependant on the sample) from Table 1A(3) from the *National Environment Protection (Assessment of Site Contamination) Measure,* National Environment Protection Council, 1999, as amended 2013*.*

Ecological Screening/Investigation Levels are to be applied to soil within 2m below the proposed ground level.

Ecological Screening Levels for petroleum hydrocarbon compounds are based on Commercial/Industrial and soil texture Fine from Table 1B(6) from the *National Environment Protection (Assessment of Site Contamination) Measure,* National Environment Protection Council, 1999, as amended 2013*.*

Ecological Investigation Levels (EILs) are based on "Commercial/Industrial" from the *National Environment Protection (Assessment of Site Contamination) Measure,* National Environment Protection Council, 1999, as amended 2013*.* EILs have been derived for arsenic, copper, chromium (III), DDT, naphthalene, nickel, lead and zinc.

The EILs presented for zinc, chromium (III), copper and lead are added contaminant limits (ACLs) based on added concentrations. The EILs is calculated from summing the ACL and the ambient background concentration (ABC) to derive the site-specific soil quality guideline (SQG) taking into account the effect caused by pH and exchangeable cations in soil that can affect concentration toxicity data.

Values presented for arsenic, naphthalene and DDT are generic EILs based on total concentrations and fresh contaminants.

The EIL for lead has been calculated using the most conservative SQG value based upon the reported pH and exchangeable cation values. All other EIL's have assumed that the majority of any contamination on site is greater than 2 years old. Where EIL values required input including CEC, pH and organic content, value from the upper soil horizon was used. A summary of the EIL input values is:

- Cation exchange capacity: 17 cmolc/kg;
- pH: 5.8;
- organic carbon: 0.64%;
- iron: 4.8%; and
- clay: 47%.

The spreadsheet calculations are presented in **Appendix III**.

Acceptance criteria levels are given within **Appendix III** alongside the sample analysis results.

11.4 Groundwater Criteria

The groundwater analyses were assessed predominately against the adopted ecological criteria from the column “Fresh Waters” of Table 1-C of *National Environment Protection (Assessment of Site Contamination) Measure,* National Environment Protection Council, 1999, as amended 2013. Where no criteria levels were available in NEPM 2013, the laboratory limit of detection was used as an indicative criteria level.

The above mentioned acceptance criteria adopted for the purposes of this investigation are listed in **Appendix III** alongside the analysis results for the samples

11.5 Surface Water Criteria

The surface water analyses were assessed predominately against the adopted ecological criteria from the “Trigger Values for Freshwater, Level of Protection for 95% Species” column in Table 3.4.1 of *National Water Quality Management Strategy, Paper No. 4, Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Australian and New Zealand Environment and Conservation Council (ANZECC) and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ), October 2000. Where no criteria levels were available in ANZECC 2000, the laboratory limit of detection was used as an indicative criteria level.

The above mentioned acceptance criteria adopted for the purposes of this investigation are listed in **Appendix III** alongside the analysis results for the samples.

11.6 Waste Classification Assessment Criteria

Off-site disposal of fill, contaminated material and excess soil/rock excavated as part of the proposed development works is regulated by the provisions of the *Protection of the Environment Operations Act* (1997) and associated regulations and guidelines including the NSW EPA Waste Classification Guidelines 2014 All materials should be classified in accordance with these guidelines prior to disposal.

For the purpose of off-site disposal, the classification of soil into 'General Solid Waste (non-putrescible)', ‘Restricted Solid Waste (non-putrescible)’ and 'Hazardous Waste (non-putrescible)’ categories is defined by chemical contaminant criteria outlined in the NSW EPA Waste Classification Guidelines 2014.

The waste classification criteria are listed in **Appendix III** alongside the analysis results for the samples.

12. QUALITY ASSURANCE / QUALITY CONTROL

All sampling and analysis was conducted by an appropriately trained and qualified Getex consultant. All sampling information was documented and where necessary collected utilising properly maintained equipment. Prior to use all equipment was assessed for appropriateness and inspected for defects.

The sampling and analysis program included, for Quality Assurance / Quality Control (QA/QC) purposes, the analysis of blind and split replicate samples. For soil sampling two blind and two split replicates were taken for TRH, BTEX, PAHs and Metals. For groundwater sampling one blind and one split replicate were taken for TRH, BTEX, PAHs, Metals, EC and pH. For tank water sampling one blind and one split replicate were taken for TRH, BTEX, PAHs, Metals, EC and pH. The primary and blind replicate samples were sent to the same laboratory (Envirolab Services Pty Ltd) and the split replicates were to an independent laboratory (Eurofins).

Please Refer to **Appendix V** for QA/QC Results and Assessment.

The QA/QC data is considered satisfactory and the quality of the sampling data considered suitable for the purposes of the sampling conducted.

13. DISCUSSION

13.1 Soil Aesthetic Discussion

Based upon field observations, nothing was identified in the soil within the Project Area that would trigger concerns from an aesthetic standpoint.

13.2 Soil Headspace Screening Discussion

PID screening of soil sample headspace within Borehole BH5 identified slightly elevated levels compared to the other boreholes. The PID level increased to a maximum of 12.4ppm at a depth of 2m before decreasing at further depths. A soil sample was collected at 2m and analysed for VOCs.

PID screening of soil sample headspace within the remaining boreholes did not identify levels above 4.4ppm and are considered well below the level that would require further investigation.

Landfill Gas screening of soil sample headspace within the boreholes did not identify levels above 0.0% for CH_4 and 0.0ppm for H_2S and are considered well below the level that would require further investigation.

13.3 Soil Analytical Discussion

The summaries of laboratory results are discussed in the following sections.

13.3.1 TRH

A total of 33 soil samples were analysed for TRH fractions. All results for F1 (C6-C10 minus BTEX), F2 (C10-C16 minus Napthalene), F3 (C16-C34) and F4 (C34-C40) were below the adopted Site assessment criteria.

Waste Classification
The results of all analyses were less than the CT1 criteria outlined in the Waste Classification Guidelines 2014.

13.3.2 BTEX

A total of 33 soil samples were analysed for BTEX. All concentrations were below the adopted Site assessment criteria.

Waste Classification
The results of all analyses were less than the CT1 criteria outlined in the Waste Classification Guidelines 2014.

13.3.3 Metals

A total of 41 soil samples were analysed for Metals. All concentrations were below the adopted Site assessment criteria.

Waste Classification
The results of all analyses were less than the CT1 criteria outlined in the Waste Classification Guidelines 2014.

13.3.4 PAHs

A total of 30 soil samples were analysed for PAHs. All concentrations were below the adopted Site assessment criteria.

Waste Classification
The results of all analyses were less than the CT1 criteria outlined in the Waste Classification Guidelines 2014.

13.3.5 Phenols

A total of 12 soil samples were analysed for Phenols. All concentrations were below the adopted Site assessment criteria.

Waste Classification
The results of all analyses were less than the CT1 criteria outlined in the Waste Classification Guidelines 2014.

13.3.6 OCP/OPPs

A total of 4 soil samples were analysed for OCP/OPPs. All concentrations were below the adopted Site assessment criteria.

13.3.7 PCBs

A total of 8 soil samples were analysed for PCBs. All concentrations were below the adopted Site assessment criteria.

Waste Classification
The results of all analyses were less than the CT1 criteria outlined in the Waste Classification Guidelines 2014.

13.3.8 VOCs

A total of 6 soil samples were analysed for VOCs. All concentrations were below the adopted Site assessment criteria.

13.3.9 Ammonia

A total of 6 soil samples were analysed for Ammonia. All concentrations were below the adopted Site assessment criteria.

13.3.10 Asbestos

A total of 8 soil samples were analysed for Asbestos. All concentrations were below the adopted Site assessment criteria.

13.4 Groundwater Analytical Discussion

The summaries of laboratory results are discussed in the following sections.

13.4.1 TPH

A total of 3 water sample was analysed for TPH fractions. All results for F1 (C6-C10 minus BTEX), F2 (C10-C16 minus Napthalene), F3 (C16-C34) and F4 (C34-C40) were below the adopted Site assessment criteria.

13.4.2 BTEX

A total of 3 water sample was analysed for BTEX. All concentrations were below the adopted Site assessment criteria.

13.4.3 Metals

A total of 3 water sample was analysed for Metals. Metal concentrations were generally below the nominated assessment guidelines with the following exceptions:

- Dissolved Copper in samples 9528/W1, 9528/W2 and 9528/W3, which exceeded the adopted Site assessment criteria;
- Dissolved Nickel in sample 9528/W1, which exceeded the adopted Site assessment criteria; and
- Dissolved Zinc in samples 9528/W1 and 9528/W2, which exceeded the adopted Site assessment criteria.

13.4.4 PAHs

A total of 3 water sample was analysed for PAHs. All concentrations were below the adopted Site assessment criteria.

13.4.5 Phenols

A total of 3 water sample was analysed for Phenols. All concentrations were below the adopted Site assessment criteria.

13.4.6 VOCs

A total of 3 water sample was analysed for VOCs. All concentrations were either below the adopted Site assessment criteria or the limit of laboratory detection. Therefore the result is considered acceptable.

13.4.7 EC

A total of 3 water sample was analysed for pH. Samples 9528/W1 and 9528/W3 had a concentration of 12,000µS/cm while sample 9528/W2 had a concentration of 15,000µS/cm.

13.4.8 pH

A total of 3 water sample was analysed for pH. All samples had a pH of 7.1.

13.5 Tank Water Analytical Discussion

The summaries of laboratory results are discussed in the following sections.

13.5.1 TPH

A total of 1 water sample was analysed for TPH fractions. All results for F1 (C6-C10 minus BTEX), F2 (C10-C16 minus Napthalene), F3 (C16-C34) and F4 (C34-C40) were below the adopted Site assessment criteria.

13.5.2 BTEX

A total of 1 water sample was analysed for BTEX. All concentrations were below the adopted Site assessment criteria.

13.5.3 Metals

A total of 1 water sample was analysed for Metals. All concentrations were below the adopted Site assessment criteria.

13.5.4 PAHs

A total of 1 water sample was analysed for PAHs. All concentrations were below the adopted Site assessment criteria.

13.5.5 Phenols

A total of 1 water sample was analysed for Phenols. All concentrations were below the adopted Site assessment criteria.

13.5.6 VOCs

A total of 1 water sample was analysed for VOCs. All concentrations were either below the adopted Site assessment criteria or the limit of laboratory detection. Therefore the result is considered acceptable.

13.5.7 EC

A total of 1 water sample was analysed for EC. All concentrations were within the adopted Site assessment criteria.

13.5.8 pH

A total of 1 water sample was analysed for pH. All concentrations were within the adopted Site assessment criteria.

13.6 Response to Identified Decisions

The results are discussed in the following sections in relation to the identified decisions developed as part of the DQO process (**Section 10.1.2**):

- Is there any contamination within the Project Area soil that will pose a risk to future onsite and offsite receptors?
- Is there any contamination within the Project Area groundwater that will pose a risk to future onsite and offsite receptors?
- Is the water present in the underground detention tank contaminated?

13.6.1 Risks to Future Onsite and Offsite Receptors from Soil Contamination

The collected samples of the soil were analysed for a broad range of identified potential contaminants including TRH, BTEX, Metals, PAHs, Phenols, Ammonia, Asbestos and VOCs. All chemical contaminant concentrations were below the adopted criteria and PID and Landfill Gas analysis of soil headspace for VOCs and CH_4 respectively was within acceptable levels.

As such, chemical contaminant concentrations within soils do not represent an unacceptable risk to human and environmental health with respect to the proposed future Site use.

13.6.2 Risks to Future Receptors from Groundwater Contamination

The collected samples of the groundwater were analysed for a broad range of identified potential contaminants including TRH, BTEX, Metals, PAHs, Phenols, EC, pH and VOCs. All chemical contaminant concentrations were below the adopted criteria with the exception of Copper, Nickel and Zinc. Although the concentration of these metals were detected above the criteria, the levels detected are considered indicative of disturbed urban ecosystems such as the location of the Site which is known to be impacted by metals contamination.

As the depth of the water bearing zone is below the maximum depth of construction works, there is no expected human contact with the groundwater. Therefore it is the opinion of the consultant that the elevated concentrations of Copper, Nickel and Zinc are acceptable provided:

- The groundwater is not used as a drinking water source; and
- A follow-up groundwater monitoring round is completed for Metals to confirm the metal concentrations within the groundwater.

13.6.3 Risks to Future Receptors from Underground Detention Tank Contamination

The collected samples of the surface water were analysed for a broad range of identified potential contaminants including TRH, BTEX, Metals, PAHs, Phenols, EC, pH and VOCs. All chemical contaminant concentrations were below the adopted criteria. As such, chemical contaminant concentrations detected within the underground detention tank water do not represent an unacceptable risk to human health with respect to the proposed future Site use.

13.7 Waste Classification

13.7.1 Classification of Fill Soils

Based on the results of the assessment, the fill material is classified as 'General Solid Waste (non-putrescible)' according to the criteria outlined in NSW EPA Waste Classification Guidelines 2014.

The material should be disposed of to a suitably licensed waste receival facility.

13.7.2 Classification of Natural Soil and Bedrock

The natural silty clay and underlying shale bedrock at the Site is considered to be virgin excavated natural material (VENM). The material is considered suitable for re-use onsite, or alternatively, the information included in this report may be used to assess whether the material is suitable for beneficial reuse at another site as fill material.

Where doubt exists about the difference between fill and VENM material an environmental consultant should be contacted.

VENM must not be mixed with any fill material (including building rubble) as this will invalidate the VENM classification.

14. CONCLUSIONS AND RECOMMENDATIONS

Soil samples taken from locations across the Project Area were analysed for a broad range of identified potential contaminants. All chemical contaminant concentrations were below the adopted criteria and PID and Landfill Gas analysis of soil headspace for VOCs and CH_4 respectively was within acceptable levels. As such, the detected chemical contaminant concentrations within soils do not indicate an unacceptable risk to human and environmental health with respect to the proposed future Site use.

Groundwater samples taken from locations along the eastern boundary of the Project Area were analysed for a broad range of identified potential contaminants. All chemical contaminant concentrations were below the adopted criteria with the exception of Copper, Nickel and Zinc. Although the concentration of these metals were detected above the criteria, the levels detected are considered indicative of disturbed urban ecosystems such as the location of the Site which is known to be impacted by metals contamination.

As the depth of the water bearing zone is below the maximum depth of construction works, there is no expected human contact with the groundwater. Therefore it is the opinion of the consultant that the elevated concentrations of Copper, Nickel and Zinc are acceptable provided:

- The groundwater is not used as a drinking water source; and
- A follow-up groundwater monitoring round is completed prior to construction works commencing for Metals to confirm the metal concentrations within the groundwater.

All detected chemical contaminant concentrations in the water sample collected from the underground detention tank were below the adopted criteria. As such, the detected chemical contaminant concentrations within the underground detention tank water do not indicate a risk to human and environmental health with respect to the proposed future Site use.

Therefore, based on the findings of this investigation and subject to the limitations in Section 4, it is concluded that the Project Area would be suitable for the proposed development

APPENDIX I

SITE MAP

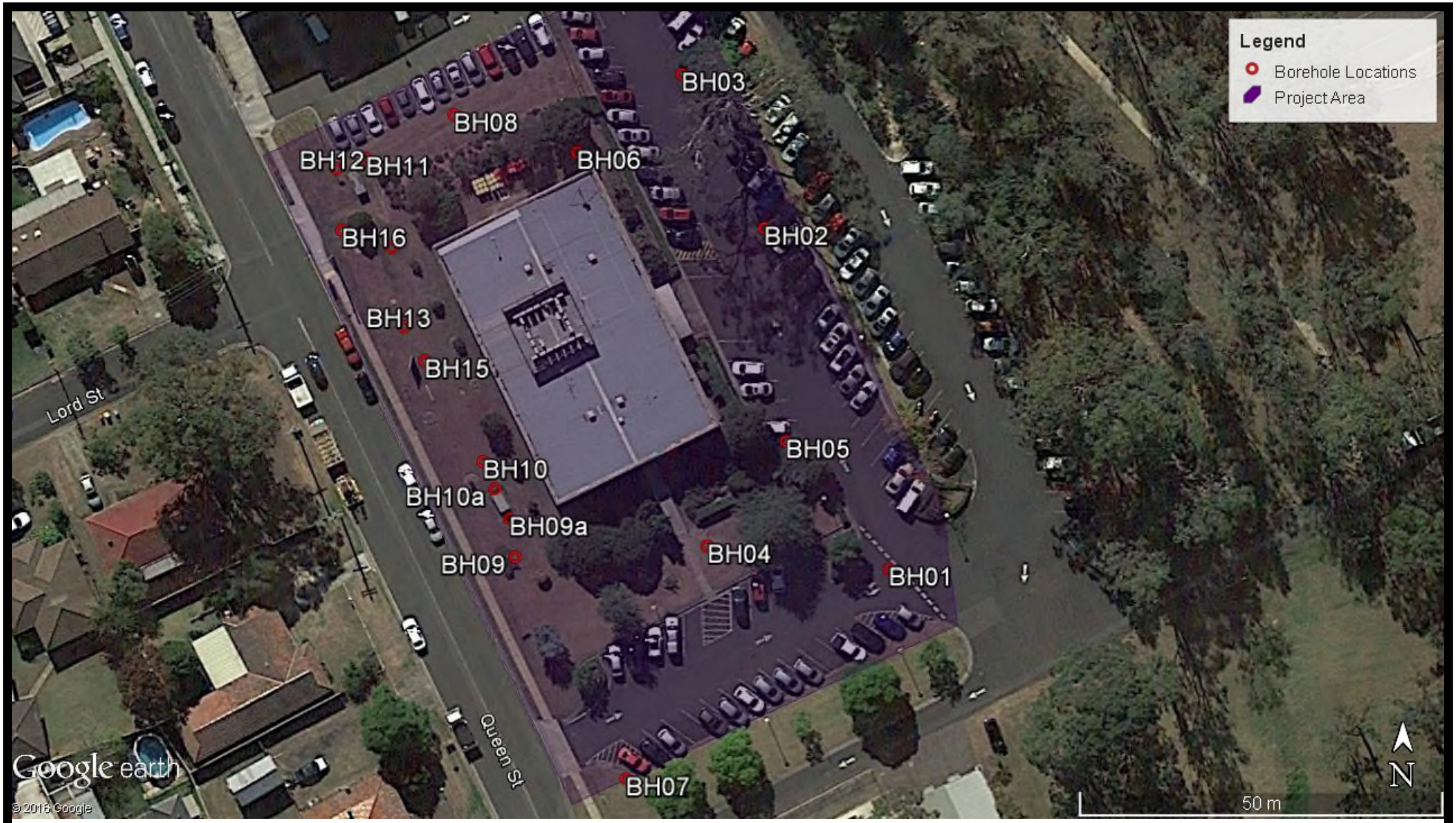

Figure 3: Site Sketch
19 Queen Street, NARELLAN NSW 2567
Aerial image derived from Google Earth and is indicative of on-ground locations only

GETEX

Figure 4: Groundwater Well Site Sketch
19 Queen Street, NARELLAN NSW 2567
Aerial image derived from Google Earth and is indicative of on-ground locations only

GETEX

APPENDIX II

BOREHOLE LOGS

Getex Pty Ltd
Suite 2.02 Building 2, 35-41 Waterloo Road
MACQUARIE PARk NSW 2113
Telephone: 02 9889 2488

BOREHOLE NUMBER BH01

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** **DATUM**

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 8.5m N. of S. carpark S. bdy, 2m E. of E. Int. carpark W. bdy

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV					Bitumen & roadbase			
					Mottled brown and dark grey clay, medium permeability	Sample BH1/0.2-0.3	1.4	CH4 - 0.0%, H2S - 0.0ppm
			1		Strong brown silty clay, med-low permeability			
					Mottled brown and white clay, med-low permeability	Sample BH1/1.0	2.4	CH4 - 0.0%, H2S - 0.0ppm
			2		Light yellowish brown silty shale	Sample BH1/2.0	2.6	CH4 - 0.0%, H2S - 0.0ppm
			3			Sample BH1/3.0	2.7	CH4 - 0.0%, H2S - 0.0ppm
			4		Borehole BH01 terminated at 4m	Sample BH1/4.0	2.4	CH4 - 0.0%, H2S - 0.0ppm
			5					
			6					
			7					
			8					

Getex Pty Ltd
Suite 2.02 Building 2, 35-41 Waterloo Road
MACQUARIE PARk NSW 2113
Telephone: 02 9889 2488

BOREHOLE NUMBER BH02

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 39m S. of E. Int. carpark exit, 5m W. of E. Int. carpark E. bdy

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV					Bitunen and roadbase			
					Light brown clay	Sample BH2/0.2-0.3	1.3	CH4 - 0.0%, H2S - 0.0ppm
			1		Light yellowish brown silty shale, strength increased as depth increased	Sample BH2/1.0	2.9	CH4 - 0.0%, H2S - 0.0ppm
			2			Sample BH2/2.0	3.0	CH4 - 0.0%, H2S - 0.0ppm
			3			Sample BH2/3.0	2.5	CH4 - 0.0%, H2S - 0.0ppm
			4		Borehole BH02 terminated at 4m	Sample BH2/4.0	3.4	CH4 - 0.0%, H2S - 0.0ppm
			5					
			6					
			7					
			8					

Getex Pty Ltd
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MACQUARIE PARk NSW 2113
Telephone: 02 9889 2488

BOREHOLE NUMBER BH03

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 15m S. of E. Int. carpark exit, 5.5m W. of E. Int. carpark E. bdy

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV					Bitumen and roadbase			
					Light yellowish brown silty clay with rock fragments	Sample BH3/0.2-0.3	0.7	CH4 - 0.0%, H2S - 0.0ppm
			1		Very dark grey silty clay, low strength, medium permeability	Sample BH3/1.0	1.8	CH4 - 0.0%, H2S - 0.0ppm
					Light yellowish brown silty shale			
	Standing Water Level		2			Sample BH3/2.0	2.4	CH4 - 0.0%, H2S - 0.0ppm
			3			Sample BH3/3.0	2.5	CH4 - 0.0%, H2S - 0.0ppm
			4			Sample BH3/4.0	3.3	CH4 - 0.0%, H2S - 0.0ppm
			5					
			6					
					Light brown shale, moist			
			7					
			8					
					Borehole BH03 terminated at 8m			

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BOREHOLE NUMBER BH04

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 2.5m S. and 2m E. of entry ramp to building

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV			0		Dark brown loam topsoil with organic matter			
					Strong brown silty clay, med-low permeability	Sample BH4/0.2-0.3	0.6	
			1			Sample BH4/1.0	3.1	
					Light yellowish brown silty shale			
			2			Sample BH4/2.0	3.0	
			3			Sample BH4/3.0	2.4	
			4			Sample BH4/4.0	2.7	
					Borehole BH04 terminated at 4m			
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH05

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 4m N. of E. Int. carpark E. bdy, 2m E. of E. Int. carpark W. bdy

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV					Bitumen and roadbase	Sample BH5/0.2-0.3	1.2	CH4 - 0.0%, H2S - 0.0ppm
			1		Light yellowish brown silty sand, med-high permeability	Sample BH5/1.0	11.8	CH4 - 0.0%, H2S - 0.0ppm
					Light brown weathered shale			
			2		Light yellowish brown silty shale, increased strength as depth increased	Sample BH5/2.0	12.4	CH4 - 0.0%, H2S - 0.0ppm
			3			Sample BH5/3.0	12	CH4 - 0.0%, H2S - 0.0ppm
			4			Sample BH5/4.0	9.8	CH4 - 0.0%, H2S - 0.0ppm
			5					
			6					
			7		Light yellowish brown silty shale, moist	Sample BH5/7.4	4.6	CH4 - 0.0%, H2S - 0.0ppm
			8		Shale Bedrock, strength high enough to resist auger Borehole BH05 terminated at 7.5m			

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BOREHOLE NUMBER BH06

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** **DATUM**

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 3m N. and 1m W. of N.E. corner of bld

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV			0		Dark brown loam topsoil with organic matter			
					Brownish yellow sand with rock fragments/gravel	Sample BH6/0.2-0.3	2.3	CH4 - 0.0%, H2S - 0.0ppm
			1			Sample BH6/1.0	3.4	CH4 - 0.0%, H2S - 0.0ppm
					Light yellowish brown silty shale			
			2			Sample BH6/2.0	3.4	CH4 - 0.0%, H2S - 0.0ppm
			3			Sample BH6/3.0	3.1	CH4 - 0.0%, H2S - 0.0ppm
			4		Borehole BH06 terminated at 4m	Sample BH6/4.0	2.8	CH4 - 0.0%, H2S - 0.0ppm
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH07

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 6.5m E. of footpath, 1m S. of S. carpark

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV					Dark brown loam topsoil with organic matter			
					Strong brown silty clay, med-high permeability	Sample BH7/0.2-0.3	1	
			1		Light yellowish brown silty shale, increased strength as depth increased	Sample BH7/1.0	1.6	
			2			Sample BH7/2.0	2.3	
			3			Sample BH7/3.0	3.2	
			4			Sample BH7/4.0	2.5	
			5					
			6					
			7					
			8					
					Borehole BH07 terminated at 8m			

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BOREHOLE NUMBER BH08

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 24m E. of footpath, 2m S. of N. carpark S. bdy

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV					Dark brown loam topsoil with organic matter			
					Strong brown silty clay, med-high permeability	Sample BH8/0.2-0.3	0.9	
					Light yellowish silty shale			
			1			Sample BH8/1.0	1.2	
			2			Sample BH8/2.0	1.0	
			3			Sample BH8/3.0	1.3	
			4					
					Borehole BH08 terminated at 4m	Sample BH8/4.0	0.9	
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH09

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** **DATUM**

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 4.5m E. of footpath, 4.5m S. of bld

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV			0		Dark brown loam topsoil with organic matter			
					Strong brown silty clay, med-low permeability	Sample BH9/0.2-0.3	1.1	
			1		Light yellowish brown silty shale	Sample BH9/1.0	1.0	
			2			Sample BH9/2.0	1.4	
			3			Sample BH9/3.0	2.1	
			4		Borehole BH09 terminated at 4m	Sample BH9/4.0	1.4	
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH09a

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** adj S. of S. substation

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
HA			0		Dark brown loam topsoil with organic matter			
					Borehole BH09a terminated at 0.1m	Sample BH94/0.1		
			1					
			2					
			3					
			4					
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH10

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 6.5m E. of footpath, 4.5m N. of S. substation

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV					Dark brown loam topsoil with organic matter			
					Strong brown silty clay, med-low permeability	Sample BH10/0.2-0.3	1.0	
			1		Light yellowish brown silty shale	Sample BH10/1.0	2.3	
			2			Sample BH10/2.0	2.5	
			3			Sample BH10/3.0	2.3	
			4		Borehole BH10 terminated at 4m	Sample BH10/4.0	1.5	
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH10a

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** **DATUM**

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** adj N. of N. substation

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
HA			0		Dark brown loam topsoil with organic matter			
					Borehole BH10a terminated at 0.1m	Sample BH10a/0.1		
			1					
			2					
			3					
			4					
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH11

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 2m S. of N. carpark S. bdy, 10m E. of footpath

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV					Dark brown loam topsoil with organic matter			
					Strong brown silty clay, med-low permeability	Sample BH11/0.2-0.3	1.8	
					Light yellowish brown silty shale			
			1			Sample BH11/1.0	2.5	
			2			Sample BH11/2.0	3.0	
			3			Sample BH11/3.0	2.5	
			4					
					Borehole BH11 terminated at 4m	Sample BH11/4.0	3.2	
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH12

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 5.5m E. of footpath, 2m S. of N. carpark S. bdy

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV			0		Dark brown loam topsoil with organic matter			
					Strong brown silty clay, med-low permeability	Sample BH12/0.2-0.3	2.1	
			1		Light yellowish brown silty shale	Sample BH12/1.0	2.4	
			2			Sample BH12/2.0	2.7	
			3			Sample BH12/3.0	3.3	
			4		Borehole BH12 terminated at 4m	Sample BH12/4.0	2.7	
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH13

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 5m E. of footpath, 9m S. of N.W. corner of bld

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV			0		Dark brown loam topsoil with organic matter			
					Strong brown silty clay, med-low permeability	Sample BH13/0.2-0.3	1.7	
			1			Sample BH13/1.0	2.0	
					Light yellowish brown silty shale			
			2			Sample BH13/2.0	2.5	
			3			Sample BH13/3.0	2.7	
			4		Borehole BH13 terminated at 4m	Sample BH13/4.0	2.5	
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH14

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 4.5m W and 3m N of N.W. corner of bld

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV			0		Dark brown loam topsoil with organic matter			
					Brownish yellow sand, high permeability	Sample BH14/0.2-0.3	0.9	
			1		Strong brown silty clay, med-low permeability	Sample BH14/1.0	1.5	
					Light yellowish brown silty shale			
			2			Sample BH14/2.0	1.9	
			3			Sample BH14/3.0	1.8	
			4		Borehole BH14 terminated at 4m	Sample BH14/4.0	1.8	
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH15

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 5m E. of footpath, 15m S. of N.W. corner of bld

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV			0		Dark brown loam topsoil with organic matter			
					Strong brown silty clay, med-low permeability	Sample BH15/0.2-0.3	1.5	
			1			Sample BH15/1.0	3.8	
					Light yellowish brown silty shale			
			2			Sample BH15/2.0	3.4	
			3			Sample BH15/3.0	3.3	
			4		Borehole BH15 terminated at 4m	Sample BH15/4.0	2.3	
			5					
			6					
			7					
			8					

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BOREHOLE NUMBER BH16

CLIENT Primary Health Care **PROJECT NAME** Phase 2 Contamination Assessment

PROJECT NUMBER 9528 **PROJECT LOCATION** 19 Queen Street NARELLAN NSW

DATE STARTED 9/8/16 **COMPLETED** 10/8/16 **R.L. SURFACE** _____ **DATUM** _____

DRILLING CONTRACTOR Stratacore Drilling **SLOPE** -90° **BEARING** ---

EQUIPMENT Geoprobe **HOLE LOCATION** 3m E. of footpath, 7m N. of N.W. corner of bld

HOLE SIZE 50mm **LOGGED BY** JTL **CHECKED BY** AJC

NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Material Description	Samples Tests Remarks	PID Results (ppm)	Additional Observations
ADV					Dark brown loam topsoil with organic matter			
					Light yellowish brown silty clay, med-low permeability	Sample BH16/0.2-0.3	2.5	
			1		Strong brown silty clay, med-low permeability	Sample BH16/1.0	3.8	
					Light yellowish brown silty shale, hard layer at 4.0m			
			2			Sample BH16/2.0	3.8	
			3			Sample BH16/3.0	4.4	
			4			Sample BH16/4.0	3.9	
					Borehole BH16 terminated at 4m			
			5					
			6					
			7					
			8					

APPENDIX III

ANALYSIS RESULTS

METALS				Sample Number	9528/BH1/0.2-0.3	9528/BH1/1.0	9528/BH1/3.0	9528/BH2/0.2-0.3	9528/BH2/2.0	9528/BH3/0.2-0.3	9528/BH3/1.0	9528/BH3/4.0	9528/BH4/0.2-0.3	9528/BH4/1.0	9528/BH5/0.2-0.3
				Sample Location	BH1	BH1	BH1	BH2	BH2	BH3	BH3	BH3	BH4	BH4	BH5
				Sample Depth from Surface (m)	0.2	1	3	0.2	2	0.2	1	4	0.2	1	0.2
ANALYTE	NEPM HIL	NEPM EIL^	Units	PQL											
Arsenic	3000	160	mg/kg	4	7	13	9	13	8	15	8	6	9	11	10
Cadmium	900	-	mg/kg	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	3600	1100	mg/kg	1	20	21	12	22	11	15	17	13	21	15	3
Copper	240000	170	mg/kg	1	11	16	36	21	35	18	21	35	12	17	30
Lead	1500	1800	mg/kg	1	21	15	18	15	21	15	17	19	17	10	22
Mercury	730	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	6000	410	mg/kg	1	8	8	19	20	16	19	10	20	7	15	24
Zinc	400000	610	mg/kg	1	45	27	71	47	59	49	28	72	21	58	43

^EIL levels derived from aged contaminant limits for Commercial/Industrial

METALS				Sample Number	9528/BH5/2.0	9528/BH5/7.4	9528/BH6/0.2-0.3	9528/BH6/1.0	9528/BH7/0.2-0.3	9528/BH7/3.0	9528/BH8/1.0	9528/BH8/3.0	9528/BH9/0.2-0.3	9528/BH9a/0.1	9528/BH10a/0.1
				Sample Location	BH5	BH5	BH6	BH6	BH7	BH7	BH8	BH8	BH9	BH9a	BH10a
				Sample Depth from Surface (m)	2	7.4	0.2	1	0.2	3	1	3	0.2	0.1	0.1
ANALYTE	NEPM HIL	NEPM EIL^	Units	PQL											
Arsenic	3000	160	mg/kg	4	7	5	<4	<4	7	11	5	<4	15	6	10
Cadmium	900	-	mg/kg	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	3600	1100	mg/kg	1	12	10	10	10	21	12	14	11	18	17	15
Copper	240000	170	mg/kg	1	32	28	1	3	16	39	36	30	19	18	19
Lead	1500	1800	mg/kg	1	18	14	7	9	20	19	17	20	14	25	22
Mercury	730	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	6000	410	mg/kg	1	18	14	2	5	8	23	19	17	17	13	12
Zinc	400000	610	mg/kg	1	63	50	10	16	27	73	84	68	56	40	51

^EIL levels derived from aged contaminant limits for Commercial/Indust

METALS				Sample Number	9528/BH10/2.0	9528/BH11/0.2-0.3	9528/BH11/2.0	9528/BH12/0.2-0.3	9528/BH12/3.0	9528/BH13/0.2-0.3	9528/BH13/1.0	9528/BH13/3.0	9528/BH14/0.2-0.3	9528/BH14/2.0	9528/BH14/4.0
				Sample Location	BH10	BH11	BH11	BH12	BH12	BH13	BH13	BH13	BH14	BH14	BH14
				Sample Depth from Surface (m)	2	0.2	2	0.2	3	0.2	1	3	0.2	2	4
ANALYTE	NEPM HIL	NEPM EIL^	Units	PQL											
Arsenic	3000	160	mg/kg	4	8	8	<4	7	5	8	7	5	5	6	<4
Cadmium	900	-	mg/kg	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	3600	1100	mg/kg	1	11	16	11	18	12	16	17	13	15	13	13
Copper	240000	170	mg/kg	1	38	23	30	18	31	23	27	36	24	38	35
Lead	1500	1800	mg/kg	1	17	20	19	19	17	23	18	18	14	19	17
Mercury	730	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	6000	410	mg/kg	1	17	15	23	11	18	12	20	19	11	16	18
Zinc	400000	610	mg/kg	1	68	44	75	37	60	42	54	70	49	76	71

^EIL levels derived from aged contaminant limits for Commercial/Indust

METALS				Sample Number	9528/BH15/0.2-0.3	9528/BH15/1.0	9528/BH15/3.0	9528/BH16/0.2-0.3	9528/BH16/1.0	9528/BH16/3.0
				Sample Location	BH15	BH15	BH15	BH16	BH16	BH16
				Sample Depth from Surface (m)	0.2	1	3	0.2	1	3
ANALYTE	NEPM HIL	NEPM EIL^	Units	PQL						
Arsenic	3000	160	mg/kg	4	10	8	5	6	7	<4
Cadmium	900	-	mg/kg	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	3600	1100	mg/kg	1	18	14	13	15	16	6
Copper	240000	170	mg/kg	1	15	36	38	19	21	18
Lead	1500	1800	mg/kg	1	19	18	14	15	17	24
Mercury	730	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	6000	410	mg/kg	1	9	16	18	10	10	10
Zinc	400000	610	mg/kg	1	26	53	70	37	34	48

^EIL levels derived from aged contaminant limits for Commercial/Indust

TRH/BTEX												Sample Number	9528/BH1/0.2-0.3	9528/BH1/1.0	9528/BH1/3.0	9528/BH2/0.2-0.3	9528/BH2/2.0	9528/BH3/0.2-0.3	9528/BH3/1.0
												Sample Location	BH1	BH1	BH1	BH2	BH2	BH3	BH3
Sample Depth from Surface (m)	0 to <1	1 to <2	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	0.2	1	3	0.2	2	0.2	1
Soil Type	Sand	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Clay	Clay	Silt	Clay	Silt	Silt	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM EIL^/ ESL	Supplementary Guideline Level	Units	PQL							
TRH C6 - C9	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25	<25	<25	<25
TRH C6 - C10	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25	<25	<25	<25
vTPH C6 - C10 less BTEX (F1)	260	370	250	360	590	NL	310	480	215	-	mg/kg	25	<25	<25	<25	<25	<25	<25	<25
Benzene	3	3	4	4	6	10	4	6	75/95**	-	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	135	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	165/185**	-	mg/kg	1	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	2	<2	<2	<2	<2	<2	<2	<2
o-Xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	1	<1	<1	<1	<1	<1	<1	<1
naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	370	-	mg/kg	1	<1	<1	<1	<1	<1	<1	<1
TRH C10 - C14	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50	<50	<50	<50
TRH C15 - C28	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
TRH C29 - C36	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
TRH >C10-C16	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50	<50	<50	<50
TRH >C10 - C16 less Naphthalene (F2)	NL	NL	NL	NL	NL	NL	NL	NL	170	-	mg/kg	50	<50	<50	<50	<50	<50	<50	<50
TRH>C16-C34 (F3)	-	-	-	-	-	-	-	-	1700/2500**	27000*	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
TRH>C34-C40 (F4)	-	-	-	-	-	-	-	-	3300/6600**	38000*	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
Xylenes	230	NL	NL	NL	NL	NL	NL	NL	180/95	-	mg/kg	3	<3	<3	<3	<3	<3	<3	<3

*Friebel, E & Nadebaum, P 2011a, HSLs for petroleum hydrocarbons in soil and groundwater, part 1: technical development document, Technical report no. 10, CRC for Contamination Assessment and Remediation of the Environment, Adelaide, Australia.

^EIL levels derived from aged contaminant limits for Commercial/Industrial

**ESLs for Commercial/Industrial with soil texture Coarse/Fine

TRH/BTEX												Sample Number	9528/BH3/4.0	9528/BH4/0.2-0.3	9528/BH4/1.0	9528/BH5/0.2-0.3	9528/BH5/2.0	9528/BH5/7.4	9528/BH6/0.2-0.3
												Sample Location	BH3	BH4	BH4	BH5	BH5	BH5	BH6
Sample Depth from Surface (m)	0 to <1	1 to <2	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	4	0.2	1	0.2	2	7.4	0.2
Soil Type	Sand	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Silt	Silt	Silt	Silt	Silt	Silt	Sand
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM EIL^/ ESL	Supplementary Guideline Level	Units	PQL							
TRH C6 - C9	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25	<25	<25	<25
TRH C6 - C10	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25	<25	<25	<25
vTPH C6 - C10 less BTEX (F1)	260	370	250	360	590	NL	310	480	215	-	mg/kg	25	<25	<25	<25	<25	<25	<25	<25
Benzene	3	3	4	4	6	10	4	6	75/95**	-	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	135	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	165/185**	-	mg/kg	1	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	2	<2	<2	<2	<2	<2	<2	<2
o-Xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	1	<1	<1	<1	<1	<1	<1	<1
naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	370	-	mg/kg	1	<1	<1	<1	<1	<1	<1	<1
TRH C10 - C14	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50	<50	<50	<50
TRH C15 - C28	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
TRH C29 - C36	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
TRH >C10-C16	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50	<50	<50	<50
TRH >C10 - C16 less Naphthalene (F2)	NL	NL	NL	NL	NL	NL	NL	NL	170	-	mg/kg	50	<50	<50	<50	<50	<50	<50	<50
TRH>C16-C34 (F3)	-	-	-	-	-	-	-	-	1700/2500**	27000*	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
TRH>C34-C40 (F4)	-	-	-	-	-	-	-	-	3300/6600**	38000*	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
Xylenes	230	NL	NL	NL	NL	NL	NL	NL	180/95	-	mg/kg	3	<3	<3	<3	<3	<3	<3	<3

*Friebel, E & Nadebaum, P 2011a, HSLs for petroleum hydrocarbons in soil and groundwater, part 1: technical development document, Technical report no. 10, CRC for Contamination Assessment and Remediation of

^EIL levels derived from aged contaminant limits for Commercial/Industrial

**ESLs for Commercial/Industrial with soil texture Coarse/Fine

TRH/BTEX												Sample Number	9528/BH6/1.0	9528/BH7/0.2-0.3	9528/BH7/3.0	9528/BH8/1.0	9528/BH8/3.0	9528/BH9/0.2-0.3	9528/BH9a/0.1
												Sample Location	BH6	BH7	BH7	BH8	BH8	BH9	BH9a
Sample Depth from Surface (m)	0 to <1	1 to <2	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	1	0.2	3	1	3	0.2	0.1
Soil Type	Sand	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Sand	Silt	Silt	Silt	Silt	Silt	Sand
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM EIL^/ ESL	Supplementary Guideline Level	Units	PQL							
TRH C6 - C9	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25	<25	-	-
TRH C6 - C10	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25	<25	-	-
vTPH C6 - C10 less BTEX (F1)	260	370	250	360	590	NL	310	480	215	-	mg/kg	25	<25	<25	<25	<25	<25	-	-
Benzene	3	3	4	4	6	10	4	6	75/95**	-	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	135	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	165/185**	-	mg/kg	1	<1	<1	<1	<1	<1	-	-
m+p-xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	2	<2	<2	<2	<2	<2	-	-
o-Xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	1	<1	<1	<1	<1	<1	-	-
naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	370	-	mg/kg	1	<1	<1	<1	<1	<1	-	-
TRH C10 - C14	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50	<50	-	-
TRH C15 - C28	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100	<100	-	-
TRH C29 - C36	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100	<100	-	-
TRH >C10-C16	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50	<50	-	-
TRH >C10 - C16 less Naphthalene (F2)	NL	NL	NL	NL	NL	NL	NL	NL	170	-	mg/kg	50	<50	<50	<50	<50	<50	-	-
TRH>C16-C34 (F3)	-	-	-	-	-	-	-	-	1700/2500**	27000*	mg/kg	100	<100	<100	<100	<100	<100	-	-
TRH>C34-C40 (F4)	-	-	-	-	-	-	-	-	3300/6600**	38000*	mg/kg	100	<100	<100	<100	<100	<100	-	-
Xylenes	230	NL	NL	NL	NL	NL	NL	NL	180/95	-	mg/kg	3	<3	<3	<3	<3	<3	-	-

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^EIL levels derived from aged contaminant limits for Commercial/Industrial

**ESLs for Commercial/Industrial with soil texture Coarse/Fine

TRH/BTEX												Sample Number	9528/BH10a/0.1	9528/BH10/2.0	9528/BH11/0.2-0.3	9528/BH11/2.0	9528/BH12/0.2-0.3	9528/BH12/3.0	9528/BH13/0.2-0.3
												Sample Location	BH10a	BH10	BH11	BH11	BH12	BH12	BH13
Sample Depth from Surface (m)	0 to <1	1 to <2	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	0.1	2	0.2	2	0.2	3	0.2
Soil Type	Sand	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Sand	Silt	Silt	Silt	Silt	Silt	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM EIL^/ ESL	Supplementary Guideline Level	Units	PQL							
TRH C6 - C9	-	-	-	-	-	-	-	-	-	-	mg/kg	25	-	-	-	-	-	-	<25
TRH C6 - C10	-	-	-	-	-	-	-	-	-	-	mg/kg	25	-	-	-	-	-	-	<25
vTPH C6 - C10 less BTEX (F1)	260	370	250	360	590	NL	310	480	215	-	mg/kg	25	-	-	-	-	-	-	<25
Benzene	3	3	4	4	6	10	4	6	75/95**	-	mg/kg	0.2	-	-	-	-	-	-	<0.2
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	135	-	mg/kg	0.5	-	-	-	-	-	-	<0.5
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	165/185**	-	mg/kg	1	-	-	-	-	-	-	<1
m+p-xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	2	-	-	-	-	-	-	<2
o-Xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	1	-	-	-	-	-	-	<1
naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	370	-	mg/kg	1	-	-	-	-	-	-	<1
TRH C10 - C14	-	-	-	-	-	-	-	-	-	-	mg/kg	50	-	-	-	-	-	-	<50
TRH C15 - C28	-	-	-	-	-	-	-	-	-	-	mg/kg	100	-	-	-	-	-	-	<100
TRH C29 - C36	-	-	-	-	-	-	-	-	-	-	mg/kg	100	-	-	-	-	-	-	<100
TRH >C10-C16	-	-	-	-	-	-	-	-	-	-	mg/kg	50	-	-	-	-	-	-	<50
TRH >C10 - C16 less Naphthalene (F2)	NL	NL	NL	NL	NL	NL	NL	NL	170	-	mg/kg	50	-	-	-	-	-	-	<50
TRH>C16-C34 (F3)	-	-	-	-	-	-	-	-	1700/2500**	27000*	mg/kg	100	-	-	-	-	-	-	<100
TRH>C34-C40 (F4)	-	-	-	-	-	-	-	-	3300/6600**	38000*	mg/kg	100	-	-	-	-	-	-	<100
Xylenes	230	NL	NL	NL	NL	NL	NL	NL	180/95	-	mg/kg	3	-	-	-	-	-	-	<3

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^EIL levels derived from aged contaminant limits for Commercial/Industrial

**ESLs for Commercial/Industrial with soil texture Coarse/Fine

TRH/BTEX												Sample Number	9528/BH13/1.0	9528/BH13/3.0	9528/BH14/0.2-0.3	9528/BH14/2.0	9528/BH14/4.0	9528/BH15/0.2-0.3	9528/BH15/1.0
												Sample Location	BH13	BH13	BH14	BH14	BH14	BH15	BH15
Sample Depth from Surface (m)	0 to <1	1 to <2	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	1	3	0.2	2	4	0.2	1
Soil Type	Sand	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Silt	Silt	Sand	Silt	Silt	Silt	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM EIL^/ ESL	Supplementary Guideline Level	Units	PQL							
TRH C6 - C9	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25	<25	<25	<25
TRH C6 - C10	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25	<25	<25	<25
vTPH C6 - C10 less BTEX (F1)	260	370	250	360	590	NL	310	480	215	-	mg/kg	25	<25	<25	<25	<25	<25	<25	<25
Benzene	3	3	4	4	6	10	4	6	75/95**	-	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	135	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	165/185**	-	mg/kg	1	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	2	<2	<2	<2	<2	<2	<2	<2
o-Xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	1	<1	<1	<1	<1	<1	<1	<1
naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	370	-	mg/kg	1	<1	<1	<1	<1	<1	<1	<1
TRH C10 - C14	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50	<50	<50	<50
TRH C15 - C28	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
TRH C29 - C36	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
TRH >C10-C16	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50	<50	<50	<50
TRH >C10 - C16 less Naphthalene (F2)	NL	NL	NL	NL	NL	NL	NL	NL	170	-	mg/kg	50	<50	<50	<50	<50	<50	<50	<50
TRH>C16-C34 (F3)	-	-	-	-	-	-	-	-	1700/2500**	27000*	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
TRH>C34-C40 (F4)	-	-	-	-	-	-	-	-	3300/6600**	38000*	mg/kg	100	<100	<100	<100	<100	<100	<100	<100
Xylenes	230	NL	NL	NL	NL	NL	NL	NL	180/95	-	mg/kg	3	<3	<3	<3	<3	<3	<3	<3

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^EIL levels derived from aged contaminant limits for Commercial/Industrial

**ESLs for Commercial/Industrial with soil texture Coarse/Fine

TRH/BTEX												Sample Number	9528/BH15/3.0	9528/BH16/0.2-0.3	9528/BH16/1.0	9528/BH16/3.0
												Sample Location	BH15	BH16	BH16	BH16
Sample Depth from Surface (m)	0 to <1	1 to <2	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	3	0.2	1	3
Soil Type	Sand	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Silt	Silt	Silt	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM EIL^/ ESL	Supplementary Guideline Level	Units	PQL				
TRH C6 - C9	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25
TRH C6 - C10	-	-	-	-	-	-	-	-	-	-	mg/kg	25	<25	<25	<25	<25
vTPH C6 - C10 less BTEX (F1)	260	370	250	360	590	NL	310	480	215	-	mg/kg	25	<25	<25	<25	<25
Benzene	3	3	4	4	6	10	4	6	75/95**	-	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	135	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	165/185**	-	mg/kg	1	<1	<1	<1	<1
m+p-xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	2	<2	<2	<2	<2
o-Xylene	-	-	-	-	-	-	-	-	-	-	mg/kg	1	<1	<1	<1	<1
naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	370	-	mg/kg	1	<1	<1	<1	<1
TRH C10 - C14	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50
TRH C15 - C28	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100
TRH C29 - C36	-	-	-	-	-	-	-	-	-	-	mg/kg	100	<100	<100	<100	<100
TRH >C10-C16	-	-	-	-	-	-	-	-	-	-	mg/kg	50	<50	<50	<50	<50
TRH >C10 - C16 less Naphthalene (F2)	NL	NL	NL	NL	NL	NL	NL	NL	170	-	mg/kg	50	<50	<50	<50	<50
TRH>C16-C34 (F3)	-	-	-	-	-	-	-	-	1700/2500**	27000*	mg/kg	100	<100	<100	<100	<100
TRH>C34-C40 (F4)	-	-	-	-	-	-	-	-	3300/6600**	38000*	mg/kg	100	<100	<100	<100	<100
Xylenes	230	NL	NL	NL	NL	NL	NL	NL	180/95	-	mg/kg	3	<3	<3	<3	<3

*Friebel, E & Nadebaum, P 2011a, HSLs for petroleum hydrocarbons in soil and groundwater, part 1: technical development document, Technical report no. 10, CRC for Contamination Assessment and Remediation of

^EIL levels derived from aged contaminant limits for Commercial/Industrial

**ESLs for Commercial/Industrial with soil texture Coarse/Fine

PAHs											Sample Number	9528/BH1/0.2-0.3	9528/BH1/1.0	9528/BH1/3.0	9528/BH2/0.2-0.3	9528/BH2/2.0	9528/BH3/0.2-0.3	9528/BH3/1.0	9528/BH3/4.0	9528/BH4/0.2-0.3	9528/BH4/1.0
											Sample Location	BH1	BH1	BH1	BH2	BH2	BH3	BH3	BH3	BH4	BH4
Sample Depth from Surface (m)	0 to <1	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	0.2	1	3	0.2	2	0.2	1	4	0.2	1
Soil Type	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Clay	Clay	Silt	Clay	Silt	Silt	Silt	Silt	Silt	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HIL	NEPM EIL^/ESL	Units	PQL										
Naphthalene	NL	NL	NL	NL	NL	NL	NL	-	370	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	-	-	-	-	-	-	-	-	-	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	-	-	-	-	-	-	-	-	0.7	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Positive PAHs	-	-	-	-	-	-	-	-	-	mg/kg	-	0.12	0.13	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Total PAHs	-	-	-	-	-	-	-	4000	-	mg/kg	1.55	<1.55	<1.55	<1.55	<1.55	<1.55	<1.55	<1.55	<1.55	<1.55	<1.55

^EIL levels derived from fresh contaminant limits for Commercial/Industrial

PAHs											Sample Number	9528/BH5/0.2-0.3	9528/BH5/2.0	9528/BH5/7.4	9528/BH6/0.2-0.3	9528/BH6/1.0	9528/BH7/0.2-0.3	9528/BH7/3.0	9528/BH8/1.0	9528/BH8/3.0	9528/BH9/0.2-0.3
											Sample Location	BH5	BH5	BH5	BH6	BH6	BH7	BH7	BH8	BH8	BH9
Sample Depth from Surface (m)	0 to <1	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	0.2	2	7.4	0.2	1	0.2	3	1	3	0.2
Soil Type	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Silt	Silt	Silt	Sand	Sand	Silt	Silt	Silt	Silt	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HIL	NEPM EIL^/ESL	Units	PQL										
Naphthalene	NL	NL	NL	NL	NL	NL	NL	-	370	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Acenaphthylene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Acenaphthene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Fluorene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Phenanthrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	1.2	<0.1	0.1	<0.1	-	<0.1	-	-	<0.1	-
Anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Fluoranthene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Pyrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Benzo(a)anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Chrysene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Benzo(b,j+k)fluoranthene	-	-	-	-	-	-	-	-	-	mg/kg	0.2	0.2	<0.2	<0.2	<0.2	-	<0.2	-	-	<0.2	-
Benzo(a)pyrene	-	-	-	-	-	-	-	-	0.7	mg/kg	0.05	0.07	<0.05	<0.05	<0.05	-	<0.05	-	-	<0.05	-
Indeno(1,2,3-c,d)pyrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Dibenzo(a,h)anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1	-
Benzo(a)pyrene TEQ calc (zero)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	-
Benzo(a)pyrene TEQ calc(half)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	-
Benzo(a)pyrene TEQ calc(PQL)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	-
Total Positive PAHs	-	-	-	-	-	-	-	-	-	mg/kg	-	2.4	NIL (+)VE	0.11	NIL (+)VE	-	NIL (+)VE	-	-	NIL (+)VE	-
Total PAHs	-	-	-	-	-	-	-	4000	-	mg/kg	1.55	<2.97	<1.55	<1.55	<1.55	-	<1.55	-	-	<1.55	-

^EIL levels derived from fresh contaminant limits for Commercial/Industrial

PAHs											Sample Number	9528/BH9a/0.1	9528/BH10a/0.1	9528/BH10/2.0	9528/BH11/0.2-0.3	9528/BH11/2.0	9528/BH12/0.2-0.3	9528/BH12/3.0	9528/BH13/0.2-0.3	9528/BH13/1.0	9528/BH13/3.0
											Sample Location	BH9a	BH10a	BH10	BH11	BH11	BH12	BH12	BH13	BH13	BH13
Sample Depth from Surface (m)	0 to <1	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	0.1	0.1	2	0.2	2	0.2	3	0.2	1	3
Soil Type	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Sand	Sand	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HIL	NEPM EIL^/ESL	Units	PQL										
Naphthalene	NL	NL	NL	NL	NL	NL	NL	-	370	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Acenaphthylene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Acenaphthene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Fluorene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Phenanthrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Fluoranthene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Pyrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Benzo(a)anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Chrysene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	-	-	-	-	-	-	-	-	-	mg/kg	0.2	-	-	-	-	-	-	-	<0.2	<0.2	<0.2
Benzo(a)pyrene	-	-	-	-	-	-	-	-	0.7	mg/kg	0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Total Positive PAHs	-	-	-	-	-	-	-	-	-	mg/kg	-	-	-	-	-	-	-	-	NIL (+)VE	NIL (+)VE	NIL (+)VE
Total PAHs	-	-	-	-	-	-	-	4000	-	mg/kg	1.55	-	-	-	-	-	-	-	<1.55	<1.55	<1.55

^EIL levels derived from fresh contaminant limits for Commercial/Industrial

PAHs											Sample Number	9528/BH14/0.2-0.3	9528/BH14/2.0	9528/BH14/4.0	9528/BH15/0.2-0.3	9528/BH15/1.0	9528/BH15/3.0	9528/BH16/0.2-0.3	9528/BH16/1.0	9528/BH16/3.0
											Sample Location	BH14	BH14	BH14	BH15	BH15	BH15	BH16	BH16	BH16
Sample Depth from Surface (m)	0 to <1	0 to <1	1 to <2	2 to <4	>=4	0 to <1	1 to <2				Sample Depth from Surface (m)	0.2	2	4	0.2	1	3	0.2	1	3
Soil Type	Sand	Silt	Silt	Silt	Silt	Clay	Clay					Sand	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HSL	NEPM HIL	NEPM EIL^/ESL	Units	PQL									
Naphthalene	NL	NL	NL	NL	NL	NL	NL	-	370	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	-	-	-	-	-	-	-	-	-	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	-	-	-	-	-	-	-	-	0.7	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	-	-	-	-	-	-	-	40	-	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Positive PAHs	-	-	-	-	-	-	-	-	-	mg/kg	-	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Total PAHs	-	-	-	-	-	-	-	4000	-	mg/kg	1.55	<1.55	<1.55	<1.55	<1.55	<1.55	<1.55	<1.55	<1.55	<1.55

^EIL levels derived from fresh contaminant limits for Commercial/Industrial

OCP/OPP				Sample Number	9528/BH1/0.2-0.3	9528/BH1/1.0	9528/BH1/3.0	9528/BH2/0.2-0.3	9528/BH2/2.0	9528/BH3/0.2-0.3	9528/BH3/1.0	9528/BH3/4.0	9528/BH4/0.2-0.3	9528/BH4/1.0	9528/BH5/0.2-0.3	9528/BH5/2.0	9528/BH5/7.4	9528/BH6/0.2-0.3	9528/BH6/1.0	9528/BH7/0.2-0.3	9528/BH7/3.0	9528/BH8/1.0	9528/BH8/3.0	9528/BH9/0.2-0.3	9528/BH9a/0.1
				Sample Location	BH1	BH1	BH1	BH2	BH2	BH3	BH3	BH3	BH4	BH4	BH5	BH5	BH5	BH6	BH6	BH7	BH7	BH8	BH8	BH9	BH9a
				Sample Depth from Surface (m)	0.2	1	3	0.2	2	0.2	1	4	0.2	1	0.2	2	7.4	0.2	1	0.2	3	1	3	0.2	0.1
ANALYTE	NEPM HIL	NEPM EIL^	Units	PQL																					
HCB	80	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
alpha-BHC	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
gamma-BHC	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
beta-BHC	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Heptachlor	50	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
delta-BHC	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Aldrin	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Heptachlor Epoxide	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
gamma-Chlordane	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	0.3	-	-	-	-	-
alpha-chlordane	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	0.4	-	-	-	-	-
Endosulfan I	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
pp-DDE	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Dieldrin	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Endrin	100	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
pp-DDD	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Endosulfan II	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
pp-DDT	-	640	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Endrin Aldehyde	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Endosulfan Sulphate	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Methoxychlor	2500	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Azinphos-methyl (Guthion)	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Bromophos-ethyl	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Chlorpyriphos	2000	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Chlorpyriphos-methyl	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Diazinon	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Dichlorvos	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Dimethoate	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Ethion	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Fenitrothion	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Malathion	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Parathion	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
Ronnel	-	-	mg/kg	0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-
DDT+DDE+DDD	3600	-	mg/kg	0.3	<0.3	-	-	-	-	<0.3	-	-	-	-	<0.3	-	-	-	-	<0.3	-	-	-	-	-
Aldrin and Dieldrin	45	-	mg/kg	0.2	<0.2	-	-	-	-	<0.2	-	-	-	-	<0.2	-	-	-	-	<0.2	-	-	-	-	-
Total Chlordane	530	-	mg/kg	0.2	<0.2	-	-	-	-	<0.2	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-
Total Endosulfan	2000	-	mg/kg	0.3	<0.3	-	-	-	-	<0.3	-	-	-	-	<0.3	-	-	-	-	<0.3	-	-	-	-	-
Total Endrin	100	-	mg/kg	0.2	<0.2	-	-	-	-	<0.2	-	-	-	-	<0.2	-	-	-	-	<0.2	-	-	-	-	-
Total Heptachlor	50	-	mg/kg	0.2	<0.2	-	-	-	-	<0.2	-	-	-	-	<0.2	-	-	-	-	<0.2	-	-	-	-	-

^EIL levels derived from aged contaminant limits for Commercial/Industrial

OCP/OPP				Sample Number	9528/BH10a/0.1	9528/BH10/2.0	9528/BH11/0.2-0.3	9528/BH11/2.0	9528/BH12/0.2-0.3	9528/BH12/3.0	9528/BH13/0.2-0.3	9528/BH13/1.0	9528/BH13/3.0	9528/BH14/2.0	9528/BH14/4.0	9528/BH15/0.2-0.3	9528/BH15/1.0	9528/BH15/3.0	9528/BH16/0.2-0.3	9528/BH16/1.0	9528/BH16/3.0
				Sample Location	BH10a	BH10	BH11	BH11	BH12	BH12	BH13	BH13	BH13	BH14	BH14	BH15	BH15	BH15	BH16	BH16	BH16
				Sample Depth from Surface (m)	0.1	2	0.2	2	0.2	3	0.2	1	3	2	4	0.2	1	3	0.2	1	3
ANALYTE	NEPM HIL	NEPM EIL^	Units	PQL																	
HCB	80	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
beta-BHC	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	50	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor Epoxide	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-chlordane	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pp-DDE	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	100	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pp-DDD	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pp-DDT	-	640	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin Aldehyde	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan Sulphate	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	2500	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azinphos-methyl (Guthion)	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromophos-ethyl	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyriphos	2000	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyriphos-methyl	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diazinon	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorvos	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethoate	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethion	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenitrothion	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malathion	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parathion	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ronnel	-	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DDT+DDE+DDD	3600	-	mg/kg	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin and Dieldrin	45	-	mg/kg	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Chlordane	530	-	mg/kg	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Endosulfan	2000	-	mg/kg	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Endrin	100	-	mg/kg	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Heptachlor	50	-	mg/kg	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

^EIL levels derived from aged contaminant limits for Commercial/Industrial

PCBs			Sample Number	9528/BH1/0.2-0.3	9528/BH1/1.0	9528/BH1/3.0	9528/BH2/0.2-0.3	9528/BH2/2.0	9528/BH3/0.2-0.3	9528/BH3/1.0	9528/BH3/4.0	9528/BH4/0.2-0.3	9528/BH4/1.0	9528/BH5/0.2-0.3	9528/BH5/2.0	9528/BH5/7.4	9528/BH6/0.2-0.3
			Sample Location	BH1	BH1	BH1	BH2	BH2	BH3	BH3	BH3	BH4	BH4	BH5	BH5	BH5	BH6
			Sample Depth from Surface (m)	0.2	1	3	0.2	2	0.2	1	4	0.2	1	0.2	2	7.4	0.2
ANALYTE	NEPM HIL	Units	PQL														
Aroclor 1016	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1221	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1232	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1242	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1248	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1254	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1260	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	7	mg/kg	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PCBs			Sample Number	9528/BH6/1.0	9528/BH7/0.2-0.3	9528/BH7/3.0	9528/BH8/1.0	9528/BH8/3.0	9528/BH9/0.2-0.3	9528/BH9a/0.1	9528/BH10a/0.1	9528/BH10/2.0	9528/BH11/0.2-0.3	9528/BH11/2.0	9528/BH12/0.2-0.3	9528/BH12/3.0	9528/BH13/0.2-0.3
			Sample Location	BH6	BH7	BH7	BH8	BH8	BH9	BH9a	BH10a	BH10	BH11	BH11	BH12	BH12	BH13
			Sample Depth from Surface (m)	1	0.2	3	1	3	0.2	0.1	0.1	2	0.2	2	0.2	3	0.2
ANALYTE	NEPM HIL	Units	PQL														
Aroclor 1016	-	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Aroclor 1221	-	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Aroclor 1232	-	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Aroclor 1242	-	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Aroclor 1248	-	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Aroclor 1254	-	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Aroclor 1260	-	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Total PCBs	7	mg/kg	0.7	-	-	-	-	-	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	-

PCBs			Sample Number	9528/BH13/1.0	9528/BH13/3.0	9528/BH14/0.2-0.3	9528/BH14/2.0	9528/BH14/4.0	9528/BH15/0.2-0.3	9528/BH15/1.0	9528/BH15/3.0	9528/BH16/0.2-0.3	9528/BH16/1.0	9528/BH16/3.0
			Sample Location	BH13	BH13	BH14	BH14	BH14	BH15	BH15	BH15	BH16	BH16	BH16
			Sample Depth from Surface (m)	1	3	0.2	2	4	0.2	1	3	0.2	1	3
ANALYTE	NEPM HIL	Units	PQL											
Aroclor 1016	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1221	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1232	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1242	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1248	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1254	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1260	-	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	7	mg/kg	0.7	-	-	-	-	-	-	-	-	-	-	-

PHENOLS			Sample Number	9528/BH1/0.2-0.3	9528/BH1/1.0	9528/BH1/3.0	9528/BH2/0.2-0.3	9528/BH2/2.0	9528/BH3/0.2-0.3	9528/BH3/1.0	9528/BH3/4.0	9528/BH4/0.2-0.3	9528/BH4/1.0	9528/BH5/0.2-0.3	9528/BH5/2.0	9528/BH5/7.4	9528/BH6/0.2-0.3
			Sample Location	BH1	BH1	BH1	BH2	BH2	BH3	BH3	BH3	BH4	BH4	BH5	BH5	BH5	BH6
			Sample Depth from Surface (m)	0.2	1	3	0.2	2	0.2	1	4	0.2	1	0.2	2	7.4	0.2
ANALYTE	NEPM HIL	Units	PQL														
Total Phenolics (as Phenol)	240000	mg/kg	5	-	-	-	-	-	-	-	-	<5	-	-	<5	<5	<5

PHENOLS			Sample Number	9528/BH6/1.0	9528/BH7/0.2-0.3	9528/BH7/3.0	9528/BH8/1.0	9528/BH8/3.0	9528/BH9/0.2-0.3	9528/BH9a/0.1	9528/BH10a/0.1	9528/BH10/2.0	9528/BH11/0.2-0.3	9528/BH11/2.0	9528/BH12/0.2-0.3	9528/BH12/3.0	9528/BH13/0.2-0.3
			Sample Location	BH6	BH7	BH7	BH8	BH8	BH9	BH9a	BH10a	BH10	BH11	BH11	BH12	BH12	BH13
			Sample Depth from Surface (m)	1	0.2	3	1	3	0.2	0.1	0.1	2	0.2	2	0.2	3	0.2
ANALYTE	NEPM HIL	Units	PQL														
Total Phenolics (as Phenol)	240000	mg/kg	5	-	<5	-	-	-	-	-	-	-	-	-	-	-	<5

PHENOLS			Sample Number	9528/BH13/1.0	9528/BH13/3.0	9528/BH14/0.2-0.3	9528/BH14/2.0	9528/BH14/4.0	9528/BH15/0.2-0.3	9528/BH15/1.0	9528/BH15/3.0	9528/BH16/0.2-0.3	9528/BH16/1.0	9528/BH16/3.0
			Sample Location	BH13	BH13	BH14	BH14	BH14	BH15	BH15	BH15	BH16	BH16	BH16
			Sample Depth from Surface (m)	1	3	0.2	2	4	0.2	1	3	0.2	1	3
ANALYTE	NEPM HIL	Units	PQL											
Total Phenolics (as Phenol)	240000	mg/kg	5	-	<5	<5	-	<5	<5	-	<5	<5	-	<5

VOCs					Sample Number	9528/BH1 /0.2-0.3	9528/BH1 /1.0	9528/BH1 /3.0	9528/BH2 /0.2-0.3	9528/BH2 /2.0	9528/BH3 /0.2-0.3	9528/BH3 /1.0	9528/BH3 /4.0	9528/BH4 /0.2-0.3	9528/BH4 /1.0	9528/BH5 /0.2-0.3	9528/BH5 /2.0	9528/BH5 /7.4	9528/BH6 /0.2-0.3	9528/BH6 /1.0	9528/BH7 /0.2-0.3	9528/BH7 /3.0	9528/BH8 /1.0	9528/BH8 /3.0	9528/BH9 /0.2-0.3	9528/BH9 a/0.1	9528/BH1 0a/0.1	9528/BH1 0/2.0
					Sample Location	BH1	BH1	BH1	BH2	BH2	BH3	BH3	BH3	BH4	BH4	BH5	BH5	BH5	BH6	BH6	BH7	BH7	BH8	BH8	BH9	BH9a	BH10a	BH10
Sample Depth from Surface (m)	0 to <1	1 to <2	>=4		Sample Depth from Surface (m)	0.2	1	3	0.2	2	0.2	1	4	0.2	1	0.2	2	7.4	0.2	1	0.2	3	1	3	0.2	0.1	0.1	2
Soil Type	Silt	Clay	Clay			Clay	Clay	Silt	Clay	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Sand	Sand	Silt	Silt	Silt	Silt	Silt	Sand	Sand	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	Units	PQL																							
Dichlorodifluoromethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-dichloroethene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,1-dichloroethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-dichloroethene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
bromochloromethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
chloroform	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
2,2-dichloropropane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,2-dichloroethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,1,1-trichloroethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,1-dichloropropene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
carbon tetrachloride	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Benzene	0.6	1	3	mg/kg	0.2	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
dibromomethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,2-dichloropropane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
trichloroethene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
bromodichloromethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-dichloropropene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-dichloropropene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,1,2-trichloroethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Toluene	390	NL	NL	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
1,3-dichloropropane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
dibromochloromethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,2-dibromoethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
tetrachloroethene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-tetrachloroethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
chlorobenzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	NL	NL	NL	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
bromoform	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
m+p-xylene	-	-	-	mg/kg	2	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-
styrene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-tetrachloroethane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,2,3-trichloropropane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
isopropylbenzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
bromobenzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
n-propyl benzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
2-chlorotoluene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
4-chlorotoluene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,3,5-trimethyl benzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
tert-butyl benzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,2,4-trimethyl benzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,3-dichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
sec-butyl benzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,4-dichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
4-isopropyl toluene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,2-dichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
n-butyl benzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,2-dibromo-3-chloropropane	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,2,4-trichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
hexachlorobutadiene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
1,2,3-trichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Xylenes	95	310	NL	mg/kg	3	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	-	-	-	-	-	-

VOCs					Sample Number	9528/BH1 1/0.2-0.3	9528/BH1 1/2.0	9528/BH1 2/0.2-0.3	9528/BH1 2/3.0	9528/BH1 3/0.2-0.3	9528/BH1 3/1.0	9528/BH1 3/3.0	9528/BH1 4/0.2-0.3	9528/BH1 4/2.0	9528/BH1 4/4.0	9528/BH1 5/0.2-0.3	9528/BH1 5/1.0	9528/BH1 5/3.0	9528/BH1 6/0.2-0.3	9528/BH1 6/1.0	9528/BH1 6/3.0
					Sample Location	BH11	BH11	BH12	BH12	BH13	BH13	BH13	BH14	BH14	BH14	BH15	BH15	BH15	BH16	BH16	BH16
Sample Depth from Surface (m)	0 to <1	1 to <2	>=4		Sample Depth from Surface (m)	0.2	2	0.2	3	0.2	1	3	0.2	2	4	0.2	1	3	0.2	1	3
Soil Type	Silt	Clay	Clay			Silt	Silt	Silt	Silt	Silt	Silt	Silt	Sand	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt
ANALYTE	NEPM HSL	NEPM HSL	NEPM HSL	Units	PQL																
Dichlorodifluoromethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Chloromethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Vinyl Chloride	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Bromomethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Chloroethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Trichlorofluoromethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,1-Dichloroethene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
trans-1,2-dichloroethene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,1-dichloroethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
cis-1,2-dichloroethene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
bromochloromethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
chloroform	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
2,2-dichloropropane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,2-dichloroethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,1,1-trichloroethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,1-dichloropropene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Cyclohexane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
carbon tetrachloride	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Benzene	0.6	1	3	mg/kg	0.2	-	-	-	-	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	<0.2	<0.2
dibromomethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,2-dichloropropane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
trichloroethene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
bromodichloromethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
trans-1,3-dichloropropene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
cis-1,3-dichloropropene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,1,2-trichloroethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Toluene	390	NL	NL	mg/kg	0.5	-	-	-	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	-	<0.5	<0.5
1,3-dichloropropane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
dibromochloromethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,2-dibromoethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
tetrachloroethene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,1,1,2-tetrachloroethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
chlorobenzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Ethylbenzene	NL	NL	NL	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
bromoform	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
m+p-xylene	-	-	-	mg/kg	2	-	-	-	-	<2	-	-	<2	<2	-	-	-	-	-	<2	<2
styrene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,1,2,2-tetrachloroethane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
o-Xylene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,2,3-trichloropropane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
isopropylbenzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
bromobenzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
n-propyl benzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
2-chlorotoluene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
4-chlorotoluene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,3,5-trimethyl benzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
tert-butyl benzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,2,4-trimethyl benzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,3-dichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
sec-butyl benzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,4-dichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
4-isopropyl toluene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,2-dichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
n-butyl benzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,2-dibromo-3-chloropropane	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,2,4-trichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
hexachlorobutadiene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
1,2,3-trichlorobenzene	-	-	-	mg/kg	1	-	-	-	-	<1	-	-	<1	<1	-	-	-	-	-	<1	<1
Xylenes	95	310	NL	mg/kg	3	-	-	-	-	<3	-	-	<3	<3	-	-	-	-	-	<3	<3

Asbestos in Soil			Sample Number	9528/BH9/1.0	9528/BH9a/0.1	9528/BH10/0.2-0.3	9528/BH10a/0.1	9528/BH11/0.2-0.3	9528/BH11/1.0	9528/BH12/0.2-0.3	9528/BH12/1.0
			Sample Location	BH9	BH9a	BH10	BH10a	BH11	BH11	BH12	BH12
			Sample Depth from Surface (m)	1	0.1	0.2-0.3	0.1	0.2-0.3	1	0.2-0.3	1
ANALYTE	NEPM HSL	Units									
Asbestos	0.01	%		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Ammonia			Sample Number	9528/BH1/0.2-0.3	9528/BH1/1.0	9528/BH1/3.0	9528/BH2/0.2-0.3	9528/BH2/2.0	9528/BH3/0.2-0.3	9528/BH3/1.0	9528/BH3/4.0	9528/BH4/0.2-0.3	9528/BH4/1.0	9528/BH5/0.2-0.3	9528/BH5/2.0	9528/BH5/7.4	9528/BH6/0.2-0.3
			Sample Location	BH1	BH1	BH1	BH2	BH2	BH3	BH3	BH3	BH4	BH4	BH5	BH5	BH5	BH6
			Sample Depth from Surface (m)	0.2	1	3	0.2	2	0.2	1	4	0.2	1	0.2	2	7.4	0.2
ANALYTE	**HIL***	**Units**	**PQL**														
Ammonia	40	mg/kg	0.5	27	-	0.6	2.9	1	4	-	0.9	-	-	-	-	-	-

*Kansas Department of Health and Environment-Bureau of Environmental Remediation (KDHE-BER)

Ammonia			Sample Number	9528/BH6/1.0	9528/BH7/0.2-0.3	9528/BH7/3.0	9528/BH8/1.0	9528/BH8/3.0	9528/BH9/0.2-0.3	9528/BH9a/0.1	9528/BH10a/0.1	9528/BH10/2.0	9528/BH11/0.2-0.3	9528/BH11/2.0	9528/BH12/0.2-0.3	9528/BH12/3.0	9528/BH13/0.2-0.3
			Sample Location	BH6	BH7	BH7	BH8	BH8	BH9	BH9a	BH10a	BH10	BH11	BH11	BH12	BH12	BH13
			Sample Depth from Surface (m)	1	0.2	3	1	3	0.2	0.1	0.1	2	0.2	2	0.2	3	0.2
ANALYTE	**HIL***	**Units**	**PQL**														
Ammonia	40	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Kansas Department of Health and Environment-Bureau of Environmenta

Ammonia			Sample Number	9528/BH13/1.0	9528/BH13/3.0	9528/BH14/0.2-0.3	9528/BH14/2.0	9528/BH14/4.0	9528/BH15/0.2-0.3	9528/BH15/1.0	9528/BH15/3.0	9528/BH16/0.2-0.3	9528/BH16/1.0	9528/BH16/3.0
			Sample Location	BH13	BH13	BH14	BH14	BH14	BH15	BH15	BH15	BH16	BH16	BH16
			Sample Depth from Surface (m)	1	3	0.2	2	4	0.2	1	3	0.2	1	3
ANALYTE	**HIL***	**Units**	**PQL**											
Ammonia	40	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-

*Kansas Department of Health and Environment-Bureau of Environmenta

Inputs
Select contaminant from list below
As
Below needed to calculate fresh and aged ACLs
Below needed to calculate fresh and aged ABCs
or for fresh ABCs only
or for aged ABCs only

Outputs		
Land use	Arsenic generic EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	20	40
Urban residential and open public spaces	50	100
Commercial and industrial	80	160

Inputs
Select contaminant from list below
Cr_III
Below needed to calculate fresh and aged ACLs
Enter % clay (values from 0 to 100%)
47
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
4.8
or for aged ABCs only
Enter State (or closest State)
NSW
Enter traffic volume (high or low)
low

Outputs		
Land use	Cr III soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	140	220
Urban residential and open public spaces	320	670
Commercial and industrial	500	1100

Inputs
Select contaminant from list below
Cu
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
17
Enter soil pH (calcium chloride method) (values from 1 to 14)
5.8
Enter organic carbon content (%OC) (values from 0 to 50%)
0.64
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
4.8
or for aged ABCs only
Enter State (or closest State)
NSW
Enter traffic volume (high or low)
low

Outputs		
Land use	Cu soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	45	55
Urban residential and open public spaces	70	120
Commercial and industrial	100	170

Inputs
Select contaminant from list below
DDT
Below needed to calculate fresh and aged ACLs
Below needed to calculate fresh and aged ABCs
or for fresh ABCs only
or for aged ABCs only

Outputs		
Land use	DDT generic EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	3	3
Urban residential and open public spaces	180	180
Commercial and industrial	640	640

Inputs
Select contaminant from list below
Naphthalene
Below needed to calculate fresh and aged ACLs
Below needed to calculate fresh and aged ABCs
or for fresh ABCs only
or for aged ABCs only

Outputs		
Land use	Naphthalene generic EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	10	10
Urban residential and open public spaces	170	170
Commercial and industrial	370	370

Inputs
Select contaminant from list below
Ni
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
17
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
4.8
or for aged ABCs only
Enter State (or closest State)
NSW
Enter traffic volume (high or low)
low

Outputs		
Land use	Ni soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	30	45
Urban residential and open public spaces	95	240
Commercial and industrial	170	410

Inputs
Select contaminant from list below
Pb
Below needed to calculate fresh and aged ACLs
Below needed to calculate fresh and aged ABCs
or for fresh ABCs only
or for aged ABCs only

Outputs		
Land use	Lead generic EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	110	470
Urban residential and open public spaces	270	1100
Commercial and industrial	440	1800

Inputs
Select contaminant from list below
Zn
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
17
Enter soil pH (calcium chloride method) (values from 1 to 14)
5.8
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
4.8
or for aged ABCs only
Enter State (or closest State)
NSW
Enter traffic volume (high or low)
low

Outputs		
Land use	Zn soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	60	150
Urban residential and open public spaces	160	420
Commercial and industrial	240	610

GROUNDWATER ANALYSIS RESULTS

			Sample Number	9528/W1	9528/W2	9528/W3
			Sample Location	GW1	GW2	GW3
ANALYTE	**NEPM GILs (Fresh Waters)**	**Units**	**PQL**			
Arsenic	24	µg/L	1	14	9	<1
Cadmium	0.2	µg/L	0.1	<0.1	<0.1	<0.1
Chromium	1	µg/L	1	<1	<1	<1
Copper	1.4	µg/L	1	14	2	2
Lead	3.4	µg/L	1	<1	<1	<1
Mercury	0.06	µg/L	0.05	<0.05	<0.05	<0.05
Nickel	11	µg/L	1	23	7	3
Zinc	8	µg/L	1	71	26	7

				Sample Number	9528/W1	9528/W2	9528/W3
				Sample Location	GW1	GW2	GW3
ANALYTE	**NEPM Ground water HSLs (4m-<8m)**	**NEPM GILs (Fresh Waters)**	**Units**	**PQL**			
TRH C6 - C9	-	-	µg/L	10	<10	<10	<10
TRH C6 - C10	-	-	µg/L	10	<10	<10	<10
vTPH C6 - C10 less BTEX (F1)	NL	-	µg/L	10	<10	<10	<10
Benzene	30,000	950	µg/L	1	<1	<1	<1
Toluene	NL	-	µg/L	1	<1	<1	<1
Ethylbenzene	NL	-	µg/L	1	<1	<1	<1
m+p-xylene	NL	200	µg/L	2	<2	<2	<2
o-Xylene	NL	350	µg/L	1	<1	<1	<1
Naphthalene	NL	16	µg/L	1	<1	<1	<1
TRH C10 - C14	-	-	µg/L	50	<50	<50	<50
TRH C15 - C28	-	-	µg/L	100	<100	<100	<100
TRH C29 - C36	-	-	µg/L	100	<100	<100	<100
TRH >C10-C16	-	-	µg/L	50	<50	<50	<50
TRH >C10 - C16 less Naphthalene (F2)	NL	-	µg/L	50	<50	<50	<50
TRH>C16-C34 (F3)	-	-	µg/L	100	<100	<100	<100
TRH>C34-C40 (F4)	-	-	µg/L	100	<100	<100	<100
Xylenes	NL	-	µg/L	3	<3	<3	<3

			Sample Number	9528/W1	9528/W2	9528/W3
			Sample Location	GW1	GW2	GW3
ANALYTE	NEPM GILs (Fresh Waters)	Units	PQL			
Naphthalene	16	µg/L	0.2	<0.2	<0.2	<0.2
Acenaphthylene	-	µg/L	0.1	<0.1	<0.1	<0.1
Acenaphthene	-	µg/L	0.1	<0.1	<0.1	<0.1
Fluorene	-	µg/L	0.1	<0.1	<0.1	<0.1
Phenanthrene	-	µg/L	0.1	<0.1	<0.1	<0.1
Anthracene	-	µg/L	0.1	<0.1	<0.1	<0.1
Fluoranthene	-	µg/L	0.1	<0.1	<0.1	<0.1
Pyrene	-	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	-	µg/L	0.1	<0.1	<0.1	<0.1
Chrysene	-	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	-	µg/L	0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	-	µg/L	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	-	µg/L	0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	-	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	-	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ	-	µg/L	0.5	<0.5	<0.5	<0.5
Total Positive PAHs	-	µg/L	-	-	-	-
Total PAHs	-	µg/L	1.7	<1.7	<1.7	<1.7

			Sample Number	9528/W1	9528/W2	9528/W3
			Sample Location	GW1	GW2	GW3
ANALYTE	NEPM GILs (Fresh Waters)	Units	PQL			
Dichlorodifluoromethane	-	µg/L	10	<10	<10	<10
Chloromethane	-	µg/L	10	<10	<10	<10
Vinyl Chloride	-	µg/L	10	<10	<10	<10
Bromomethane	-	µg/L	10	<10	<10	<10
Chloroethane	-	µg/L	10	<10	<10	<10
Trichlorofluoromethane	-	µg/L	10	<10	<10	<10
1,1-Dichloroethene	-	µg/L	1	<1	<1	<1
Trans-1,2-dichloroethene	-	µg/L	1	<1	<1	<1
1,1-dichloroethane	-	µg/L	1	<1	<1	<1
Cis-1,2-dichloroethene	-	µg/L	1	<1	<1	<1
Bromochloromethane	-	µg/L	1	<1	<1	<1
Chloroform	-	µg/L	1	<1	<1	<1
2,2-dichloropropane	-	µg/L	1	<1	<1	<1
1,2-dichloroethane	-	µg/L	1	<1	<1	<1
1,1,1-trichloroethane	-	µg/L	1	<1	<1	<1
1,1-dichloropropene	-	µg/L	1	<1	<1	<1
Cyclohexane	-	µg/L	1	<1	<1	<1
Carbon tetrachloride	-	µg/L	1	<1	<1	<1
Benzene	950	µg/L	1	<1	<1	<1
Dibromomethane	-	µg/L	1	<1	<1	<1
1,2-dichloropropane	-	µg/L	1	<1	<1	<1
Trichloroethene	-	µg/L	1	<1	<1	<1
Bromodichloromethane	-	µg/L	1	<1	<1	<1
trans-1,3-dichloropropene	-	µg/L	1	<1	<1	<1
cis-1,3-dichloropropene	-	µg/L	1	<1	<1	<1
1,1,2-trichloroethane	-	µg/L	1	<1	<1	<1
Toluene	-	µg/L	1	<1	<1	<1
1,3-dichloropropane	-	µg/L	1	<1	<1	<1
Dibromochloromethane	-	µg/L	1	<1	<1	<1
1,2-dibromoethane	-	µg/L	1	<1	<1	<1
Tetrachloroethene	-	µg/L	1	<1	<1	<1
1,1,1,2-tetrachloroethane	-	µg/L	1	<1	<1	<1
Chlorobenzene	-	µg/L	1	<1	<1	<1
Ethylbenzene	-	µg/L	1	<1	<1	<1
Bromoform	-	µg/L	1	<1	<1	<1
m+p-xylene	200	µg/L	2	<2	<2	<2
Styrene	-	µg/L	1	<1	<1	<1
1,1,2,2-tetrachloroethane	-	µg/L	1	<1	<1	<1
o-xylene	350	µg/L	1	<1	<1	<1
1,2,3-trichloropropane	-	µg/L	1	<1	<1	<1

			Sample Number	9528/W1	9528/W2	9528/W3
			Sample Location	GW1	GW2	GW3
ANALYTE	NEPM GILs (Fresh Waters)	Units	PQL			
Isopropylbenzene	-	µg/L	1	<1	<1	<1
Bromobenzene	-	µg/L	1	<1	<1	<1
n-propyl benzene	-	µg/L	1	<1	<1	<1
2-chlorotoluene	-	µg/L	1	<1	<1	<1
4-chlorotoluene	-	µg/L	1	<1	<1	<1
1,3,5-trimethyl benzene	-	µg/L	1	<1	<1	<1
Tert-butyl benzene	-	µg/L	1	<1	<1	<1
1,2,4-trimethyl benzene	-	µg/L	1	<1	<1	<1
1,3-dichlorobenzene	260	µg/L	1	<1	<1	<1
Sec-butyl benzene	-	µg/L	1	<1	<1	<1
1,4-dichlorobenzene	60	µg/L	1	<1	<1	<1
4-isopropyl toluene	-	µg/L	1	<1	<1	<1
1,2-dichlorobenzene	160	µg/L	1	<1	<1	<1
n-butyl benzene	-	µg/L	1	<1	<1	<1
1,2-dibromo-3-chloropropane	-	µg/L	1	<1	<1	<1
1,2,4-trichlorobenzene	85	µg/L	1	<1	<1	<1
Hexachlorobutadiene	-	µg/L	1	<1	<1	<1
1,2,3-trichlorobenzene	3	µg/L	1	<1	<1	<1

			Sample Number	9528/W1	9528/W2	9528/W3
			Sample Location	GW1	GW2	GW3
ANALYTE	NEPM GILs (Fresh Waters)	Units	PQL			
Total Phenolics (as Phenol)	0.32	mg/L	0.05	<0.05	<0.05	<0.05

			Sample Number	9528/W1	9528/W2	9528/W3
			Sample Location	GW1	GW2	GW3
ANALYTE	NEPM GILs (Fresh Waters)	Units	PQL			
Ammonia	0.9	mg/L	0.005	0.12	0.14	0.046

		Sample Number	9528/W1	9528/W2	9528/W3
		Sample Location	GW1	GW2	GW3
ANALYTE	Units	PQL			
pH	pH Units	-	7.1	7.1	7.1
Electrical Conductivity	µS/cm	1	12,000	15,000	12,000

			Sample Number	9528/WDT/W1
			Sample Location	Water Detention Tank
ANALYTE	**ANZECC LoP 95% FW**	**Units**	**PQL**	
Arsenic	37.0	µg/L	1	<1
Cadmium	0.2	µg/L	0.1	<0.1
Chromium	4.3*	µg/L	1	<1
Copper	1.4	µg/L	1	2
Lead	3.4	µg/L	1	<1
Mercury	0.6	µg/L	0.05	<0.05
Nickel	11.0	µg/L	1	1
Zinc	8.0	µg/L	1	4

*Value derived by combining the vale for Cr(IV) (1.0 µg/L) from table 3.4.1 and the low reliability value for Cr(III) (3.3 µg/L) from Section 8.3.7 of the ANZECC Guidelines

			Sample Number	9528/WDT/W1
			Sample Location	Water Detention Tank
ANALYTE	**ANZECC LoP 95% FW**	**Units**	**PQL**	
TRH C6 - C9	-	µg/L	10	<10
TRH C6 - C10	-	µg/L	10	<10
vTPH C6 - C10 less BTEX (F1)	-	µg/L	10	<10
Benzene	950	µg/L	1	<1
Toluene	180*	µg/L	1	<1
Ethylbenzene	80*	µg/L	1	<1
m+p-xylene	275*	µg/L	2	<2
o-Xylene	350	µg/L	1	<1
Naphthalene	16	µg/L	1	<1
TRH C10 - C14	-	µg/L	50	<50
TRH C15 - C28	-	µg/L	100	<100
TRH C29 - C36	-	µg/L	100	<100
TRH >C10-C16	-	µg/L	50	<50
TRH >C10 - C16 less Naphthalene (F2)	-	µg/L	50	<50
TRH>C16-C34 (F3)	-	µg/L	100	<100
TRH>C34-C40 (F4)	-	µg/L	100	<100
Xylenes	625*	µg/L	3	<3

*Values sourced or derived utilising low reliability or preliminary values from section 8.3.7 of the ANZECC Guidelines

			Sample Number	9528/WDT/W1
			Sample Location	Water Detention Tank
ANALYTE	ANZECC LoP 95% FW	Units	PQL	
Naphthalene	16	µg/L	0.2	<0.2
Acenaphthylene	-	µg/L	0.1	<0.1
Acenaphthene	-	µg/L	0.1	<0.1
Fluorene	-	µg/L	0.1	<0.1
Phenanthrene	-	µg/L	0.1	<0.1
Anthracene	-	µg/L	0.1	<0.1
Fluoranthene	-	µg/L	0.1	<0.1
Pyrene	-	µg/L	0.1	<0.1
Benzo(a)anthracene	-	µg/L	0.1	<0.1
Chrysene	-	µg/L	0.1	<0.1
Benzo(b,j+k)fluoranthene	-	µg/L	0.2	<0.2
Benzo(a)pyrene	-	µg/L	0.1	<0.1
Indeno(1,2,3-c,d)pyrene	-	µg/L	0.1	<0.1
Dibenzo(a,h)anthracene	-	µg/L	0.1	<0.1
Benzo(g,h,i)perylene	-	µg/L	0.1	<0.1
Benzo(a)pyrene TEQ	-	µg/L	0.5	<0.5
Total Positive PAHs	-	µg/L	-	-
Total PAHs	-	µg/L	1.7	<1.7

			Sample Number	9528/WDT/W1
			Sample Location	Water Detention Tank
ANALYTE	ANZECC LoP 95% FW	Units	PQL	
Dichlorodifluoromethane	-	µg/L	10	<10
Chloromethane	4000*	µg/L	10	<10
Vinyl Chloride	100*	µg/L	10	<10
Bromomethane	-	µg/L	10	<10
Chloroethane	-	µg/L	10	<10
Trichlorofluoromethane	-	µg/L	10	<10
1,1-Dichloroethene	-	µg/L	1	<1
Trans-1,2-dichloroethene	-	µg/L	1	<1
1,1-dichloroethane	90*	µg/L	1	<1
Cis-1,2-dichloroethene	-	µg/L	1	<1
Bromochloromethane	-	µg/L	1	<1
Chloroform	370*	µg/L	1	<1
2,2-dichloropropane	-	µg/L	1	<1
1,2-dichloroethane	1900*	µg/L	1	<1
1,1,1-trichloroethane	270*	µg/L	1	<1
1,1-dichloropropene	-	µg/L	1	<1
Cyclohexane	-	µg/L	1	<1
Carbon tetrachloride	240*	µg/L	1	<1
Benzene	950	µg/L	1	<1
Dibromomethane	-	µg/L	1	<1
1,2-dichloropropane	900*	µg/L	1	<1
Trichloroethene	-	µg/L	1	<1
Bromodichloromethane	-	µg/L	1	<1
trans-1,3-dichloropropene	-	µg/L	1	<1
cis-1,3-dichloropropene	-	µg/L	1	<1
1,1,2-trichloroethane	6500*	µg/L	1	<1
Toluene	180*	µg/L	1	<1
1,3-dichloropropane	1100*	µg/L	1	<1
Dibromochloromethane	-	µg/L	1	<1
1,2-dibromoethane	-	µg/L	1	<1
Tetrachloroethene	-	µg/L	1	<1
1,1,1,2-tetrachloroethane	-	µg/L	1	<1
Chlorobenzene	55*	µg/L	1	<1
Ethylbenzene	80*	µg/L	1	<1
Bromoform	-	µg/L	1	<1
m+p-xylene	275*	µg/L	2	<2
Styrene	-	µg/L	1	<1
1,1,2,2-tetrachloroethane	400*	µg/L	1	<1
o-xylene	350	µg/L	1	<1
1,2,3-trichloropropane	-	µg/L	1	<1

			Sample Number	9528/WDT/W1
			Sample Location	Water Detention Tank
ANALYTE	ANZECC LoP 95% FW	Units	PQL	
Isopropylbenzene	30*	µg/L	1	<1
Bromobenzene	-	µg/L	1	<1
n-propyl benzene	-	µg/L	1	<1
2-chlorotoluene	-	µg/L	1	<1
4-chlorotoluene	-	µg/L	1	<1
1,3,5-trimethyl benzene	-	µg/L	1	<1
Tert-butyl benzene	-	µg/L	1	<1
1,2,4-trimethyl benzene	-	µg/L	1	<1
1,3-dichlorobenzene	-	µg/L	1	<1
Sec-butyl benzene	-	µg/L	1	<1
1,4-dichlorobenzene	-	µg/L	1	<1
4-isopropyl toluene	-	µg/L	1	<1
1,2-dichlorobenzene	-	µg/L	1	<1
n-butyl benzene	-	µg/L	1	<1
1,2-dibromo-3-chloropropane	-	µg/L	1	<1
1,2,4-trichlorobenzene	-	µg/L	1	<1
Hexachlorobutadiene	-	µg/L	1	<1
1,2,3-trichlorobenzene	-	µg/L	1	<1

*Values sourced or derived utilising low reliability or preliminary values from section 8.3.7 of the ANZECC Guidelines

			Sample Number	9528/WDT/W1
			Sample Location	Water Detention Tank
ANALYTE	ANZECC LoP 95% FW	Units	PQL	
Total Phenolics (as Phenol)	0.32	mg/L	0.05	<0.05

			Sample Number	9528/WDT/W1
			Sample Location	Water Detention Tank
ANALYTE	ANZECC	Units	PQL	
pH	**6.5-8.5***	pH Units	-	7.3
Electrical Conductivity	125-2,200**	µS/cm	1	560

*Default trigger values for physical and chemical stressors for south-east Australia for slightly disturbed ecosystems (ANZECC 2000).

**Ranges of default trigger values for conductivity (EC, salinity), indicative of slightly disturbed ecosystems in south-east Australia (ANZECC 2000).

APPENDIX IV

LABORATORY ANALYSIS RESULTS

ASBESTOS SAMPLE ANALYSIS REPORT

Report Number: **9528.02.ANAT**
Issue Date: **17 August 2016**

1. CLIENT DETAILS

Client: Shellshear Young Pty Ltd
Client Contact: Colin Young
Client Address: 203 Darling Street
BALMAIN NSW 2041

Date Sample Received: 10 August 2016

2. SCOPE

GETEX PTY LTD was requested by Colin Young of Shellshear Young Pty Ltd to analyse eight (8) samples for asbestos content. The analysis results only relate to the samples tested.

3. METHOD

The samples were analysed under a Stereomicroscope and selected fibres were analysed by Polarised Light Microscopy in conjunction with dispersion staining method (GETEX.BSA.01, NATA accreditation number 15404). This method is based on the AS 4964 -2004 Method for the qualitative identification of asbestos in bulk samples.

NATA Accredited Laboratory.
Number: 15404

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Accredited for compliance with ISO/IEC 17025

GETEX PTY LIMITED
ABN 99 116 287 471
Suite 2.02, Level 2, Waterloo Business Park
35 Waterloo Road, Macquarie Park NSW 2113
Phone: (02) 98892488 Fax: (02) 98892499
Email: help@getex.com.au **Web:** www.getex.com.au

4. RESULTS

Sample Number	Description	Analysis Result
9528/BH9/1.0	Approximate weight 114 grams. The sample consisted of light brown sandy soil with fragments of gravel.	No Asbestos Detected at Reporting Limit of 0.1g/Kg
9528/BH9a/0.1	Approximate weight 96 grams. The sample consisted of brown clayey soil with plant debris and fragments of gravel.	No Asbestos Detected at Reporting Limit of 0.1g/Kg
9528/BH10/0.2-0.3	Approximate weight 120 grams. The sample consisted of orange and grey clays with plant debris.	No Asbestos Detected at Reporting Limit of 0.1g/Kg
9528/BH10a/0.1	Approximate weight 68 grams. The sample consisted of dark brown clayey soil with plant debris.	No Asbestos Detected at Reporting Limit of 0.1g/Kg
9528/BH11/0.2-0.3	Approximate weight 177 grams. The sample consisted of brown, red and grey clays.	No Asbestos Detected at Reporting Limit of 0.1g/Kg
9528/BH11/1.0	Approximate weight 115 grams. The sample consisted of light brown clay.	No Asbestos Detected at Reporting Limit of 0.1g/Kg

NATA
WORLD RECOGNISED ACCREDITATION

NATA Accredited Laboratory.
Number: 15404

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Accredited for compliance with ISO/IEC 17025

Sample Number	Description	Analysis Result
9528/BH12/0.2-0.3	Approximate weight 135 grams. The sample consisted of red and grey clays.	No Asbestos Detected at Reporting Limit of 0.1g/Kg
9528/BH12/1.0	Approximate weight 121 grams. The sample consisted of brown clay.	No Asbestos Detected at Reporting Limit of 0.1g/Kg

5. LIMITATIONS

Although all work is performed to a professional and diligent standard, the potential variance between the practical limitations of the scope of work undertaken, the cost of our services, all possible issues of concern, and any loss or damages which may be associated with our work are such that we cannot warrant that all asbestos materials have been identified. We therefore limit any potential liability associated with our work to the cost of our services. Furthermore there can be no guarantee that a particular sample is typical of an extended area.

Kind Regards,

Lee Hands BSc (Hons)
Approved Identifier

QA/QC check by:

Anthony Camus B.Eng (Chem) (Hons)
Approved Signatory

NATA Accredited Laboratory.
Number: 15404

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Accredited for compliance with ISO/IEC 17025

12 Ashley Street, Chatswood, NSW 2067
tel: +61 2 9910 6200

email: sydney@envirolab.com.au
envirolab.com.au

Envirolab Services Pty Ltd - Sydney | ABN 37 112 535 645

CERTIFICATE OF ANALYSIS 151616

Client:

Getex Pty Ltd
2.02, Building 2 Waterloo Business Park
35 Waterloo Rd
North Ryde
NSW 2113

Attention: Justin Thompson Laing

Sample log in details:

Your Reference:	**9528**	
No. of samples:	15 soils	
Date samples received / completed instructions received	10/08/16	/ 10/08/16

Analysis Details:

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

Report Details:

Date results requested by: / Issue Date:	17/08/16	/ 16/08/16
Date of Preliminary Report:	Not Issued	

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

Results Approved By:

David Springer
General Manager

VOCs in soil		
Our Reference:	UNITS	151616-12
Your Reference	----------	9528/BH5
	-	
Depth	----------	2.0
Type of sample		soil
Date extracted	-	11/08/2016
Date analysed	-	12/08/2016
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1

VOCs in soil Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ----------	 151616-12 9528/BH5 2.0 soil
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	99
Surrogate aaa-Trifluorotoluene	%	91
Surrogate Toluene-d_8	%	89
Surrogate 4-Bromofluorobenzene	%	85

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	151616-1	151616-2	151616-3	151616-4	151616-5
Your Reference	---------- -	9528/BH1	9528/BH1	9528/BH1	9528/BH2	9528/BH2
Depth	----------	0.2-0.3	1.0	3.0	0.2-0.3	2.0
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	100	100	99	103	104

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	151616-6	151616-7	151616-8	151616-9	151616-10
Your Reference	---------- -	9528/BH3	9528/BH3	9528/BH3	9528/BH4	9528/BH4
Depth	----------	0.2-0.3	1.0	4.0	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	100	104	101	105	104

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	151616-11	151616-12	151616-13	151616-14	151616-15
Your Reference	----------	9528/BH5	9528/BH5	9528/BH5	9528/BH6	9528/BH6
	-					
Depth	----------	0.2-0.3	2.0	7.4	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	104	91	96	101	100

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	151616-1	151616-2	151616-3	151616-4	151616-5
Your Reference	----------	9528/BH1	9528/BH1	9528/BH1	9528/BH2	9528/BH2
Depth	- ----------	0.2-0.3	1.0	3.0	0.2-0.3	2.0
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	122	79	79	87	79

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	151616-6	151616-7	151616-8	151616-9	151616-10
Your Reference	----------	9528/BH3	9528/BH3	9528/BH3	9528/BH4	9528/BH4
Depth	- ----------	0.2-0.3	1.0	4.0	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	79	84	82	81	83

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	151616-11	151616-12	151616-13	151616-14	151616-15
Your Reference	----------	9528/BH5	9528/BH5	9528/BH5	9528/BH6	9528/BH6
Depth	- ----------	0.2-0.3	2.0	7.4	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	85	83	82	82	80

PAHs in Soil Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ---------- 	151616-1 9528/BH1 0.2-0.3 soil	151616-2 9528/BH1 1.0 soil	151616-3 9528/BH1 3.0 soil	151616-4 9528/BH2 0.2-0.3 soil	151616-5 9528/BH2 2.0 soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Positive PAHs	mg/kg	0.12	0.13	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	87	89	89	94	85

PAHs in Soil Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ---------- 	151616-6 9528/BH3 0.2-0.3 soil	151616-7 9528/BH3 1.0 soil	151616-8 9528/BH3 4.0 soil	151616-9 9528/BH4 0.2-0.3 soil	151616-10 9528/BH4 1.0 soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Positive PAHs	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	84	81	81	82	88

PAHs in Soil Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ---------- 	151616-11 9528/BH5 0.2-0.3 soil	151616-12 9528/BH5 2.0 soil	151616-13 9528/BH5 7.4 soil	151616-14 9528/BH6 0.2-0.3 soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	1.2	<0.1	0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.2	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.3	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.07	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5
Total Positive PAHs	mg/kg	2.4	NIL (+)VE	0.11	NIL (+)VE
Surrogate p-Terphenyl-d14	%	85	88	85	86

Organochlorine Pesticides in soil				
Our Reference:	UNITS	151616-1	151616-6	151616-11
Your Reference	----------	9528/BH1	9528/BH3	9528/BH5
	-			
Depth	----------	0.2-0.3	0.2-0.3	0.2-0.3
Type of sample		soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	12/08/2016
HCB	mg/kg	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	90	89

Organophosphorus Pesticides Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ---------- 	151616-1 9528/BH1 0.2-0.3 soil	151616-6 9528/BH3 0.2-0.3 soil	151616-11 9528/BH5 0.2-0.3 soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	12/08/2016
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	90	89

Acid Extractable metals in soil						
Our Reference:	UNITS	151616-1	151616-2	151616-3	151616-4	151616-5
Your Reference	---------- -	9528/BH1	9528/BH1	9528/BH1	9528/BH2	9528/BH2
Depth	----------	0.2-0.3	1.0	3.0	0.2-0.3	2.0
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Arsenic	mg/kg	7	13	9	13	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	20	21	12	22	11
Copper	mg/kg	11	16	36	21	35
Lead	mg/kg	21	15	18	15	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	8	19	20	16
Zinc	mg/kg	45	27	71	47	59

Acid Extractable metals in soil						
Our Reference:	UNITS	151616-6	151616-7	151616-8	151616-9	151616-10
Your Reference	---------- -	9528/BH3	9528/BH3	9528/BH3	9528/BH4	9528/BH4
Depth	----------	0.2-0.3	1.0	4.0	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Arsenic	mg/kg	15	8	6	9	11
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	15	17	13	21	15
Copper	mg/kg	18	21	35	12	17
Lead	mg/kg	15	17	19	17	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	19	10	20	7	15
Zinc	mg/kg	49	28	72	21	58

Acid Extractable metals in soil						
Our Reference:	UNITS	151616-11	151616-12	151616-13	151616-14	151616-15
Your Reference	---------- -	9528/BH5	9528/BH5	9528/BH5	9528/BH6	9528/BH6
Depth	----------	0.2-0.3	2.0	7.4	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Arsenic	mg/kg	10	7	5	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	12	10	10	10
Copper	mg/kg	30	32	28	1	3
Lead	mg/kg	22	18	14	7	9
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	24	18	14	2	5
Zinc	mg/kg	43	63	50	10	16

Moisture Our Reference: Your Reference	UNITS ----------	151616-1 9528/BH1	151616-2 9528/BH1	151616-3 9528/BH1	151616-4 9528/BH2	151616-5 9528/BH2
Depth	-	0.2-0.3	1.0	3.0	0.2-0.3	2.0
Type of sample	----------	soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Moisture	%	15	19	13	19	7.9

Moisture Our Reference: Your Reference	UNITS ----------	151616-6 9528/BH3	151616-7 9528/BH3	151616-8 9528/BH3	151616-9 9528/BH4	151616-10 9528/BH4
Depth	-	0.2-0.3	1.0	4.0	0.2-0.3	1.0
Type of sample	----------	soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Moisture	%	15	19	11	16	15

Moisture Our Reference: Your Reference	UNITS ----------	151616-11 9528/BH5	151616-12 9528/BH5	151616-13 9528/BH5	151616-14 9528/BH6	151616-15 9528/BH6
Depth	-	0.2-0.3	2.0	7.4	0.2-0.3	1.0
Type of sample	----------	soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Moisture	%	5.9	7.9	14	11	9.2

Misc Soil - Inorg					
Our Reference:	UNITS	151616-9	151616-12	151616-13	151616-14
Your Reference	----------	9528/BH4	9528/BH5	9528/BH5	9528/BH6
	-				
Depth	----------	0.2-0.3	2.0	7.4	0.2-0.3
Type of sample		soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5

Misc Inorg - Soil						
Our Reference:	UNITS	151616-1	151616-3	151616-4	151616-5	151616-6
Your Reference	---------- -	9528/BH1	9528/BH1	9528/BH2	9528/BH2	9528/BH3
Depth	----------	0.2-0.3	3.0	0.2-0.3	2.0	0.2-0.3
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Ammonia as N in soil	mg/kg	27	0.6	2.9	1	4.0

Misc Inorg - Soil		
Our Reference:	UNITS	151616-8
Your Reference	---------- -	9528/BH3
Depth	----------	4.0
Type of sample		soil
Date prepared	-	12/08/2016
Date analysed	-	12/08/2016
Ammonia as N in soil	mg/kg	0.9

Method ID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Soils are analysed following a KCl extraction.

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	[NT]	[NT]	LCS-2	11/08/2016
Date analysed	-			12/08/2016	[NT]	[NT]	LCS-2	12/08/2016
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	77%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	80%
2,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	79%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	111%
1,1-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	0.2	Org-014	<0.2	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	80%
bromodichloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	88%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	89%
1,2-dibromoethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	78%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
isopropylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	103	[NT]	[NT]	LCS-2	86%
Surrogate aaa-Trifluorotoluene	%		Org-014	102	[NT]	[NT]	LCS-2	78%
Surrogate Toluene-d_8	%		Org-014	91	[NT]	[NT]	LCS-2	85%
Surrogate 4-Bromofluorobenzene	%		Org-014	86	[NT]	[NT]	LCS-2	106%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	11/08/2016
Date analysed	-			12/08/2016	151616-1	12/08/2016 || 12/08/2016	LCS-4	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	25	Org-016	<25	151616-1	<25 || <25	LCS-4	91%
TRHC$_6$ - C$_{10}$	mg/kg	25	Org-016	<25	151616-1	<25 || <25	LCS-4	91%
Benzene	mg/kg	0.2	Org-016	<0.2	151616-1	<0.2 || <0.2	LCS-4	88%
Toluene	mg/kg	0.5	Org-016	<0.5	151616-1	<0.5 || <0.5	LCS-4	87%
Ethylbenzene	mg/kg	1	Org-016	<1	151616-1	<1 || <1	LCS-4	93%
m+p-xylene	mg/kg	2	Org-016	<2	151616-1	<2 || <2	LCS-4	94%
o-Xylene	mg/kg	1	Org-016	<1	151616-1	<1 || <1	LCS-4	94%
naphthalene	mg/kg	1	Org-014	<1	151616-1	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	92	151616-1	100 || 99 || RPD: 1	LCS-4	87%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	11/08/2016
Date analysed	-			11/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	11/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	151616-1	<50 || <50	LCS-4	130%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	151616-1	<100 || <100	LCS-4	130%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	151616-1	<100 || <100	LCS-4	119%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	151616-1	<50 || <50	LCS-4	130%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	151616-1	<100 || <100	LCS-4	130%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	151616-1	<100 || <100	LCS-4	119%
Surrogate o-Terphenyl	%		Org-003	96	151616-1	122 || 80 || RPD: 42	LCS-4	116%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	11/08/2016
Date analysed	-			11/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	11/08/2016
Naphthalene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	LCS-4	112%
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	LCS-4	128%
Phenanthrene	mg/kg	0.1	Org-012	<0.1	151616-1	0.1 || <0.1	LCS-4	118%
Anthracene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	LCS-4	100%
Pyrene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	LCS-4	107%
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	LCS-4	103%
Benzo(b,j +k)fluoranthene	mg/kg	0.2	Org-012	<0.2	151616-1	<0.2 || <0.2	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	151616-1	<0.05 || <0.05	LCS-4	110%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012	93	151616-1	87 || 84 || RPD: 4	LCS-4	109%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	11/08/2016
Date analysed	-			12/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	12/08/2016
HCB	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	101%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	104%
Heptachlor	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	101%
delta-BHC	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	107%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	107%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	107%
Dieldrin	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	108%
Endrin	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	113%
pp-DDD	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	106%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	LCS-4	88%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Surrogate TCMX	%		Org-005	93	151616-1	92 || 93 || RPD: 1	LCS-4	113%

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QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	11/08/2016
Date analysed	-			12/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	12/08/2016
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	LCS-4	90%
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Diazinon	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	LCS-4	115%
Dimethoate	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	LCS-4	93%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	LCS-4	106%
Malathion	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	LCS-4	78%
Parathion	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	LCS-4	109%
Ronnel	mg/kg	0.1	Org-008	<0.1	151616-1	<0.1 || <0.1	LCS-4	96%
Surrogate TCMX	%		Org-008	93	151616-1	92 || 93 || RPD: 1	LCS-4	93%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			11/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	11/08/2016
Date analysed	-			11/08/2016	151616-1	11/08/2016 || 11/08/2016	LCS-4	11/08/2016
Arsenic	mg/kg	4	Metals-020	<4	151616-1	7 || 9 || RPD: 25	LCS-4	111%
Cadmium	mg/kg	0.4	Metals-020	<0.4	151616-1	<0.4 || <0.4	LCS-4	98%
Chromium	mg/kg	1	Metals-020	<1	151616-1	20 || 22 || RPD: 10	LCS-4	105%
Copper	mg/kg	1	Metals-020	<1	151616-1	11 || 13 || RPD: 17	LCS-4	104%
Lead	mg/kg	1	Metals-020	<1	151616-1	21 || 25 || RPD: 17	LCS-4	102%
Mercury	mg/kg	0.1	Metals-021	<0.1	151616-1	<0.1 || <0.1	LCS-4	101%
Nickel	mg/kg	1	Metals-020	<1	151616-1	8 || 10 || RPD: 22	LCS-4	100%
Zinc	mg/kg	1	Metals-020	<1	151616-1	45 || 68 || RPD: 41	LCS-4	103%

QUALITY CONTROL Misc Soil - Inorg	UNITS	PQL	METHOD	Blank
Date prepared	-			11/08/2016
Date analysed	-			11/08/2016
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5

QUALITY CONTROL Misc Inorg - Soil	UNITS	PQL	METHOD	Blank
Date prepared	-			12/08/2016
Date analysed	-			12/08/2016
Ammonia as N in soil	mg/kg	0.5	Inorg-057	<0.5

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151616-14	11/08/2016 || 11/08/2016
Date analysed	-	151616-14	12/08/2016 || 12/08/2016
TRHC$_6$ - C$_9$	mg/kg	151616-14	<25 || <25
TRHC$_6$ - C$_{10}$	mg/kg	151616-14	<25 || <25
Benzene	mg/kg	151616-14	<0.2 || <0.2
Toluene	mg/kg	151616-14	<0.5 || <0.5
Ethylbenzene	mg/kg	151616-14	<1 || <1
m+p-xylene	mg/kg	151616-14	<2 || <2
o-Xylene	mg/kg	151616-14	<1 || <1
naphthalene	mg/kg	151616-14	<1 || <1
Surrogate aaa-Trifluorotoluene	%	151616-14	101 || 102 || RPD: 1

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151616-14	11/08/2016 || 11/08/2016
Date analysed	-	151616-14	11/08/2016 || 11/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	151616-14	<50 || <50
TRHC$_{15}$ - C$_{28}$	mg/kg	151616-14	<100 || <100
TRHC$_{29}$ - C$_{36}$	mg/kg	151616-14	<100 || <100
TRH>C$_{10}$-C$_{16}$	mg/kg	151616-14	<50 || <50
TRH>C$_{16}$-C$_{34}$	mg/kg	151616-14	<100 || <100
TRH>C$_{34}$-C$_{40}$	mg/kg	151616-14	<100 || <100
Surrogate o-Terphenyl	%	151616-14	82 || 80 || RPD: 2

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151616-14	11/08/2016 || 11/08/2016
Date analysed	-	151616-14	11/08/2016 || 11/08/2016
Naphthalene	mg/kg	151616-14	<0.1 || <0.1
Acenaphthylene	mg/kg	151616-14	<0.1 || <0.1
Acenaphthene	mg/kg	151616-14	<0.1 || <0.1
Fluorene	mg/kg	151616-14	<0.1 || <0.1
Phenanthrene	mg/kg	151616-14	<0.1 || <0.1
Anthracene	mg/kg	151616-14	<0.1 || <0.1
Fluoranthene	mg/kg	151616-14	<0.1 || <0.1
Pyrene	mg/kg	151616-14	<0.1 || <0.1
Benzo(a)anthracene	mg/kg	151616-14	<0.1 || <0.1
Chrysene	mg/kg	151616-14	<0.1 || <0.1
Benzo(b,j+k)fluoranthene	mg/kg	151616-14	<0.2 || <0.2
Benzo(a)pyrene	mg/kg	151616-14	<0.05 || <0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	151616-14	<0.1 || <0.1
Dibenzo(a,h)anthracene	mg/kg	151616-14	<0.1 || <0.1
Benzo(g,h,i)perylene	mg/kg	151616-14	<0.1 || <0.1
Surrogate p-Terphenyl-d14	%	151616-14	86 || 84 || RPD: 2

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	151616-14	11/08/2016 || 11/08/2016
Date analysed	-	151616-14	11/08/2016 || 11/08/2016
Arsenic	mg/kg	151616-14	<4 || <4
Cadmium	mg/kg	151616-14	<0.4 || <0.4
Chromium	mg/kg	151616-14	10 || 10 || RPD: 0
Copper	mg/kg	151616-14	1 || 1 || RPD: 0
Lead	mg/kg	151616-14	7 || 7 || RPD: 0
Mercury	mg/kg	151616-14	<0.1 || <0.1
Nickel	mg/kg	151616-14	2 || 2 || RPD: 0
Zinc	mg/kg	151616-14	10 || 10 || RPD: 0

QUALITY CONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-1	11/08/2016
Date analysed	-	[NT]	[NT]	LCS-1	11/08/2016
Total Phenolics (as Phenol)	mg/kg	[NT]	[NT]	LCS-1	105%
QUALITY CONTROL Misc Inorg - Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-1	12/08/2016
Date analysed	-	[NT]	[NT]	LCS-1	12/08/2016
Ammonia as N in soil	mg/kg	[NT]	[NT]	LCS-1	105%
QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151616-6	11/08/2016
Date analysed	-	[NT]	[NT]	151616-6	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	[NT]	[NT]	151616-6	96%
TRHC$_6$ - C$_{10}$	mg/kg	[NT]	[NT]	151616-6	96%
Benzene	mg/kg	[NT]	[NT]	151616-6	93%
Toluene	mg/kg	[NT]	[NT]	151616-6	94%
Ethylbenzene	mg/kg	[NT]	[NT]	151616-6	97%
m+p-xylene	mg/kg	[NT]	[NT]	151616-6	98%
o-Xylene	mg/kg	[NT]	[NT]	151616-6	98%
naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	151616-6	97%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151616-6	11/08/2016
Date analysed	-	[NT]	[NT]	151616-6	11/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	[NT]	[NT]	151616-6	127%
TRHC$_{15}$ - C$_{28}$	mg/kg	[NT]	[NT]	151616-6	114%
TRHC$_{29}$ - C$_{36}$	mg/kg	[NT]	[NT]	151616-6	108%
TRH>C$_{10}$-C$_{16}$	mg/kg	[NT]	[NT]	151616-6	127%
TRH>C$_{16}$-C$_{34}$	mg/kg	[NT]	[NT]	151616-6	114%
TRH>C$_{34}$-C$_{40}$	mg/kg	[NT]	[NT]	151616-6	108%
Surrogate o-Terphenyl	%	[NT]	[NT]	151616-6	89%

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QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151616-6	11/08/2016
Date analysed	-	[NT]	[NT]	151616-6	11/08/2016
Naphthalene	mg/kg	[NT]	[NT]	151616-6	110%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	151616-6	123%
Phenanthrene	mg/kg	[NT]	[NT]	151616-6	118%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	151616-6	99%
Pyrene	mg/kg	[NT]	[NT]	151616-6	107%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	151616-6	103%
Benzo(b,j+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	151616-6	109%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	151616-6	99%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151616-6	11/08/2016
Date analysed	-	[NT]	[NT]	151616-6	11/08/2016
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	151616-6	99%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	151616-6	99%
Heptachlor	mg/kg	[NT]	[NT]	151616-6	98%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	151616-6	103%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	151616-6	102%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	151616-6	103%
Dieldrin	mg/kg	[NT]	[NT]	151616-6	104%
Endrin	mg/kg	[NT]	[NT]	151616-6	110%
pp-DDD	mg/kg	[NT]	[NT]	151616-6	103%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	151616-6	92%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	151616-6	102%
QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151616-6	11/08/2016
Date analysed	-	[NT]	[NT]	151616-6	11/08/2016
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	151616-6	86%
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	151616-6	115%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	151616-6	91%
Fenitrothion	mg/kg	[NT]	[NT]	151616-6	97%
Malathion	mg/kg	[NT]	[NT]	151616-6	67%
Parathion	mg/kg	[NT]	[NT]	151616-6	122%
Ronnel	mg/kg	[NT]	[NT]	151616-6	94%
Surrogate TCMX	%	[NT]	[NT]	151616-6	91%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	151616-6	11/08/2016
Date analysed	-	[NT]	[NT]	151616-6	11/08/2016
Arsenic	mg/kg	[NT]	[NT]	151616-6	84%
Cadmium	mg/kg	[NT]	[NT]	151616-6	85%
Chromium	mg/kg	[NT]	[NT]	151616-6	91%
Copper	mg/kg	[NT]	[NT]	151616-6	89%
Lead	mg/kg	[NT]	[NT]	151616-6	77%
Mercury	mg/kg	[NT]	[NT]	151616-6	99%
Nickel	mg/kg	[NT]	[NT]	151616-6	76%
Zinc	mg/kg	[NT]	[NT]	151616-6	81%

Report Comments:

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NR: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

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

SAMPLE RECEIPT ADVICE

Client Details	
Client	Getex Pty Ltd
Attention	Justin Thompson Laing

Sample Login Details	
Your Reference	9528
Envirolab Reference	**151616**
Date Sample Received	10/08/2016
Date Instructions Received	10/08/2016
Date Results Expected to be Reported	**17/08/2016**

Sample Condition	
Samples received in appropriate condition for analysis	YES
No. of Samples Provided	15 soils
Turnaround Time Requested	Standard
Temperature on receipt (°C)	2.8
Cooling Method	Ice
Sampling Date Provided	YES

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

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	Phone: 02 9910 6200
Fax: 02 9910 6201	Fax: 02 9910 6201
Email: ahie@envirolabservices.com.au	Email: jhurst@envirolabservices.com.au

Sample and Testing Details on following page

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

Sample Id	*VOCs in soil*	*vTRH(C6-C10)/BTEXN in Soil*	*svTRH (C10-C40) in Soil*	*PAHs in Soil*	*Organochlorine Pesticides in soil*	*Organophosphorus Pesticides*	*Acid Extractable metals in soil*	*Total Phenolics (as Phenol)*	*Ammonia as N in soil*
9528/BH1-0.2-0.3		✓	✓	✓	✓	✓	✓		✓
9528/BH1-1.0		✓	✓	✓			✓		
9528/BH1-3.0		✓	✓	✓			✓		✓
9528/BH2-0.2-0.3		✓	✓	✓			✓		✓
9528/BH2-2.0		✓	✓	✓			✓		✓
9528/BH3-0.2-0.3		✓	✓	✓	✓	✓	✓		✓
9528/BH3-1.0		✓	✓	✓			✓		
9528/BH3-4.0		✓	✓	✓			✓		✓
9528/BH4-0.2-0.3		✓	✓	✓			✓	✓	
9528/BH4-1.0		✓	✓	✓			✓		
9528/BH5-0.2-0.3		✓	✓	✓	✓	✓	✓		
9528/BH5-2.0	✓	✓	✓	✓			✓	✓	
9528/BH5-7.4		✓	✓	✓			✓	✓	
9528/BH6-0.2-0.3		✓	✓	✓			✓	✓	
9528/BH6-1.0		✓	✓				✓		

GETEX

From: Getex Pty Ltd
Address: 2.02, Building 2, Macquarie Business Park
35 Waterloo Road
MACQUARIE PARK NSW 2113
Phone: (02) 9889 2488
Facsimile: (02) 9889 2499
Email: help@getex.com.au
Attention: **Justin Thompson-Laing**

Chain of Custody

To: Envirolab Services Pty Ltd
Address: 12 Ashley Street
CHATSWOOD NSW 2067
Phone: (02) 9910 6200
Facsimile: (02) 9910 6299

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 151616.
Date Received: 10/8/16
Time Received: 18:00 AM
Received by:
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Date: 10/08/2016
Order Number: 5751
Project Number: 9528
TAT: **5 days**

☐ Samples Received at Ambient Temp. ☑ Samples Recieved Chilled Received By: ASTODIA. Markaric Date: 10/8/16 18:00

Notes: Suite of 8 Metals

Envirolab Barcode Number	Getex Sample Number	Container (Plastic Tube – PT, Bag – B, Petri Dish – PD, Plastic Bottle – PB, Glass Jar – GJ, Glass Bottle – GB, Glass Vial - GV)	Soil – Single Analytes: TRH/BTEX	PAH Routine	PAH Low	OCP	OPP	PCB	Lead	4-17 Metals	Phenolics	Cyanide	Asbestos	TCLP Prep	Leachable PAH	6 Leachable Metals	Ammonia	VOCs	Soil – Combos and Non-Standard Analytes: NEPM Soil Char Suite	Combination 1m	Combination 3	Combination 4	Combination 5b
1	9528/BH1/0.2-0.3	GJ															1						1
2	9528/BH1/1.0	GJ																			1		
3	9528/BH1/3.0	GJ															1				1		
4	9528/BH2/0.2-0.3	GJ															1				1		
5	9528/BH2/2.0	GJ															1				1		
6	9528/BH3/0.2-0.3	GJ															1						1
7	9528/BH3/1.0	GJ																			1		
8	9528/BH3/4.0	GJ															1				1		
9	9528/BH4/0.2-0.3	GJ																				1	
10	9528/BH4/1.0	GJ																			1		
11	9528/BH5/0.2-0.3	GJ																					1
12	9528/BH5/2.0	GJ																1				1	
13	9528/BH5/7.4	GJ																				1	
14	9528/BH6/0.2-0.3	GJ																				1	
15	9528/BH6/1.0	GJ																		1			
		Total															6	1		1	7	4	3

12 Ashley Street, Chatswood, NSW 2067
tel: +61 2 9910 6200

email: sydney@envirolab.com.au
envirolab.com.au

Envirolab Services Pty Ltd - Sydney | ABN 37 112 535 645

CERTIFICATE OF ANALYSIS 151617

Client:

Getex Pty Ltd
2.02, Building 2 Waterloo Business Park
35 Waterloo Rd
North Ryde
NSW 2113

Attention: Justin Thompson-Laing

Sample log in details:

Your Reference:	**9528**		
No. of samples:	16 Soils		
Date samples received / completed instructions received	10/08/16	/	10/08/16

Analysis Details:

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

Report Details:

Date results requested by: / Issue Date:	17/08/16	/	17/08/16
Date of Preliminary Report:	Not Issued		

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

Results Approved By:

David Springer
General Manager

VOCs in soil		
Our Reference:	UNITS	151617-13
Your Reference	----------	9528/BH13
	-	
Depth	----------	0.2-0.3
Type of sample		Soil
Date extracted	-	12/08/2016
Date analysed	-	12/08/2016
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1

VOCs in soil Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ----------	151617-13 9528/BH13 0.2-0.3 Soil
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	91
Surrogate aaa-Trifluorotoluene	%	109
Surrogate Toluene-d_8	%	79
Surrogate 4-Bromofluorobenzene	%	97

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	151617-1	151617-2	151617-3	151617-4	151617-13
Your Reference	---------- -	9528/BH7	9528/BH7	9528/BH8	9528/BH8	9528/BH13
Depth	----------	0.2-0.3	3.0	1.0	3.0	0.2-0.3
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	16/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	87	123	136	118	109

vTRH(C6-C10)/BTEXN in Soil			
Our Reference:	UNITS	151617-14	151617-15
Your Reference	---------- -	9528/BH13	9528/BH13
Depth	----------	1.0	3.0
Type of sample		Soil	Soil
Date extracted	-	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	111	117

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	151617-1	151617-2	151617-3	151617-4	151617-13
Your Reference	---------- -	9528/BH7	9528/BH7	9528/BH8	9528/BH8	9528/BH13
Depth	----------	0.2-0.3	3.0	1.0	3.0	0.2-0.3
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	123	84	82	83	84

svTRH (C10-C40) in Soil			
Our Reference:	UNITS	151617-14	151617-15
Your Reference	---------- -	9528/BH13	9528/BH13
Depth	----------	1.0	3.0
Type of sample		Soil	Soil
Date extracted	-	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100
Surrogate o-Terphenyl	%	83	83

PAHs in Soil Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ---------- 	151617-1 9528/BH7 0.2-0.3 Soil	151617-4 9528/BH8 3.0 Soil	151617-13 9528/BH13 0.2-0.3 Soil	151617-14 9528/BH13 1.0 Soil	151617-15 9528/BH13 3.0 Soil
Date extracted	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Positive PAHs	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	100	98	93	98	98

Organochlorine Pesticides in soil		
Our Reference:	UNITS	151617-1
Your Reference	----------	9528/BH7
	-	
Depth	----------	0.2-0.3
Type of sample		Soil
Date extracted	-	12/08/2016
Date analysed	-	12/08/2016
HCB	mg/kg	<0.1
alpha-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	0.3
alpha-chlordane	mg/kg	0.4
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Surrogate TCMX	%	92

Organophosphorus Pesticides		
Our Reference:	UNITS	151617-1
Your Reference	----------	9528/BH7
	-	
Depth	----------	0.2-0.3
Type of sample		Soil
Date extracted	-	12/08/2016
Date analysed	-	12/08/2016
Azinphos-methyl (Guthion)	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Dichlorvos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Ethion	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Parathion	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Surrogate TCMX	%	92

PCBs in Soil						
Our Reference:	UNITS	151617-5	151617-6	151617-7	151617-8	151617-9
Your Reference	----------	9528/BH9	9528/BH9a	9528/BH10a	9528/BH10	9528/BH11
Depth	- ----------	0.2-0.3	0.1	0.1	2.0	0.2-0.3
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	91	95	91	92	91

PCBs in Soil				
Our Reference:	UNITS	151617-10	151617-11	151617-12
Your Reference	----------	9528/BH11	9528/BH12	9528/BH12
Depth	- ----------	2.0	0.2-0.3	3.0
Type of sample		Soil	Soil	Soil
Date extracted	-	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	92	91	92

Acid Extractable metals in soil						
Our Reference:	UNITS	151617-1	151617-2	151617-3	151617-4	151617-5
Your Reference	----------	9528/BH7	9528/BH7	9528/BH8	9528/BH8	9528/BH9
	-					
Depth	----------	0.2-0.3	3.0	1.0	3.0	0.2-0.3
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Arsenic	mg/kg	7	11	5	<4	15
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	12	14	11	18
Copper	mg/kg	16	39	36	30	19
Lead	mg/kg	20	19	17	20	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	23	19	17	17
Zinc	mg/kg	27	73	84	68	56
Iron	mg/kg	48,000	[NA]	[NA]	[NA]	[NA]

Acid Extractable metals in soil						
Our Reference:	UNITS	151617-6	151617-7	151617-8	151617-9	151617-10
Your Reference	----------	9528/BH9a	9528/BH10a	9528/BH10	9528/BH11	9528/BH11
	-					
Depth	----------	0.1	0.1	2.0	0.2-0.3	2.0
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Arsenic	mg/kg	6	10	8	8	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	17	15	11	16	11
Copper	mg/kg	18	19	38	23	30
Lead	mg/kg	25	22	17	20	19
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	13	12	17	15	23
Zinc	mg/kg	40	51	68	44	75

Acid Extractable metals in soil						
Our Reference:	UNITS	151617-11	151617-12	151617-13	151617-14	151617-15
Your Reference	----------	9528/BH12	9528/BH12	9528/BH13	9528/BH13	9528/BH13
	-					
Depth	----------	0.2-0.3	3.0	0.2-0.3	1.0	3.0
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Arsenic	mg/kg	7	5	8	7	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	18	12	16	17	13
Copper	mg/kg	18	31	23	27	36
Lead	mg/kg	19	17	23	18	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	11	18	12	20	19
Zinc	mg/kg	37	60	42	54	70

Misc Soil - Inorg				
Our Reference:	UNITS	151617-1	151617-13	151617-15
Your Reference	----------	9528/BH7	9528/BH13	9528/BH13
	-			
Depth	----------	0.2-0.3	0.2-0.3	3.0
Type of sample		Soil	Soil	Soil
Date prepared	-	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5

Moisture						
Our Reference:	UNITS	151617-1	151617-2	151617-3	151617-4	151617-5
Your Reference	----------	9528/BH7	9528/BH7	9528/BH8	9528/BH8	9528/BH9
	-					
Depth	----------	0.2-0.3	3.0	1.0	3.0	0.2-0.3
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	15/08/2016	15/08/2016	15/08/2016	15/08/2016	15/08/2016
Moisture	%	18	9.6	14	8.8	16

Moisture						
Our Reference:	UNITS	151617-6	151617-7	151617-8	151617-9	151617-10
Your Reference	----------	9528/BH9a	9528/BH10a	9528/BH10	9528/BH11	9528/BH11
	-					
Depth	----------	0.1	0.1	2.0	0.2-0.3	2.0
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	15/08/2016	15/08/2016	15/08/2016	15/08/2016	15/08/2016
Moisture	%	23	18	7.0	19	8.7

Moisture						
Our Reference:	UNITS	151617-11	151617-12	151617-13	151617-14	151617-15
Your Reference	----------	9528/BH12	9528/BH12	9528/BH13	9528/BH13	9528/BH13
	-					
Depth	----------	0.2-0.3	3.0	0.2-0.3	1.0	3.0
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Date analysed	-	15/08/2016	15/08/2016	15/08/2016	15/08/2016	15/08/2016
Moisture	%	23	8.3	17	19	8.7

CEC		
Our Reference:	UNITS	151617-1
Your Reference	----------	9528/BH7
	-	
Depth	----------	0.2-0.3
Type of sample		Soil
Date prepared	-	16/08/2016
Date analysed	-	16/08/2016
Exchangeable Ca	meq/100g	9.0
Exchangeable K	meq/100g	0.2
Exchangeable Mg	meq/100g	6.9
Exchangeable Na	meq/100g	0.94
Cation Exchange Capacity	meq/100g	17

Misc Inorg - Soil		
Our Reference:	UNITS	151617-1
Your Reference	----------	9528/BH7
	-	
Depth	----------	0.2-0.3
Type of sample		Soil
Date prepared	-	15/08/2016
Date analysed	-	15/08/2016
pH 1:5 soil:$CaCl_2$	pH Units	5.8
Total Organic Carbon (Walkley Black)	mg/kg	6,400

Clay 50-120g		
Our Reference:	UNITS	151617-1
Your Reference	----------	9528/BH7
	-	
Depth	----------	0.2-0.3
Type of sample		Soil
Date prepared	-	12/08/2016
Date analysed	-	15/08/2016
Clay in soils <2um	% (w/w)	47

Method ID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
Metals-009	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-AES analytical finish.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-036	Total Organic Carbon or Matter - A titrimetric method that measures the oxidisable organic content of soils.
AS1289.3.6.3	Determination Particle Size Analysis using AS1289.3.6.3 and AS1289.3.6.1 and in house method INORG-107. Clay fraction at <2um reported.

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
Date analysed	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-6	71%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-6	72%
2,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-6	72%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	0.2	Org-014	<0.2	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-6	72%
bromodichloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-6	83%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-6	72%
1,2-dibromoethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-6	71%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
isopropylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	88	[NT]	[NT]	LCS-6	85%
Surrogate aaa-Trifluorotoluene	%		Org-014	71	[NT]	[NT]	LCS-6	63%
Surrogate Toluene-d_8	%		Org-014	82	[NT]	[NT]	LCS-6	82%
Surrogate 4-Bromofluorobenzene	%		Org-014	97	[NT]	[NT]	LCS-6	105%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
Date analysed	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
TRHC$_{6}$ - C$_{9}$	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-6	113%
TRHC$_{6}$ - C$_{10}$	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-6	113%
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	LCS-6	120%
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	LCS-6	93%
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-6	118%
m+p-xylene	mg/kg	2	Org-016	<2	[NT]	[NT]	LCS-6	116%
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-6	112%
naphthalene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	71	[NT]	[NT]	LCS-6	116%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
Date analysed	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-6	108%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-6	114%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-6	119%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-6	108%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-6	114%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-6	119%
Surrogate o-Terphenyl	%		Org-003	98	[NT]	[NT]	LCS-6	113%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
Date analysed	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
Naphthalene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-6	113%
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-6	118%
Phenanthrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-6	123%
Anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-6	106%
Pyrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-6	113%
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	LCS-6	107%
Benzo(b,j +k)fluoranthene	mg/kg	0.2	Org-012	<0.2	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	[NT]	[NT]	LCS-6	126%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012	99	[NT]	[NT]	LCS-6	92%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
Date analysed	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	98%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	101%
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	101%
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	101%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	102%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	103%
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	103%
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	101%
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	104%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-6	100%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%		Org-005	94	[NT]	[NT]	LCS-6	111%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
Date analysed	-			12/08/2016	[NT]	[NT]	LCS-6	12/08/2016
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-6	90%
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-6	104%
Dimethoate	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-6	93%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-6	112%
Malathion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-6	96%
Parathion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-6	112%
Ronnel	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-6	97%
Surrogate TCMX	%		Org-008	94	[NT]	[NT]	LCS-6	92%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/08/2016	151617-5	12/08/2016 || 12/08/2016	LCS-6	12/08/2016
Date analysed	-			12/08/2016	151617-5	12/08/2016 || 12/08/2016	LCS-6	12/08/2016
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	151617-5	<0.1 || <0.1	[NR]	[NR]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	151617-5	<0.1 || <0.1	[NR]	[NR]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	151617-5	<0.1 || <0.1	[NR]	[NR]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	151617-5	<0.1 || <0.1	[NR]	[NR]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	151617-5	<0.1 || <0.1	[NR]	[NR]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	151617-5	<0.1 || <0.1	LCS-6	126%
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	151617-5	<0.1 || <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	94	151617-5	91 || 91 || RPD: 0	LCS-6	96%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base || Duplicate || %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			12/08/2016	151617-5	12/08/2016 || 12/08/2016	LCS-6	12/08/2016
Date analysed	-			12/08/2016	151617-5	12/08/2016 || 12/08/2016	LCS-6	12/08/2016
Arsenic	mg/kg	4	Metals-020	<4	151617-5	15 || 14 || RPD: 7	LCS-6	106%
Cadmium	mg/kg	0.4	Metals-020	<0.4	151617-5	<0.4 || <0.4	LCS-6	98%
Chromium	mg/kg	1	Metals-020	<1	151617-5	18 || 17 || RPD: 6	LCS-6	103%
Copper	mg/kg	1	Metals-020	<1	151617-5	19 || 17 || RPD: 11	LCS-6	106%
Lead	mg/kg	1	Metals-020	<1	151617-5	14 || 14 || RPD: 0	LCS-6	99%
Mercury	mg/kg	0.1	Metals-021	<0.1	151617-5	<0.1 || <0.1	LCS-6	106%
Nickel	mg/kg	1	Metals-020	<1	151617-5	17 || 15 || RPD: 12	LCS-6	99%
Zinc	mg/kg	1	Metals-020	<1	151617-5	56 || 51 || RPD: 9	LCS-6	99%
Iron	mg/kg	1	Metals-020	<1	[NT]	[NT]	LCS-6	100%

QUALITY CONTROL Misc Soil - Inorg	UNITS	PQL	METHOD	Blank
Date prepared	-			12/08/2016
Date analysed	-			12/08/2016
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5

QUALITY CONTROL CEC	UNITS	PQL	METHOD	Blank
Date prepared	-			16/08/2016
Date analysed	-			16/08/2016
Exchangeable Ca	meq/100g	0.1	Metals-009	<0.1
Exchangeable K	meq/100g	0.1	Metals-009	<0.1
Exchangeable Mg	meq/100g	0.1	Metals-009	<0.1
Exchangeable Na	meq/100g	0.1	Metals-009	<0.1

QUALITY CONTROL Misc Inorg - Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base || Duplicate || %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			15/08/2016	[NT]	[NT]	LCS-6	15/08/2016
Date analysed	-			15/08/2016	[NT]	[NT]	LCS-6	15/08/2016
pH 1:5 soil:$CaCl_2$	pH Units		Inorg-001	[NT]	[NT]	[NT]	LCS-6	100%
Total Organic Carbon (Walkley Black)	mg/kg	1000	Inorg-036	<1000	[NT]	[NT]	LCS-6	97%

QUALITY CONTROL Clay 50-120g	UNITS	PQL	METHOD	Blank
Date prepared	-			[NT]
Date analysed	-			[NT]
Clay in soils <2um	% (w/w)		AS1289.3.6 .3	[NT]

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151617-13	12/08/2016 || 12/08/2016
Date analysed	-	151617-13	12/08/2016 || 12/08/2016
Dichlorodifluoromethane	mg/kg	151617-13	<1 || <1
Chloromethane	mg/kg	151617-13	<1 || <1
Vinyl Chloride	mg/kg	151617-13	<1 || <1
Bromomethane	mg/kg	151617-13	<1 || <1
Chloroethane	mg/kg	151617-13	<1 || <1
Trichlorofluoromethane	mg/kg	151617-13	<1 || <1
1,1-Dichloroethene	mg/kg	151617-13	<1 || <1
trans-1,2-dichloroethene	mg/kg	151617-13	<1 || <1
1,1-dichloroethane	mg/kg	151617-13	<1 || <1
cis-1,2-dichloroethene	mg/kg	151617-13	<1 || <1
bromochloromethane	mg/kg	151617-13	<1 || <1
chloroform	mg/kg	151617-13	<1 || <1
2,2-dichloropropane	mg/kg	151617-13	<1 || <1
1,2-dichloroethane	mg/kg	151617-13	<1 || <1
1,1,1-trichloroethane	mg/kg	151617-13	<1 || <1
1,1-dichloropropene	mg/kg	151617-13	<1 || <1
Cyclohexane	mg/kg	151617-13	<1 || <1
carbon tetrachloride	mg/kg	151617-13	<1 || <1
Benzene	mg/kg	151617-13	<0.2 || <0.2
dibromomethane	mg/kg	151617-13	<1 || <1
1,2-dichloropropane	mg/kg	151617-13	<1 || <1
trichloroethene	mg/kg	151617-13	<1 || <1
bromodichloromethane	mg/kg	151617-13	<1 || <1
trans-1,3-dichloropropene	mg/kg	151617-13	<1 || <1
cis-1,3-dichloropropene	mg/kg	151617-13	<1 || <1
1,1,2-trichloroethane	mg/kg	151617-13	<1 || <1
Toluene	mg/kg	151617-13	<0.5 || <0.5
1,3-dichloropropane	mg/kg	151617-13	<1 || <1
dibromochloromethane	mg/kg	151617-13	<1 || <1
1,2-dibromoethane	mg/kg	151617-13	<1 || <1
tetrachloroethene	mg/kg	151617-13	<1 || <1
1,1,1,2-tetrachloroethane	mg/kg	151617-13	<1 || <1
chlorobenzene	mg/kg	151617-13	<1 || <1
Ethylbenzene	mg/kg	151617-13	<1 || <1

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QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
bromoform	mg/kg	151617-13	<1 || <1
m+p-xylene	mg/kg	151617-13	<2 || <2
styrene	mg/kg	151617-13	<1 || <1
1,1,2,2-tetrachloroethane	mg/kg	151617-13	<1 || <1
o-Xylene	mg/kg	151617-13	<1 || <1
1,2,3-trichloropropane	mg/kg	151617-13	<1 || <1
isopropylbenzene	mg/kg	151617-13	<1 || <1
bromobenzene	mg/kg	151617-13	<1 || <1
n-propyl benzene	mg/kg	151617-13	<1 || <1
2-chlorotoluene	mg/kg	151617-13	<1 || <1
4-chlorotoluene	mg/kg	151617-13	<1 || <1
1,3,5-trimethyl benzene	mg/kg	151617-13	<1 || <1
tert-butyl benzene	mg/kg	151617-13	<1 || <1
1,2,4-trimethyl benzene	mg/kg	151617-13	<1 || <1
1,3-dichlorobenzene	mg/kg	151617-13	<1 || <1
sec-butyl benzene	mg/kg	151617-13	<1 || <1
1,4-dichlorobenzene	mg/kg	151617-13	<1 || <1
4-isopropyl toluene	mg/kg	151617-13	<1 || <1
1,2-dichlorobenzene	mg/kg	151617-13	<1 || <1
n-butyl benzene	mg/kg	151617-13	<1 || <1
1,2-dibromo-3-chloropropane	mg/kg	151617-13	<1 || <1
1,2,4-trichlorobenzene	mg/kg	151617-13	<1 || <1
hexachlorobutadiene	mg/kg	151617-13	<1 || <1
1,2,3-trichlorobenzene	mg/kg	151617-13	<1 || <1
Surrogate Dibromofluorometha	%	151617-13	91 || 103 || RPD: 12
Surrogate aaa-Trifluorotoluene	%	151617-13	109 || 71 || RPD: 42
Surrogate Toluene-d_8	%	151617-13	79 || 90 || RPD: 13
Surrogate 4-Bromofluorobenzene	%	151617-13	97 || 98 || RPD: 1

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151617-13	12/08/2016 || 12/08/2016
Date analysed	-	151617-13	12/08/2016 || 12/08/2016
TRHC$_6$ - C$_9$	mg/kg	151617-13	<25 || <25
TRHC$_6$ - C$_{10}$	mg/kg	151617-13	<25 || <25
Benzene	mg/kg	151617-13	<0.2 || <0.2
Toluene	mg/kg	151617-13	<0.5 || <0.5
Ethylbenzene	mg/kg	151617-13	<1 || <1
m+p-xylene	mg/kg	151617-13	<2 || <2
o-Xylene	mg/kg	151617-13	<1 || <1
naphthalene	mg/kg	151617-13	<1 || <1
Surrogate aaa-Trifluorotoluene	%	151617-13	109 || 71 || RPD: 42

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151617-13	12/08/2016 || 12/08/2016
Date analysed	-	151617-13	12/08/2016 || 12/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	151617-13	<50 || <50
TRHC$_{15}$ - C$_{28}$	mg/kg	151617-13	<100 || <100
TRHC$_{29}$ - C$_{36}$	mg/kg	151617-13	<100 || <100
TRH>C$_{10}$-C$_{16}$	mg/kg	151617-13	<50 || <50
TRH>C$_{16}$-C$_{34}$	mg/kg	151617-13	<100 || <100
TRH>C$_{34}$-C$_{40}$	mg/kg	151617-13	<100 || <100
Surrogate o-Terphenyl	%	151617-13	84 || 84 || RPD: 0

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151617-13	12/08/2016 || 12/08/2016
Date analysed	-	151617-13	12/08/2016 || 12/08/2016
Naphthalene	mg/kg	151617-13	<0.1 || <0.1
Acenaphthylene	mg/kg	151617-13	<0.1 || <0.1
Acenaphthene	mg/kg	151617-13	<0.1 || <0.1
Fluorene	mg/kg	151617-13	<0.1 || <0.1
Phenanthrene	mg/kg	151617-13	<0.1 || <0.1
Anthracene	mg/kg	151617-13	<0.1 || <0.1
Fluoranthene	mg/kg	151617-13	<0.1 || <0.1
Pyrene	mg/kg	151617-13	<0.1 || <0.1
Benzo(a)anthracene	mg/kg	151617-13	<0.1 || <0.1
Chrysene	mg/kg	151617-13	<0.1 || <0.1
Benzo(b,j+k)fluoranthene	mg/kg	151617-13	<0.2 || <0.2
Benzo(a)pyrene	mg/kg	151617-13	<0.05 || <0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	151617-13	<0.1 || <0.1
Dibenzo(a,h)anthracene	mg/kg	151617-13	<0.1 || <0.1

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QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Benzo(g,h,i)perylene	mg/kg	151617-13	<0.1 || <0.1
Surrogate p-Terphenyl-d14	%	151617-13	93 || 92 || RPD: 1

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	151617-13	12/08/2016 || 12/08/2016
Date analysed	-	151617-13	12/08/2016 || 12/08/2016
Arsenic	mg/kg	151617-13	8 || 6 || RPD: 29
Cadmium	mg/kg	151617-13	<0.4 || <0.4
Chromium	mg/kg	151617-13	16 || 13 || RPD: 21
Copper	mg/kg	151617-13	23 || 20 || RPD: 14
Lead	mg/kg	151617-13	23 || 19 || RPD: 19
Mercury	mg/kg	151617-13	<0.1 || <0.1
Nickel	mg/kg	151617-13	12 || 11 || RPD: 9
Zinc	mg/kg	151617-13	42 || 37 || RPD: 13
Iron	mg/kg	[NT]	[NT]

QUALITY CONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-1	12/08/2016
Date analysed	-	[NT]	[NT]	LCS-1	12/08/2016
Total Phenolics (as Phenol)	mg/kg	[NT]	[NT]	LCS-1	104%

QUALITY CONTROL CEC	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-1	16/08/2016
Date analysed	-	[NT]	[NT]	LCS-1	16/08/2016
Exchangeable Ca	meq/100 g	[NT]	[NT]	LCS-1	108%
Exchangeable K	meq/100 g	[NT]	[NT]	LCS-1	107%
Exchangeable Mg	meq/100 g	[NT]	[NT]	LCS-1	108%
Exchangeable Na	meq/100 g	[NT]	[NT]	LCS-1	119%

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QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151617-6	12/08/2016
Date analysed	-	[NT]	[NT]	151617-6	12/08/2016
Aroclor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Aroclor 1221	mg/kg	[NT]	[NT]	[NR]	[NR]
Aroclor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Aroclor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Aroclor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Aroclor 1254	mg/kg	[NT]	[NT]	151617-6	121%
Aroclor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	151617-6	95%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	151617-6	12/08/2016
Date analysed	-	[NT]	[NT]	151617-6	12/08/2016
Arsenic	mg/kg	[NT]	[NT]	151617-6	82%
Cadmium	mg/kg	[NT]	[NT]	151617-6	85%
Chromium	mg/kg	[NT]	[NT]	151617-6	87%
Copper	mg/kg	[NT]	[NT]	151617-6	100%
Lead	mg/kg	[NT]	[NT]	151617-6	79%
Mercury	mg/kg	[NT]	[NT]	151617-6	109%
Nickel	mg/kg	[NT]	[NT]	151617-6	84%
Zinc	mg/kg	[NT]	[NT]	151617-6	83%
Iron	mg/kg	[NT]	[NT]	[NR]	[NR]

Report Comments:

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NR: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

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

SAMPLE RECEIPT ADVICE

Client Details	
Client	Getex Pty Ltd
Attention	Justin Thompson-Laing

Sample Login Details	
Your Reference	9528
Envirolab Reference	**151617**
Date Sample Received	10/08/2016
Date Instructions Received	10/08/2016
Date Results Expected to be Reported	**17/08/2016**

Sample Condition	
Samples received in appropriate condition for analysis	YES
No. of Samples Provided	16 Soils
Turnaround Time Requested	Standard
Temperature on receipt (°C)	2.0
Cooling Method	Ice
Sampling Date Provided	YES

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

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	Phone: 02 9910 6200
Fax: 02 9910 6201	Fax: 02 9910 6201
Email: ahie@envirolabservices.com.au	Email: jhurst@envirolabservices.com.au

Sample and Testing Details on following page

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
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Sample Id	*VOCs in soil*	*vTRH(C6-C10)/BTEXN in Soil*	*svTRH (C10-C40) in Soil*	*PAHs in Soil*	*Organochlorine Pesticides in soil*	*Organophosphorus Pesticides*	*PCBs in Soil*	*Acid Extractable metals in soil*	*Total Phenolics (as Phenol)*	*CEC*	*pH 1:5 soil:CaCl2*	*Total Organic Carbon (Walkley Black)*	*Clay 50-120g*	*On Hold*
9528/BH7-0.2-0.3		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
9528/BH7-3.0		✓	✓					✓						
9528/BH8-1.0		✓	✓					✓						
9528/BH8-3.0		✓	✓	✓				✓						
9528/BH9-0.2-0.3							✓	✓						
9528/BH9a-0.1							✓	✓						
9528/BH10a-0.1							✓	✓						
9528/BH10-2.0							✓	✓						
9528/BH11-0.2-0.3							✓	✓						
9528/BH11-2.0							✓	✓						
9528/BH12-0.2-0.3							✓	✓						
9528/BH12-3.0							✓	✓						
9528/BH13-0.2-0.3	✓	✓	✓	✓				✓	✓					
9528/BH13-1.0		✓	✓	✓				✓						
9528/BH13-3.0		✓	✓	✓				✓	✓					
9528/BH11-1.0														✓

GETEX

Chain of Custody

From: Getex Pty Ltd
Address: 2.02, Building 2, Macquarie Business Park
35 Waterloo Road
MACQUARIE PARK NSW 2113
Phone: (02) 9889 2488
Facsimile: (02) 9889 2499
Email: help@getex.com.au
Attention: **Justin Thompson-Laing**

To: Envirolab Services Pty Ltd
Address: 12 Ashley Street
CHATSWOOD NSW 2067
Phone: (02) 9910 6200
Facsimile: (02) 9910 6299

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 151617
Date Received: 10/8/16
Time Received: 8:00
Received by: AM
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Date: 10/08/2016
Order Number: 5751
Project Number: 9528
TAT: **5 days**

☐ Samples Received at Ambient Temp. ☑ Samples Recieved Chilled Received By: ASTORIA. MARKOVIC Date: 10/8/16

Notes: Suite of 8 Metals

Envirolab Barcode Number	Getex Sample Number	Container (Plastic Tube – PT, Bag – B, Petri Dish – PD, Plastic Bottle – PB, Glass Jar – GJ, Glass Bottle – GB, Glass Vial - GV)	Soil – Single Analytes: TRH/BTEX	PAH Routine	PAH Low	OCP	OPP	PCB	Lead	4-17 Metals	Phenolics	Cyanide	Asbestos	TCLP Prep	Leachable PAH	6 Leachable Metals	Ammonia	VOCs	Soil – Combos and Non-Standard Analytes: NEPM Soil Char Suite	Combination 1m	Combination 3	Combination 4	Combination 5b
1	9528/BH7/0.2-0.3	GJ																	1				1
2	9528/BH7/3.0	GJ																		1			
3	9528/BH8/1.0	GJ																		1			
4	9528/BH8/3.0	GJ																			1		
5	9528/BH9/0.2-0.3	GJ						1		1													
6	9528/BH9a/0.1	GJ						1		1													
7	9528/BH10a/0.1	GJ						1		1													
8	9528/BH10/2.0	GJ						1		1													
9	9528/BH11/0.2-0.3	GJ						1		1													
10	9528/BH11/2.0	GJ						1		1													
11	9528/BH12/0.2-0.3	GJ						1		1													
12	9528/BH12/3.0	GJ						1		1													
13	9528/BH13/0.2-0.3	GJ																1				1	
14	9528/BH13/1.0	GJ																			1		
15	9528/BH13/3.0	GJ																				1	
16	9528/BH11/1.0 AM	**Total**						8		8								1	1	2	2	2	1

12 Ashley Street, Chatswood, NSW 2067
tel: +61 2 9910 6200

email: sydney@envirolab.com.au
envirolab.com.au

Envirolab Services Pty Ltd - Sydney | ABN 37 112 535 645

CERTIFICATE OF ANALYSIS 151618

Client:

Getex Pty Ltd
2.02, Building 2 Waterloo Business Park
35 Waterloo Rd
North Ryde
NSW 2113

Attention: Justin Thompson Laing

Sample log in details:

Your Reference:	**9528**	
No. of samples:	11 soils	
Date samples received / completed instructions received	10/08/16	/ 10/08/16

Analysis Details:

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

Report Details:

Date results requested by: / Issue Date:	17/08/16	/ 16/08/16
Date of Preliminary Report:	Not Issued	

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

Results Approved By:

David Springer
General Manager

VOCs in soil Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ---------- 	151618-1 9528/BH14 0.2-0.3 soil	151618-2 9528/BH14 2.0 soil	151618-8 9528/BH16 1.0 soil	151618-9 9528/BH16 3.0 soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1

VOCs in soil Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ----------	151618-1 9528/BH14 0.2-0.3 soil	151618-2 9528/BH14 2.0 soil	151618-8 9528/BH16 1.0 soil	151618-9 9528/BH16 3.0 soil
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	90	94	92	106
Surrogate aaa-Trifluorotoluene	%	69	74	73	94
Surrogate Toluene-d_8	%	80	80	79	90
Surrogate 4-Bromofluorobenzene	%	86	85	87	86

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	151618-1	151618-2	151618-3	151618-4	151618-5
Your Reference	---------- -	9528/BH14	9528/BH14	9528/BH14	9528/BH15	9528/BH15
Depth	----------	0.2-0.3	2.0	4.0	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	69	74	93	98	84

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	151618-6	151618-7	151618-8	151618-9	151618-10
Your Reference	---------- -	9528/BH15	9528/BH16	9528/BH16	9528/BH16	9528/BH1
Depth	----------	3.0	0.2-0.3	1.0	3.0	1.0a
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	85	85	73	94	82

vTRH(C6-C10)/BTEXN in Soil		
Our Reference:	UNITS	151618-11
Your Reference	----------	9528/BH14
	-	
Depth	----------	0.2-0.3
Type of sample		soil
Date extracted	-	11/08/2016
Date analysed	-	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
naphthalene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	81

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	151618-1	151618-2	151618-3	151618-4	151618-5
Your Reference	----------	9528/BH14	9528/BH14	9528/BH14	9528/BH15	9528/BH15
Depth	- ----------	0.2-0.3	2.0	4.0	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	12/08/2016	12/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	83	87	83	91	83

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	151618-6	151618-7	151618-8	151618-9	151618-10
Your Reference	----------	9528/BH15	9528/BH16	9528/BH16	9528/BH16	9528/BH1
Depth	- ----------	3.0	0.2-0.3	1.0	3.0	1.0a
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	84	90	82	83	82

svTRH (C10-C40) in Soil		
Our Reference:	UNITS	151618-11
Your Reference	----------	9528/BH14
	-	
Depth	----------	0.2-0.3
Type of sample		soil
Date extracted	-	11/08/2016
Date analysed	-	12/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100
Surrogate o-Terphenyl	%	83

PAHs in Soil Our Reference: Your Reference Depth Type of sample	UNITS ---------- - ---------- 	151618-1 9528/BH14 0.2-0.3 soil	151618-2 9528/BH14 2.0 soil	151618-3 9528/BH14 4.0 soil	151618-4 9528/BH15 0.2-0.3 soil	151618-5 9528/BH15 1.0 soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Positive PAHs	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	96	96	95	94	95

PAHs in Soil Our Reference: Your Reference	UNITS ----------	151618-6 9528/BH15	151618-7 9528/BH16	151618-8 9528/BH16	151618-9 9528/BH16	151618-10 9528/BH1
Depth	- ----------	3.0	0.2-0.3	1.0	3.0	1.0a
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Positive PAHs	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	98	89	95	95	98

PAHs in Soil		
Our Reference:	UNITS	151618-11
Your Reference	----------	9528/BH14
	-	
Depth	----------	0.2-0.3
Type of sample		soil
Date extracted	-	11/08/2016
Date analysed	-	11/08/2016
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Total Positive PAHs	mg/kg	NIL (+)VE
Surrogate p-Terphenyl-d14	%	93

Acid Extractable metals in soil						
Our Reference:	UNITS	151618-1	151618-2	151618-3	151618-4	151618-5
Your Reference	----------	9528/BH14	9528/BH14	9528/BH14	9528/BH15	9528/BH15
	-					
Depth	----------	0.2-0.3	2.0	4.0	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Arsenic	mg/kg	5	6	<4	10	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	15	13	13	18	14
Copper	mg/kg	24	38	35	15	36
Lead	mg/kg	14	19	17	19	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	11	16	18	9	16
Zinc	mg/kg	49	76	71	26	53

Acid Extractable metals in soil						
Our Reference:	UNITS	151618-6	151618-7	151618-8	151618-9	151618-10
Your Reference	----------	9528/BH15	9528/BH16	9528/BH16	9528/BH16	9528/BH1
	-					
Depth	----------	3.0	0.2-0.3	1.0	3.0	1.0a
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Arsenic	mg/kg	5	6	7	<4	11
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	15	16	6	16
Copper	mg/kg	38	19	21	18	14
Lead	mg/kg	14	15	17	24	9
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	18	10	10	10	6
Zinc	mg/kg	70	37	34	48	23

Acid Extractable metals in soil		
Our Reference:	UNITS	151618-11
Your Reference	----------	9528/BH14
	-	
Depth	----------	0.2-0.3
Type of sample		soil
Date prepared	-	11/08/2016
Date analysed	-	11/08/2016
Arsenic	mg/kg	6
Cadmium	mg/kg	<0.4
Chromium	mg/kg	15
Copper	mg/kg	29
Lead	mg/kg	15
Mercury	mg/kg	<0.1
Nickel	mg/kg	12
Zinc	mg/kg	55

Moisture Our Reference: Your Reference	UNITS ----------	151618-1 9528/BH14	151618-2 9528/BH14	151618-3 9528/BH14	151618-4 9528/BH15	151618-5 9528/BH15
Depth	- ----------	0.2-0.3	2.0	4.0	0.2-0.3	1.0
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Moisture	%	19	15	11	16	17

Moisture Our Reference: Your Reference	UNITS ----------	151618-6 9528/BH15	151618-7 9528/BH16	151618-8 9528/BH16	151618-9 9528/BH16	151618-10 9528/BH1
Depth	- ----------	3.0	0.2-0.3	1.0	3.0	1.0a
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	12/08/2016	12/08/2016	12/08/2016	12/08/2016	12/08/2016
Moisture	%	7.9	16	19	11	15

Moisture Our Reference: Your Reference	UNITS ----------	151618-11 9528/BH14
Depth	- ----------	0.2-0.3
Type of sample		soil
Date prepared	-	11/08/2016
Date analysed	-	12/08/2016
Moisture	%	18

Misc Soil - Inorg						
Our Reference:	UNITS	151618-1	151618-3	151618-4	151618-6	151618-7
Your Reference	---------- -	9528/BH14	9528/BH14	9528/BH15	9528/BH15	9528/BH16
Depth	----------	0.2-0.3	4.0	0.2-0.3	3.0	0.2-0.3
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/08/2016
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg		
Our Reference:	UNITS	151618-9
Your Reference	---------- -	9528/BH16
Depth	----------	3.0
Type of sample		soil
Date prepared	-	11/08/2016
Date analysed	-	11/08/2016
Total Phenolics (as Phenol)	mg/kg	<5

Method ID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	151618-1	11/08/2016 || 11/08/2016	LCS-2	11/08/2016
Date analysed	-			12/08/2016	151618-1	12/08/2016 || 12/08/2016	LCS-2	12/08/2016
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	LCS-2	77%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	151618-1	<1 || <1	LCS-2	80%
2,2-dichloropropane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	LCS-2	79%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	LCS-2	111%
1,1-dichloropropene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Benzene	mg/kg	0.2	Org-014	<0.2	151618-1	<0.2 || <0.2	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	LCS-2	80%
bromodichloromethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	LCS-2	88%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	151618-1	<0.5 || <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	LCS-2	89%
1,2-dibromoethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	LCS-2	78%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	151618-1	<2 || <2	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
o-Xylene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
isopropylbenzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	103	151618-1	90 || 93 || RPD: 3	LCS-2	86%
Surrogate aaa-Trifluorotoluene	%		Org-014	102	151618-1	69 || 83 || RPD: 18	LCS-2	78%
Surrogate Toluene-d_8	%		Org-014	91	151618-1	80 || 81 || RPD: 1	LCS-2	85%
Surrogate 4-Bromofluorobenzene	%		Org-014	86	151618-1	86 || 88 || RPD: 2	LCS-2	106%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/08/2016	151618-1	11/08/2016 || 11/08/2016	LCS-2	12/08/2016
Date analysed	-			12/08/2016	151618-1	12/08/2016 || 12/08/2016	LCS-2	12/08/2016
TRHC$_{6}$ - C$_{9}$	mg/kg	25	Org-016	<25	151618-1	<25 || <25	LCS-2	85%
TRHC$_{6}$ - C$_{10}$	mg/kg	25	Org-016	<25	151618-1	<25 || <25	LCS-2	85%
Benzene	mg/kg	0.2	Org-016	<0.2	151618-1	<0.2 || <0.2	LCS-2	83%
Toluene	mg/kg	0.5	Org-016	<0.5	151618-1	<0.5 || <0.5	LCS-2	85%
Ethylbenzene	mg/kg	1	Org-016	<1	151618-1	<1 || <1	LCS-2	86%
m+p-xylene	mg/kg	2	Org-016	<2	151618-1	<2 || <2	LCS-2	86%
o-Xylene	mg/kg	1	Org-016	<1	151618-1	<1 || <1	LCS-2	88%
naphthalene	mg/kg	1	Org-014	<1	151618-1	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	84	151618-1	69 || 83 || RPD: 18	LCS-2	83%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	151618-1	11/08/2016 || 11/08/2016	LCS-2	11/08/2016
Date analysed	-			11/08/2016	151618-1	11/08/2016 || 11/08/2016	LCS-2	11/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	151618-1	<50 || <50	LCS-2	114%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	151618-1	<100 || <100	LCS-2	108%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	151618-1	<100 || <100	LCS-2	119%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	151618-1	<50 || <50	LCS-2	114%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	151618-1	<100 || <100	LCS-2	108%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	151618-1	<100 || <100	LCS-2	119%
Surrogate o-Terphenyl	%		Org-003	94	151618-1	83 || 84 || RPD: 1	LCS-2	95%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	151618-1	11/08/2016 || 11/08/2016	LCS-2	11/08/2016
Date analysed	-			11/08/2016	151618-1	11/08/2016 || 11/08/2016	LCS-2	11/08/2016
Naphthalene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	LCS-2	113%
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	LCS-2	115%
Phenanthrene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	LCS-2	125%
Anthracene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	LCS-2	111%
Pyrene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	LCS-2	119%
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	LCS-2	102%
Benzo(b,j +k)fluoranthene	mg/kg	0.2	Org-012	<0.2	151618-1	<0.2 || <0.2	[NR]	[NR]

Client Reference: 9528

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	151618-1	<0.05 || <0.05	LCS-2	116%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	151618-1	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012	92	151618-1	96 || 96 || RPD: 0	LCS-2	120%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			11/08/2016	151618-1	11/08/2016 || 11/08/2016	LCS-2	11/08/2016
Date analysed	-			11/08/2016	151618-1	11/08/2016 || 11/08/2016	LCS-2	11/08/2016
Arsenic	mg/kg	4	Metals-020	<4	151618-1	5 || 5 || RPD: 0	LCS-2	111%
Cadmium	mg/kg	0.4	Metals-020	<0.4	151618-1	<0.4 || <0.4	LCS-2	109%
Chromium	mg/kg	1	Metals-020	<1	151618-1	15 || 14 || RPD: 7	LCS-2	109%
Copper	mg/kg	1	Metals-020	<1	151618-1	24 || 25 || RPD: 4	LCS-2	109%
Lead	mg/kg	1	Metals-020	<1	151618-1	14 || 14 || RPD: 0	LCS-2	102%
Mercury	mg/kg	0.1	Metals-021	<0.1	151618-1	<0.1 || <0.1	LCS-2	115%
Nickel	mg/kg	1	Metals-020	<1	151618-1	11 || 11 || RPD: 0	LCS-2	103%
Zinc	mg/kg	1	Metals-020	<1	151618-1	49 || 50 || RPD: 2	LCS-2	104%

QUALITY CONTROL Misc Soil - Inorg	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD
Date prepared	-			11/08/2016	151618-1	11/08/2016 || 11/08/2016
Date analysed	-			11/08/2016	151618-1	11/08/2016 || 11/08/2016
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	151618-1	<5 || <5

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151618-11	11/08/2016 || 11/08/2016
Date analysed	-	151618-11	12/08/2016 || 12/08/2016
TRHC$_6$ - C$_9$	mg/kg	151618-11	<25 || <25
TRHC$_6$ - C$_{10}$	mg/kg	151618-11	<25 || <25
Benzene	mg/kg	151618-11	<0.2 || <0.2
Toluene	mg/kg	151618-11	<0.5 || <0.5
Ethylbenzene	mg/kg	151618-11	<1 || <1
m+p-xylene	mg/kg	151618-11	<2 || <2
o-Xylene	mg/kg	151618-11	<1 || <1
naphthalene	mg/kg	151618-11	<1 || <1
Surrogate aaa-Trifluorotoluene	%	151618-11	81 || 86 || RPD: 6

Client Reference: 9528

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151618-11	11/08/2016 || 11/08/2016
Date analysed	-	151618-11	12/08/2016 || 12/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	151618-11	<50 || <50
TRHC$_{15}$ - C$_{28}$	mg/kg	151618-11	<100 || <100
TRHC$_{29}$ - C$_{36}$	mg/kg	151618-11	<100 || <100
TRH>C$_{10}$-C$_{16}$	mg/kg	151618-11	<50 || <50
TRH>C$_{16}$-C$_{34}$	mg/kg	151618-11	<100 || <100
TRH>C$_{34}$-C$_{40}$	mg/kg	151618-11	<100 || <100
Surrogate o-Terphenyl	%	151618-11	83 || 84 || RPD: 1
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	151618-11	11/08/2016 || 11/08/2016
Date analysed	-	151618-11	11/08/2016 || 11/08/2016
Naphthalene	mg/kg	151618-11	<0.1 || <0.1
Acenaphthylene	mg/kg	151618-11	<0.1 || <0.1
Acenaphthene	mg/kg	151618-11	<0.1 || <0.1
Fluorene	mg/kg	151618-11	<0.1 || <0.1
Phenanthrene	mg/kg	151618-11	<0.1 || <0.1
Anthracene	mg/kg	151618-11	<0.1 || <0.1
Fluoranthene	mg/kg	151618-11	<0.1 || <0.1
Pyrene	mg/kg	151618-11	<0.1 || <0.1
Benzo(a)anthracene	mg/kg	151618-11	<0.1 || <0.1
Chrysene	mg/kg	151618-11	<0.1 || <0.1
Benzo(b,j+k)fluoranthene	mg/kg	151618-11	<0.2 || <0.2
Benzo(a)pyrene	mg/kg	151618-11	<0.05 || <0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	151618-11	<0.1 || <0.1
Dibenzo(a,h)anthracene	mg/kg	151618-11	<0.1 || <0.1
Benzo(g,h,i)perylene	mg/kg	151618-11	<0.1 || <0.1
Surrogate p-Terphenyl-d14	%	151618-11	93 || 98 || RPD: 5

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	151618-11	11/08/2016 || 11/08/2016
Date analysed	-	151618-11	11/08/2016 || 11/08/2016
Arsenic	mg/kg	151618-11	6 || 5 || RPD: 18
Cadmium	mg/kg	151618-11	<0.4 || <0.4
Chromium	mg/kg	151618-11	15 || 15 || RPD: 0
Copper	mg/kg	151618-11	29 || 30 || RPD: 3
Lead	mg/kg	151618-11	15 || 14 || RPD: 7
Mercury	mg/kg	151618-11	<0.1 || <0.1
Nickel	mg/kg	151618-11	12 || 12 || RPD: 0
Zinc	mg/kg	151618-11	55 || 55 || RPD: 0

QUALITY CONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-1	11/08/2016
Date analysed	-	[NT]	[NT]	LCS-1	11/08/2016
Total Phenolics (as Phenol)	mg/kg	[NT]	[NT]	LCS-1	105%

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151618-9	11/08/2016
Date analysed	-	[NT]	[NT]	151618-9	12/08/2016
Dichlorodifluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	[NT]	[NT]	151618-9	88%
cis-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	[NT]	[NT]	151618-9	88%
2,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	[NT]	[NT]	151618-9	81%
1,1,1-trichloroethane	mg/kg	[NT]	[NT]	151618-9	111%
1,1-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	[NT]	[NT]	151618-9	81%

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
bromodichloromethane	mg/kg	[NT]	[NT]	151618-9	86%
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	[NT]	[NT]	151618-9	94%
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	[NT]	[NT]	151618-9	87%
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%	[NT]	[NT]	151618-9	103%
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	151618-9	85%
Surrogate Toluene-d_8	%	[NT]	[NT]	151618-9	94%
Surrogate 4-Bromofluorobenzene	%	[NT]	[NT]	151618-9	106%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151618-9	11/08/2016
Date analysed	-	[NT]	[NT]	151618-9	12/08/2016
TRHC$_6$ - C$_9$	mg/kg	[NT]	[NT]	151618-9	91%
TRHC$_6$ - C$_{10}$	mg/kg	[NT]	[NT]	151618-9	91%
Benzene	mg/kg	[NT]	[NT]	151618-9	84%
Toluene	mg/kg	[NT]	[NT]	151618-9	80%
Ethylbenzene	mg/kg	[NT]	[NT]	151618-9	93%
m+p-xylene	mg/kg	[NT]	[NT]	151618-9	99%
o-Xylene	mg/kg	[NT]	[NT]	151618-9	97%
naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	151618-9	85%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151618-9	11/08/2016
Date analysed	-	[NT]	[NT]	151618-9	12/08/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	[NT]	[NT]	151618-9	127%
TRHC$_{15}$ - C$_{28}$	mg/kg	[NT]	[NT]	151618-9	119%
TRHC$_{29}$ - C$_{36}$	mg/kg	[NT]	[NT]	151618-9	106%
TRH>C$_{10}$-C$_{16}$	mg/kg	[NT]	[NT]	151618-9	127%
TRH>C$_{16}$-C$_{34}$	mg/kg	[NT]	[NT]	151618-9	119%
TRH>C$_{34}$-C$_{40}$	mg/kg	[NT]	[NT]	151618-9	106%
Surrogate o-Terphenyl	%	[NT]	[NT]	151618-9	83%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	151618-9	11/08/2016
Date analysed	-	[NT]	[NT]	151618-9	11/08/2016
Naphthalene	mg/kg	[NT]	[NT]	151618-9	112%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	151618-9	115%
Phenanthrene	mg/kg	[NT]	[NT]	151618-9	126%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	151618-9	112%
Pyrene	mg/kg	[NT]	[NT]	151618-9	119%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	151618-9	100%
Benzo(b,j+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	151618-9	113%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	151618-9	92%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	151618-9	11/08/2016
Date analysed	-	[NT]	[NT]	151618-9	11/08/2016
Arsenic	mg/kg	[NT]	[NT]	151618-9	85%
Cadmium	mg/kg	[NT]	[NT]	151618-9	93%
Chromium	mg/kg	[NT]	[NT]	151618-9	91%
Copper	mg/kg	[NT]	[NT]	151618-9	96%
Lead	mg/kg	[NT]	[NT]	151618-9	91%
Mercury	mg/kg	[NT]	[NT]	151618-9	113%
Nickel	mg/kg	[NT]	[NT]	151618-9	87%
Zinc	mg/kg	[NT]	[NT]	151618-9	88%
QUALITY CONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	151618-3	11/08/2016
Date analysed	-	[NT]	[NT]	151618-3	11/08/2016
Total Phenolics (as Phenol)	mg/kg	[NT]	[NT]	151618-3	100%

Report Comments:

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NR: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Envirolab Services Pty Ltd
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SAMPLE RECEIPT ADVICE

Client Details	
Client	Getex Pty Ltd
Attention	Justin Thompson Laing

Sample Login Details	
Your Reference	9528
Envirolab Reference	**151618**
Date Sample Received	10/08/2016
Date Instructions Received	10/08/2016
Date Results Expected to be Reported	**17/08/2016**

Sample Condition	
Samples received in appropriate condition for analysis	YES
No. of Samples Provided	11 soils
Turnaround Time Requested	Standard
Temperature on receipt (°C)	2.8
Cooling Method	Ice
Sampling Date Provided	YES

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

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	Phone: 02 9910 6200
Fax: 02 9910 6201	Fax: 02 9910 6201
Email: ahie@envirolabservices.com.au	Email: jhurst@envirolabservices.com.au

Sample and Testing Details on following page

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
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Sample Id	*VOCs in soil*	*vTRH(C6-C10)/BTEXN in Soil*	*svTRH (C10-C40) in Soil*	*PAHs in Soil*	*Acid Extractable metals in soil*	*Total Phenolics (as Phenol)*
9528/BH14-0.2-0.3	✓	✓	✓	✓	✓	✓
9528/BH14-2.0	✓	✓	✓	✓	✓	
9528/BH14-4.0		✓	✓	✓	✓	✓
9528/BH15-0.2-0.3		✓	✓	✓	✓	✓
9528/BH15-1.0		✓	✓	✓	✓	
9528/BH15-3.0		✓	✓	✓	✓	✓
9528/BH16-0.2-0.3		✓	✓	✓	✓	✓
9528/BH16-1.0	✓	✓	✓	✓	✓	
9528/BH16-3.0	✓	✓	✓	✓	✓	✓
9528/BH1-1.0a		✓	✓	✓	✓	
9528/BH14-0.2-0.3		✓	✓	✓	✓	

GETEX

Chain of Custody

From: Getex Pty Ltd
Address: 2.02, Building 2, Macquarie Business Park
35 Waterloo Road
MACQUARIE PARK NSW 2113
Phone: (02) 9889 2488
Facsimile: (02) 9889 2499
Email: help@getex.com.au
Attention: **Justin Thompson-Laing**

To: Envirolab Services Pty Ltd
Address: 12 Ashley Street
CHATSWOOD NSW 2067
Phone: (02) 9910 6200
Facsimile: (02) 9910 6299

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 151618
Date Received: 10/8/16
Time Received: 18:00
Received by: AM
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Date: 10/08/2016
Order Number: 5751
Project Number: 9528

TAT: **5 days**

☐ Samples Received at Ambient Temp. ☑ Samples Recieved Chilled Received By: ASTORIA. MARKOVIC Date: 10/8/16 18:00

Notes: Suite of 8 Metals

Envirolab Barcode Number	Getex Sample Number	Container (Plastic Tube – PT, Bag – B, Petri Dish – PD, Plastic Bottle – PB, Glass Jar – GJ, Glass Bottle – GB, Glass Vial - GV)	Soil – Single Analytes: TRH/BTEX	PAH Routine	PAH Low	OCP	OPP	PCB	Lead	4-17 Metals	Phenolics	Cyanide	Asbestos	TCLP Prep	Leachable PAH	6 Leachable Metals	Ammonia	VOCs	Soil – Combos and Non-Standard Analytes: NEPM Soil Char Suite	Combination 1m	Combination 3	Combination 4	Combination 5b
1	9528/BH14/0.2-0.3	GJ																1				1	
2	9528/BH14/2.0	GJ																1			1		
3	9528/BH14/4.0	GJ																				1	
4	9528/BH15/0.2-0.3	GJ																				1	
5	9528/BH15/1.0	GJ																			1		
6	9528/BH15/3.0	GJ																				1	
7	9528/BH16/0.2-0.3	GJ																				1	
8	9528/BH16/1.0	GJ																1			1		
9	9528/BH16/3.0	GJ																1				1	
10	9528/BH1/1.0a	GJ																			1		
11	9528/BH14/0.2-0.3a	GJ																			1		
	AM																						
Total																	4			5	6		

12 Ashley Street, Chatswood, NSW 2067
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email: sydney@envirolab.com.au
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Envirolab Services Pty Ltd - Sydney | ABN 37 112 535 645

CERTIFICATE OF ANALYSIS 151619

Client:

Getex Pty Ltd
2.02, Building 2 Waterloo Business Park
35 Waterloo Rd
North Ryde
NSW 2113

Attention: J Thompson Laing

Sample log in details:

Your Reference:	**9528**		
No. of samples:	2 Waters		
Date samples received / completed instructions received	10/08/16	/	10/08/16

Analysis Details:

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

Report Details:

Date results requested by: / Issue Date:	17/08/16	/	16/08/16
Date of Preliminary Report:	Not Issued		

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

Results Approved By:

David Springer
General Manager

VOCs in water		
Our Reference:	UNITS	151619-1
Your Reference	----------	9528/WDT/W1
	-	
Type of sample	----------	Water
Date extracted	-	11/08/2016
Date analysed	-	12/08/2016
Dichlorodifluoromethane	µg/L	<10
Chloromethane	µg/L	<10
Vinyl Chloride	µg/L	<10
Bromomethane	µg/L	<10
Chloroethane	µg/L	<10
Trichlorofluoromethane	µg/L	<10
1,1-Dichloroethene	µg/L	<1
Trans-1,2-dichloroethene	µg/L	<1
1,1-dichloroethane	µg/L	<1
Cis-1,2-dichloroethene	µg/L	<1
Bromochloromethane	µg/L	<1
Chloroform	µg/L	<1
2,2-dichloropropane	µg/L	<1
1,2-dichloroethane	µg/L	<1
1,1,1-trichloroethane	µg/L	<1
1,1-dichloropropene	µg/L	<1
Cyclohexane	µg/L	<1
Carbon tetrachloride	µg/L	<1
Benzene	µg/L	<1
Dibromomethane	µg/L	<1
1,2-dichloropropane	µg/L	<1
Trichloroethene	µg/L	<1
Bromodichloromethane	µg/L	<1
trans-1,3-dichloropropene	µg/L	<1
cis-1,3-dichloropropene	µg/L	<1
1,1,2-trichloroethane	µg/L	<1
Toluene	µg/L	<1
1,3-dichloropropane	µg/L	<1
Dibromochloromethane	µg/L	<1
1,2-dibromoethane	µg/L	<1
Tetrachloroethene	µg/L	<1
1,1,1,2-tetrachloroethane	µg/L	<1
Chlorobenzene	µg/L	<1
Ethylbenzene	µg/L	<1
Bromoform	µg/L	<1
m+p-xylene	µg/L	<2
Styrene	µg/L	<1
1,1,2,2-tetrachloroethane	µg/L	<1
o-xylene	µg/L	<1
1,2,3-trichloropropane	µg/L	<1

VOCs in water Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	151619-1 9528/WDT/W1 Water
Isopropylbenzene	µg/L	<1
Bromobenzene	µg/L	<1
n-propyl benzene	µg/L	<1
2-chlorotoluene	µg/L	<1
4-chlorotoluene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	<1
1,3-dichlorobenzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
1,4-dichlorobenzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
1,2-dichlorobenzene	µg/L	<1
n-butyl benzene	µg/L	<1
1,2-dibromo-3-chloropropane	µg/L	<1
1,2,4-trichlorobenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<1
1,2,3-trichlorobenzene	µg/L	<1
Surrogate Dibromofluoromethane	%	103
Surrogate toluene-d8	%	79
Surrogate 4-BFB	%	89

vTRH(C6-C10)/BTEXN in Water Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	151619-1 9528/WDT/W1 Water	151619-2 9528/WDT/W1a Water
Date extracted	-	11/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016
TRHC$_6$ - C$_9$	µg/L	<10	<10
TRHC$_6$ - C$_{10}$	µg/L	<10	<10
TRHC$_6$ - C$_{10}$ less BTEX (F1)	µg/L	<10	<10
Benzene	µg/L	<1	<1
Toluene	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1
m+p-xylene	µg/L	<2	<2
o-xylene	µg/L	<1	<1
Naphthalene	µg/L	<1	<1
Surrogate Dibromofluoromethane	%	103	109
Surrogate toluene-d8	%	79	96
Surrogate 4-BFB	%	89	97

svTRH (C10-C40) in Water Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	151619-1 9528/WDT/W1 Water	151619-2 9528/WDT/W1a Water
Date extracted	-	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016
TRHC$_{10}$ - C$_{14}$	µg/L	<50	<50
TRHC$_{15}$ - C$_{28}$	µg/L	<100	<100
TRHC$_{29}$ - C$_{36}$	µg/L	<100	<100
TRH>C$_{10}$ - C$_{16}$	µg/L	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	µg/L	<50	<50
TRH>C$_{16}$ - C$_{34}$	µg/L	<100	<100
TRH>C$_{34}$ - C$_{40}$	µg/L	<100	<100
Surrogate o-Terphenyl	%	80	86

PAHs in Water - Low Level Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	151619-1 9528/WDT/W1 Water	151619-2 9528/WDT/W1a Water
Date extracted	-	11/08/2016	11/08/2016
Date analysed	-	11/08/2016	11/08/2016
Naphthalene	µg/L	<0.2	<0.2
Acenaphthylene	µg/L	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	75	70

Total Phenolics in Water			
Our Reference:	UNITS	151619-1	151619-2
Your Reference	----------	9528/WDT/W1	9528/WDT/W1a
Type of sample	- ----------	Water	Water
Date extracted	-	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016
Total Phenolics (as Phenol)	mg/L	<0.05	<0.05

HM in water - dissolved Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	151619-1 9528/WDT/W1 Water	151619-2 9528/WDT/W1a Water
Date prepared	-	12/08/2016	12/08/2016
Date analysed	-	12/08/2016	12/08/2016
Arsenic-Dissolved	µg/L	<1	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1
Copper-Dissolved	µg/L	2	2
Lead-Dissolved	µg/L	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05
Nickel-Dissolved	µg/L	1	1
Zinc-Dissolved	µg/L	4	5

Miscellaneous Inorganics Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	151619-1 9528/WDT/W1 Water	151619-2 9528/WDT/W1a Water
Date prepared	-	10/08/2016	10/08/2016
Date analysed	-	10/08/2016	10/08/2016
pH	pH Units	7.3	7.3
Electrical Conductivity	µS/cm	560	560

Method ID	Methodology Summary
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25oC in accordance with APHA latest edition 2510 and Rayment & Lyons.

QUALITY CONTROL VOCs in water	UNITS	PQL	METHOD	Blank
Date extracted	-			11/08/2016
Date analysed	-			12/08/2016
Dichlorodifluoromethane	µg/L	10	Org-013	<10
Chloromethane	µg/L	10	Org-013	<10
Vinyl Chloride	µg/L	10	Org-013	<10
Bromomethane	µg/L	10	Org-013	<10
Chloroethane	µg/L	10	Org-013	<10
Trichlorofluoromethane	µg/L	10	Org-013	<10
1,1-Dichloroethene	µg/L	1	Org-013	<1
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1
1,1-dichloroethane	µg/L	1	Org-013	<1
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1
Bromochloromethane	µg/L	1	Org-013	<1
Chloroform	µg/L	1	Org-013	<1
2,2-dichloropropane	µg/L	1	Org-013	<1
1,2-dichloroethane	µg/L	1	Org-013	<1
1,1,1-trichloroethane	µg/L	1	Org-013	<1
1,1-dichloropropene	µg/L	1	Org-013	<1
Cyclohexane	µg/L	1	Org-013	<1
Carbon tetrachloride	µg/L	1	Org-013	<1
Benzene	µg/L	1	Org-013	<1
Dibromomethane	µg/L	1	Org-013	<1
1,2-dichloropropane	µg/L	1	Org-013	<1
Trichloroethene	µg/L	1	Org-013	<1
Bromodichloromethane	µg/L	1	Org-013	<1
trans-1,3-dichloropropene	µg/L	1	Org-013	<1
cis-1,3-dichloropropene	µg/L	1	Org-013	<1
1,1,2-trichloroethane	µg/L	1	Org-013	<1
Toluene	µg/L	1	Org-013	<1
1,3-dichloropropane	µg/L	1	Org-013	<1
Dibromochloromethane	µg/L	1	Org-013	<1
1,2-dibromoethane	µg/L	1	Org-013	<1
Tetrachloroethene	µg/L	1	Org-013	<1
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1
Chlorobenzene	µg/L	1	Org-013	<1
Ethylbenzene	µg/L	1	Org-013	<1
Bromoform	µg/L	1	Org-013	<1
m+p-xylene	µg/L	2	Org-013	<2
Styrene	µg/L	1	Org-013	<1
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1
o-xylene	µg/L	1	Org-013	<1
1,2,3-trichloropropane	µg/L	1	Org-013	<1

QUALITY CONTROL VOCs in water	UNITS	PQL	METHOD	Blank
Isopropylbenzene	µg/L	1	Org-013	<1
Bromobenzene	µg/L	1	Org-013	<1
n-propyl benzene	µg/L	1	Org-013	<1
2-chlorotoluene	µg/L	1	Org-013	<1
4-chlorotoluene	µg/L	1	Org-013	<1
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1
Tert-butyl benzene	µg/L	1	Org-013	<1
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1
1,3-dichlorobenzene	µg/L	1	Org-013	<1
Sec-butyl benzene	µg/L	1	Org-013	<1
1,4-dichlorobenzene	µg/L	1	Org-013	<1
4-isopropyl toluene	µg/L	1	Org-013	<1
1,2-dichlorobenzene	µg/L	1	Org-013	<1
n-butyl benzene	µg/L	1	Org-013	<1
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1
Hexachlorobutadiene	µg/L	1	Org-013	<1
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1
Surrogate Dibromofluoromethane	%		Org-013	95
Surrogate toluene-d8	%		Org-013	86
Surrogate 4-BFB	%		Org-013	76

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Water	UNITS	PQL	METHOD	Blank
Date extracted	-			11/08/2016
Date analysed	-			12/08/2016
TRHC6 - C9	µg/L	10	Org-016	<10
TRHC6 - C10	µg/L	10	Org-016	<10
Benzene	µg/L	1	Org-016	<1
Toluene	µg/L	1	Org-016	<1
Ethylbenzene	µg/L	1	Org-016	<1
m+p-xylene	µg/L	2	Org-016	<2
o-xylene	µg/L	1	Org-016	<1
Naphthalene	µg/L	1	Org-013	<1
Surrogate Dibromofluoromethane	%		Org-016	95
Surrogate toluene-d8	%		Org-016	86
Surrogate 4-BFB	%		Org-016	76

QUALITY CONTROL svTRH (C10-C40) in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	[NT]	[NT]	LCS-W1	11/08/2016
Date analysed	-			11/08/2016	[NT]	[NT]	LCS-W1	11/08/2016
TRHC10 - C14	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	91%
TRHC15 - C28	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	96%
TRHC29 - C36	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	102%
TRH>C10 - C16	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	91%
TRH>C16 - C34	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	96%
TRH>C34 - C40	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	102%
Surrogate o-Terphenyl	%		Org-003	78	[NT]	[NT]	LCS-W1	65%

QUALITY CONTROL PAHs in Water - Low Level	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			11/08/2016	[NT]	[NT]	LCS-W1	11/08/2016
Date analysed	-			11/08/2016	[NT]	[NT]	LCS-W1	11/08/2016
Naphthalene	µg/L	0.2	Org-012	<0.2	[NT]	[NT]	LCS-W1	82%
Acenaphthylene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	109%
Phenanthrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	98%
Anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	81%
Pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	86%
Benzo(a)anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL PAHs in Water - Low Level	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Chrysene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	84%
Benzo(b,j +k)fluoranthene	µg/L	0.2	Org-012	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	90%
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012	92	[NT]	[NT]	LCS-W1	88%

QUALITY CONTROL Total Phenolics in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/08/2016	[NT]	[NT]	LCS-W1	12/08/2016
Date analysed	-			12/08/2016	[NT]	[NT]	LCS-W1	12/08/2016
Total Phenolics (as Phenol)	mg/L	0.05	Inorg-031	<0.05	[NT]	[NT]	LCS-W1	102%

QUALITY CONTROL HM in water - dissolved	UNITS	PQL	METHOD	Blank
Date prepared	-			12/08/2016
Date analysed	-			12/08/2016
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	<1
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	<0.1
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	<1
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	<1
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	<1
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	<1
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	<1

QUALITY CONTROL Miscellaneous Inorganics	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			10/08/2016	[NT]	[NT]	LCS-W1	10/08/2016
Date analysed	-			10/08/2016	[NT]	[NT]	LCS-W1	10/08/2016
pH	pH Units		Inorg-001	[NT]	[NT]	[NT]	LCS-W1	101%
Electrical Conductivity	µS/cm	1	Inorg-002	<1	[NT]	[NT]	LCS-W1	100%

QUALITY CONTROL VOCs in water	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-W2	11/08/2016
Date analysed	-	[NT]	[NT]	LCS-W2	12/08/2016
Dichlorodifluoromethane	µg/L	[NT]	[NT]	[NR]	[NR]
Chloromethane	µg/L	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	µg/L	[NT]	[NT]	[NR]	[NR]
Bromomethane	µg/L	[NT]	[NT]	[NR]	[NR]
Chloroethane	µg/L	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	µg/L	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	µg/L	[NT]	[NT]	[NR]	[NR]
Trans-1,2-dichloroethene	µg/L	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	µg/L	[NT]	[NT]	LCS-W2	99%
Cis-1,2-dichloroethene	µg/L	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	µg/L	[NT]	[NT]	[NR]	[NR]
Chloroform	µg/L	[NT]	[NT]	LCS-W2	102%
2,2-dichloropropane	µg/L	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	µg/L	[NT]	[NT]	LCS-W2	99%
1,1,1-trichloroethane	µg/L	[NT]	[NT]	LCS-W2	99%
1,1-dichloropropene	µg/L	[NT]	[NT]	[NR]	[NR]
Cyclohexane	µg/L	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	µg/L	[NT]	[NT]	[NR]	[NR]
Benzene	µg/L	[NT]	[NT]	[NR]	[NR]
Dibromomethane	µg/L	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	µg/L	[NT]	[NT]	[NR]	[NR]
Trichloroethene	µg/L	[NT]	[NT]	LCS-W2	117%
Bromodichloromethane	µg/L	[NT]	[NT]	LCS-W2	99%
trans-1,3-dichloropropene	µg/L	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	µg/L	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	µg/L	[NT]	[NT]	[NR]	[NR]
Toluene	µg/L	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	µg/L	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	µg/L	[NT]	[NT]	LCS-W2	102%
1,2-dibromoethane	µg/L	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	µg/L	[NT]	[NT]	LCS-W2	97%
1,1,1,2-tetrachloroethane	µg/L	[NT]	[NT]	[NR]	[NR]

Client Reference: 9528

QUALITY CONTROL VOCs in water	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Chlorobenzene	µg/L	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	µg/L	[NT]	[NT]	[NR]	[NR]
Bromoform	µg/L	[NT]	[NT]	[NR]	[NR]
m+p-xylene	µg/L	[NT]	[NT]	[NR]	[NR]
Styrene	µg/L	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	µg/L	[NT]	[NT]	[NR]	[NR]
o-xylene	µg/L	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	µg/L	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	[NT]	[NT]	[NR]	[NR]
Bromobenzene	µg/L	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	µg/L	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	µg/L	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	µg/L	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	µg/L	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	µg/L	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	µg/L	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	µg/L	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	µg/L	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	µg/L	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluoromethane	%	[NT]	[NT]	LCS-W2	104%
Surrogate toluene-d8	%	[NT]	[NT]	LCS-W2	108%
Surrogate 4-BFB	%	[NT]	[NT]	LCS-W2	91%

Client Reference: 9528

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Water	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-W2	11/08/2016
Date analysed	-	[NT]	[NT]	LCS-W2	12/08/2016
TRHC$_6$ - C$_9$	µg/L	[NT]	[NT]	LCS-W2	87%
TRHC$_6$ - C$_{10}$	µg/L	[NT]	[NT]	LCS-W2	87%
Benzene	µg/L	[NT]	[NT]	LCS-W2	95%
Toluene	µg/L	[NT]	[NT]	LCS-W2	97%
Ethylbenzene	µg/L	[NT]	[NT]	LCS-W2	80%
m+p-xylene	µg/L	[NT]	[NT]	LCS-W2	81%
o-xylene	µg/L	[NT]	[NT]	LCS-W2	86%
Naphthalene	µg/L	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluoromethane	%	[NT]	[NT]	LCS-W2	104%
Surrogate toluene-d8	%	[NT]	[NT]	LCS-W2	108%
Surrogate 4-BFB	%	[NT]	[NT]	LCS-W2	91%
QUALITY CONTROL HM in water - dissolved	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-W5	12/08/2016
Date analysed	-	[NT]	[NT]	LCS-W5	12/08/2016
Arsenic-Dissolved	µg/L	[NT]	[NT]	LCS-W5	96%
Cadmium-Dissolved	µg/L	[NT]	[NT]	LCS-W5	102%
Chromium-Dissolved	µg/L	[NT]	[NT]	LCS-W5	97%
Copper-Dissolved	µg/L	[NT]	[NT]	LCS-W5	100%
Lead-Dissolved	µg/L	[NT]	[NT]	LCS-W5	107%
Mercury-Dissolved	µg/L	[NT]	[NT]	LCS-W5	104%
Nickel-Dissolved	µg/L	[NT]	[NT]	LCS-W5	95%
Zinc-Dissolved	µg/L	[NT]	[NT]	LCS-W5	102%

Report Comments:

METALS_WLL_8_D:
Dissolved Metals: no preserved sample was received, therefore
the unpreserved sample was filtered through 0.45um filter at the lab.
Note: there is a possibility some elements may be underestimated.

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NR: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

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

SAMPLE RECEIPT ADVICE

Client Details	
Client	Getex Pty Ltd
Attention	J Thompson Laing

Sample Login Details	
Your Reference	9528
Envirolab Reference	**151619**
Date Sample Received	10/08/2016
Date Instructions Received	10/08/2016
Date Results Expected to be Reported	**17/08/2016**

Sample Condition	
Samples received in appropriate condition for analysis	YES
No. of Samples Provided	2 Waters
Turnaround Time Requested	Standard
Temperature on receipt (°C)	2.0
Cooling Method	Ice
Sampling Date Provided	YES

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

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	Phone: 02 9910 6200
Fax: 02 9910 6201	Fax: 02 9910 6201
Email: ahie@envirolabservices.com.au	Email: jhurst@envirolabservices.com.au

Sample and Testing Details on following page

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

Sample Id	*VOCs in water*	*vTRH(C6-C10)/BTEXN in Water*	*svTRH (C10-C40) in Water*	*PAHs in Water - Low Level*	*Total Phenolics in Water*	*HM in water - dissolved*	*Electrical Conductivity*	*pH*
9528/WDT/W1	✓	✓	✓	✓	✓	✓	✓	✓
9528/WDT/W1a		✓	✓	✓	✓	✓	✓	✓

GETEX

From: Getex Pty Ltd
Address: 2.02, Building 2, Macquarie Business Park
35 Waterloo Road
MACQUARIE PARK NSW 2113
Phone: (02) 9889 2488
Facsimile: (02) 9889 2499
Email: help@getex.com.au
Attention: **Justin Thompson-Laing**

Chain of Custody

To: Envirolab Services Pty Ltd
Address: 12 Ashley Street
CHATSWOOD NSW 2067
Phone: (02) 9910 6200
Facsimile: (02) 9910 6299

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 151619
Date Received: 10/8/16
Time Received: 18:00
Received by: AM
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Date: 10/08/2016
Order Number: 5751
Project Number: 9528
TAT: **5 Days**

☐ Samples Received at Ambient Temp. ☑ Samples Recieved Chilled Received By: ASTORIA MARKOVIC Date: 10/8/16 18:00

Notes: Suite of 8 Metals, Filter before analysis of Metals

Envirolab Barcode Number	Getex Sample Number	Container (Plastic Tube – PT, Bag – B, Petri Dish – PD, Plastic Bottle – PB, Glass Jar – GJ, Glass Bottle – GB, Glass Vial - GV)	Water																
			Single Analytes														Combos and Non-Standard Analytes		
			TRH/BTEX	PAH Routine	PAH Low	OCP	OPP	PCB	Lead	4 - 17 Metals	Phenolics	Cyanide	Lab Filtration	EC	pH	VOCs		Combination 4L	
1	9528/WDT/W1	2xGV, PB, GB												1	1	1		1	
2	9528/WDT/W1a	2xGV, PB, GB												1	1			1	
		Total												2	2	1		2	

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Certificate of Analysis

Getex Pty Ltd
Suite 2.02 Building 2 Waterloo Business Park 35
Macquarie Park
NSW 2113

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.

Attention: **Justin Thompson-Laing**

Report **511363-S**
Project name 9528
Received Date Aug 10, 2016

Client Sample ID			**9528/BH1/1.0**	**9528/BH14/0.2-0.3**
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S16-Au10576**	**S16-Au10577**
Date Sampled			**Not Provided**	**Not Provided**
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	%	75	72
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
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

Client Sample ID			9528/BH1/1.0	9528/BH14/0.2-0.3
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S16-Au10576**	**S16-Au10577**
Date Sampled			**Not Provided**	**Not Provided**
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
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
2-Fluorobiphenyl (surr.)	1	%	109	106
p-Terphenyl-d14 (surr.)	1	%	125	116
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
Heavy Metals				
Arsenic	2	mg/kg	16	5.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	22	14
Copper	5	mg/kg	17	23
Lead	5	mg/kg	11	15
Mercury	0.05	mg/kg	< 0.05	< 0.05
Nickel	5	mg/kg	8.1	11
Zinc	5	mg/kg	33	47
% Moisture	1	%	19	15

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).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B7A (filtered metals)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 12, 2016	14 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
BTEX	Sydney	Aug 11, 2016	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 11, 2016	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Aug 12, 2016	14 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 12, 2016	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Metals M8	Sydney	Aug 11, 2016	28 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			
% Moisture	Sydney	Aug 11, 2016	14 Day
- Method: LTM-GEN-7080 Moisture			

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ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	Getex Pty Ltd	**Order No.:**		**Received:**	Aug 10, 2016 3:29 PM
Address:	Suite 2.02 Building 2 Waterloo Business Park 35 Macquarie Park NSW 2113	**Report #:** **Phone:** **Fax:**	511363 02 9889 2488 02 9889 2499	**Due:** **Priority:** **Contact Name:**	Aug 17, 2016 5 Day Justin Thompson-Laing
Project Name:	9528				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Conductivity (at 25°C)	pH	Moisture Set	Eurofins | mgt Suite B7	Eurofins | mgt Suite B7A (filtered metals)
Melbourne Laboratory - NATA Site # 1254 & 14271										
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	9528/BH1/1.0	Not Provided		Soil	S16-Au10576			X	X	
2	9528/BH14/0.2 -0.3	Not Provided		Soil	S16-Au10577			X	X	
3	9528/WDT/W1 B	Not Provided		Water	S16-Au10578	X	X			X
Test Counts						1	1	2	2	1

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 LORs are matrix dependant. Quoted LORs 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 Advice.

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: Nephelometric Turbidity 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 Environmental Protection Agency
APHA	American Public Health Association
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
TEQ	Toxic Equivalency Quotient

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 & PFASs 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, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene 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 Aroclor 1260 in Matrix Spikes and LCS.
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 RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
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							
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							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
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							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	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							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	93			70-130	Pass	
TRH C10-C14	%	72			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	94			70-130	Pass	
Toluene	%	101			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
m&p-Xylenes	%	107			70-130	Pass	
o-Xylene	%	106			70-130	Pass	
Xylenes - Total	%	106			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	89			70-130	Pass	
TRH C6-C10	%	88			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	110			70-130	Pass	
Acenaphthylene	%	106			70-130	Pass	
Anthracene	%	114			70-130	Pass	
Benz(a)anthracene	%	95			70-130	Pass	
Benzo(a)pyrene	%	95			70-130	Pass	
Benzo(b&j)fluoranthene	%	114			70-130	Pass	
Benzo(g.h.i)perylene	%	123			70-130	Pass	
Benzo(k)fluoranthene	%	91			70-130	Pass	
Chrysene	%	114			70-130	Pass	
Dibenz(a.h)anthracene	%	113			70-130	Pass	
Fluoranthene	%	110			70-130	Pass	
Fluorene	%	109			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	115			70-130	Pass	
Naphthalene	%	108			70-130	Pass	
Phenanthrene	%	109			70-130	Pass	
Pyrene	%	106			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	75			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	101			70-130	Pass	
Cadmium	%	104			70-130	Pass	
Chromium	%	111			70-130	Pass	
Copper	%	105			70-130	Pass	
Lead	%	104			70-130	Pass	
Mercury	%	109			70-130	Pass	
Nickel	%	117			70-130	Pass	
Zinc	%	116			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S16-Au10605	NCP	%	70			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S16-Au13832	NCP	%	118			70-130	Pass	
Acenaphthylene	S16-Au13832	NCP	%	117			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Anthracene	S16-Au13832	NCP	%	112			70-130	Pass	
Benz(a)anthracene	S16-Au13832	NCP	%	97			70-130	Pass	
Benzo(a)pyrene	S16-Au13832	NCP	%	115			70-130	Pass	
Benzo(b&j)fluoranthene	S16-Au13832	NCP	%	109			70-130	Pass	
Benzo(g.h.i)perylene	S16-Au13832	NCP	%	119			70-130	Pass	
Benzo(k)fluoranthene	S16-Au13832	NCP	%	111			70-130	Pass	
Chrysene	S16-Au13832	NCP	%	121			70-130	Pass	
Dibenz(a.h)anthracene	S16-Au13832	NCP	%	108			70-130	Pass	
Fluoranthene	S16-Au13832	NCP	%	107			70-130	Pass	
Fluorene	S16-Au13832	NCP	%	115			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S16-Au13832	NCP	%	117			70-130	Pass	
Naphthalene	S16-Au13832	NCP	%	120			70-130	Pass	
Phenanthrene	S16-Au13832	NCP	%	106			70-130	Pass	
Pyrene	S16-Au13832	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S16-Au10600	NCP	%	115			70-130	Pass	
Cadmium	S16-Au10313	NCP	%	94			70-130	Pass	
Chromium	S16-Au10600	NCP	%	99			70-130	Pass	
Copper	S16-Au10600	NCP	%	95			70-130	Pass	
Lead	S16-Au10600	NCP	%	116			70-130	Pass	
Mercury	S16-Au10313	NCP	%	115			70-130	Pass	
Nickel	S16-Au10600	NCP	%	113			70-130	Pass	
Zinc	S16-Au10313	NCP	%	102			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S16-Au10577	CP	%	79			70-130	Pass	
TRH C10-C14	S16-Au10577	CP	%	72			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S16-Au10577	CP	%	78			70-130	Pass	
Toluene	S16-Au10577	CP	%	78			70-130	Pass	
Ethylbenzene	S16-Au10577	CP	%	78			70-130	Pass	
m&p-Xylenes	S16-Au10577	CP	%	84			70-130	Pass	
o-Xylene	S16-Au10577	CP	%	82			70-130	Pass	
Xylenes - Total	S16-Au10577	CP	%	83			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH C6-C10	S16-Au10577	CP	%	79			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S16-Au10577	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	S16-Au10576	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S16-Au10576	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S16-Au10576	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S16-Au10576	CP	mg/kg	< 50	< 50	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S16-Au10576	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S16-Au10576	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S16-Au10576	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S16-Au10576	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S16-Au10576	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S16-Au10576	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S16-Au10576	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S16-Au10576	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S16-Au10601	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S16-Au10576	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S16-Au10576	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S16-Au10576	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S16-Au10599	NCP	mg/kg	5.7	5.7	1.0	30%	Pass	
Cadmium	S16-Au10599	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S16-Au10599	NCP	mg/kg	16	8.3	61	30%	Fail	Q15
Copper	S16-Au10599	NCP	mg/kg	5.4	< 5	11	30%	Pass	
Lead	S16-Au10599	NCP	mg/kg	18	15	20	30%	Pass	
Mercury	S16-Au10599	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Nickel	S16-Au10599	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S16-Au10599	NCP	mg/kg	19	14	33	30%	Fail	Q15
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S16-Au07680	NCP	%	3.4	3.3	3.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	No
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
Q15	The RPD reported passes Eurofins | mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Ivan Taylor	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Inorganic (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

eurofins | mgt

Certificate of Analysis

Getex Pty Ltd
Suite 2.02 Building 2 Waterloo Business Park 35
Macquarie Park
NSW 2113

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.

Attention: **Justin Thompson-Laing**

Report **511363-W**
Project name 9528
Received Date Aug 10, 2016

Client Sample ID			**9528/WDT/W1 B**
Sample Matrix			**Water**
Eurofins | mgt Sample No.			**S16-Au10578**
Date Sampled			**Not Provided**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	< 0.02
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	%	81
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.01	mg/L	< 0.01
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02
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
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.001

Client Sample ID			9528/WDT/W1 B
Sample Matrix			**Water**
Eurofins | mgt Sample No.			**S16-Au10578**
Date Sampled			**Not Provided**
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
2-Fluorobiphenyl (surr.)	1	%	INT
p-Terphenyl-d14 (surr.)	1	%	76
Speciated Phenols			
2.4-Dichlorophenol	0.002	mg/L	< 0.002
2.4-Dimethylphenol	0.002	mg/L	< 0.002
2.4.5-Trichlorophenol	0.002	mg/L	< 0.002
2.4.6-Trichlorophenol	0.002	mg/L	< 0.002
Phenol	0.002	mg/L	< 0.002
2-Methylphenol (o-Cresol)	0.002	mg/L	< 0.002
3&4-Methylphenol (m&p-Cresol)	0.004	mg/L	< 0.004
2-Chlorophenol	0.002	mg/L	< 0.002
2-Nitrophenol	0.002	mg/L	< 0.002
4-Chloro-3-methylphenol	0.002	mg/L	< 0.002
Pentachlorophenol	0.01	mg/L	< 0.01
Phenol-d5 (surr.)	1	%	64
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	0.1
TRH >C34-C40	0.1	mg/L	< 0.1
Conductivity (at 25°C)	1	uS/cm	660
pH	0.1	pH Units	7.1
Heavy Metals			
Arsenic (filtered)	0.001	mg/L	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001
Copper (filtered)	0.001	mg/L	0.002
Lead (filtered)	0.001	mg/L	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001
Nickel (filtered)	0.002	mg/L	< 0.002
Zinc (filtered)	0.005	mg/L	< 0.005

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).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B7A (filtered metals)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 12, 2016	7 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
BTEX	Sydney	Aug 11, 2016	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 11, 2016	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Aug 12, 2016	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Speciated Phenols	Sydney	Aug 12, 2016	7 Day
- Method: E008 Speciated Phenols			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 12, 2016	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Metals M8 filtered	Sydney	Aug 11, 2016	28 Day
- Method: LTM-MET-3040 Metals in Waters by ICP-MS			
Conductivity (at 25°C)	Sydney	Aug 11, 2016	28 Day
- Method: LTM-INO-4030			
pH	Sydney	Aug 15, 2016	1 Day
- Method: LTM-GEN-7090 pH in water by ISE			

eurofins | mgt

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	Getex Pty Ltd	**Order No.:**		**Received:**	Aug 10, 2016 3:29 PM
Address:	Suite 2.02 Building 2 Waterloo Business Park 35 Macquarie Park NSW 2113	**Report #:**	511363	**Due:**	Aug 17, 2016
		Phone:	02 9889 2488	**Priority:**	5 Day
		Fax:	02 9889 2499	**Contact Name:**	Justin Thompson-Laing
Project Name:	9528				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Conductivity (at 25°C)	pH	Moisture Set	Eurofins | mgt Suite B7	Eurofins | mgt Suite B7A (filtered metals)
Melbourne Laboratory - NATA Site # 1254 & 14271										
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	9528/BH1/1.0	Not Provided		Soil	S16-Au10576			X	X	
2	9528/BH14/0.2 -0.3	Not Provided		Soil	S16-Au10577			X	X	
3	9528/WDT/W1 B	Not Provided		Water	S16-Au10578	X	X			X
Test Counts						1	1	2	2	1

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 LORs are matrix dependant. Quoted LORs 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 Advice.

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: Nephelometric Turbidity 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 Environmental Protection Agency
APHA	American Public Health Association
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
TEQ	Toxic Equivalency Quotient

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 & PFASs 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, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene 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 Aroclor 1260 in Matrix Spikes and LCS.
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 RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
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							
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							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
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							
Speciated Phenols							
2.4-Dichlorophenol	mg/L	< 0.002			0.002	Pass	
2.4-Dimethylphenol	mg/L	< 0.002			0.002	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.002			0.002	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.002			0.002	Pass	
Phenol	mg/L	< 0.002			0.002	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.002			0.002	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.004			0.004	Pass	
2-Chlorophenol	mg/L	< 0.002			0.002	Pass	
2-Nitrophenol	mg/L	< 0.002			0.002	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.002			0.002	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Conductivity (at 25°C)	uS/cm	< 1			1	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	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	< 0.002			0.002	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	75			70-130	Pass	
TRH C10-C14	%	96			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	94			70-130	Pass	
Toluene	%	95			70-130	Pass	
Ethylbenzene	%	94			70-130	Pass	
m&p-Xylenes	%	100			70-130	Pass	
o-Xylene	%	99			70-130	Pass	
Xylenes - Total	%	99			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	75			70-130	Pass	
TRH C6-C10	%	81			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	94			70-130	Pass	
Acenaphthylene	%	91			70-130	Pass	
Anthracene	%	93			70-130	Pass	
Benz(a)anthracene	%	90			70-130	Pass	
Benzo(a)pyrene	%	92			70-130	Pass	
Benzo(b&j)fluoranthene	%	89			70-130	Pass	
Benzo(g.h.i)perylene	%	86			70-130	Pass	
Benzo(k)fluoranthene	%	89			70-130	Pass	
Chrysene	%	100			70-130	Pass	
Dibenz(a.h)anthracene	%	75			70-130	Pass	
Fluoranthene	%	95			70-130	Pass	
Fluorene	%	100			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	82			70-130	Pass	
Naphthalene	%	103			70-130	Pass	
Phenanthrene	%	101			70-130	Pass	
Pyrene	%	93			70-130	Pass	
LCS - % Recovery							
Speciated Phenols							
2.4-Dichlorophenol	%	98			30-130	Pass	
2.4-Dimethylphenol	%	93			30-130	Pass	
2.4.5-Trichlorophenol	%	94			30-130	Pass	
2.4.6-Trichlorophenol	%	94			30-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Phenol	%	99			30-130	Pass	
2-Methylphenol (o-Cresol)	%	96			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	104			30-130	Pass	
2-Chlorophenol	%	97			30-130	Pass	
2-Nitrophenol	%	88			30-130	Pass	
4-Chloro-3-methylphenol	%	105			30-130	Pass	
Pentachlorophenol	%	101			30-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	100			70-130	Pass	
LCS - % Recovery							
Conductivity (at 25°C)	%	97			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	83			70-130	Pass	
Cadmium (filtered)	%	89			70-130	Pass	
Chromium (filtered)	%	83			70-130	Pass	
Copper (filtered)	%	85			70-130	Pass	
Lead (filtered)	%	87			70-130	Pass	
Mercury (filtered)	%	94			70-130	Pass	
Nickel (filtered)	%	84			70-130	Pass	
Zinc (filtered)	%	87			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	S16-Au10661	NCP	%	129			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S16-Au10660	NCP	%	100			70-130	Pass	
Acenaphthylene	S16-Au10660	NCP	%	97			70-130	Pass	
Anthracene	S16-Au10660	NCP	%	99			70-130	Pass	
Benz(a)anthracene	S16-Au10660	NCP	%	105			70-130	Pass	
Benzo(a)pyrene	S16-Au10660	NCP	%	112			70-130	Pass	
Benzo(b&j)fluoranthene	S16-Au10660	NCP	%	111			70-130	Pass	
Benzo(g.h.i)perylene	S16-Au10660	NCP	%	114			70-130	Pass	
Benzo(k)fluoranthene	S16-Au10660	NCP	%	111			70-130	Pass	
Chrysene	S16-Au10660	NCP	%	106			70-130	Pass	
Dibenz(a.h)anthracene	S16-Au10660	NCP	%	98			70-130	Pass	
Fluoranthene	S16-Au10660	NCP	%	109			70-130	Pass	
Fluorene	S16-Au10660	NCP	%	104			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S16-Au10660	NCP	%	105			70-130	Pass	
Naphthalene	S16-Au10660	NCP	%	115			70-130	Pass	
Phenanthrene	S16-Au10660	NCP	%	101			70-130	Pass	
Pyrene	S16-Au10660	NCP	%	108			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S16-Au10661	NCP	%	122			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S16-Au14162	NCP	%	94			70-130	Pass	
Cadmium (filtered)	S16-Au14162	NCP	%	96			70-130	Pass	
Chromium (filtered)	S16-Au14162	NCP	%	81			70-130	Pass	
Copper (filtered)	S16-Au14162	NCP	%	74			70-130	Pass	
Mercury (filtered)	S16-Au14162	NCP	%	98			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Nickel (filtered)	S16-Au14162	NCP	%	80			70-130	Pass	
Zinc (filtered)	S16-Au14162	NCP	%	93			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	S16-Au11791	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S16-Au10659	NCP	mg/L	3.6	3.3	8.0	30%	Pass	
TRH C15-C28	S16-Au10659	NCP	mg/L	1.0	1.1	11	30%	Pass	
TRH C29-C36	S16-Au10659	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S16-Au11791	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S16-Au11791	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S16-Au11791	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S16-Au11791	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S16-Au11791	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S16-Au11791	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S16-Au11791	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S16-Au11791	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S16-Au13263	NCP	mg/L	0.005	0.006	29	30%	Pass	
Acenaphthylene	S16-Au13263	NCP	mg/L	0.001	0.001	22	30%	Pass	
Anthracene	S16-Au13263	NCP	mg/L	0.001	0.002	51	30%	Fail	Q15
Benz(a)anthracene	S16-Au13263	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S16-Au13263	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S16-Au13263	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	S16-Au13263	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S16-Au13263	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S16-Au13263	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S16-Au13263	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S16-Au13263	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S16-Au13263	NCP	mg/L	0.012	0.014	11	30%	Pass	
Indeno(1.2.3-cd)pyrene	S16-Au13263	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S16-Au13263	NCP	mg/L	0.24	0.25	5.0	30%	Pass	
Phenanthrene	S16-Au13263	NCP	mg/L	0.011	0.015	35	30%	Fail	Q15
Pyrene	S16-Au13263	NCP	mg/L	0.002	0.002	38	30%	Fail	Q15
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S16-Au10659	NCP	mg/L	1.4	1.2	17	30%	Pass	
TRH >C16-C34	S16-Au10659	NCP	mg/L	1.0	1.0	8.0	30%	Pass	
TRH >C34-C40	S16-Au10659	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (at 25°C)	S16-Au11637	NCP	uS/cm	1100	1100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S16-Au14161	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S16-Au14161	NCP	mg/L	0.0002	0.0002	5.0	30%	Pass	
Chromium (filtered)	S16-Au14161	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S16-Au14161	NCP	mg/L	0.002	0.002	7.0	30%	Pass	
Lead (filtered)	S16-Au14161	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Mercury (filtered)	S16-Au14161	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S16-Au14161	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc (filtered)	S16-Au14161	NCP	mg/L	0.033	0.031	7.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	No
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
Q15	The RPD reported passes Eurofins | mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Ivan Taylor	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Inorganic (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

eurofins | mgt

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NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**Getex Pty Ltd**
Contact name:	Justin Thompson-Laing
Project name:	9528
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Aug 10, 2016 3:29 PM
Eurofins | mgt reference:	**511363**

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.

☒ Appropriate sample containers have been used.

☑ 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:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Justin Thompson-Laing - Justin.Thompson-Laing@getex.com.au.

Note: A copy of these results will also be delivered to the general Getex Pty Ltd email address.

511363

GETEX

Chain of Custody

From: Getex Pty Ltd
Address: 2.02, Building 2, Macquarie Business Park
35 Waterloo Road
MACQUARIE PARK NSW 2113
Phone: (02) 9889 2488
Facsimile: (02) 9889 2499
Email: help@getex.com.au
Attention: **Justin Thompson-Laing**

To: Eurofins | mgt
Address: Unit F3, Building F
16 Mars Road
LANE COVE WEST NSW 2066
Phone: (02) 9900 8400
Email: EnviroSampleNSW@eurofins.com.au

Date: 10/08/2016
Order Number: 5752
Project Number: 9528

TAT: **5 days**

☐ Samples Received at Ambient Temp. ☐ Samples Received Chilled

Sample Temp: _____

Received By: Katokakola 15:29pm
Signature: [signature] Date: 10/08/16

Notes: B7A at Trace LOR Analysis

Eurofins Sample Number	Getex Sample Number	Container (Plastic Tube – PT, Bag – B, Petri Dish – PD, Plastic Bottle – PB, Glass Jar – GJ, Glass Bottle – GB, Glass Vial - GV)	Analytes: Single Analytes: TRH	BTEXN	PAHs	MAHs	OCP	OPP	PCB	Lead	7 Metals	8+ Metals	Phenols-Speciated	VOCs	Conductivity (EC)	pH (1:5)	Combos and Non-Standard Analytes: B7	B7A
	9528/BH1/1.0	GJ															1	
	9528/BH14/0.2-0.3	GJ															1	
	9528/WDT/W1b	2xGV, PB, GB													1	1		1
Total															1	1	2	1

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CERTIFICATE OF ANALYSIS 154588

Client:

Getex Pty Ltd
2.02, Building 2 Waterloo Business Park
35 Waterloo Rd
North Ryde
NSW 2113

Attention: Justin Thompson-Laing

Sample log in details:

Your Reference:	**9528**		
No. of samples:	4 waters		
Date samples received / completed instructions received	30/9/16	/	30/9/16

Analysis Details:

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

Report Details:

Date results requested by: / Issue Date:	10/10/16	/	7/10/16
Date of Preliminary Report:	Not Issued		

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Results Approved By:

David Springer
General Manager

VOCs in water Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	154588-1 9528/W1 water	154588-2 9528/W2 water	154588-3 9528/W3 water
Date extracted	-	05/10/2016	05/10/2016	05/10/2016
Date analysed	-	05/10/2016	05/10/2016	05/10/2016
Dichlorodifluoromethane	µg/L	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1
Chloroform	µg/L	<1	<1	<1
2,2-dichloropropane	µg/L	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Benzene	µg/L	<1	<1	<1
Dibromomethane	µg/L	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1
Toluene	µg/L	<1	<1	<1
1,3-dichloropropane	µg/L	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1
Bromoform	µg/L	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2
Styrene	µg/L	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1
o-xylene	µg/L	<1	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1	<1

VOCs in water Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	154588-1 9528/W1 water	154588-2 9528/W2 water	154588-3 9528/W3 water
Isopropylbenzene	µg/L	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	<1
4-isopropyl toluene	µg/L	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1
Surrogate Dibromofluoromethane	%	114	116	115
Surrogate toluene-d8	%	102	101	100
Surrogate 4-BFB	%	105	106	105

vTRH(C6-C10)/BTEXN in Water					
Our Reference:	UNITS	154588-1	154588-2	154588-3	154588-4
Your Reference	----------	9528/W1	9528/W2	9528/W3	9528/W2a
Type of sample	- ----------	water	water	water	water
Date extracted	-	05/10/2016	05/10/2016	05/10/2016	05/10/2016
Date analysed	-	05/10/2016	05/10/2016	05/10/2016	05/10/2016
TRHC$_6$ - C$_9$	µg/L	<10	<10	<10	<10
TRHC$_6$ - C$_{10}$	µg/L	<10	<10	<10	<10
TRHC$_6$ - C$_{10}$ less BTEX (F1)	µg/L	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	114	116	115	115
Surrogate toluene-d8	%	102	101	100	101
Surrogate 4-BFB	%	105	106	105	105

svTRH (C10-C40) in Water					
Our Reference:	UNITS	154588-1	154588-2	154588-3	154588-4
Your Reference	----------	9528/W1	9528/W2	9528/W3	9528/W2a
Type of sample	- ----------	water	water	water	water
Date extracted	-	04/10/2016	04/10/2016	04/10/2016	04/10/2016
Date analysed	-	04/10/2016	04/10/2016	04/10/2016	04/10/2016
TRHC$_{10}$ - C$_{14}$	µg/L	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	µg/L	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	µg/L	<100	<100	<100	<100
TRH>C$_{10}$ - C$_{16}$	µg/L	<50	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	µg/L	<50	<50	<50	<50
TRH>C$_{16}$ - C$_{34}$	µg/L	<100	<100	<100	<100
TRH>C$_{34}$ - C$_{40}$	µg/L	<100	<100	<100	<100
Surrogate o-Terphenyl	%	60	81	81	90

PAHs in Water - Low Level Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	154588-1 9528/W1 water	154588-2 9528/W2 water	154588-3 9528/W3 water	154588-4 9528/W2a water
Date extracted	-	04/10/2016	04/10/2016	04/10/2016	04/10/2016
Date analysed	-	04/10/2016	04/10/2016	04/10/2016	04/10/2016
Naphthalene	µg/L	<0.2	<0.2	<0.2	<0.2
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	66	91	90	96

HM in water - dissolved Our Reference: Your Reference Type of sample	UNITS ---------- - ----------	154588-1 9528/W1 water	154588-2 9528/W2 water	154588-3 9528/W3 water	154588-4 9528/W2a water
Date prepared	-	04/10/2016	04/10/2016	04/10/2016	04/10/2016
Date analysed	-	04/10/2016	04/10/2016	04/10/2016	04/10/2016
Arsenic-Dissolved	µg/L	14	9	<1	8
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1
Copper-Dissolved	µg/L	14	2	2	2
Lead-Dissolved	µg/L	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	23	7	3	7
Zinc-Dissolved	µg/L	71	26	7	24

Total Phenolics in Water					
Our Reference:	UNITS	154588-1	154588-2	154588-3	154588-4
Your Reference	----------	9528/W1	9528/W2	9528/W3	9528/W2a
Type of sample	- ----------	water	water	water	water
Date extracted	-	04/10/2016	04/10/2016	04/10/2016	04/10/2016
Date analysed	-	04/10/2016	04/10/2016	04/10/2016	04/10/2016
Total Phenolics (as Phenol)	mg/L	<0.05	<0.05	<0.05	<0.05

Miscellaneous Inorganics					
Our Reference:	UNITS	154588-1	154588-2	154588-3	154588-4
Your Reference	----------	9528/W1	9528/W2	9528/W3	9528/W2a
Type of sample	- ----------	water	water	water	water
Date prepared	-	30/09/2016	30/09/2016	30/09/2016	30/09/2016
Date analysed	-	30/09/2016	30/09/2016	30/09/2016	30/09/2016
pH	pH Units	7.1	7.1	7.1	7.1
Electrical Conductivity	µS/cm	12,000	15,000	12,000	15,000
Ammonia as N in water	mg/L	0.12	0.14	0.046	[NA]

Method ID	Methodology Summary
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25oC in accordance with APHA latest edition 2510 and Rayment & Lyons.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Soils are analysed following a KCl extraction.

QUALITY CONTROL VOCs in water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/10/2016	[NT]	[NT]	LCS-W1	05/10/2016
Date analysed	-			05/10/2016	[NT]	[NT]	LCS-W1	05/10/2016
Dichlorodifluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Bromomethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloroethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	114%
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chloroform	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	113%
2,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	113%
1,1,1-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	113%
1,1-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromomethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	124%
Bromodichloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	112%
trans-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	109%
1,2-dibromoethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	111%
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromoform	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	[NR]	[NR]
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]

Client Reference: 9528

QUALITY CONTROL VOCs in water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
1,2,3-trichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluoromethane	%		Org-013	106	[NT]	[NT]	LCS-W1	85%
Surrogate toluene-d8	%		Org-013	102	[NT]	[NT]	LCS-W1	103%
Surrogate 4-BFB	%		Org-013	106	[NT]	[NT]	LCS-W1	90%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/10/2016	[NT]	[NT]	LCS-W1	05/10/2016
Date analysed	-			05/10/2016	[NT]	[NT]	LCS-W1	05/10/2016
TRHC$_6$ - C$_9$	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	104%
TRHC$_6$ - C$_{10}$	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	104%
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	114%
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	116%
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	96%
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	LCS-W1	97%
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	98%
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluoromethane	%		Org-016	106	[NT]	[NT]	LCS-W1	85%
Surrogate toluene-d8	%		Org-016	102	[NT]	[NT]	LCS-W1	103%
Surrogate 4-BFB	%		Org-016	106	[NT]	[NT]	LCS-W1	90%

QUALITY CONTROL svTRH (C10-C40) in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			04/10/2016	[NT]	[NT]	LCS-W1	04/10/2016
Date analysed	-			04/10/2016	[NT]	[NT]	LCS-W1	04/10/2016
TRHC$_{10}$ - C$_{14}$	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	105%
TRHC$_{15}$ - C$_{28}$	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	105%
TRHC$_{29}$ - C$_{36}$	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	118%
TRH>C$_{10}$ - C$_{16}$	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	105%
TRH>C$_{16}$ - C$_{34}$	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	105%
TRH>C$_{34}$ - C$_{40}$	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	118%
Surrogate o-Terphenyl	%		Org-003	68	[NT]	[NT]	LCS-W1	70%

QUALITY CONTROL PAHs in Water - Low Level	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			04/10/2016	[NT]	[NT]	LCS-W1	04/10/2016
Date analysed	-			04/10/2016	[NT]	[NT]	LCS-W1	04/10/2016
Naphthalene	µg/L	0.2	Org-012	<0.2	[NT]	[NT]	LCS-W1	70%
Acenaphthylene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	77%
Phenanthrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	81%
Anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	74%
Pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	75%

QUALITY CONTROL PAHs in Water - Low Level	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Benzo(a)anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(b,j+k) fluoranthene	µg/L	0.2	Org-012	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	LCS-W1	78%
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012	73	[NT]	[NT]	LCS-W1	85%
QUALITY CONTROL HM in water - dissolved	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			04/10/2016	[NT]	[NT]	LCS-W2	04/10/2016
Date analysed	-			04/10/2016	[NT]	[NT]	LCS-W2	04/10/2016
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W2	95%
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	<0.1	[NT]	[NT]	LCS-W2	99%
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W2	86%
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W2	87%
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W2	98%
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	LCS-W2	105%
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W2	89%
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W2	92%

QUALITY CONTROL Total Phenolics in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			04/10/2016	154588-1	04/10/2016 || 04/10/2016	LCS-W1	04/10/2016
Date analysed	-			04/10/2016	154588-1	04/10/2016 || 04/10/2016	LCS-W1	04/10/2016
Total Phenolics (as Phenol)	mg/L	0.05	Inorg-031	<0.05	154588-1	<0.05 || <0.05	LCS-W1	103%

QUALITY CONTROL Miscellaneous Inorganics	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			30/09/2016	154588-1	30/09/2016 || 30/09/2016	LCS-W1	30/09/2016
Date analysed	-			30/09/2016	154588-1	30/09/2016 || 30/09/2016	LCS-W1	30/09/2016
pH	pH Units		Inorg-001	[NT]	154588-1	7.1 || 7.1 || RPD: 0	LCS-W1	102%
Electrical Conductivity	µS/cm	1	Inorg-002	<1	154588-1	12000 || 12000 || RPD: 0	LCS-W1	104%
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	154588-1	0.12 || 0.12 || RPD: 0	LCS-W1	100%

QUALITY CONTROL HM in water - dissolved	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	154588-4	04/10/2016 || 04/10/2016
Date analysed	-	154588-4	04/10/2016 || 04/10/2016
Mercury-Dissolved	µg/L	154588-4	<0.05 || <0.05

QUALITY CONTROL Miscellaneous Inorganics	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	154588-2	30/09/2016
Date analysed	-	[NT]	[NT]	154588-2	30/09/2016
pH	pH Units	[NT]	[NT]	[NR]	[NR]
Electrical Conductivity	µS/cm	[NT]	[NT]	[NR]	[NR]
Ammonia as N in water	mg/L	[NT]	[NT]	154588-2	94%

Report Comments:

Dissolved Metals: The preserved sample provided was not identified as either total or dissolved, therefore the unpreserved sample was filtered through 0.45um filter at the lab.
Note: there is a possibility some elements may be underestimated.

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NR: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Chain of Custody

GETEX

From: Getex Pty Ltd
Address: 2.02, Building 2, Macquarie Business Park
35 Waterloo Road
MACQUARIE PARK NSW 2113
Phone: (02) 9889 2488
Facsimile: (02) 9889 2499
Email: help@getex.com.au
Attention: **Justin Thompson-Laing**

To: Envirolab Services Pty Ltd
Address: 12 Ashley Street
CHATSWOOD NSW 2067
Phone: (02) 9910 6200
Facsimile: (02) 9910 6299

Date: 29/09/2016
Order Number: 5787
Project Number: 9528

TAT: **5 Days**

☐ Samples Received at Ambient Temp. ☐ Samples Recieved Chilled Received By: AZ Date: 30/9/16 12:00

Notes: Please filter for Suite of 8 Metals

Envirolab Barcode Number	Getex Sample Number	Container (Plastic Tube – PT, Bag – B, Petri Dish – PD, Plastic Bottle – PB, Glass Jar – GJ, Glass Bottle – GB, Glass Vial - GV)	Water: Single Analytes: TRH/BTEX	PAH Routine	PAH Low	OCP	OPP	PCB	Lead	4 - 17 Metals	Phenolics	Cyanide	Lab Filtration	EC	pH	VOCs	Ammonia	Combos and Non-Standard Analytes: Combination 4L
1	9528/W1	2xGV, 2xPB, GB											1	1	1	1	1	1
2	9528/W2	2xGV, 2xPB, GB											1	1	1	1	1	1
3	9528/W3	2xGV, 2xPB, GB											1	1	1	1	1	1
4	9528/W2a	2xGV, 2xPB, GB											1	1	1			1
		Total											4	4	4	3	3	4

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
ENVIROLAB
Job No: 154588
Date Received: 30/9
Time Received: 12:00
Received by: AZ
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

eurofins | mgt

Certificate of Analysis

Getex Pty Ltd
Suite 2.02 Building 2 Waterloo Business Park 35
Macquarie Park
NSW 2113

Attention: **Justin Thompson-Laing**

Report **517953-W**
Project name 9528
Received Date Sep 30, 2016

Client Sample ID			**9528/W2B**
Sample Matrix			**Water**
Eurofins | mgt Sample No.			**S16-Se29080**
Date Sampled			**Sep 29, 2016**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	< 0.02
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	%	99
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.01	mg/L	< 0.01
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02
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
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.001

Client Sample ID			9528/W2B
Sample Matrix			**Water**
Eurofins | mgt Sample No.			**S16-Se29080**
Date Sampled			**Sep 29, 2016**
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
2-Fluorobiphenyl (surr.)	1	%	106
p-Terphenyl-d14 (surr.)	1	%	118
Speciated Phenols			
2.4-Dichlorophenol	0.001	mg/L	< 0.001
2.4-Dimethylphenol	0.001	mg/L	< 0.001
2.4.5-Trichlorophenol	0.001	mg/L	< 0.001
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01
Phenol	0.003	mg/L	< 0.003
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006
2-Chlorophenol	0.003	mg/L	< 0.003
2-Nitrophenol	0.005	mg/L	< 0.005
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01
Phenol-d5 (surr.)	1	%	126
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
Conductivity (at 25°C)	1	uS/cm	12000
pH	0.1	pH Units	6.8
Heavy Metals			
Arsenic (filtered)	0.001	mg/L	0.011
Cadmium (filtered)	0.0002	mg/L	< 0.0002
Chromium (filtered)	0.001	mg/L	0.003
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	0.002
Zinc (filtered)	0.005	mg/L	< 0.005

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).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B7A (filtered metals)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 06, 2016	7 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
BTEX	Sydney	Sep 30, 2016	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Sep 30, 2016	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 06, 2016	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Speciated Phenols	Sydney	Oct 06, 2016	7 Day
- Method: E008 Speciated Phenols			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 06, 2016	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Metals M8 filtered	Sydney	Sep 30, 2016	28 Day
- Method: LTM-MET-3040 Metals in Waters by ICP-MS			
Conductivity (at 25°C)	Sydney	Oct 06, 2016	28 Day
- Method: LTM-INO-4030			
pH	Sydney	Oct 06, 2016	1 Day
- Method: LTM-GEN-7090 pH in water by ISE			

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

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Site # 1254 & 14271

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	Getex Pty Ltd	**Order No.:**	GET-5788	**Received:**	Sep 30, 2016 2:00 PM
Address:	Suite 2.02 Building 2 Waterloo Business Park 35 Macquarie Park NSW 2113	**Report #:**	517953	**Due:**	Oct 10, 2016
		Phone:	02 9889 2488	**Priority:**	5 Day
		Fax:	02 9889 2499	**Contact Name:**	Justin Thompson-Laing
Project Name:	9528				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Conductivity (at 25°C)	pH	Eurofins | mgt Suite B7A (filtered metals)
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	9528/W2B	Sep 29, 2016		Water	S16-Se29080	X	X	X
Test Counts						1	1	1

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 LORs are matrix dependant. Quoted LORs 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 Advice.

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: Nephelometric Turbidity 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 Environmental Protection Agency
APHA	American Public Health Association
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
TEQ	Toxic Equivalency Quotient

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 & PFASs 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, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene 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 Aroclor 1260 in Matrix Spikes and LCS.
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 RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
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							
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							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
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							
Conductivity (at 25°C)	uS/cm	< 1			1	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	101			70-130	Pass	
TRH C10-C14	%	92			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	90			70-130	Pass	
Toluene	%	91			70-130	Pass	
Ethylbenzene	%	93			70-130	Pass	
m&p-Xylenes	%	92			70-130	Pass	
o-Xylene	%	93			70-130	Pass	
Xylenes - Total	%	92			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	98			70-130	Pass	
TRH C6-C10	%	90			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	107			70-130	Pass	
Acenaphthylene	%	98			70-130	Pass	
Anthracene	%	119			70-130	Pass	
Benz(a)anthracene	%	80			70-130	Pass	
Benzo(a)pyrene	%	86			70-130	Pass	
Benzo(b&j)fluoranthene	%	95			70-130	Pass	
Benzo(g.h.i)perylene	%	122			70-130	Pass	
Benzo(k)fluoranthene	%	87			70-130	Pass	
Chrysene	%	111			70-130	Pass	
Dibenz(a.h)anthracene	%	80			70-130	Pass	
Fluoranthene	%	108			70-130	Pass	
Fluorene	%	107			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	84			70-130	Pass	
Naphthalene	%	108			70-130	Pass	
Phenanthrene	%	119			70-130	Pass	
Pyrene	%	109			70-130	Pass	
LCS - % Recovery							
Speciated Phenols							
2.4-Dichlorophenol	%	118			30-130	Pass	
2.4-Dimethylphenol	%	120			30-130	Pass	
2.4.5-Trichlorophenol	%	117			30-130	Pass	
2.4.6-Trichlorophenol	%	118			30-130	Pass	
Phenol	%	121			30-130	Pass	
2-Methylphenol (o-Cresol)	%	119			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	118			30-130	Pass	
2-Chlorophenol	%	119			30-130	Pass	
2-Nitrophenol	%	121			30-130	Pass	
4-Chloro-3-methylphenol	%	119			30-130	Pass	
Pentachlorophenol	%	107			30-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	93			70-130	Pass	
LCS - % Recovery							
Conductivity (at 25°C)	%	110			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heavy Metals							
Arsenic (filtered)	%	92			70-130	Pass	
Cadmium (filtered)	%	92			70-130	Pass	
Chromium (filtered)	%	95			70-130	Pass	
Copper (filtered)	%	93			70-130	Pass	
Lead (filtered)	%	91			70-130	Pass	
Mercury (filtered)	%	94			70-130	Pass	
Nickel (filtered)	%	96			70-130	Pass	
Zinc (filtered)	%	93			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	S16-Se27986	NCP	%	108			70-130	Pass	
TRH C10-C14	S16-Se26180	NCP	%	105			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S16-Se27986	NCP	%	104			70-130	Pass	
Toluene	S16-Se27986	NCP	%	101			70-130	Pass	
Ethylbenzene	S16-Se27986	NCP	%	103			70-130	Pass	
m&p-Xylenes	S16-Se27986	NCP	%	102			70-130	Pass	
o-Xylene	S16-Se27986	NCP	%	103			70-130	Pass	
Xylenes - Total	S16-Se27986	NCP	%	102			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S16-Se27986	NCP	%	106			70-130	Pass	
TRH C6-C10	S16-Se27986	NCP	%	95			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S16-Se26180	NCP	%	106			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S16-Se27985	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S16-Se26179	NCP	mg/L	0.11	0.10	10	30%	Pass	
TRH C15-C28	S16-Se26179	NCP	mg/L	0.6	0.5	17	30%	Pass	
TRH C29-C36	S16-Se26179	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S16-Se27985	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S16-Se27985	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S16-Se27985	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S16-Se27985	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S16-Se27985	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S16-Se27985	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S16-Se27985	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S16-Se27985	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S16-Se26179	NCP	mg/L	0.23	0.21	9.0	30%	Pass	
TRH >C16-C34	S16-Se26179	NCP	mg/L	0.5	0.4	22	30%	Pass	
TRH >C34-C40	S16-Se26179	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
				Result 1	Result 2	RPD			
Conductivity (at 25°C)	S16-Se29080	CP	uS/cm	12000	12000	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	No
Appropriate sample containers have been used	No
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

Nibha Vaidya	Analytical Services Manager
Ivan Taylor	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Inorganic (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

eurofins | mgt

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NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**Getex Pty Ltd**
Contact name:	Justin Thompson-Laing
Project name:	9528
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Sep 30, 2016 2:00 PM
Eurofins | mgt reference:	**517953**

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.

☒ Appropriate sample containers have been used.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Incorrect container supplied for pH, EC and filtered metals analysis conducted from amber received

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Justin Thompson-Laing - Justin.Thompson-Laing@getex.com.au.

Note: A copy of these results will also be delivered to the general Getex Pty Ltd email address.

Chain of Custody

GETEX

From: Getex Pty Ltd
Address: 2.02, Building 2, Macquarie Business Park
35 Waterloo Road
MACQUARIE PARK NSW 2113
Phone: (02) 9889 2488
Facsimile: (02) 9889 2499
Email: help@getex.com.au
Attention: **Justin Thompson-Laing**

To: Eurofins | mgt
Address: Unit F3, Building F
16 Mars Road
LANE COVE WEST NSW 2066
Phone: (02) 9900 8400
Email: EnviroSampleNSW@eurofins.com.au

Date: 29/09/2016
Order Number: 5788
Project Number: 9528

TAT: **5 days**

517953

☐ Samples Received at Ambient Temp. ☐ Samples Received Chilled

Sample Temp: _____

Received By: Bellenkij

Signature: [signature]

Date: 300916 1400

Notes: B7A at Trace LOR Analysis, Please filter before Metals Analysis

Eurofins Sample Number	Getex Sample Number	Container (Plastic Tube – PT, Bag – B, Petri Dish – PD, Plastic Bottle – PB, Glass Jar – GJ, Glass Bottle – GB, Glass Vial - GV)	Analytes: Single Analytes: TRH	BTEXN	PAHs	MAHs	OCP	OPP	PCB	Lead	7 Metals	8+ Metals	Phenols-Speciated	VOCs	Conductivity (EC)	pH (1:5)	Combos and Non-Standard Analytes: B7	B7A
	9528/W2b	2xGV, 2xPB, GB													1	1		1
		Total													1	1		1

APPENDIX V

QUALITY ASSURANCE / QUALITY CONTROL

QUALITY ASSURANCE/QUALITY CONTROL

The sampling and analysis program included, for Quality Assurance / Quality Control (QA/QC) purposes, the analysis of blind and split replicate samples. For soil sampling two blind and two split replicates were taken for TRH, BTEX, PAHs and Metals. For groundwater sampling one blind and one split replicates were taken for TRH, BTEX, PAHs, Metals, EC and pH. For water sampling one blind and one split replicates were taken for TRH, BTEX, PAHs, Metals, EC and pH. The primary and blind replicate samples were sent to the same laboratory (Envirolab Services Pty Ltd) and the split replicates were sent to an independent laboratory (Eurofins | mgt).

The data quality objective was defined as an acceptable relative percentage difference (RPD) between the primary and blind or split sample of 30% - 50%. This variation can be expected to be higher for organic analysis than for inorganics, and for low concentration of analytes. However a higher RPD was considered to be acceptable in cases where the analytical result was less than three times the laboratory's lower limit of reporting, or where the analytical result was less than 10% of the acceptance criteria. In these situations a large RPD value that has little significance.

The RPD is a measure of precision that was calculated by dividing the difference of two laboratory reported values by the average of those values, multiplied by 100.

I.e. RPD = $(X_1 - X_2) / X_{ave} \times 100$

Where:

X_1 = concentration observed with the first detector or equipment;

X_2 = concentration observed with the second detector, equipment, or absolute value; and

X_{ave} = average concentration = [(X1 + X2) / 2]

The Laboratory QA/QC procedure must comply with the following minimum requirements:

- At least one blank every 20 samples
- At least one Laboratory control sample every 20 samples
- At least one duplicate every 10 samples
- At least one matrix spike every 20 samples

The assessment of the laboratory analytical data also included the following conditions:

- Maximum sample holding times for organics were 14 days. Metals and metalliods holding times were 6 months. Mercury (Hg) holding times was 28 days;
- Sample preservation and handling were conducted in accordance with industry accepted standards;
- All sample analyses were conducted by NATA accredited laboratories;
- Laboratory blank analysis to be below PQLs; and
- The relative percentage difference (RPD) of duplicates/replicates and percent recoveries of control spikes to be calculated and compared to the following criteria:
    - Less than 30% for field replicates;

- Less than 40% for internal duplicate samples and less than 44% on duplicates with 10 times the limit of reporting; and
- 75-125% recovery for internal recovery samples.

Analyte	Analyte Concentration Totals (mg/kg)			Relative Percentage Difference of Blind Replicate	Relative Percentage Difference of Split Replicate
Sample Number	9528/BH1/1.0	9528/BH1/1.0a	9528/BH1/1.0b	%	%
Laboratory	Envirolab Services Pty Ltd	Envirolab Services Pty Ltd	Eurofins | mgt	-	-
Replicate Description	Primary Sample	Blind Replicate of 9528/BH1/1.0	Split Replicate of 9528/BH1/1.0	-	-
TRH C6 - C9	<25	<25	< 20	0%	22%
TRH C6 - C10	<25	<25	< 20	0%	22%
vTPH C6 - C10 less BTEX (F1)	<25	<25	< 20	0%	22%
Benzene	<0.2	<0.2	< 0.1	0%	67%*
Toluene	<0.5	<0.5	< 0.1	0%	133%*
Ethylbenzene	<1	<1	< 0.1	0%	164%*
m+p-xylene	<2	<2	< 0.2	0%	164%*
o-Xylene	<1	<1	< 0.1	0%	164%*
naphthalene	<1	<1	< 0.5	0%	67%*
TRH C10 - C14	<50	<50	< 20	0%	86%*
TRH C15 - C28	<100	<100	< 50	0%	67%*
TRH C29 - C36	<100	<100	< 50	0%	67%*
TRH >C10-C16	<50	<50	< 50	0%	0%
TRH >C10 - C16 less Naphthalene (F2)	<50	<50	< 50	0%	0%
TRH>C16-C34 (F3)	<100	<100	< 100	0%	0%
TRH>C34-C40 (F4)	<100	<100	< 100	0%	0%
Xylenes	<3	<3	<0.3	0%	164%*
Arsenic	13	11	16	17%	21%
Cadmium	<0.4	<0.4	< 0.4	0%	0%
Chromium	21	16	22	27%	5%
Copper	16	14	17	13%	6%
Lead	15	9	11	50%	31%
Mercury	<0.1	<0.1	< 0.05	0%	67%*
Nickel	8	6	8.1	29%	1%
Zinc	27	23	33	16%	20%
Naphthalene	<0.1	<0.1	< 0.5	0%	133%*

Acenaphthylene	<0.1	<0.1	< 0.5	0%	133%*
Acenaphthene	<0.1	<0.1	< 0.5	0%	133%*
Fluorene	<0.1	<0.1	< 0.5	0%	133%*
Phenanthrene	0.1	<0.1	< 0.5	0%	133%*
Anthracene	<0.1	<0.1	< 0.5	0%	133%*
Fluoranthene	<0.1	<0.1	< 0.5	0%	133%*
Pyrene	<0.1	<0.1	< 0.5	0%	133%*
Benzo(a)anthracene	<0.1	<0.1	< 0.5	0%	133%*
Chrysene	<0.1	<0.1	< 0.5	0%	133%*
Benzo(b,j+k)fluoranthene	<0.2	<0.2	< 0.5	0%	86%*
Benzo(a)pyrene	<0.05	<0.05	< 0.5	0%	164%*
Indeno(1,2,3-c,d)pyrene	<0.1	<0.1	< 0.5	0%	133%*
Dibenzo(a,h)anthracene	<0.1	<0.1	< 0.5	0%	133%*
Benzo(g,h,i)perylene	<0.1	<0.1	< 0.5	0%	133%*
Benzo(a)pyrene TEQ calc (zero)	<0.5	<0.5	< 0.5	0%	0%
Benzo(a)pyrene TEQ calc(half)	<0.5	<0.5	0.6	0%	18%
Benzo(a)pyrene TEQ calc(PQL)	<0.5	<0.5	1.2	0%	82%*
Total Positive PAHs	0.13	NIL (+)VE	0	-	-
Total PAHs	<1.55	<1.55	< 0.5	0%	102%*

*Results less than three times the laboratory detection limits

Analyte	Analyte Concentration Totals (mg/kg)			Relative Percentage Difference of Blind Replicate	Relative Percentage Difference of Split Replicate
Sample Number	9528/BH14/0.2-0.3	9528/BH14/0.2-0.3a	9528/BH14/0.2-0.3b	%	%
Laboratory	Envirolab Services Pty Ltd	Envirolab Services Pty Ltd	Eurofins | mgt	-	-
Replicate Description	Primary Sample	Blind Replicate of 9528/BH14/0.2-0.3	Split Replicate of 9528/BH14/0.2-0.3	-	-
TRH C6 - C9	<25	<25	< 20	0%	22%
TRH C6 - C10	<25	<25	< 20	0%	22%
vTPH C6 - C10 less BTEX (F1)	<25	<25	< 20	0%	22%
Benzene	<0.2	<0.2	< 0.1	0%	67%*
Toluene	<0.5	<0.5	< 0.1	0%	133%*
Ethylbenzene	<1	<1	< 0.1	0%	164%*
m+p-xylene	<2	<2	< 0.2	0%	164%*
o-Xylene	<1	<1	< 0.1	0%	164%*
naphthalene	<1	<1	< 0.5	0%	67%*
TRH C10 - C14	<50	<50	< 20	0%	86%*
TRH C15 - C28	<100	<100	< 50	0%	67%*
TRH C29 - C36	<100	<100	< 50	0%	67%*
TRH >C10-C16	<50	<50	< 50	0%	0%
TRH >C10 - C16 less Naphthalene (F2)	<50	<50	< 50	0%	0%
TRH>C16-C34 (F3)	<100	<100	< 100	0%	0%
TRH>C34-C40 (F4)	<100	<100	< 100	0%	0%
Xylenes	<3	<3	<0.3	0%	164%*
Arsenic	5	6	5.8	18%	15%
Cadmium	<0.4	<0.4	< 0.4	0%	0%
Chromium	15	15	14	0%	7%
Copper	24	29	23	19%	4%
Lead	14	15	15	7%	7%
Mercury	<0.1	<0.1	< 0.05	0%	67%*
Nickel	11	12	11	9%	0%
Zinc	49	55	47	12%	4%
Naphthalene	<0.1	<0.1	< 0.5	0%	133%*
Acenaphthylene	<0.1	<0.1	< 0.5	0%	133%*

Acenaphthene	<0.1	<0.1	< 0.5	0%	133%*
Fluorene	<0.1	<0.1	< 0.5	0%	133%*
Phenanthrene	<0.1	<0.1	< 0.5	0%	133%*
Anthracene	<0.1	<0.1	< 0.5	0%	133%*
Fluoranthene	<0.1	<0.1	< 0.5	0%	133%*
Pyrene	<0.1	<0.1	< 0.5	0%	133%*
Benzo(a)anthracene	<0.1	<0.1	< 0.5	0%	133%*
Chrysene	<0.1	<0.1	< 0.5	0%	133%*
Benzo(b,j+k)fluoranthene	<0.2	<0.2	< 0.5	0%	86%*
Benzo(a)pyrene	<0.05	<0.05	< 0.5	0%	164%*
Indeno(1,2,3-c,d)pyrene	<0.1	<0.1	< 0.5	0%	133%*
Dibenzo(a,h)anthracene	<0.1	<0.1	< 0.5	0%	133%*
Benzo(g,h,i)perylene	<0.1	<0.1	< 0.5	0%	133%*
Benzo(a)pyrene TEQ calc (zero)	<0.5	<0.5	< 0.5	0%	0%
Benzo(a)pyrene TEQ calc(half)	<0.5	<0.5	0.6	0%	18%
Benzo(a)pyrene TEQ calc(PQL)	<0.5	<0.5	1.2	0%	82%*
Total Positive PAHs	NIL (+)VE	NIL (+)VE	0	-	-
Total PAHs	<1.55	<1.55	< 0.5	0%	102%*

*Results less than three times the laboratory detection limits

Analyte	**Analyte Concentration Totals (mg/kg)**			**Relative Percentage Difference of Blind Replicate**	**Relative Percentage Difference of Split Replicate**
Sample Number	**9528/W2**	**9528/W2a**	**9528/W2b**	%	%
Laboratory	**Envirolab Services Pty Ltd**	**Envirolab Services Pty Ltd**	**Eurofins | mgt**	-	-
Replicate Description	**Primary Sample**	**Blind Replicate of 9528/W2**	**Split Replicate of 9528/W2**	-	-
TRH C6 - C9	<10	<10	< 0.02	0%	67%*
TRH C6 - C10	<10	<10	< 0.02	0%	67%*
vTPH C6 - C10 less BTEX (F1)	<10	<10	<0.02	0%	67%*
Benzene	<1	<1	< 0.001	0%	0%
Toluene	<1	<1	< 0.001	0%	0%
Ethylbenzene	<1	<1	< 0.001	0%	0%
m+p-xylene	<2	<2	< 0.002	0%	0%
o-Xylene	<1	<1	< 0.001	0%	0%
naphthalene	<1	<1	< 0.01	0%	164%*

TRH C10 - C14	<50	<50	< 0.05	0%	0%
TRH C15 - C28	<100	<100	< 0.1	0%	0%
TRH C29 - C36	<100	<100	< 0.1	0%	0%
TRH >C10-C16	<50	<50	< 0.05	0%	0%
TRH >C10 - C16 less Naphthalene (F2)	<50	<50	< 0.05	0%	0%
TRH>C16-C34 (F3)	<100	<100	0.1	0%	0%
TRH>C34-C40 (F4)	<100	<100	< 0.1	0%	0%
Xylenes	<3	<3	< 0.003	0%	0%
Arsenic	9	8	0.011	12%	20%
Cadmium	<0.1	<0.1	< 0.0002	0%	67%*
Chromium	<1	<1	0.003	0%	100%*
Copper	2	2	0.001	0%	67%*
Lead	<1	<1	< 0.001	0%	0%
Mercury	<0.05	<0.05	< 0.0001	0%	67%*
Nickel	7	7	0.002	0%	111%
Zinc	26	24	< 0.005	8%	135%*
Naphthalene	<0.2	<0.2	< 0.001	0%	133%*
Acenaphthylene	<0.1	<0.1	< 0.001	0%	164%*
Acenaphthene	<0.1	<0.1	< 0.001	0%	164%*
Fluorene	<0.1	<0.1	< 0.001	0%	164%*
Phenanthrene	<0.1	<0.1	< 0.001	0%	164%*
Anthracene	<0.1	<0.1	< 0.001	0%	164%*
Fluoranthene	<0.1	<0.1	< 0.001	0%	164%*
Pyrene	<0.1	<0.1	< 0.001	0%	164%*
Benzo(a)anthracene	<0.1	<0.1	< 0.001	0%	164%*
Chrysene	<0.1	<0.1	< 0.001	0%	164%*
Benzo(b,j+k)fluoranthene	<0.2	<0.2	< 0.001	0%	133%*
Benzo(a)pyrene	<0.1	<0.1	< 0.001	0%	164%*
Indeno(1,2,3-c,d)pyrene	<0.1	<0.1	< 0.001	0%	164%*
Dibenzo(a,h)anthracene	<0.1	<0.1	< 0.001	0%	164%*
Benzo(g,h,i)perylene	<0.1	<0.1	< 0.001	0%	164%*
Benzo(a)pyrene TEQ calc (zero)	<0.5	<0.5	0	0%	-
Benzo(a)pyrene TEQ calc(half)	<0.5	<0.5	0	0%	-
Benzo(a)pyrene TEQ calc(PQL)	<0.5	<0.5	0	0%	-
Total Positive PAHs	NIL (+)VE	NIL (+)VE	0	-	-
Total PAHs	<1.7	<1.7	< 0.001	0%	52%*
Phenols	<0.05	<0.05	<0.032	0%	44%
EC	15000	15000	12000	0%	22%

pH	7.1	7.1	6.8	0%	4%

*Results less than three times the laboratory detection limits

Analyte	Analyte Concentration Totals (µg/L)			Relative Percentage Difference of Blind Replicate	Relative Percentage Difference of Split Replicate
Sample Number	9528/WDT/W1	9528/WDT/W1a	9528/WDT/W1b	%	%
Laboratory	Envirolab Services Pty Ltd	Envirolab Services Pty Ltd	Eurofins | mgt	-	-
Replicate Description	Primary Sample	Blind Replicate of 9528/WDT/W1	Split Replicate of 9528/WDT/W1	-	-
TRH C6 - C9	<10	<10	<20	0%	67%*
TRH C6 - C10	<10	<10	<20	0%	67%*
vTPH C6 - C10 less BTEX (F1)	<10	<10	<20	0%	67%*
Benzene	<1	<1	<1	0%	0%
Toluene	<1	<1	<1	0%	0%
Ethylbenzene	<1	<1	<1	0%	0%
m+p-xylene	<2	<2	<2	0%	0%
o-Xylene	<1	<1	<1	0%	0%
naphthalene	<1	<1	<10	0%	164%*
TRH C10 - C14	<50	<50	<50	0%	0%
TRH C15 - C28	<100	<100	<100	0%	0%
TRH C29 - C36	<100	<100	<100	0%	0%
TRH >C10-C16	<50	<50	<50	0%	0%
TRH >C10 - C16 less Naphthalene (F2)	<50	<50	<50	0%	0%
TRH>C16-C34 (F3)	<100	<100	100	0%	0%
TRH>C34-C40 (F4)	<100	<100	<100	0%	0%
Xylenes	<3	<3	<3	0%	0%
Arsenic	<1	<1	<1	0%	0%
Cadmium	<0.1	<0.1	<0.2	0%	67%*
Chromium	<1	<1	<1	0%	0%
Copper	2	2	2	0%	0%
Lead	<1	<1	<1	0%	0%
Mercury	<0.05	<0.05	<0.1	0%	67%*
Nickel	1	1	<2	0%	67%*
Zinc	4	5	<5	22%	22%

Naphthalene	<0.2	<0.2	<1	0%	133%*
Acenaphthylene	<0.1	<0.1	<1	0%	164%*
Acenaphthene	<0.1	<0.1	<1	0%	164%*
Fluorene	<0.1	<0.1	<1	0%	164%*
Phenanthrene	<0.1	<0.1	<1	0%	164%*
Anthracene	<0.1	<0.1	<1	0%	164%*
Fluoranthene	<0.1	<0.1	<1	0%	164%*
Pyrene	<0.1	<0.1	<1	0%	164%*
Benzo(a)anthracene	<0.1	<0.1	<1	0%	164%*
Chrysene	<0.1	<0.1	<1	0%	164%*
Benzo(b,j+k)fluoranthene	<0.2	<0.2	<1	0%	133%*
Benzo(a)pyrene	<0.1	<0.1	<1	0%	164%*
Indeno(1,2,3-c,d)pyrene	<0.1	<0.1	<1	0%	164%*
Dibenzo(a,h)anthracene	<0.1	<0.1	<1	0%	164%*
Benzo(g,h,i)perylene	<0.1	<0.1	<1	0%	164%*
Benzo(a)pyrene TEQ calc (zero)	<0.5	<0.5	0	0%	-
Benzo(a)pyrene TEQ calc(half)	<0.5	<0.5	0	0%	-
Benzo(a)pyrene TEQ calc(PQL)	<0.5	<0.5	0	0%	-
Total Positive PAHs	NIL (+)VE	NIL (+)VE	0	-	-
Total PAHs	<1.7	<1.7	< 0.001	0%	52%*
Phenols	<0.05	<0.05	<0.032	0%	44%
EC	560	560	660	0%	16%
pH	7.3	7.3	7.1	0%	3%

*Results less than three times the laboratory detection limits

Laboratory QA/QC

Envirolab Services Pty Ltd and Eurofins | mgt both comply with the minimum Laboratory QA/QC requirements as established in Section 10.1.6, which include performing the following:

- At least one blank every 20 samples;
- At least one Laboratory control sample every 20 samples;
- At least one duplicate every 10 samples; and

- At least one matrix spike every 20 samples.

The laboratories have met the previously determined QA/QC requirements. The QA/QC data is considered satisfactory and the quality of the analytical results considered suitable for the purposes of the soil sampling.

Field Replicates QA/QC

All QA/QC data is either within the RPD or the result was less than three times the laboratories limit of reporting. The data is considered satisfactory to meet the predetermined data quality objective.

Strict field QA procedures were applied to all stages of sample collection, preparation and equipment decontamination and were conducted in accordance with industry accepted standards and Getex's standard operating and field quality procedures. Fieldwork was undertaken by experienced and professionally qualified environmental scientists.

The QA/QC data is considered satisfactory and the quality of the sampling data considered suitable for the purposes of the sampling conducted.

APPENDIX VI

SAFEWORK SEARCH DOCUMENTS

SafeWork NSW
92-100 Donnison Street, Gosford, NSW, 2250
Locked Bag 2906, Lisarow, NSW, 2252 |
Customer Service Centre 13 10 50
licensing@safework.nsw.gov.au | www.safework.nsw.gov.au

Our Ref: D16/622921
Your ref: Justin Thompson-Laing

8 July 2016

Attention: Justin Thompson-Laing
Getex Pty Ltd
Suite 2.02, Bldg 2
35-41 Waterloo Rd
Macquarie Park NSW 2113

Dear Mr Thompson-Laing,

RE SITE: 19 Queen St Narellan NSW

I refer to your site search request received by SafeWork NSW on 29 June 2016 requesting information on Storage of Hazardous Chemicals for the above site.

A search of the records held by SafeWork NSW has not located any records pertaining to the above mentioned premises.

For further information or if you have any questions, please call our Customer Service Centre on 13 10 50 or email licensing@safework.nsw.gov.au

Yours sincerely,

Brent Jones
Customer Service Officer
Customer Service Centre - Operations
SafeWork NSW