

Report on Data Re-Assessment for Rezoning

Port Kembla Primary School Lot 1 Military Road, Port Kembla

> Prepared for Mr Olly Vujic

Project 78564.02 September 2016



Douglas Partners Geotechnics | Environment | Groundwater

Document History

Document details

Project No.	78564.02	Document No.	R.001.Rev2		
Document title	Report on Data Re-Assessment for Rezoning				
	Port Kembla Prim	ary School	0		
Site address	Lot 1 Military Road, Port Kembla				
Report prepared for	Mr Olly Vujic				
File name	78564.02.R.001.Rev2				

Document status and review

Status	Prepared by	Reviewed by	Date issued
Revision 0	Michael Gol	Tim Wright	18 May 2016
Revision 1	Michael Gol	Tim Wright	8 June 2016
Revision 2	Michael Gol	Tim Wright	15 September 2016

Distribution of copies

Status	Electronic	Paper	Issued to	
Revision 0	1	0	Mr. Olly Vujic C/- Mr Luke Rollison (MMJ)	
Revision 1	1	0	Mr. Olly Vujic C/- Mr Luke Rollison (MMJ)	
Revision 2	1	0	Mr. Olly Vujic C/- Mr Luke Rollison (MMJ)	

The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

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Executive Summary

This report presents the findings of a re-assessment of the data provided in Golders Associates Pty Ltd (Golder) report *Detailed Site Investigation Former Port Kembla Primary School, Military Road, Port Kembla, NSW,* reference 137629028-003-R-Rev0, dated 16 December 2013 (Golder, 2013). Golder (2013) was prepared for the former site owner, Port Kembla Copper Pty Ltd (PKC) in support of a proposed mixed business and medium density residential development.

It is understood that the current site owner, Mr Olly Vujic wishes to rezone the site from its current B4 Mixed Use to a mixed residential use including low to high density residential. Therefore this data reassessment is required to re-assess the existing chemical laboratory analysis data provided in Golder (2013), against appropriate site assessment criteria (SAC) for the most sensitive residential land use, being residential with gardens or accessible soil.

The objective of this data re-assessment is to establish the site contamination issues relevant to the proposed rezoning to a mixed residential use (including low to high density residential) and assess if the site can be made suitable for the proposed rezoning.

Based on the findings of the Golder (2013) laboratory data re-assessment it is considered that the site has been impacted by widespread heavy metal contamination as well as localised TRH and asbestos contamination.

Therefore it is recommended that the following further investigation be undertaken in order to finalise the remediation strategies;

- Vertical delineation and leachability assessment of the heavy metal impacted soils;
- Further investigation of the localised TRH contamination in order to establish the source, its extent and the potential risk; and
- A detailed asbestos investigation.

It is noted that the above recommended further investigation could be undertaken once the land has been rezoned to mixed residential.

It is considered that the site can be rendered compatible for the proposed low to high density residential land use subject to the above further investigation, subsequent development of appropriate remediation strategies and subsequent completion of the appropriate remediation and validation in accordance with the finalised RAP.

Potential management strategies for the heavy metal, TRH and asbestos contamination could include off-site disposal, on-site treatment, off-site treatment or on-site containment.



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Report on Data Re-Assessment for Rezoning Port Kembla Primary School Lot 1 Military Road, Port Kembla

1. Introduction

This report presents the findings of a re-assessment of the data provided in Golders Associates Pty Ltd (Golder) report *Detailed Site Investigation Former Port Kembla Primary School, Military Road, Port Kembla, NSW,* reference 137629028-003-R-Rev0, dated 16 December 2013 (Golder, 2013). Golder (2013) was prepared for the former site owner, Port Kembla Copper Pty Ltd (PKC) in support of a proposed mixed business and medium density residential development.

The site is identified as Lot 1 Military Road, Port Kembla (Lot 1, Deposited Plan 811699), which has a footprint of 2.19 ha. The site is currently vacant and un-used.

It is understood that the current site owner, Mr Olly Vujic wishes to rezone the site from its current B4 Mixed Use to a mixed residential use including low to high density residential. Therefore this data reassessment is required to re-assess the existing chemical laboratory analysis data provided in Golder (2013), against appropriate site assessment criteria (SAC) for the most sensitive residential land use, being residential with gardens or accessible soil.

The objective of this data re-assessment is to establish the site contamination issues relevant to the proposed rezoning to a mixed residential use (including low to high density residential) and assess if the site can be made suitable for the proposed rezoning.

2. Background

DP has previously prepared a conceptual remediation strategy for rezoning purposes as reported in:

• Report on Conceptual Remediation Action Plan, Proposed Rezoning, Lot 1 Military Road, Port Kembla, reference 78564.01.R.001.ConceptRAP.Rev1 dated 5 September 2016 (DP, 2016).

DP (2016) was prepared in order to support the previously proposed medium density rezoning which was defined as providing for medium density housing such as town houses, villas and residential flat buildings as well as supportive non-residential uses including neighbourhood shops.

DP (2016) comprised a review of site information, a review of previous reports, the preparation of a conceptual site model based on the findings of the previous reports, the development of conceptual remediation strategies, and recommendations for further assessment and site management requirements for the most likely remediation strategy.



Based on the review of previous reports and the medium density residential development previously proposed for the rezoning application, the following further assessment was recommended:

- Re-establish SAC if the proposed land use changes to the more sensitive residential with accessible soils land use;
- Re-assessment of the existing data if the proposed land use changes to the more sensitive residential with accessible soils land use;
- Detailed asbestos investigation in accordance with the National Environment Protection Council (NEPC) National Environment Protection (Assessment of Site Contamination) Measure 1999, amended 2013 (NEPC, 2013);
- Further assessment of fill comprising coal washery rejects, in accordance with Wollongong City Council DCP 2009 regarding assessment of pre-existing coal washery rejects and its suitability to remain on site; and
- Further development of an appropriate remediation strategy in a finalised remediation action plan (RAP), once the proposed development design is finalised and the further data and site assessments are undertaken.

DP (2016) considered that the site could be rendered compatible for the previously proposed medium density development subject to the recommended further assessment, finalisation of the remediation strategy and appropriate remediation in accordance with the finalised remediation strategy.

Since the preparation of DP (2016) the proposed development has changed to now comprise mixed residential use, which includes low to high density residential properties. As such a rezoning application to mixed residential use was lodged with Wollongong City Council (WCC).

Through the mixed residential use rezoning application pre-lodgement correspondence, WCC have expressed a concern that Golder (2013) does not address potential issues relevant to the proposed mixed residential including low density residential use.

WCC further indicated that in order to establish site contamination issues and wether the site can be made suitable for the proposed rezoning to a mixed residential use (including low to high density residential), the recommendations provided in DP (2016) regarding the re-establishment of appropriate SAC and the re-assessment of existing data should be undertaken prior to the proposed rezoning.

As such this report has been prepared to re-assess the existing chemical laboratory analysis data provided in Golder (2013), against appropriate site assessment criteria (SAC) for the most sensitive residential land use, being residential with gardens or accessible soil.



3. Scope of Works

Based on the recommendations of DP (2016) and the understanding of the intended change in proposed rezoning to comprise mixed density residential (i.e. including low to high density residential), this re-assessment of existing data comprises:

- Establishment of SAC appropriate for low density residential land use;
- Tabulation of the newly developed SAC and the data presented in the Certificates of Analysis provided in Golder (2013);
- Assessment of Golder (2013) laboratory data against the newly developed SAC;
- Preparation of this report detailing the findings of the re-assessment of the existing laboratory data presented in Golder (2013), potential management options required to render the site suitable for the proposed residential land use and any recommendations for further work if considered necessary.

4. Site Information

The site location is shown on the Golder (2013) Figures, refer to Appendix B. Table 1 presents a summary of the site identification details.

Site Identification				
Street Address	Lot 1 Military Road, Port Kembla, NSW, 2505. Australia			
Lot Description	Lot 1 Deposited Plan 811699			
County	Camden			
Parish / Local Government Area Wollongong				
Suburb Port Kembla				
Ownership Mr Olly Vujic				
Zoning	B4 Mixed Use			
Local Environmental Plan Wollongong Local Environmental Plan 2009				
Area	2.19 hectares			

Table 1: Summary of Site Details

The site is approximately trapezoidal in shape and is vacant and fenced from public access.

The site is bound to the north by Electrolytic Street, to the north east by Reservoir Street, to the south east by Marine Street and to the south west by Military Road. The land use beyond the adjoining streets to the north and northeast is heavy industry and the land use beyond the adjoining streets to the east, south and west is residential.

The site is located approximately 900 m south of Port Kembla Outer Harbour, 750 m north east of Coomaditchy Lagoon and 700 m west of the Tasman Sea.



The site was used as a primary school from 1916 until 2002 after which the site has been unused with the majority of the former primary school infrastructure removed shortly after closure of the school, apart from a heritage listed building which was present at the site up until 2013.

The site surface is a mix of grass cover, hardstand areas and former building footprints. The heritage listed building that was recently demolished was located in the centre of the site on a small hill on the crest of a ridgeline trending north west to south east, with the ground surface sloping down from this area in every direction. Following review of the NSW 2 m contour map the crest of the ridge in the central portion of the site is approximately 34 m Australian Height Datum (AHD) with the north western point of the site being between 24 m and 26 m AHD and the southern corner of the site boundary being between 26 m and 28 m AHD.

Reference to the Wollongong-Port Hacking 1:100,000 Soils Landscape Sheet indicates that the site is underlain by residual soils of the Gwynneville soil landscape. Reference to the Wollongong-Port Hacking 1:100,000 Geology Sheet indicates that the residual soil in turn is underlain by the Dapto Latite Member of the Shoalhaven Group from the Permian age.

5. Site Assessment Criteria

The proposed development at the site will comprise a mixed density residential development, including low to high density residential properties. Therefore the site is proposed to be rezoned to a mixed residential land use, allowing low to high density residential development.

The proposed land use considered in Golder (2013) was residential with limited access to soils and commercial/industrial. Therefore, the site assessment criteria (SAC) need to be revised for the new proposed land use and the existing Golder (2013) data reassessed against the revised SAC.

As the selection of appropriate EIL and ESL is not impacted by the difference between residential with accessible soils and residential with limited access to soils land uses, the EIL and ESL provided in Golder (2013) could be considered to be suitable for this data re-assessment.

However, following a review of the Golder (2013) EIL and ESL, some discrepancies in the EIL and ESL determination process were noted, including incorrect ESL for benzo(a)Pyrene, inconsistent rounding of pH values and use of Ambient Background Concentrations (ABC) from nearby sites potentially impacted by similar fall out contamination. As such, it was considered prudent to re-establish the EIL and ESL based on the analytical Added Contaminant Limits (ACL) soil property data (pH, clay in soils and cation exchange capacity) provided in Golder (2013).

The SAC applied in the current data re-assessment are for the identified human and ecological receptors to potential contamination on the site (Golder, 2013). The Golder (2013) analytical results were assessed (as a Tier 1 assessment) against the SAC comprising the investigation and screening levels of Schedule B1, *National Environment Protection (Assessment of Site Contamination) Measure* 1999, as amended 2013 (NEPC, 2013). The NEPC guidelines are endorsed by the NSW EPA under the CLM Act 1997. Petroleum based health screening levels for direct contact have been adopted from the *Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE) Technical Report no.10 Health screening levels for petroleum hydrocarbons in soil and groundwater (2011) as referenced by NEPC (2013).*



5.1 Health Investigation and Screening Levels

The generic Health Investigation Levels (HIL) and Health Screening Levels (HSL) for residential with accessible soils (HILA and HASL A) are considered to be appropriate for the assessment of contamination at the site based on a re-assessment of the existing Golder (2013) data. The adopted soil HIL and HSL for the potential contaminants of concern are presented in Table 2.

Table 2: HIL and HSL in mg/kg unless otherwise indicated

Contaminants		HIL - A and HSL - A Direct Contact		HSL - A Vapour Intrusion ⁴	
		HSL - A Direct Contact	Sand	Clay	
	Arsenic	100	-	-	
	Cadmium	20	-	-	
	Chromium (VI)	100	-	-	
Metals	Copper	6000	-	-	
Metals	Lead	300	-	-	
	Mercury (inorganic)	40	-	-	
	Nickel	400	-	-	
	Zinc	7400	-	-	
	Benzo(a)pyrene TEQ ¹	3	-	-	
PAH	Naphthalene	1400	3	5	
	Total PAH	300	-	-	
	C6 – C10 (less BTEX) [F1]	4400	45	50	
TRH	>C10-C16 (less Naphthalene) [F2]	3300	110	280	
IKH	>C16-C34 [F3]	4500	-	-	
	>C34-C40 [F4]	6300	-	-	
	Benzene	100	0.5	0.7	
DTEV	Toluene	14000	160	480	
BTEX	Ethylbenzene	4500	55	NL ³	
	Xylenes	12000	40	110	
Phenol	Pentachlorophenol (used as an initial screen)	100	-	-	
	Aldrin + Dieldrin	6	-	-	
	Chlordane	50	-	-	
	DDT+DDE+DDD	240	-	-	
000	Endosulfan	270	-	-	
OCP	Endrin	10	-	-	
	Heptachlor	6	-	-	
	НСВ	10	-	-	
	Methoxychlor	300	-	-	
OPP	Chlorpyrifos	160	-	-	
	PCB ²	1	-	-	

Notes:

1. sum of carcinogenic PAH

^{2.} non dioxin-like PCBs only.

^{3.} The soil saturation concentration (Csat) is defined as the soil concentration at which the porewater phase cannot dissolve any more of an individual chemical. The soil vapour that is in equilibrium with the porewater will be at its maximum. If the derived soil HSL exceeds Csat, a soil vapour source concentration for a petroleum mixture could not exceed a level that would results in the maximum allowable vapour risk for the given scenario. For these scenarios, no HSL is presented for these chemicals and the HSL is shown as 'not limiting' or 'NL'.]

^{4.} The vapour intrusion HSL have been calculated for a clay and sand soil based on both soil types encountered during (Golder 2013) and an assumed depth to contamination 0 m to <1 m. The appropriate criteria will be selected based on material type of each sample</p>



5.2 Ecological Investigation and Screening Levels

Ecological Investigation Levels (EIL) and Added Contaminant Limits (ACLs), where appropriate, have been derived in NEPC (2013) for only a short list of contaminants comprising As, Cu, Cr (III), DDT, naphthalene, Ni, Pb and Zn. The adopted EIL were derived using the ACL parameters established in Golder (2013) and the *Interactive (Excel) Calculation Spreadsheet* (Standing Council on Environment and Water (SCEW) website (<u>http://www.scew.gov.au/node/941</u>)) are shown in the following Table 3. The Calculation Spreadsheet are included in DP (2015).

The EIL and ESL have been calculated for both fine and coarse soil and will be selected based on material type of each sample.

	Analyte	EIL - Coarse	EIL - Fine	Comments
Metals	Arsenic	100	100	Adopted parameters from Golder (2013)
	Copper	170	190	
	Nickel	160	280	pH = for sand 5.59 and for clay 5.83;
	Chromium III	520	660	CEC = for sand 9.78 cmol₀/kg and for clay 20.83 cmol₀/kg;
	Lead	1100	1100	clay content = for sand 20.50% and for clay 43.57%;
	Zinc	410	430	"Aged" (>2 years) source of contamination
PAH	Naphthalene	170	170	high for traffic volumes in NSW
OCP	DDT	180	180	

Table 3: EIL in mg/kg

Ecological Screening Levels (ESL) are used to assess the risk of selected petroleum hydrocarbon compounds, BTEX and benzo(a)pyrene to terrestrial ecosystems. The ESL adopted in DP (2015), which are considered appropriate for this assessment of contamination at the site, are shown in the following Table 4.

	Analyte	ESL - Coarse	ESL - Fine	Comments
TRH	C6 – C10 (less BTEX) [F1]	180*	180*	All ESLs are low reliability apart
	>C10-C16 (less Naphthalene) [F2]	120*	120*	from those marked with * which
	>C16-C34 [F3]	300	1300	are moderate reliability
	>C34-C40 [F4]	2800	5600	
BTEX	Benzene	50	65	
	Toluene	85	105	
	Ethylbenzene	70	125	
	Xylenes	105	45	
PAH	Benzo(a)pyrene	0.7	0.7	

Table 4: ESL in mg/kg

1. The ESL have been calculated for urban residential/public open space and for both fine and coarse soil, which will be selected based on material type of each sample.



5.3 Management Limits – Petroleum Hydrocarbons

In addition to appropriate consideration and application of the HSL and ESL, there are additional considerations which reflect the nature and properties of petroleum hydrocarbons, including:

- Formation of observable light non-aqueous phase liquids (LNAPL);
- Fire and explosion hazards;
- Effects on buried infrastructure e.g. penetration of, or damage to, in-ground services.

The management limits adopted from Schedule B1 of NEPC (2013) for both coarse and fine soil types and are shown in Table 6.

	Analyte	Management Limit - Coarse	Management Limit - Fine	
TRH	C6 – C10 (F1) #	700	800	The management limits have been calculated for
	>C10-C16 (F2) #	1000	1000	both fine and coarse soils (selected dependent
	>C16-C34 (F3)	2500	3500	upon the material type of the sample) and
	>C34-C40 (F4)	10000	10000	residential, parkland and public open space

Table 6: Management Limits in mg/kg

Separate management limits for BTEX and naphthalene are not available hence these have not been subtracted from the relevant fractions to obtain F1 and F2

5.4 Asbestos in Soil

Asbestos only poses a risk to human health when asbestos fibres are made airborne and inhaled. If asbestos is bound in a matrix such as cement or resin, it is not readily made airborne except through substantial physical damage. Bonded Asbestos-Containing Materials (ACM) in sound condition represents a low human health risk, whilst both Fibrous Asbestos (FA) and Asbestos Fines (AF) materials have the potential to generate, or be associated with, free asbestos fibres. Consequently, FA and AF must be carefully managed to prevent the release of asbestos fibres into the air.

A detailed asbestos assessment was not undertaken as part of Golder (2013). Therefore the presence or absence of asbestos at a limit of reporting of 0.1 g/kg has been adopted as an initial screen for this re-assessment of the Golder (2013) data.

6. Re-Assessment of Golder (2013) Data

Golder (2013) included laboratory analysis of 63 primary samples obtained from both fill and natural soils within the site.

In order for a re-assessment of the Golder (2013) laboratory analytical data to be undertaken, the analytical data reported in the Australian Laboratory Service (ALS) Certificates of Analysis included in Golder (2013) (refer to Appendix C) has been presented in a results summary table (refer to Appendix D) along with the adopted SAC as discussed in Section 5.

Based on the re-assessment of the existing Golder (2013) laboratory data the following exceedances of the revised SAC have been identified.



Arsenic

Of the 60 primary samples analysed for arsenic, the reported concentrations were either less than the laboratory practical quantitation limit (PQL) or SAC apart from the following samples which exceeded the HIL and EIL of 100 mg/kg:

- TP20_0.5-0.6 fill silty clay reported with an arsenic concentration of 166 mg/kg;
- TP25_0.9-1.0 fill silty clay– reported with an arsenic concentration of 209 mg/kg; and
- TP30_0.0-0.1 natural silty clay reported with an arsenic concentration of 201 mg/kg.

Cadmium

Of the 60 primary samples analysed for cadmium, the reported concentrations were either less than the laboratory PQL or SAC apart from the following samples which exceeded the HIL of 20 mg/kg:

• TP6_0.2-0.3 – fill coal washery rejects – reported with a cadmium concentration of 27 mg/kg.

Copper

Of the 60 primary samples analysed for copper, approximately half of the reported concentrations were either less than the laboratory PQL or SAC with the remaining half exceeding either the EIL for coarse soil of 170 mg/kg or the EIL for fine soil of 190 mg/kg as follows:

- TP3_0.0-0.1 fill sandy clay reported with a copper concentration of 589 mg/kg;
- TP4_0.0-0.9 fill sand reported with a copper concentration of 287 mg/kg;
- TP5_0.5-0.6 fill silty clay reported with a copper concentration of 467 mg/kg;
- TP6_0.2-0.3 fill coalwashery rejects reported with a copper concentration of 2740 mg/kg;
- TP8_0.0-0.1 natural sandy clay reported with a copper concentration of 2280 mg/kg;
- TP9_0.3-0.4 fill silty clay reported with a copper concentration of 1020 mg/kg;
- TP10_0.0-0.1 fill silty clay reported with a copper concentration of 422 mg/kg;
- TP11_0.1-0.2 fill sand reported with a copper concentration of 201 mg/kg;
- TP12_0.0-0.1 fill clayey sand reported with a copper concentration of 961 mg/kg;
- TP13_0.5-0.6 fill clayey sand reported with a copper concentration of 171 mg/kg;
- TP14_0.0-0.1 fill clayey sand reported with a copper concentration of 660 mg/kg;
- TP15 0.0-0.1 fill sandy clay reported with a copper concentration of 1620 mg/kg;
- TP16A_0.2-0.3 fill coalwashery rejects reported with a copper concentration of 320 mg/kg;
- TP16A_0.5-0.6 fill silty clay reported with a copper concentration of 335 mg/kg;
- TP20_0.5-0.6 fill silty clay reported with a copper concentration of 1330 mg/kg;
- TP24_0.0-0.1 fill silty clay reported with a copper concentration of 1480 mg/kg;
- TP25_0.0-0.1 fill silty clay reported with a copper concentration of 791 mg/kg;
- TP25_0.9-1.0 fill silty clay reported with a copper concentration of 1060 mg/kg;
- TP26_1.5-1.6 fill gravelly clay reported with a copper concentration of 923 mg/kg;
- TP27_0.0-0.1 fill silty clay reported with a copper concentration of 262 mg/kg;
- TP27_0.5-0.6 fill coalwashery rejects reported with a copper concentration of 479 mg/kg;

• TP28 0.0-0.1 – fill silty clay – reported with a copper concentration of 2240 mg/kg;

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- TP29_0.3-0.4 natural silty clay reported with a copper concentration of 333 mg/kg;
- TP30_0.0-0.1 natural silty clay reported with a copper concentration of 2820 mg/kg;
- TP30_0.5-0.6 natural clay reported with a copper concentration of 249 mg/kg;
- BH3-0.1 fill gravelly sandy clay reported with a copper concentration of 436 mg/kg;
- BH4-0.4 fill gravelly sandy clay reported with a copper concentration of 717 mg/kg; and
- BH5-0.1 fill sand reported with a copper concentration of 574 mg/kg;

Lead

Of the 60 primary samples analysed for lead, most of the reported concentrations were either less than the laboratory PQL or SAC apart from the following samples which exceeded the HIL of 300 mg/kg:

- TP8_0.0-0.1 natural sandy clay reported with a lead concentration of 677 mg/kg;
- TP14_0.0-0.1 fill clayey sand reported with a lead concentration of 415 mg/kg;
- TP20_0.5-0.6 fill silty clay reported with a lead concentration of 489 mg/kg;
- TP28_0.0-0.1 fill silty clay reported with a lead concentration of 397 mg/kg;
- TP30_0.0-0.1 natural silty clay reported with a lead concentration of 657 mg/kg;
- BH3-0.1 fill gravelly sandy clay reported with a lead concentration of 350mg/kg; and
- BH4-0.4 fill gravelly sandy clay reported with a lead concentration of 404 mg/kg;

Zinc

Of the 60 primary samples analysed for zinc, most of the reported concentrations were either less than the laboratory PQL or SAC apart from the following samples which exceeded the EIL for coarse soil of 410 mg/kg or the EIL for fine soil of 430 mg/kg as follows:

- TP6_0.2-0.3 fill coalwashery rejects reported with a zinc concentration of 500 mg/kg;
- TP9_0.3-0.4 fill silty clay reported with a zinc concentration of 443 mg/kg;
- TP25_0.0-0.1 fill silty clay reported with a zinc concentration of 514 mg/kg;
- BH2-0.1 fill gravelly sandy clay reported with a zinc concentration of 1150 mg/kg; and
- BH4-0.4 fill gravelly sandy clay reported with a zinc concentration of 798 mg/kg;



TRH Fraction 3 (C₁₆-C₃₄)

Of the 31 primary samples analysed for TRH, the reported concentrations of TRH F3 (> C_{16} - C_{34}) were either less than the laboratory PQL or SAC apart from the following sample which exceeded the ESL for fine soils of 1300 mg/kg:

• TP28_0.0-0.1 – fill silty clay – reported with a TRH F3 concentration of 1330 mg/kg.

Benzo(a)pyrene

Of the 31 primary samples analysed for B(a)P, two samples were reported with concentrations of B(a)P greater than the laboratory PQL. One sample (TP10_0.0-0.1) was reported less than the SAC and the other sample (TP28_0.0-0.1 – fill silty clay) was reported with a concentration of B(a)P equal to the ESL of 0.7 mg/kg.

Asbestos

Of the 10 primary samples analysed for asbestos, seven primary samples were reported with ACM identified within the sample, with three of these also reported with AF identified. Asbestos was detected in the following samples:

- TP10_0.0-0.1 fill silty clay reported with ACM and AF identified;
- TP11_0.1-0.2 fill sand reported with ACM and AF identified;
- TP12A_0.1-0.2 fill silty clay reported with ACM identified;
- TP15_0.0-0.1 fill sandy clay reported with ACM and AF identified;
- TP16A_0.9-1.0 fill silty clay reported with ACM identified;
- TP16B_0.1-0.2 fill sandy clay reported with ACM identified; and
- TP20_0.5-0.6 fill silty clay reported with ACM identified.

7. Discussion

Based on the standard deviations and maximum concentrations of the individual data sets for each analyte, statistical analysis to determine the 95% upper confidence limit (UCL) of the individual analyte data sets was not considered to be appropriate.

The findings of the Golder (2013) laboratory data re-assessment indicate wide spread heavy metal contamination issues, predominantly copper and lead, in surface soils (both fill and natural) and in shallow and deep fill across the site. As reported in the Golder (2013) logs, fill was encountered to an average depth of 0.6 m bgl and a maximum depth of 2 m bgl.

The identified areas of heavy metal contamination will require delineation to determine the vertical extent (in order to inform appropriate management strategies) and subsequent management in accordance with an appropriate remediation action plan (RAP).

It is further considered that as part of the vertical delineation, leachability analysis of the heavy metal impacted soils should be undertaken to inform a preliminary waste classification for any potential materials to be disposed of off-site.



Furthermore this leachability data could also be used to assess the potential for the heavy metal contaminated soils to impact groundwater at the site. It is noted that Golder (2013) included a groundwater investigation. However, the further consideration of soil leachability data would assist in developing the groundwater discussion provided in Golder (2013) and assist the development of an appropriate heavy metal contaminated soil remediation strategy.

Benzo(a)pyrene was reported at concentrations greater than the laboratory PQL in two locations only. The greater of these reported concentrations (TP28_0.0-0.1 with a B(a)P concentration of 0.7 mg/kg) is equal to the adopted Tier 1 screening level (ESL of 0.7 mg/kg). Therefore, based on the Golder (2013) laboratory data, it is considered that B(a)P is not a site contamination issue.

Localised areas of TRH and asbestos contamination were also identified associated with fill.

The localised area identified to have been impacted by TRH will need to be further investigated and assessed in order to establish the source, its extent and the potential risk, prior to appropriate assessment / management in accordance with a RAP.

The site fill identified to have been impacted by ACM and / or AF will require a detailed asbestos investigation prior to appropriate management in accordance with a RAP.

8. Conclusion and Recommendations

Based on the findings of the Golder (2013) laboratory data re-assessment it is considered that the site has been impacted by widespread heavy metal contamination as well as localised TRH and asbestos contamination.

Therefore it is recommended that the following further investigation be undertaken in order to finalise the remediation strategies;

- Vertical delineation and leachability assessment of the heavy metal impacted soils;
- Further investigation of the localised TRH contamination in order to establish the source, its extent and the potential risk; and
- A detailed asbestos investigation.

It is noted that the above recommended further investigation could be undertaken once the land has been rezoned to mixed residential.

It is considered that the site can be rendered compatible for the proposed low to high density residential land use subject to the above further investigation, subsequent development of appropriate remediation strategies and subsequent completion of the appropriate remediation and validation in accordance with the finalised RAP.

Potential management strategies for the heavy metal, TRH and asbestos contamination could include off-site disposal, on-site treatment, off-site treatment or on-site containment.



9. Limitations

Douglas Partners (DP) has prepared this report for this project at Lot 1 Military Road, Port Kembla in accordance with DP's proposal dated 19 April 2016 and acceptance received from Mr Luke Rollison of MMJ on behalf of Mr Olly Vujic dated 28 April 2016. The work was carried out under DP's Conditions of Engagement. This report is provided for the exclusive use of Mr Olly Vujic for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

DP's advice is based upon the conditions encountered during the Golder (2013) investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by the information provided by the client or others. This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report. This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.

The contents of this report do not constitute formal design components such as are required, by the Health and Safety Legislation and Regulations, to be included in a Safety Report specifying the hazards likely to be encountered during construction and the controls required to mitigate risk. This design process requires risk assessment to be undertaken, with such assessment being dependent upon factors relating to likelihood of occurrence and consequences of damage to property and to life. This, in turn, requires project data and analysis presently beyond the knowledge and project role respectively of DP. DP may be able, however, to assist the client in carrying out a risk assessment of potential hazards contained in the Comments section of this report, as an extension to the current scope of works, if so requested, and provided that suitable additional information is made available to DP. Any such risk assessment would, however, be necessarily restricted to the environmental components set out in this report and to their application by the project designers to project design, construction, maintenance and demolition.

Douglas Partners Pty Ltd

Appendix A

About This Report

About this Report

Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

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

Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Conditions of Engagement for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

Borehole and Test Pit Logs

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

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

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

 In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;

- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

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

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

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

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

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

About this Report

Site Anomalies

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

Information for Contractual Purposes

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

Site Inspection

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

Appendix B

Golder (2013) Figures



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Appendix C

Golder (2013) Laboratory Certificates of Analysis





Environmental Division

CERTIFICATE OF ANALYSIS						
Work Onder	EW1301886	Page	1 of 70			
Client Contact Address	PORT KEMBLA COPPER MS CAROLINA OLMOS SYDNEY	Laboratory Contact Address	Environmental Division NSW South Coast Client Services 99 Kenny Street, Wollongong 2500 Unit 4 / 13 Geary Place, PO Box 3105, North Nowra 2541 AUSTRALIA			
E-mail	colmos@golder.com.au	E-mail	sydney@alsglobal.com			
Telephone	-	Telephone	+61-2-8784 8555			
Facsimile	1	Facsonde	+61-2-8784 8500			
Project	137623028	QC Level	NEPM 1999 Schedule B(3) and ALS QCS3 requirement			
Order number						
C-O-C number	-	Date Samples Received	27-JUN-2013			
Sampler	KE YE	Issue Date	10-JUL-2013			
Site	PKC-PRIMARY SCHOOL					
		No. of samples received	103			
Quote number		No. of samples analysed	64			

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- · General Comments
- · Analytical Results
- Descriptive Results
- Surrogate Control Limits

	Environmental Division NSW Studiet Classo Physics Viol National States 2015 ALS Lineard Campion	
Enveranmenter 🚬	www.alsglobal.com	
	MONT SOLUTIONS INCALL PARTIES	



General Comments

The shelf/cal procedures used by the Environmental Division trave laker advolved from established internationally recignized procedures such as those published by the USEPA. APIA AS and NEPA, to house growtpod procedures are employed in the advance of downeres standards for y downeres and the public of the travel

Where musiture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LDR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling lime information is not provided by the client, sampling dates are shown without a time component. In these instances, the firms component has been assumed by the laboratory for processing purposes.

Viay CAS Number = CAS registry number from database mentained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society. LOR = Limit of reporting

* = This result is computed from individual analyte detections at or above the level of reporting

- · EA200 Legend
- · EA200 'Am' Amosite (brown asbestos)
- · EA200 'Ch' Chrysotile (white asbestos)
- · EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' Asbestos fibres detected at levels below 0.1g/kg. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: "UMF" Unknown Mineral Fibres. "." Indicates fibres detected may or may not be asbestos fibres. Confirmation by atternative techniques is recommended.
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200: Negative results for vinyl tiles should be confirmed by an independent analytical technique.
- EA200C: ALS laboratory procedures and methods used for the identification and quantitation of asbestos are consistent with A64864-2004 and the requirements of the 2011 NEPM for Assessment of Site Contamination
- EA3002 Estimations of Aduestos weight and generatages are not covered under the Scope of NATA Accretation.
 Weights and percentages of Aduestos are approximate estimates only. Weights are based on extracted flars boundes and ACM, and percentages are estimated based on the NEPM detail. Aduestos content in ACM. All numerical results under this method are approximate and should be used as a guide only.
- EG005T: Poor precision and poor spike recovery was obtained for some elements on sample EW1301886 1. Results have been confirmed by re-extraction and reanalysis.
- EG005T: Poor precision was obtained for Lead on sample EW1301886 1, Results have been confirmed by re-extraction and reanalysis.
- · EK057G/EK059G:LOR raised for Nitrite/NOx analysis on various samples due to sample matrix.
- EK067G: Poor duplicate precision due to sample heterogeneity. Confirmed by re-extraction and re-analysis.

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Project	137623028





Accredited for compliance with

Signatories

NATA Accredited Laboratory 625 ISO/IEC 17025.

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Ankil Joshi	Inorganic Chemist	Sydney Inorganics Sydney Inorganics
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics
Christopher Owler	Team Leader - Asbestos	Newcastle - Asbestos
Di-An Dao		Sydney Inorganics
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics
Hamish Murray	Supervisor - Soils	Newcastle - Inorganics
Hos Nguyan	Senior Inorganic Chemist	Sydney Inorganics
Pabi Sebba	Senior Organic Chemist	Sydney Inorganics Sydney Organics Sydney Organics
Phalak Inthaksone	Laboratory Manager - Organics	Sydney Organics Sydney Organics



Sub-Matrix: SOIL (Matrix: SOIL)		Cli	ent sample ID	TP30_0.0-0.1_25/06/1 3	TP30_0.5-0.6_25/06/1 3	TP29_0.3-0.4_25/06/1 3	TP29_0.9-1.0_25/06/1 3	TP27_0.0-0.1_25/06/1 3
	Cli	ent sampl	ing date / time	25-JUN-2013 10:00	25-JUN-2013 10:00	25-JUN-2013 10:00	25-JUN-2013 10:00	25-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-001	EW1301886-002	EW1301886-005	EW1301886-007	EW1301886-008
EA002 : pH (Soils)	21.5						and the second	
pH Value		0.1	pH Unit			6.3		
EA055: Moisture Content						1		
Moisture Content (dried @ 103°C)		1.0	%	33.4	35.9	21.3	25.1	30.5
EA150: Soil Classification based on	Particle Size					and the second s		
Clay (<2 µm)		1	%			11		
ED008: Exchangeable Cations		-						
Exchangeable Calcium		0.1	meq/100g			1.2		
Exchangeable Magnesium		0.1	meq/100g			1.1		
Exchangeable Potassium		0.1	meq/100g			<0.1		
Exchangeable Sodium		0.1	meq/100g			0.2		
Cation Exchange Capacity		0.1	meq/100g			2.5		
EG005T: Total Metals by ICP-AES	and the second second	and so and						
Arsenic	7440-38-2	5	mg/kg	201	<5	13	6	<5
Cadmium	7440-43-9	1	mg/kg	10	1	13	<1	<1
Chromium	7440-47-3	2	mg/kg	13	21	5	17	6
Copper	7440-50-8	5	mg/kg	2820	249	333	99	262
Iron	7439-89-6	50	mg/kg			15500		
Lead	7439-92-1	5	mg/kg	657	67	44	14	38
Manganese	7439-96-5	5	mg/kg	296	32	20	35	231
Nickel	7440-02-0	2	mg/kg	11	4	7	6	8
Selenium	7782-49-2	5	mg/kg	7	<5	<5	<5	<5
Zinc	7440-66-6	5	mg/kg	415	157	154	54	132
EG035T: Total Recoverable Mercur	y by FIMS							
Mercury	7439-97-6	0.1	mg/kg	1.2	<0.1	0.1	<0.1	<0.1
EK055: Ammonia as N								
Ammonia as N	7664-41-7	20	mg/kg	<20		<20		
EP004: Organic Matter		burne -						
Organic Matter		0.5	%			2.5		
Total Organic Carbon		0.5	%			1.4		
EP068A: Organochlorine Pesticides	; (OC)		-				a state	
alpha-BHC	319-84-6	0.05	mg/kg	<0.05		<0.05	-	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05		<0.05		
beta-BHC	319-85-7	0.05	mg/kg	<0.05		<0.05		

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	CI	Client sampling date / time			25-JUN-2013 10:00	25-JUN-2013 10:00	25-JUN-2013 10:00	25-JUN-2013 15:00
Compound	GAS Number	LOR	Unit	EW1301886-001	EW1301886-002	EW1301886-005	EW1301885-007	EW1301886-008
EP068A: Organochlorine Pesticio								
gamma-BHC	58-89-9	0.05	maka	<0.05	-	≪0.05	-	-
delta-BHC	319-86-8	0.05	mg/kg	<0.05		+0.05	-	-
Heptachlor	75-44-8	0.05	mg/kg	+0.05	-	+0.05	-	-
Aldrin	309-00-2	0.05	.mg/kg	<0.05	-	≪0.05		-
Heptachlor epoxide	1024-57-3	0.05	mg/kg.	+0.05		-40.05	-	-
Total Chlordane (sum)	-	0.05	mg/kg	+0.05	-	<0.05	-	
trans-Chiordane	5103-74-2	0.05	marka	+0.05	-	<0.05		-
alpha-Endosullar	950-98-8	0.05	marka	₹0.05		<0.05	-	-
cis-Chlordane	5103-71-8	0.05	mg/kg	<0.05	-	=0.05		-
Dieldrin	80-57-1	0.05	mg/kg	+0.05	-	<0.05	-	-
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	-	<0.05	-	-
Endrin	72-20-8	0.05	mp/kg	+0.05	-	<0.05	-	-
beta-Endosulfan	33213-65-9	0.05	mp/kg	<0.05		<0.05		-
Endosulfan (sum)	115-29-7	0.05	marka	<0.05	-	<0.05		-
4.4'-DDD	72-54-8	0.05	marka	<0.05	_	<0.05	_	-
Endrin aldehyde	7421-93-4	0.05	marka	+0.05	-	<0.05	-	
Endosulfan sulfate	1031-07-8	0.05	malka	<0.05		<0.05	-	-
4.4'-DDT	50-29-3	0.2	mp/kg	<0.2	-	<0.2	-	-
Endrin ketone	53494-70-5	0.05	mpika	<0.05	-	<0.05		-
Methoxychlor	72-43-5	0.2	mp/kg	+0.2	-	<0.2	-	
Sum of Aldrin + Dieldrin	309-00-2/80-57-1	0.05	mp/kg	<0.05	_	<0.05	-	
Sum of DDD + DDE + DDT		0.05	malka	<0.05	_	+0.05	-	-
EP068B: Organophosphorus Pes	tiolden (OD)			the second s				
Dichlorvos	82-73-7	0.05	marka	<0.05	-	<0.05		
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	-	<0.05		
Monocrotophos	6923-22-4	0.2	molkg	<0.2	-	<0.2		
Dimethoate	60-51-5	0.05	maka	<0.05	-	<0.05		
Diszinon	333-41-5	0.05	maka	<0.05		<0.05		
Chlorpyrifos-methyl	5598-13-0	0.05	morkg	<0.05	_	<0.05		
Parathion-methyl	298-00-0	0.2	marka	<0.2	3	<0.2	-	
Malathion	121-75-5	0.05	markg	<0.05	2	<0.05	2	-
Fenthion	55-38-9	0.05	maika	<0.05		+0.05	-	-
Chlorpvrifes	2921-88-2	0.05	marka	<0.05		<0.05		

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Compound	CAS Number LOR Unit			EW1301586-001	EW1301586-002	EW1301886-005	EW1301886-007	EW1301886-008
EP068B: Organophosphorus Pesti								
Parathion	56-38-2	0,2	mg/kg	<0.2	-	<0.2	-	-
Pirimphos-ethyl	23505-41-1	0.05	maika	<0.05	-	<0.05	-	
Chlorfenvinphos	470-90-6	0.05	malkg	<0.05	-	<0.05		
Bromophos-ethyl	4824-78-5	0.05	mg/kg	<0.05	-	<0.05	-	-
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	-	<0.05	-	-
Prothisfos	34643-46-4	0.05	mgikg	<0.05	-	<0.05	_	-
Ethion	563-12-2	0.05	mgikg	<0.05	-	<0.05	-	-
Carbophenothion	786-19-6	0.05	malkg	<0.05	-	<0.05	-	-
Azinphos Methyl	86-50-0	0.05	malka	<0.05	-	<0.05	-	-
EP075(SIM)A: Phenolic Compound								
Phenol	108-95-2	0.5	mg/kg	<0.5		<0.5	-	
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5		<0.5		-
2-Methylphenol	95-48-7	0.5	mpikg	<0.5	-	<0.5	-	
3- & 4-Mathylphenol	1319-77-3	1	mg/kg	<t< td=""><td>-</td><td></td><td></td><td>-</td></t<>	-			-
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	-	<0.5	-	
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	-	<0.5	-	
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	-	+0.5	-	
2.6-Dichlorophenol	87-65-0	0.5	mgikg	<0.5	÷	<0.5	-	-
4-Chioro-3-Methylphenol	59-50-7	0.5	mg/kg	⊲0.5		<0.5	-	maker
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5		<0.5	-	
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	40.5		<0.5	-	
Pentachlorophenol	87-88-5	2	mg/kg	<2	-	-12		
EP075(SIM)B: Polynuclear Aromati	c Hydrocarbons							
Naphthalene	91-20-3	0.5	mgikg	<0.5	-	<0.5	-	-
Acenaphthylene	208-96-8	0.5	mgikg	<0.5	-	<0.5	-	
Acenaphthene	83-32-9	0,5	mgikg	<0.5	-	<0.5	-	-
Fluorene	86-73-7	0.5	mg/kg	<0.5	-	×0.5	-	-
Phonanthrone	85-01-8	0.5	mg/kg	≈0.5	-	×0,5	-	-
Anthracene	120-12-7	0.5	mgikg	=0.5	-	≪0,5	-	-
Fluoranthene	206-44-0	0.5	mg/kg	0.9	-	<0.5	-	-
Pyrene	129-00-0	0.5	mg/kg	0.9		<0.5		-
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5		<0.5	-	-
Chrysene	218-01-9	0.5	marka	<0,5	-	<0.5	-	

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	Client sampling date / time			25-JUN-2013 10:00	25-JUN-2013 10:00	25-JUN-2015 10:00	25-JUN-2013 10:00	25-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-001	EW1301885-002	EW1301886-005	EW1301886-007	EW1301886-008
EP075(SIM)B: Polynuclear Aromatic Hy								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5		<0.5	inter .	-
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	-	<0.5		-
Benzo(a)pyrene	50-32-6	0.5	mg%g	<0.5	-	<0.5		-
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	×0,5	-	<0.5	-	-
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	-	<0.5	-	-
Benzo(g.h.i)perylone	191-24-2	0.5	mg/kg	<0,5	-	<0.5		
Sum of polycyclic aromatic hydrocarbons		0,5	mg/kg	1.8		<0.5		-
Benzo(a)pyrene TEQ (WHO)	-	0.5	marka	<0.5	-	<0.5	iner.	-
EP080/071: Total Petroleum Hydrocarb	ons			1000				
C6 - C9 Fraction	-	10	mg/kg	<10	-	<10	-	-
C10 - C14 Fraction		50	mg/kg	<50		<50		-
C15 - C28 Fraction		100	mp/kg	<100	-	<100	-	
C29 - C36 Fraction		100	mg/kg	<100	_	<100	-	-
C10 - C36 Fraction (sum)		50	mp/kg	<50	-	<50	-	-
EP080/071: Total Recoverable Hydroca	rbons - NEPM 201	0 Draft						
C6 - C10 Fraction		10	mg/kg	=10	-	<10		
CE - C10 Fraction minus BTEX (F1)		10	mpika	<10	-	<10	-	-
>C10 - C16 Fraction		50	mo/kg	<50	-	<50	-	-
>C18 - C34 Fraction		100	mp/kg	<100	-	<100	-	-
>C34 - C40 Fraction	-	100	mp/kg	<100	_	<100	-	-
>C10 - C40 Fraction (sum)	-	50	mg/kg	<50	-	<50	-	
EPORO: BTEX	-		And in case of the	A COLUMN TWO IS NOT				
Benzene	71-43-2	0.2	malka	<0.2	_	<0.2		-
Toluene	108-88-3	0.5	mg/kg	<0.5	_	<0.5	_	-
Ethylbenzene	100-41-4	0.5	mg/kd	<0.5	-	<0.5	-	-
meta- & para-Xylene	108-38-3 105-42-3	0.5	marka	<0.5	-	<0.5	-	-
ortho-Xylene	95-47-8	0.5	maika	<0.5		<0.5	-	-
EP080 BTEXN								
Total Xyleries	1330-20-7	0.5	maika	<0.5	_	<0.5	-	-
Sum of BTEX		0.2	molkg	<0.2	-	<0.2		
Naphthalene	91-20-3	1	malka	<1	_	<		-
EP068S: Organochlorine Pesticide Sur		-						
Dibromo-DDE	21655-73-2	0.1	5	81.7	-	74.0		-
	#1000-73-2		-			140		

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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			TP30_0.5-0.6_25/06/1 3	TP29_0.3-0.4_25/06/1 3	TP29_0.9-1.0_25/06/1 3	TP27_0.0-0.1_25/06/1 3
	Ch	ent sample	g date / lime	25-JUN-2013 10:00	25-JUN-2013 10:00	25-JUN-2013 10:00	25-JUN-2013 10:00	25-JUN-2013 15:00
Compound	CAS Number	LOR	LOR Unit	EW1301886-001	EW1301886-002	EW1301886-005	EW1301885-007	EW1301886-008
EP068T: Organophosphorus Pestic	ide Surrogate					Statement of the local division of the		
DEF	78-48-8	0.1	54.	93.0	-	87.8	-	-
EP075(SIM)S: Phenolic Compound	Surrogates							
Phenol-d6	13127-88-3	0.1	\$	82.0	-	83.6	-	-
2-Chlorophenol-D4	93951-73-6	0.1	55	90.0	-	88.4	-	
2.4.6-Tribromophenol	118-79-6	0.1	5	92.2		90.4	-	-
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	\$8.8	-	95.9	-	
Anthracene-d10	1719-06-8	0.1	%.	95.4	-	95.8	-	
4-Terphenyl-d14	1718-51-0	0.1	5	82.3	-	94.0	-	
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17068-07-0	0,1	55	95.9		93.6	-	-
Toluene-D8	2037-26-5	0.1	56	99.4		99.0	-	
4-Bromofluorobenzene	450-00-4	0.1	56	92.6	-	97.2	-	

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Sub-Matrix: SOIL (Matrix: SOIL)			lèni sample (D ling date / lime	TP27_0.5-0.6_25/06/1 3 25-JUN-2013 15:00	TP28_0.0-0.1_25/06/1 3 25-JUN-2013 15:00 EW1301886-012	TP28_0.9-1.0_25/06/1 3 25-JUN-2013 15:00	TP26_0.5-0.6_25/06/1 3 25-JUN-2013 15:08	TP26_1.5-1.6_25/06/1 3 25-JUN-2013 15:00
Compound	CAS Number	LOR	Ling	EW1301886-009		EW1301886-014	EW1301886-017	EW1301886-019
EA002 : pH (Soils)	CAS Number	LUM	LOT III					
pH Value	-	0.1	pH Unit			7.0	-	-
EA055: Moisture Content			privatin			1.0		
Moisture Content (dried @ 103*C)	-1	1.0	5	29.2	41.3	30.2	25.9	22.3
		1.4		19.4	41.4	29-2	69.9	46.0
EA150: Soil Classification based on F Clay (<2 µm)	Particle Size			-		41	_	-
ED008: Exchangeable Cations	-	-	-	-		41		
Exchangeable Calcium	-	0.1	meg/100g	-	-	16.1		-
Exchangeable Magnesium		0.1	meg/100g	-	-	9.7		-
Exchangeable Potassium	-	0.1	meg/100g	-		0.2		-
Exchangeable Sodium		0.1	meg/100g	-	_	0.8	-	_
Cation Exchange Capacity		0.1	med/100g			25.9	-	-
EG005T: Total Metals by ICP-AES								
Amenic	7440-38-2	5	maka	35	26	4	9	22
Cadmium	7440-43-9	1	molka	8	2	4	<1	2
Chromium	7440-47-3	2	malka	12	9	14	22	17
Copper	7440-50-8	5	malka	479	2240	72	132	923
Iron	7439-89-6	50	malka	_		42200		-
Lead	7439-92-1	5	maika	155	397	22	65	156
Manganese	7439-96-5	5	malka	89	442	142	121	334
Nickel	7440-02-0	2	mg/kg	13	12	6	5	22
Selenium	7782-49-2	5	maika	<5	<5	<5	<5	<5
Zinc	7440-66-6	5	maika	404	176	107	154	179
EG035T: Total Recoverable Mercury	by FIMS		and the second second	and the second				
Mercury	7439-97-6	0,1	malkg	0.2	0.4	<0.1	0.1	0.1
EK055: Ammonia as N	and the second second			Contraction of the local division of the loc				
Ammonia as N	7664-41-7	20	mgikg	<20	<20	-	<20	<20
EK057G: Nitrite as N by Discrete Ana	lyser			And the second				
Nitrite as N (Sol.)	-	0,1	mgikg	-		-	≪1.0	+0.1
EK058G: Nitrate as N by Discrete An	alvser		and the second second					
Nitrate as N (Sol.)	-	0,1	mgikg	-	-	-	<1.0	<0.1
EK059G: Nitrite plus Nitrate as N (NO	(x) by Discrete Analy	ser		and the second se				
Nitrite + Nitrate as N (Sol.)	and the second all the	0.1	malka	-	-	-	<1.0	40.1
EK061G: Total Kjeldahl Nitrogen By D	Manager Analysis	-						

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		Client sampling date / time		25-JUN-2013 15:00	25-JUN-2013 16:00	25-JUN-2013 15:00	25-JUN-2013 15:00	25-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-009	EW1301886-012	EW1301886-014	EW1301886-017	EW1301886-019
EK061G: Total Kjeldahl Nitrogen B	y Discrete Analyser - C							
Total Kjeldahl Nitrogen as N	-	20	ma'ku	-		the second se	1040	470
EK062: Total Nitrogen as N (TKN +	NOx)							
Total Nitrogen as N	-	20	mg/kg	+	+	-	1040	470
EK067G: Total Phosphorus as P by	Discrete Analyser							
Total Phosphorus as P	-	2	malkg	-	-	-	261	888
EP004: Organic Matter								
Organic Matter	-	0,5	16	-	-	1.0		
Total Organic Carbon	-	0.5	- 16	-	-	0.6	-	
EP068A: Organochlorine Pesticide	s (OC)							
alpha-BHC	319-84-6	0.05	mgikg	<0.05	<0.05		-	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	malkg	<0.05	<0.05	-	-	<0.05
beta-BHC	319-85-7	0.05	malkg	<0.05	<0.05	-	-	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05		-	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05		-	<0.05
Heptachilor	76-44-8	0.05	mg/kg	<0.05	<0.05	-	-	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05			<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0,05	-	-	<0.05
Total Chlordane (sum)	-	0.05	mg/kg.	<0.05	<0.05			<0.05
trans-Chlordane	5103-74-2	0.05	mgikg	<0.05	<0,05	-	-	<0.05
alpha-Endosulfan	959-98-8	0.05	makg	=0.05	<0.05	-	-	<0.05
cis-Chlordane	5103-71-9	0.05	maika	<0.05	40.05	-	+	<0.05
Dieldrin	60-57-1	0.05	mgikg	<0.05	<0.05	-	-	<0.05
4.4 -DDE	72-55-9	0.05	mg/kg	<0.05	<0.05			<0.05
Endrin	72-20-8	0.05	mpikg	< 0.05	<0.05	-		<0.05
beta-Endosultan	33213-65-9	0.05	mgikg	<0.05	<0.05	-	-	<0.05
Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	-	-	<0.05
4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	-		<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0,05	-	-	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	÷-		<0.05
4.4 -DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	-	-	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05		-	+0.05
Methoxychior	72-43-5	0.2	mg/kg	<0.2	<0.2		-	<0.2
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	maika	<0.05	<0.05			<0.05

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	CI		ng date / time	25-JUN-2013 15:00	25-JUN-2013 15:00	25-JUN-2013 15:00	25-JUN-2013 15:00	25-JUN-2013 15:00
Compound	CAS Number	LOR	Unt	EW1301886-009	EW1301885-012	EW1301885-014	EW1301886-017	EW1301886-019
EP068A: Organochlorine Pesticides	(OC) - Continued							
Sum of DDD + DDE + DDT	-	0.05	mgikg	<0.05	<0.05	-	-	<0.05
EP0688: Organophosphorus Pestic	ides (OP)							
Dichlorvos	62-73-7	0,05	uby6	+0.05	+0.05		-	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg.	<0.05	≪0,05	-	-	<0.05
Monocrotophos	0923-22-4	0.2	mg/kg	<0.2	<0.2	-	-	<0.2
Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05			*0.05
Diazinon	353-41-5	0.05	marka	~0.05	+0.05	-		#0,05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	-	-	<0.05
Parathion-methyl	298-00-0	0.2	ingikg	=0.2	*0.2	-		<0.2
Malathion	121-75-5	0.05	mgikg	+0.05	<0.05	-	-	<0.05
Fenthion	55-38-9	0.05	mg/kg	+0.05	40.05		-	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg	40.05	40.05	-	-	<0.05
Parathion	56-38-2	6.2	mgikg	=0.2	+0.2			<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	~0.05	<0.05	·	-	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	-	-	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	-		<0.05
Fenamiphos	22224-92-6	0.05	mp/kg.	<0.05	<0.05	-	-	<0.05
Prothiofos	34543-46-4	0.05	mp/kg	<0.05	<0.05	-		<0.05
Ethion	563-12-2	0.05	morka	<0.05	<0.05	-		<0.05
Carbophenothion	786-19-6	0.05	mpikg	<0.05	<0.05	-		<0.05
Azinphos Methyl	86-50-0	0.05	mpikg	<0.05	<0.05	-		<0.05
EP075(SIM)A: Phenolic Compounds			-	and the second se				
Phenol	108-95-2	0.5	maika	<0.5	<0.5		-	+0.5
2-Chlorophenol	85-57-8	0.5	maika	<0.5	<0.5	-	-	<0.5
2-Methylphenol	85-48-7	0.5	molkd	<0,5	40.5	_		<0.5
3- & 4-Methylphenol	1319-77-3	3	mg/kg	<1	<1	-		4
2-Nitrophenol	88-75-5	0.5	mg/kg.	<0.5	<0.5	-	-	<0.5
2.4-Dimethylphenol	105-87-9	0.5	mg/kg	<0.5	<0.5	-	-	<0.5
2.4-Dichlorophenol	120-83-2	0.5	maika	<0.5	<0.5		-	<0.5
2.6-Dichlorophenal	87-65-0	0.5	maika	<0.5	<0.5	-		×0.5
4-Chloro-J-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0,5	-	-	<0.5
2.4.5-Trichlorophenol	88-06-2	0.5	marka	<0.5	<0.5		-	<0.8
2.4.5-Trichlorophenol	95-95-4	0.5	malka	<0.5	<0.5	-	-	<0.5

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But-Mairie: SOIL (Matrie: SOIL)		Client sample ID		TP27_0.5-0.6_25/06/1 3 25-JUN-2013 15:00	TP28_0.0-0.1_25/06/1 3 25-JUN-2013 15:00	TP28_0.9-1.0_25/06/1 3 25-JUN-2013 15:00	TP26_0.5-0.6_25/06/1 3 25-JUN-2013 15:00	TP26_1.5-1.6_25/06/1 3 25-JUN-2013 15:00
and the second se	CAS Number	LOR Unit		EW1301886-009	EW1301886-012	EW1301886-014	EW1301886-017	EW1301886-019
Compound		TOK	UNN!					
EP075(SIM)A: Phenolic Compounds - Co Pentachlorophenol	87-86-5	2	morka	42	9	-	-	4
		4	mgrkg	~4	4		-	
EP075(SIM)B: Polynuclear Aromatic Hyd Naphthalene				40.5	0.8			+0.5
	91-20-3	0.5	mg/kg	40.5	9.8 <0.5	-		<0.5
Acenaphthylene	208-96-8	0,5	mg/kg	40.5	40.5	-	-	40.5
Acenaphthene	83-32-9	0.5	mg/kg	40.5	*0.5	-	-	<0.5
Fluorene	86-73-7	0.5	mg/kg					
Phonanthrone	85-01-8	0.5	mg/kg	<0.5	5.6	-	-	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	0.6	-		<0.5
Fluoranthene	205-44-0	0.5	mg/kg	<0.5	1.6	-	-	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	2.7	-	+	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	1.7	-	-	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	4.3	-		<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mgikg	<0.5	1.1	-	-	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mgikg	<0,5	×0.5	-	-	<0.5
Benzo(a)pyrene	50-32-8	0.5	maika	<0,5	0.7	-	-	<0.5
Indeno(1,2.3.cd)pyrene	193-39-5	0.5	mgikg	<0.5	<0.5	-		<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mgikg	<0,5	<0.5		-	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0,5	0.6	-	-	<0.5
Sum of polycyclic aromatic hydrocarbons	_	0.5	mg/kg	<0.5	19.7	-	-	<0.5
Benzo(a)pyrene TEQ (WHO)	-	0.5	mg/kg	<0.5	1.0		-	<0.5
EP080/071: Total Petroleum Hydrocarbo	15	-	-					
C6 - C9 Fraction		10	mg/kg	<10	<10	-	-	<10
C10 - C14 Fraction		50	mgikg	<50	<50	-		<50
C15 - C28 Fraction	-	100	malkg	<100	1000	-	-	<100
C29 - C36 Fraction		100	mg/kg	<100	490	-		<100
C10 - C36 Fraction (sum)	-	50	mg/kg	<50	1490			<50
EP080/071: Total Recoverable Hydrocart	NEDH 201	Dealt	Statement of the local division of the local	Concerns of the	and the second se			
C6 - C10 Fraction	20115 - MEPM 2011	10	mg/kg	<10	*10	-	-	<10
C6 - C10 Fraction minus BTEX (F1)		10	malka	*10	<10	-	-	<10
>C10 - C16 Fraction	-	50	mgikg	<50	70	-	-	<50
>C16 - C16 Fraction		100	maikg	=100	1330	-	-	<100
>C34 - C40 Fraction	_	100	mg/kg	<100	220	-		<100
>C10 - C40 Fraction >C10 - C40 Fraction (sum)		50	marka	+50	1620	2		<50
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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			TP28_0.0-0.1_25/06/1 3	TP28_0.9-1.0_25/06/1 3	TP26_0.5-0.6_25/06/1 3	TP26_1.5-1.6_25/06/1 3
	CA	ent sainpä	ing date / time	25-JUN-2013 15:00	25-JUN-2013 15:00	25-JUN-2013 15:00	25-JUN-2013 15:00	25-JUN-2013 15:00
Compound	CAS Number	LOR	Limit	EW1301886-009	EW1301886-012	EW1301886-014	EW1301886-017	EW1301886-019
EP080: BTEX								
Benzene	71-43-2	0.2	maika	<0.2	<0.2			<0.2
Toluene	108-88-3	0.5	maika	<0,5	0.6	-	-	<0.5
Ethylbenzene	100-41-4	0.5	molkg	<0.5	<0.5		-	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	0.5	-	-	×0.5
ortho-Xylene	95-47-0	0.5	malka	<0.5	<0.5	-	-	<0.5
EP080: BTEXN	Concernance of the second	-						
Total Xylenes	1330-20-7	0,5	mgikg	<0.5	0.5	-	-	<0.5
Sum of BTEX	-	0.2	mg/kg	<0,2	1.1	-	-	+0.2
Naphthalene	91-20-3	1	mg/kg	<1	<1	-	-	<1
EP068S: Organochlorine Pesticid	e Surrogate	-	-					
Dibromo-DDE	21655-73-2	0.1	16	80.7	110			69.9
EP068T: Organophosphorus Pest	licide Surrogate		-					
DEF	78-48-8	0.1	76	91.5	95.2	-	-	88.6
EP075(SIM)S: Phenolic Compoun	d Surrogates	_	-					
Phenol-d6	13127-88-3	0,1	5	76.0	82.9	-	-	83.4
2-Chlorophenol-D4	03951-73-6	0.1	56	69.5	90.2	-		88.9
2.4.6-Tribromophenol	118-79-6	0,1	16	43.4	86.4	-	-	92.5
EP075(SIM)T: PAH Surrogatos	and the second se			the second s				
2-Fluorobiphenyl	321-60-6	0.1	%	98.4	103	-		99.4
Anthracene-d10	1719-05-8	0.1	56	87.0	92.3	-	-	98.4
4-Terphenyl-d14	1718-51-0	0,1	-96	91,4	85.9	-	-	88.7
EP080S: TPH(V)/BTEX Surrogates		-	the second second					
1.2-Dichloroethane-D4	17060-07-0	0.1	55	\$7.7	86.2	-	-	102
Toluene-D8	2037-26-5	0.1	%	\$8.3	91.0	-	-	116
4-Bromofluorobenzene	460-00-4	0.1	56	80.5	76.8	-	-	106



Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			TP25_0.0-0.1_26/06/1 3	TP25_0.9-1.0_26/06/1 3 26-JUN-2013 10:00	QC100_26/06/13	TP24_0.0-0.1_26/06/ 3 26-JUN-2013 10:00
	Client sampling date / time			25-JUN-2013 15:00	26-JUN-2013 10:00		26-JUN-2013 10:00	
Combourid	CAS Number	LOR	Lint	EW1301885-023	EW1301886-024	EW1301886-026	EW1301886-029	EW1301886-030
EA002 : pH (Solls)								
pH Value	-	0.1	pH Unit	-	5.6		-	
EA055: Moisture Content								
Moisture Content (dried @ 103°C)		1,0	N	21.6	34.8	23.0	33.0	31.3
EA150: Soil Classification based on F	Particle Size							
Clay (<2 µm)	-	1	5	-	12	-	-	-
ED008: Exchangeable Cations								
Exchangeable Calcium	-	0,1	meg/100g	-	2.6	-	-	-
Exchangeable Magnesium	-	0.1	meg/100g	-	0.8		-	
Exchangeable Potassium	-	0.1	meq/100g	-	0.1	-	_	-
Exchangeable Sodium	1	0.1	meg/100g		0.1	-	-	-
Cation Exchange Capacity	-	0.1	meg/100g	-	3.6	-	-	-
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	10	209	7	16
Cadmium	7440-43-9	1	mg/kg	<1	3	4	2	4
Chromium	7440-47-3	2	mg/kg	<2	9	11	6	13
Copper	7440-50-8	5	mg/kg	<5	791	1060	521	1480
Iron	7439-89-6	50	mg/kg		12000	_	_	-
Lead	7439-92-1	5	mg/kg	<5	243	253	124	191
Manganese	7439-98-5	5	mg/kg	10	296	164	319	475
Nickel	7440-02-0	2	mg/kg	<2	12	6	10	9
Selenium	7782-45-2	5	mg/kg	*5	<5	<5	<\$	6
Zinc	7440-66-6	5	mg/kg	*5	514	200	190	286
EG035T: Total Recoverable Mercury	by FIMS	-		and the second se	Concernation of the second sec			
Mercury	7439-97-6	0.1	mg/kg	<0,1	0.2	0.4	0.1	0.5
EK055: Ammonia as N		-			10			
Ammonia as N	7664-41-7	20	mg/kg	<20	<20	-	<20	-
EP004: Organic Matter		-			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Organic Matter	-	0.5	5.1	-	5.8		-1	-
Total Organic Carbon	-	0.5			3.4	-	-	-
EP068A: Organochlorine Posticides (00)				Statement of the local division of the local			-
alpha-BHC	319-84-5	0,05	mg/kg	<0.05	<0.05	-	<0.05	-
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	-	<0.05	
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	-	<0.05	_

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Work Order	EW1301866
Client	- PORT KEMBLA COPPER
Project	137623025



Sub-Matrix: SOIL (Matrix: SOIL)			ent sample ID	QC400_25/06/13	TP25_0.0-0.1_26/06/1 3	TP25_0.9-1.0_26/06/1 3	QC100_26/06/13	TP24_0.0-0.1_26/06/1 3
	Ci	ient sampli	ing date / time	25-JUN-2013 15:00	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10.00	26-JUN-2013 10:00 EW1301886-030
Compound	CAS Number	LOR	Lint	EW1301886-023	EW1301886-024	EW1301886-026	EW1301886-029	
EP068A: Organochlorine Pesticio	des (OC) - Continued							
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	-	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05		<0.05	141
Aldrin	308-00-2	0.05	mgikg.	<0.05	<0.05	-	<0.05	-
Heptachlor epoxide	1024-57-3	0,05	mg/kg	<0.05	<0.05		<0.05	-
Total Chlordane (sum)	-	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
trans-Chlordane	5103-74-2	0.05	mgikg	<0.05	<0.05	-	<0.05	-
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Disidrin	80-57-1	0.05	maika	<0.05	<0.05	-	<0.05	-
4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Endrin	72-20-8	0.05	mg/kg	<0.05	+0.05	-	<0.05	-
beta-Endosultan	33213-65-9	0.05	morkg	<0.05	<0.05	-	<0.05	-
Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	inc.	<0.05	-
4.4"-ODD	72-54-8	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05		<0.05	-
4.4 -DD7	50-29-3	0.2	malka	+0.2	40.2	-	40.2	-
Endrin kelone	53494-70-5	0.05	mg/kg	+0,05	-10.05	-	<0.05	_
Methosychlar	72-43-5	0.2	mg/kg	<0.2	<0.2	-	<0.2	-
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mpikg	+0.05	(0.05		<0.05	-
Sum of DDD + DDE + DDT	_	0.05	marka	-48.05	<0.05	-	<0.05	_
EP068B: Organophosphorus Pes	ticides (OP)			-				
Dichlorvos	52-73-7	0.05	mg/kg	<0.05	<0.05		<0.05	
Demeton-S-mathyl	919-86-8	0.05	marka	40.05	<0.05	-	<0.05	-
Monocrotophos	6923-22-4	0.2	malka	<0.2	<0.2	-	<0.2	-
Dimethoate	80-51-5	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Diazinon	333-41-5	0.05	malka	<0.05	<0.05	-	<0.05	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05		<0.05	-
Parathion-methyl	298-00-0	0.2	marka	<0.2	<0.2	-	<0.2	-
Malathion	121-75-5	0.05	makg	<0.05	<0.05	-	<0.05	-
Fenthion	55-38-9	0.05	marka	<0.05	<0.05	-	-0.05	
Chlorpyritos	2921-88-2	0.05	mailing	<0.05	<0.05		<0.05	-



Euto-Matrix: SOIL (Matrix: SOIL)		Client sample ID			TP25_0.0-0.1_26/06/1 3	TP25_0.9-1.0_26/06/1 3	QC100_26/06/13	TP24_0.0-0.1_26/06/1 3
	Ca	erit sampli	og date / time	25-JUN-2013 15:00	26-JUN-2013 10:00	26-JUN-2013 10.00	26-JUN-2013 10:00	26-JUN-2013 10:00 EW1301886-030
Compound	GAS Number	LDR	Lind	EW1301886-023	EW1301886-024	EW1201886-026	EW1301886-029	
EP068B: Organophosphorus Pestic	ides (OP) - Continued							
Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2		<0.2	
Pirimphos-ethyl	23505-41-1	0.05	img/kg	<0.05	<0.05	-	*0.05	-
Chlorfenvinphos	470-90-6	0.05	mg/kg	+0.05	<0.05	-	<0.05	-
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	-	<0.05	
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	+0.05	-	×0.05	-
Prothiofos	34543-46-4	0.05	mg/kg	≪0.05	<0.05	-	<0.05	
Ethion	563-12-2	0.05	mg/kg	≪0.05	+0.05	-	×0.05	
Carbophenothicin	785-19-6	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Azinphos Methyl	86-50-0	0.05	mg/kg	≪0.05	<0.05	-	×0.05	-
EP075(SIMIA: Phenolic Compounds			-					
Phenol	108-95-2	0,5	mg/kg	<0.5	<0,5	-	<0.5	-
2-Chlorophenol	95-57-8	0.5	img/kg	<0.5	<0.5	-	<0,5	-
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	-	<1	-
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
2.4-Dimethylphenol	105-67-0	0.5	mg/kg	<0.5	<0.6	-	<0.5	-
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
4-Chloro-3-Methylphenol	\$9-50-7	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
2.4.5-Trichlorophenol	35.05-4	0.5	mg/kg	<0.5	<0.5		<0.5	-
Pentachlorophenol	87-86-5	2	mg/kg.	<2	-2	-	~2	-
EP075(SIM)B: Polynuclear Aromatic	Hydrocarbons			and the second se				
Naphthalone	91-20-3	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
Acenaphthene	83-32-9	0.6	mg/kg	<0.5	<0.5		<0.5	-
Fluorene	86-73-7	0.5	mg/kg	×0.5	<0.5	-	<0.5	-
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	1.8	-	3.2	-
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	0.5	-	0.9	-
Pyrene	129-00-0	0.5	mg/kg	<0.5	0.8	-	1.4	-
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	-	0.7	-
Chrysene	218-01-9	0.5	ma/kg	<0.5	1.2	-	2.0	-

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Sub-Matrix: SOIL (Matrix: SOIL)			ent sample ID	QC400_25/06/13	TP25_0.0-0.1_26/06/1 3 26-JUN-2013 10:00	TP25_0.9-1.0_26/06/1 3 26-JUN-2013 10:00	QC100_26/06/13 26-JUN-2013 10:00	TP24_0.0-0.1_26/06/1 3 26-JUN-2013 10:00
Compound	CAS Number	Client sampling date / time		EW1301886-023	EW1301886-024	EW1301886-026	EW1301886-029	EW1301886-030
EP075(SIM)B: Polynuclear Aromatic Hyp			and I					
Benzo(b)fluoranthene	205-99-2	0.5	malka	<0.5	<0.5	-	0.5	-
Benzolkifluoranthene	207-05-9	0.5	malkg	<0.5	+0.5	-	<0.5	-
Benzolalpyrène	50-32-8	0.5	mg/kg	<0.5	40.5	1004	<0.5	-
Indenol1.2.3.cdlpyrene	193-39-5	0.5	marka	<0.5	<0.5	-	<0.5	1 2
Dibenz(a.h)anthracene	53-70-3	0.5	malka	<0.5	<0.5		<0.5	-
Benzoig.h.ijperylene	191-26-2	0.5	malka	<0.5	<0.5	-	<0.5	-
Sum of polycyclic aromatic hydrocarbons	_	0.5	ma/kg	<0.5	4.3	-	8.7	-
Benzo(a)pyrene TEQ (WHO)	_	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
EP080/071: Total Petroleum Hydrocarbo	-							1
C6 - C9 Fraction	-	10	malka	<10	+10		<10	-
C10 - C14 Fraction		50	mg/kg	<50	<50		*50	-
C15 - C28 Fraction	_	100	marka	<100	360	-	550	-
C29 - C36 Fraction	-	100	malka	<100	180	-	240	-
C10 - C36 Fraction (sum)	_	50	ma/kg	<50	540	-	790	-
EP080/071: Total Recoverable Hydrocar	hors - NEPM 201	Draft	Contraction of the local division of the loc	and the second second				
C6 - C10 Fraction		10	malkg	<10	<10		<10	
C6 - C10 Fraction minus BTEX (F1)	-	10	mpikg	<10	<10	-	<10	-
>C10 - C16 Fraction	-	50	malka	×50	<50		<50	-
>C16 - C34 Fraction		100	malka	<100	480	-	700	_
>C34 - C40 Fraction	_	100	mg/kg	<100	×100	-	110	-
>C10 - C40 Fraction (sum)	_	50	mp/kg	<50	480	-	#10	-
EP080: BTEX	-		And in case of the	and the second s	And in case of the local division of the loc	and the second se		
Benzene	71-43-2	0.2	maika	<0.2	<0.2	-	<0.2	-
Toluene	108-88-3	0.5	mpikg	<0.5	<0.5	-	<0.5	-
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	-	<0.5	
meta-& para-Xylene	08-38-3 105-42-3	0.5	malkg	<0.5	<0.5	-	<0.5	-
artho-Xylene	95-47-6	0.5	maka	<0.5	<0.5		<0.5	-
EP080: BTEXN				and the second				-
Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	+	<0.5	-
Sum of BTEX	_	0.2	mg/kg	<0.2	<0.2	-	<0.2	-
Naphthalene	91-20-3	1	maika	<t< td=""><td><1</td><td>-</td><td><1</td><td>-</td></t<>	<1	-	<1	-
EP068S: Organochlorine Pesticide Surre			and the second se	-				
Dibromo-DDE	21655-73-2	0.1	N	75.6	90.5		99.7	1

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Work Order	EW1301886
Client	PORT KEMBLA COPPER
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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			TP25_0.0-0.1_26/06/1 3	TP25_0.9-1.0_26/06/1 3	QC100_26/06/13	TP24_0.0-0.1_26/06/1 3
	CA	ent sample	ng date / time	25-JUN-2013 15:00	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00 EW1301886-030
Compound	CAS Number	LOR	Unit	EW1301886-023	EW1301886-024	EW1301886-025	EW1301886-029	
EP068T: Organophosphorus Pestic	ide Surrogate							
DEF	78-48-8	0.1	16-	82.7	80.9		80.1	-
EP075(SIM)S: Phenolic Compound	Surrogates	-						
Phenol-d6	13127-88-3	0.1	16	86,4	92.4		78.4	
2-Chlorophenol-D4	93951-73-6	0.1	16	91.4	90.4	-	85,9	-
2.4.5-Tribromophenol	118-79-8	0.1	16.	86.5	85.8		85.5	-
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-80-8	0.1	56	96.7	97.0	-	103	-
Anthracene-d10	1719-08-8	0.1	76	89.6	90.0	_	92.8	
4-Terphonyl-d14	1718-51-0	0.1	16	88.5	87.5	-	88.7	-
EP080S: TPH(V)/BTEX Surrogates		-						
1.2-Dichloroethane-D4	17060-07-0	0.1	16	97.3	93.8	-	88.9	-
Toluene-D8	2037-26-5	0.1	16	100	97.1	-	93,8	
4-Bromofluorobenzene	460-00-4	0.1	56	94,3	87.9		82.0	1

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Chent	PORT KEMBLA COPPER
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Sub-Matrix: SOIL (Matrix: SOIL)			ent sample ID	TP24_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP20_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP20_0.9-1.0_26/06/1 3 26-JUN-2013 10.00	TP16A_0.2-0.3_26/06/ 13 26-JUN-2013 10:00	TP16A_0.5-0.6_26/06/ 13 26-JUN-2013 10:00
Compound		Client sampling date / time CAS Number LOR Unit			EW1301886-034	EW1301886-035	EW1301885-038	EW1301886-035
	CAS Number	LUA	Unit	EW1301886-031	L##1301000-03#	EW1301000-035	E441341000-030	EM1301000-033
EA002 : pH (Soils)		0.1	pH Unit	5.0				
		0.1	pH Unif	5.0	4.8	-	-	-
EA055: Moisture Content					1000			
Moisture Content (dried @ 103*C)	-	1.0	- 15	27.1	29.8	32.8	44.0	35.3
EA150: Soil Classification based on	Particle Size							
Clay (<2 µm)	-	1	2	47	20	-	-	
EA200: AS 4964 - 2004 Identification								
Asbestos Detected	1332-21-4	0.1	g/kg	-	Yes	-		-
Asbestos Type	1332-21-4	- 5	-	-	Ch	-	-	-
Sample weight (dry)		0.01	g	-	7840	-	-	
APPROVED IDENTIFIER:	-	T	-	-	C.OWLER	-	-	-
EA200Q: Asbestos Quantification (n	on-NATA)							
Weight Used for % Calculation	-	0.0001	kg	-	7.84	-	-	-
Asbestos Containing Material	1332-21-4	0.1	9	-	<0.1	-	-	-
Fibrous Asbestos		0.002	0	-	0.023	-	-	-
Asbestos Fines	1332-21-4	-		-	Yes	-	-	-
Asbestos Containing Material (ACM >7mm)	1332-21-4	0.01		-	<0.01	-		
Asbestos Fines and Fibrous Asbestos (<7mm)	1332-21-4	0.001	5	-	0.001	-	-	-
ED008: Exchangeable Cations								
Exchangeable Calcium		0,1	meg/100g	3.0	7.7	-	-	-
Exchangeable Magnesium		0.1	meg/100g	8.3	2.1	-		-
Exchangeable Potassium		0.1	meg/100g	0.1	0.3		-	-
Exchangeable Sodium		0,1	meg/100g	1.1	0.2	-	-	-
Cation Exchange Capacity		0,1	meg/100g	13.3	10.4		-	-
EG005T: Total Metals by ICP-AES		_		the second s				
Arsenic	7440-38-2	5	malka	<5	166	<5	11	33
Cadmium	7440-43-9	Ŧ	mgikg	<1	4	12	10	5
Chromium	7440-47-3	2	markg	29	19	27	12	13
Copper	7440-50-8	5	malka	123	1330	110	320	316
Iron	7439-89-6	50	marka	55900	31700			
Lead	7439-92-1	5	maika	70	489	7	48	61
Manganese	7439-96-5	5	malka	61	164	50	1580	122



Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			TP20_0.5-0.6_26/06/1 3	TP20_0.9-1.0_26/06/1 3	TP16A_0.2-0.3_26/06/	TP16A_0.5-0.6_26/06/ 13
	Client sampling date / time			26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301886-031	EW1301886-034	EW1301886-035	EW1301885-038	EW1301886-039
EG005T: Total Metals by ICP-AES -	Continued	-						
Nickel	7440-02-0	2	mg/kg	7	7	10	24	6
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5
Zinc	7440-66-6	5	mg/kg	258	237	76	369	145
EG035T: Total Recoverable Mercur	ry by FIMS							
Morcury	7439-97-6	0,1	mig/kg	<0,1	0.8	<0.1	0.1	0.2
EK055: Ammonia as N			-					
Ammonia as N	7664-41-7	20	mg/kg	<20	<20	-	<20	<20
EK057G: Nitrite as N by Discrete A	nalyser		-					
Nitrite as N (Sol.)		0,1	mg/kg		<1.0			-
EK058G: Nitrate as N by Discrete A	malyser	-						
Nitrate as N (Sol.)	-	0.1	mg/kg	↔	\$1.0	· · · · · · · · · · · · · · · · · · ·		-
EK059G: Nitrite plus Nitrate as N (!	NOx) by Discrete Ana	yser						
Nitrite + Nitrate as N (Sol.)	-	0.1	.mg/kg	-	<1.0	18	-	-
EK061G: Total Kjeldahl Nitrogen By	Discrete Analyser	-						
Total Kjeldahl Nitrogen as N		20	mg/kg		1590	-	-	-
EK062: Total Nitrogen as N (TKN +)	NOx)							
Total Nitrogen as N	-	20	mg/kg		1590		-	-
EK067G: Total Phosphorus as P by	Discrete Analyser							
Total Phosphorus as P		2	mg/kg		667	-	-	
EP004: Organic Matter								
Organic Matter	-	0.5	16	1.3	2.7		-	-
Total Organic Carbon		0,5	%	0.8	1.5	-	-	-
EP068A: Organochlorine Pesticides	s (OC)							
aipha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	-	<0,05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	ing/kg	<0.05	<0.05		<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	-	<0.05	<0.05
gamma-BHC	58-89-9	0,05	mg/kg	<0,05	<0.05		<0.05	<0.05
delta-BHC	319-85-8	0.05	mg/kg	<0.05	<0.05		<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	-	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05		<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	-	<0.05	<0.05
Total Chlordane (sum)	-	0.05	mg/kg	<0.05	<0.06	-	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	-	<0.05	<0.05

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Work Order	EW1301886
Client	PORT KEMBLA COPPER
Project.	137623028



Sub-Matrix: SOIL (Matrix: SOIL)	0		nit sample ID	TP24_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP20_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP20_0.9-1.0_26/06/1 3 26-JUN-2015 10:00	TP16A_0.2-0.3_26/06/ 13 26-JUN-2013 10:00	TP16A_0.5-0.6_26/06/ 13 26-JUN-2013 10:00
Compound	CAS Number	LOR	Linit	EW1301885-031	EW1301886-034	EW1301888-035	EW1301886-038	EW1301886-039
EP068A: Organochlorine Pesticid		2.011	Dial					
alpha-Endosulfan	950.98.8	0.05	mg/kg	<0.05	<0.05	-	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	molko	<0.05	<0.05	_	<0.05	<0.05
Dieldrin	80-57-1	0.05	mg/kg	<0.05	<0.05		<0.05	<0.05
4.4-ODE	72-55-9	0.05	morkg	<0.05	<0.05	-	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05		<0.05	+0.05
beta-Endosulfan	33213-85-9	0.05	malkg	<0.05	<0.05	-	<0.05	<0.05
Endesulfan (sum)	115-29-7	0.05	mpilig	<0.05	<0.05		<0.05	<0.05
4.4'-000	72.54-8	0.05	malkg	<0.05	<0.05	-	=0.05 =0.05	<0.05
Endrin aldehyde	7421-03-4	0.05	mg/kg	<0.05	<0.05	-	<0.05	+0.05
Endosullari sulfate	1031-07-8	0.05	malkg	<0.05	<0.05	-	<0.05	*0.05
4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	+0.2	-	40.2	*0.2
Endrin ketone	53494-70-5	0.05	mpikg	<0.05	<0.05	-	<0.05	<0.05
Methoxychior	72-43-5	0.2	mg/kg	<0.2	-0.2	-	+0.2	-0.2
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	maka	<0.05	<0.05	-	<0.05	<0.05
Sum of DDD + DDE + DDT	-	0.05	mg/kg	<0.05	<0.05	-	<0.05	<0.05
EP068B: Organophosphorus Pes	ticides (OP)	-						1000
Dichlorvos	62-73-7	0.05	malka	<0.05	40.05	-	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	malkg	<0.05	<0.05	-	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	malkg	<0.2	<0.2	-	<0.2	<0.2
Dimethoate	60-51-5	0.05	malka	<0.05	<0.05	-	<0.05	<0.05
Diazinon	333-41-5	0.05	marka	<0.05	+0.05	-	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	-	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mp/kg	<0.2	<0.2	-	<0.2	<0.2
Malathion	121-75-5	0.05	mg-kg	<0.05	<0.05	-	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	-	<0.05	<0.05
Chiorpytifos	2921-88-2	0.05	malka	<0.05	<0.05	-	<0.05	<0.05
Parethion	56+38-2	0.2	mgikg	<0.2	<0.2		<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	ingikig	<0.05	<0.05	-	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mgikg	+0.05	<0.05	-	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	malka	<0.05	<0.05	-	<0.05	<0.05
Fenamiphos	22224-92-5	0.05	maika.	+0.05	<0.05	-	<0.05	<3.05
Prothiolos	34643-46-4	0.05	mg/kg	=0.05	<0.05		-0.05	<0.05
Ethion	563-12-2	0.05	mgikg	<0.05	40.05	-	<0.05	<0.05

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Work Order	EW1301885
Client.	PORT KEMBLA COPPER
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Sub-Mamar SOIL (Matrix: SOIL)	Client sample ID Client sampling date / time			TP24_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP20_0.5-0.6_26/06/1 3 26-JU/4-2013 10:00	TP20_0.9-1.0_26/06/1 3 26-JUN-2013 10:00	TP16A_0.2-0.3_26/06/ 13 26-JUN-2013 10:00	TP16A_0.5-0.6_26/06/ 13 26-JUN-2013 10:00
				EW1301885-031	EW1301886-034	EW1301885-035	EW1301886-038	EW1301886-039
Combound	CAS Number	LUR	UNE	Litriourous dut				
EP068B: Organophosphorus Pesticides		0.05	ma/kp	<0.05	-0.05		<0.05	<0.05
Carbophenothion	786-19-8	0.05	mg/kg	<0.05	+0.05		<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	nig/kg	40,05	40.00		-0,00	-0,05
EP075(SIM)A: Phenolic Compounds							<0.5	<0.5
Phenol	108-95-2	0,5	mg/kg	<0.5	<0.5	-		<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	-	<0.5	
2-Methylphenol	95-48-7	0,5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	*1	-	1>	*1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5		<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
2.5-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
2.4.6-Trichlorophenol	58-05-2	0.5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	2.0	mg/kg.	<0.5	<0.5	-	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	4	4		4	<2
EP075(SIM)B: Polynuclear Aromatic Hyd	rocarbons		-					
Naphthalene	91-20-3	0.5	mg/kg	<0,5	<0.5	-	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
Fluorene	86-73-7	0,5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0,5	1	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	-	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	÷	<0,5	<0.5
Benzialanthracene	56-55-3	0.5	mg/kg	<0.5	<0.5		<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	*0.5		<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	marka	<0.5	+0.5		<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kp	<0.5	<0.5	-	*0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0,5	<0.5	÷+	+0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.6	mg/kg	<0.5	<0.5	-	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	40.5	<0.5	-	<0.5	<0.5
Benzo(g.h.ilperviene	191-24-2	0.5	marka	<0.5	<0.5	-	<0.5	<0.5
Sum of polycyclic aromatic hydrocarbons	191-24-2	0.5	mg/kg	<0.5	<0.5	1	<0.5	<0.5

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Sub-Matrix: SOIL (Matrix: SOIL)	0		ent sample ID	TP24_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP20_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP20_0.9-1.0_26/06/1 3 26-JUN-2013 10:00	TP16A_0.2-0.3_26/06/ 13 26-JUN-2013 10:00	TP16A_0.5-0.6_26/06 13 26-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301886-031	EW1301886-034	EW1301886-035	EW1301886-038	EW1301886-039
EP075(SIM)B: Polynuclear Aromatic			-	the second second second			1	
Benzo(a)pyrane TEQ (WHO)	e nyurocarbons - con	0.5	malka	<0.5	<0.5		<0.5	+0.5
EP080/071: Total Petroleum Hydroc	and the second se							
C6 - C9 Fraction	arbons	10	mgikg	+10	<10	-	<10	<10
C10 - C14 Fraction		50	malka	<50	<50	_	<50	<50
C15 - C28 Fraction	-	100	malkg	<100	<100	-	<100	<100
C29 - C36 Fraction	2	100	mg/kg	<100	<100	-	*100	*100
C10 - C36 Fraction (sum)		50	malka	<50	<50		<50	+50
EP080/071: Total Recoverable Hydr	Annual NEDM 201	0 Deels						
C6 - C10 Fraction	ocarbons + NEPM 201	10 Uratt	marka	<10	\$10	-	<10	<10
C6 - C10 Fraction minus BTEX (F1)		10	marka	<10	<10	-	<10	<10
>C10 - C16 Fraction		50	mg/kg	<50	<50		<50	<50
>C16 - C34 Fraction	_	100	marka	<100	<100	-	<100	<100
>C34 - C40 Fraction		100	malka	<100	<100	-	<100	<100
>C10 - C40 Fraction (sum)		50	malka	<50	<50		<50	<50
EP080: BTEX	and the second se							
Benzene	71-43-2	0.2	malkg	<0.2	40.2	-	<0.2	<0.2
Toluene	108-88-3	0.5	malka	<0.5	<0.5	-	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	maika	<0.5	<0.5	-	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	marka	<0.5	<0.5	-	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	malka	<0.5	<0.5	-	<0.5	<0.5
PORO BTEXN			-					
Total Xvienes	1330-20-7	0.5	marka	<0.5	<0.5	-	<0.5	<0.5
Sum of BTEX	1000 1001	0.2	marka	<0.2	×0.2		*0.2	<0.2
Naphthalene	91-20-3	1	malka	<1	d	-	<1	*1
P068S: Organochlorine Pesticide		-				and the second se		
Dibromo-DDE	21855-73-2	0.1		86.1	77.9		73.2	85.8
EP068T: Organophosphorus Pestic				-311				50.0
DEF	78-48-8	0.1	5	102	83.0	-	80.3	96.4
P075(SIM)S: Phenolic Compound	10,000		and the second second	and the second se	-574			
Phenol-d6	13127-86-3	0.1	-	83.9	87.4	-	73.8	91.1
2-Chlorophenol-D4	93951-73-6	0.1	46	87.9	91.1	-	76.9	87.8
2.4.6-Tribromophenol	93901-/3-6	0.1	5	90.4	91.1	_	76.9	87.8
EP075(SIM)T: PAH Surrogates	110+75+6				ex.1		75,0	92.2

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Work Order	EVV1301886
Client	PORT KEMBLA COPPER
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Sub-Matrix: SOIL (Matrix: SOIL)		Cile	nt sample ID	TP24_0.5-0.6_26/06/1 3	TP20_0.5-0.6_26/06/1 3	TP20_0.9-1.0_26/06/1 3	TP16A_0.2-0.3_26/06/ 13	TP16A_0.5-0.6_26/06/ 13
	Cli	enit samplin	g date / time	25-JUN-2013 10:00	26-JUN-2013 10:00	25-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00 EW1301886-039
Compound	CAS Number	LOR	Unit	EW1301886-031	EW1301886-034	EW1301886-035	EW1301886-038	
EP075(SIM)T: PAH Surrogates - Continued								
2-Fluorobiphenyl	321-00-8	0.1	36	97.0	99.8	-	96.7	97.4
Anthracene-d10	1719-06-8	0,1	76.	96.6	94.3	-	90.3	97.4
4-Terphenyl-d14	1718-51-0	0.1	16	90.0	83.2	-	88.1	85.8
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	16	99.7	84.5	-	91.4	99.5
Toluene-D8	2037-26-5	0.1	16	106	87.2	-	90.6	104
4-Bromofluorobenzene	460-00-4	0,1	15	97.1	85.1	-	72.6	98.6

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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			TP16B_0.1-0.2_26/06/ 13	TP15_0.0-0.1_26/06/1 3	TP15_0.9-1.0_26/06/1 3	TP14_0.0-0.1_26/06/1 3
	0	Vent sampl	Ing date / time	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00
Compound	CAS Number	LOR	Linit	EW1301885-040	EW1301886-041	EW1301886-042	EW1301886-044	EW1301886-045
EA002 : pH (Solis)								
pH Value	-	0.1	pH Unit	-	-	-	6.1	4.4
EA055: Moisture Content		-	-	and the second se				
Moiature Content (dried @ 103*C)	-	1.0		-		31.0	12.4	21.4
EA150: Soll Classification based on i	Particle Size	-	And in case of	A DECISION OF THE OWNER				
Clay (<2 µm)		1	- 15	-	-	-	18	10
EA200: AS 4964 - 2004 Identification	of Asbestos in bulk	samples		the second s				
Asbestos Detected	1332-21-4	0.1	gkg	Yes	Yes	Yes	-	-
Asbestos Type	1332-21-4	0.1	-	Ch + Am	Ch + Am + Cr	-	-	_
Ashestos Type	1332-21-4	1	-	-		Ch + Am	-	-
Sample weight (dry)		0.01	a	86.3	28.5	6390	-	-
APPROVED IDENTIFIER:	-	- 1	-		-	C.OWLER	-	-
APPROVED IDENTIFIER:			-	C.OWLER	C.OWLER	-	-	-
EA200Q: Asbestos Quantification (no	n-NATA)		-					
Weight Used for % Calculation	-	0.0001	kg	-	-	6.39	-	
Asbestos Containing Material	1532-21-4	0,1	0	-		<0.1		-
Fibrous Asbestos	-	0.002	9		-	0.004		-
Asbestos Fines	1332-21-4	-	-			Yes	-	_
Asbestos Containing Material (ACM >Tmm)	1332-21-4	0,01	5	-	-	<0.01	-	
Asbestos Fines and Fibrous Asbestos (<7mm)	1332-21-4	0.001		-	-	<0.001	-	-
ED008: Exchangeable Cations	and the second second	-		the second second				
Exchangeable Calcium	-	0.1	meg/100g		-	-	1.2	0.8
Exchangeable Magnesium		0.1	meq/100g		L		11.7	0.2
Exchangeable Potassium	-	0.1	meral100g	-	-	-	0,2	<0.1
Exchangeable Sodium		0.1	meg/100g	-	-		0.6	<0.1
Cation Exchange Capacity		0.1	meg/100g	-		-	13.7	1.1
EG005T: Total Metals by ICP-AES			-	and the second se				
Arsenic	7440-38-2	5	mg/kg		-	8	<5	11
Cadmium	7440-43-9	.1	mg/kg	-	-	4	<1	d
Chromium	7440-47-3	2	mg/kg	-	-	8	20	8
Copper	7440-50-8	5	marka	-	-	1620	139	660
Iron	7439-89-6	50	malka	-	-		50100	12000

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Sub-Matrix: SOIL (Matrix: SOIL)	64		nt sample ID	13	TP16B_0.1-0.2_26/06/ 13 26-JUN-2013 10:00	TP15_0.0-0.1_26/06/1 3 26-JUN-2013 10:00	TP15_0.9-1.0_26/06/1 3 26-JUN-2013 10:00	TP14_0.0-0.1_26/06/1 3 26-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301885-040	EW1301886-041	EW1301885-042	EW1301885-044	EW1301886-045
EG005T: Total Metals by ICP-AES -								
Lead	7439-92-1	5	mg/kg	-	-	239	10	415
Manganese	7439-96-5	5	mg/kg	-	-	549	202	123
Nickel	7440-02-0	2	mg/kg	-	-	10	18	5
Seleniam	7782-49-2	5	mg/kg			<5	<5	5
Zinc	7440-66-6	5	ma/kg	_	-	231	98	85
EG035T: Total Recoverable Mercur				and the second se	and the second se			
Mercury	7439-97-6	0.1	mg/kg	-		0.2	<0.1	0.3
EK055: Ammonia as N	7430-97-0							
Ammonia as N	7864-41-7	-20	marka	-	-	<20		<20
EP004: Organic Matter	100414111	10	1.4.08			-20		
Organic Matter		0.5	%		-	-	<0.5	1.5
Total Organic Carbon		0.5	78	_	-		<0.5	0.9
		9,0		-	-		10.0	
EP068A: Organochlorine Pesticides		0.05			-	<0.05		<0.05
alpha-BHC	319-84-6		mg/kg	-			-	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	-	-	<0.05		<0.05
beta-BHC	319-85-7	0.05	mg/kg				-	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	-	-	<0.05		
delta-BHC	319-86-8	0.05	mg/kg	-	-	<0.05		<0.05
Heptachlor	76-44-8	0.05	mg/kg	-	-	<0.05	-	<0.05
Aldrin	309-00-2	0.05	mg/kg	-	-	<0.05		<0.05
Hoptachlor epoxide	1024-57-3	0.05	mg/kg	-	-	<0.05	-	<0.05
Total Chlordane (sum)		0.05	mg/kg	-	-	<0.05	-	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	-	-	<0.05		<0.05
alpha-Endosulfan	959-96-8	0.05	mg/kg	-	-	<0.05		<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	-	-	<0.05		<0.05
Dieldrin	60-57-1	0.05	mg/kg	-	-	<0.05	-	<0.05
4.4'-DDE	72-55-9	0.05	mg/kg	-		≪0.05		<0.05
Endrin	72-20-8	0.05	mg/kg	-	-	<0.05	-	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	-		*0.05	÷	<0.05
Endosulfan (sum)	115-29-7	0.05	mg/kg	-	-	×0.05	-	<0.05
4.4°-DDD	72-54-8	0.05	mg/kg	-		<0.05	\rightarrow	<0.05
Endrin aldehyde	7421-93-4	0.05	ing/kg	-	-	<0.05	-	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	-	-	<0.05		<0.05

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Sub-Matrix: SOIL (Matrix: SOIL)	0	Client sample ID Client samping date / time			TP16B_0.1-0.2_26/06/ 13 26-JUN-2013 10:00	TP15_0.0-0.1_26/06/1 3 26-JUN-2013 10:00	TP15_0.9-1.0_26/06/1 3 26-JUN-2013 10:00	TP14_0.0-0.1_26/06/1 3 26-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	26-JUN-2013 10:00 EW1301886-040	EW1301886-041	EW1301886-042	EW1301886-044	EW1301886-045
EP068A: Organochlorine Pesticid				and the second se				
4.4'-DDT	50-29-3	0.2	malkg	-	-	+0.2	-	+0.2
Endrin ketone	53494-70-5	0.05	mg/kg		-	<0.05	-	<0.05
Methoxychlor	72-43-5	0.2	mp/kg		-	+0.2		<0.2
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	migikg	-	-	<0.05	-	<0.05
Sum of DDD + DDE + DDT	-	0.05	malka	-		<0.05	-	-<0.05
EP068B: Organophosphorus Pest	icides (OP)	-	-					
Dichlorvos	62-73-7	0.05	mg/kg	-		<0.05	-	+0.05
Demeton-S-methyl	919-86-8	0.05	maika	-	-	<0.05	-	<0.05
Monocrotophos	6923-22-4	0.2	mgikg	-	-	<0.2		*0.2
Dimethoate	60-51-5	0.05	mpikg	-	-	<0.05	-	<0.05
Diazinon	333-41-5	0.05	mg/kg	-	-	<0.05	-	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	maika	-	-	<0.05		<0.05
Parathion-methyl	298-00-0	0.2	malka	_		<0.2	-	<0.2
Malathion	121-75-5	0.05	/ng/kg	-		<0.05	-	<0.05
Fenthion	55-38-9	0.05	mgikg	-	-	<0.05	-	<0.05
Chiorpyrifos	2921-88-2	0.05	maika	-	-	<0.05	-	<0.05
Parathion	56-38-2	0.2	maka	-	_	<0.2	-	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	-	-	+0.05	-	<0.05
Chlorfenvinphos	470-90-8	0.05	mg/kg	-	-	<0.05	-	<0.05
Bromophos-ethyl	4824-78-5	0.05	mg/kg	-	-	<0.05	-	<0.05
Fenamiphos	22224-92-5	0.05	ma/kg	-	-	<0.05	-	<0.05
Prothiofos	34643-46-4	0.05	mg/kg			<0.05	-	<0.05
Ethion	563-12-2	0.05	ma/kg			<0.05		<0.05
Carbophenothion	786-19-6	0.05	mg/kg	-	-	<0.05	-	<0.05
Azinphos Methyl	86-50-0	0.05	malka	-	-	<0.05	-	<0.05
EP075(SIM)A: Phenolic Compound	is.							
Phenol	108-95-2	0,5	ma/kg	-		<0.5	-	<0.5
2-Chlorophenol	95-57-8	0.5	marka			<0.5	_	<0.5
2-Methylpheoni	95-48-7	0.5	mg/kg	+	-	<0.5	-	<0.5
3- 5.4-Methylphenol	1319-77-3	1	mg/kg	-		-<1	+	-12
2-Nitrophenol	88-75-5	0.5	mg/kg		-	-12.5	-	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mp/kg	-	_	+0.5-		<0.5
2.4-Dichlorophenel	120-83-2	0.5	ma/kg	-	_	+0.5		<0.5

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Sub-Matrix: SOIL (Matrix: SOIL)		Cie	vit sample ID	TP16A_0.9-1.0_26/06/ 13	TP16B_0.1-0.2_26/06/ 13	TP15_0.0-0.1_26/06/1 3	TP15_0.9-1.0_26/06/1 3	TP14_0.0-0.1_26/06/1 3
	CA	ent sample	rg date / time	26-JUN-2013 10:00	26-JUN-2013 10:00	25-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301886-040	EW1301886-041	EW1301886-042	EW1301886-044	EW1301886-045
EP075(SIM)A: Phenolic Compounds - Con	tinued							
2.6-Dichlorophenol	87-05-0	0.5	mg/kg	-		*0.5	-	*0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg		-	<0.5	-	<0.5
2.4.6-Trichlorophenol	88-05-2	0,5	mg/kg	-	-	<0.5	-	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	-	-	<0.5		<0.5
Pentachlorophenol	87-85-5	2	mg/kg	-		~2	-	<2
EP075(SIM)B: Polynuclear Aromatic Hyd	rocarbons							
Naphthalene	91-20-3	0,5	mg/kg	-	-	<0.5		≺0,5
Acenaphthylene	208-95-8	0.5	mg/kg		-	<0.5	-	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	-		<0.5	-	<0.5
Fluorene	86-73-7	0.5	mg/kg	-	-	<0.5		<0.5
Phonanthrene	85-01-8	0.5	mg/kg	-	-	<0.5	-	<0.5
Anthracene	120-12-7	0.5	mig/kg	-		<0,5	-	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	-	-	<0.5	-	<0.5
Pyrene	129-00-0	0.5	mgikg	-	-	<0,5	-	<0.5
Bunz(a)anthracene	56-55-3	0.5	mg/kg		-	<0.5	-	<0.5
Chrysene	218-01-9	0.5	mg/kg	-	-	<0.5	-	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg			<0,5	-	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	-		<0.5	-	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	-	-	<0.5		<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	-		<0.5	-	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	-		<0.5		<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	- (-	<0.5	-	<0.5
Sum of polycyclic aromatic hydrocarbons	-	0.5	mg/kg	-	-	<0,5	-	<0.5
Benzo(a)pyrene TEQ (WHO)	-	0.5	mg/kg	-	-	<0.5	-	<0.5
EP080/071: Total Petroleum Hydrocarbo	15		-					
C6 - C9 Fraction	-	10	ing/kg	-	-	<10		<10
C10 - C14 Fraction		50	rog/kg	-	(<50		<50
C15 - C28 Fraction		100	mg/kg	-	-	<100	-	<100
C29 - C36 Fraction	-	100	mg/kg			<100	-	<100
C10 - C36 Fraction (sum)	-	50	mg/kg	-	-	<50	-	<50
EP080/071: Total Recoverable Hydrocard	ons - NEPM 201	0 Draft						
C6 - C10 Fraction	-	10	mg/kg	-	-	<10		<10
C6 - C10 Fraction minus BTEX (F1)		10	mg/kg		-	<10	-	<10

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Sub-Matrix: SOIL (Matrix: SOIL)			nt sample ID	13	TP16B_0.1-0.2_26/06/ 13 26-JUN-2013 10:00	TP15_0.0-0.1_26/06/1 3 26-JUN-2013 10:00	TP15_0.9-1.0_26/06/1 3 26-JUN-2013 10:00	TP14_0.0-0.1_26/06/1 3 26-JUN-2013 10:00
Compound	CAS Number	LOR	Linit	EW1301886-040	EW1301886-041	EW1301886-042	EW1301886-044	EW1301886-045
EP080/071: Total Recoverable Hy								2111001000-012
>C10 - C16 Fraction	drocarbons • NEP m 201	50	malka	-	-	<50	-	<50
>C16 - C34 Fraction		100	marka	-	-	<100	-	<100
>C34 - C40 Fraction	-	100	malka	-		<100	-	<100
>C10 - C40 Fraction (sum)	-	50	malka	_	-	<50	-	+50
EPOSO: BTEX								
Benzene	71-43-2	0.2	malka	-	-	<0.2		+0.2
Toluene	108-88-3	0.5	mg/kg	-	-	<0.5		<0.5
Ethylbenzone	100-41-4	0.5	mg/kg			<0.5	-	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	marka	-	-	<0.5	-	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		-	<0.5	-	+0.5
EP080: BTEXN	and the second second	-	-	and the second se				
Total Xylenes	1330-20-7	0.5	maika	-		×0.5	-	<0.5
Sum of BTEX	-	0.2	mg/kg	-	-	+0.2		*0.2
Naphthalene	91-20-3	1	marka	-	-	<1	-	<1
EP068S: Organochlorine Pesticid	e Surrogate	-	-					
Dibromo-DDE	21655-73-2	0.1			-	76.8	-	85.6
EP068T: Organophosphorus Pest	ticide Surrogate							
DEF	78-48-8	0.1	5	-	-	86.1	-	93.9
EP075(SIM)S: Phenolic Compoun	d Surrogates							
Phenol-d6	13127-88-3	0.1	5	-	-	82.6	-	68.4
2-Chlorophenol-D4	93951-73-6	0.1	%	-	-	86.4		78.6
2.4.6-Tribromophenoi	118-79-6	7,6	16	-	-	73.8	-	67,6
EP075(SIM)T: PAH Surrogates		-	-	and the second se				
2-Fluorobiphenyl	321-60-8	0.1	- %	-		99.5	-	77.7
Anthracene-d10	1719-06-8	0.1	16	-	-	92.7	-	75.0
4-Terphenyl-d14	1718-51-0	0.1	5	-	-	86.2	-	67.1
EP0805: TPH(V)/BTEX Surrogates		-						
1.2-Dichloroethane-D4	17080-07-0	0,1	54	-		97.8	-	93.9
Toluene-D8	2037-26-5	0,1	16	-	-	108	-	91.8
4-Bromofluorobenzene	460-00-4	0.1	16	-	-	98.0	-	86.5

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Sub-Matrix: SOIL (Matrix: SOIL)	~		ient sample ID ing date / time	3	TP13_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP13_1.5-1.6_26/06/1 3 26-JUN-2013 10:00	TP9_0.3-0.4_26/06/13 26-JUN-2013 15:00	TP9_0.5-0.6_26/06/13 26-JUN-2013 15:00
2000 DR 102		LOR	Unit	EW1301886-045	EW1301886-050	EW1301886-052	EW1301886-054	EW1301886-055
Compound	CAS Number	LUR	Owe	6111001000-040		CHING OF OL	Linitation	
EA002 : pH (Soils)		0.1	pH Unit					5.1
pH Value	-	0,1	pHONIT	-	-		-	5.1
EA055: Moisture Content		-		100	-			
Moisture Content (dried @ 103*C)		1.0	2	28.5	24.1	29.0	26.1	30.1
EA150: Soil Classification based on F			-					
Ctay (<2 µm)	-	1	5	-	-	-	-	60
ED008: Exchangeable Cations								
Exchangeable Calcium	-	0.1	meg/100g		-	-		11.2
Exchangeable Magnesium	-	0.1	meg/100g		-			12.2
Exchangeable Potassium	-	0.1	meg/100g				-	0.3
Exchangeable Sodium		0.1	meg/100g		-	-	-	1.8
Cation Exchange Capacity	-	0.1	meg/100g	-		-	-	25.4
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	17	<5	36	-6
Cadmium	7440-43-9	1	mg/kg	-<1	<1	<1	11	<1
Chromium	7440-47-3	2	mg/kg	18	10	15	21	21
Copper	7440-50-8	5	mg/kg	60	171	63	1020	82
Iron	7439-89-8	50	mg/kg	-	_	-	-	42400
Lead	7439-92-1	5	mg/kg	6	38	6	192	10
Manganese	7439-95-5	5	mg/kg	6	72	36	111	
Nickel	7440-02-0	2	mg/kg	2	4	2	9	2
Selenium	7782-49-2	5	mg/kg	×5	<5	<5.	<5	<5
Zinc	7440-65-6	5	mg/kg	13	35	21	443	17
EG035T: Total Recoverable Mercury	by FIMS	-		-				
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	40.1	0.3	<0.1
EK055: Ammonia as N	and the second se	-	and the second second	and the second				
Ammonia as N	7664-41-7	20	mg/kg	-	<20	-	<20	-
EP004: Organic Matter		-						
Organic Matter		0.5	15	_	-	-	-	1.2
Total Organic Carbon		0.5	*6	-	-	-	_	0.7
EP068A: Organochlorine Pesticides (00)							
alpha-BHC	319-84-6	0.05	mg/kg	-	<0.05	-	<0.05	1
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	-	×0.05	_	<0.05	
beta-BHC	319-85-7	0.05	mg/kg		<0.05		<0.05	

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Sub-Matrix: SOIL (Matrix: SOIL)	-		ni sample ID 10 date / lime	TP14_0.5-0.6_25/06/1 3	TP13_0.5-0.6_26/06/1 3	TP13_1.5-1.6_26/06/1 3	TP9_0.3-0.4_26/06/13	TP9_0.5-0.6_26/06/13
General Contraction			-	26-JUN-2013 10:00	26-JUN-2013 10:00 EW1301886-050	26-JUN-2013 10:00 EW1301886-052	26-JUN-2013 15:00	26-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-046	EW1301886-050	EW1301886-052	EW1301886-054	EW1301886-055
EP968A: Organochiorine Pesticio			-					
gamma-BHC	58-89-9	0.05	mgikg		<0,05	· · · · · · · · · · · · · · · · · · ·	<0,05	-
delta-BHC	319-88-8	0.05	mg/kg	-	<0.05	-	<0,05	-
Heptachlor	76-44-8	9,05	maika	-	<0.05	-	<0.05	-
Aldrin	309-00-2	0.05	mg/kg	-	<0.05		<0.05	-
Heptachlor epoxide	1024-57-3	0,05	molkg	-	×0.05	-	<0.05	1.448
Total Chlordane (sum)		0,05	mpikp	-	<0.05		<0.05	-
trams-Chiordane	5103-74-2	0.05	mpikg	-	<0.05	-	<0.05	-
alpha-Endosulfan	959-95-8	0.05	mpikg	-	<0.05	-	*0.05	
cis-Chlordane	5103-71-8	0.05	mp/kg		<0.05	-	<0.05	-
Dieldrin	60-57-1	0.05	mgikg	-	<0.05	-	<0.05	-
4.4'-DDE	72-55-9	0.05	mpika	-	*0.05	-	<0.05	-
Endrin	72-20-8	0.05	mgikg	-	<0.05	_	<0.05	-
beta-Endosulfan	33213-65-9	0.05	mg/kg	-	×0.05	-	<0.05	-
Endosulfan (sum)	115-29-7	0.05	maha	_	<0.05	-	<0.05	1
4.4'-000	72-54-8	0,05	mgikg		×0.05	-	<0.05	-
Endrin aldehyde	7421-03-4	0,05	marka	_	<0.05	-	<0.05	-
Endosulfan sulfate	1031-07-8	0.05	mpikg	-	<0.05	-	=0.05	-
4.4 -DDT	50-29-3	0.2	malkg	-	+0.2	-	<0.2	-
Endrin katone	53494-70-5	0.05	mg/kg	-	<0.05	-	<0.05	-
Methoxychlor	72-43-5	0.2	maika	-	+0.2	_	+0.2	-
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	marka	-	<0.05	-	<0.05	-
Sum of DDD + DDE + DDT	_	0.05	maikg	-	-40.05	-	<0.05	
EP068B: Organophosphorus Pes	ticides (OP)	-	-					
Dichloryos	62-73-7	0.05	malkg	-	<0.05	-	<0.05	-
Demoton-S-methyl	919-86-8	0.05	malka	-	<0.05	-	<0.05	
Monocrotophos	8923-22-4	0.2	maka	-	<0.2	-	+0.2	_
Dimethoate	60-51-5	0.05	maika	-	<0.05	-	<0.05	_
Diazinon	333-41-5	0.05	maka	-	<0.05	-	<0.05	- C
Chlorpyrifos-methyl	5598-13-0	0.05	marka	_	<0.05	-	<0.05	- C -
Parathion-methyl	298-00-0	0.2	marka	_	<0.7		+0.2	
Malathion	121-75-5	0.05	mg/kg		<0.05		<0.05	
Fentition	55-38-9	0.05	morkg		<0.05		<0.05	
Chiomyrifos	2921-88-2	0.05	mg/kg		<0.05	_	<0.05	-

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Sub-Matrix: SOIL (Matrix: SOIL)			nt sample ID	TP14_0.5-0.6_26/06/1 3	TP13_0.5-0.6_26/06/1 3	TP13_1,5-1.6_26/06/1 3	TP9_0.3-0.4_26/06/13	TP9_0.5-0.6_26/06/13
	Client sampling date / time			25-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 15:00	26-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-046	EW1301886-050	EW1301886-052	EW1301886-064	EW1301886-055
EP068B: Organophosphorus Pestic	ides (OP) - Continued							
Parathion	56-38-2	0.2	mg/kg		<0.2	-	<0.2	-
Pirimphos-ethyl	23505-41-1	0.05	mp/kg	-	<0.05	-	<0.05	-
Chlorfenvinphos	470-90-6	0.05	mg/kg	-	<0.05	-	<0.05	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	-	<0.05	-	<0.05	-
Fenamiphos	22224-92-6	0.05	mg/kg	-	<0.85	-	<0.05	-
Prothiofos	34643-46-4	0.05	mg/kg	-	<0.05	-	<0.05	-
Ethion	563-12-2	0.05	mg/kg	-	<0.05		<0.05	
Carbophenothion	785-19-5	0.05	mafka	-	<0.05	-	<0.05	-
Azinphos Methyl	86-50-0	0.05	marka	-	<0.05	-	<0.05	-
EP075(SIM)A: Phonolic Compound								
Phenol	108-05-2	9.5	mg/kg		<0.5	-	<0.5	-
2-Chlorophenol	95-57-8	0.5	mg/kg	-	<0.5	-	<0.5	-
3-Methylphenol	95-48-7	0,5	mg/kg	-	<0.5	-	<0.5	-
3- & 4-Methylphenol	1319-77-3	1	maika	-	<1	-	<1	-
2-Nitrophenol	88-75-5	0.5	mpikg	-	<0.5	-	<0.5	-
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	-	<0.5	-	<0.5	-
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	-	<0.5	-	<0.5	-
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	-	<0.5	-	<0.5	-
4-Chloro-3-Methylphenol	59-50-7	0.5	malkg	-	<0.5	-	<0.5	-
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	-	<0.5	-	<0.5	-
2.4.5-Trichlorophenol	95-95-4	0.5	mafkg	-	40.5	-	<0.5	-
Pentachlorophenol	87-86-5	2	mg/kg	-	<2	-	4	-
EP075(SIM)B: Polynuclear Aromati	Hydrocarbons							
Naphthalene	91-20-3	0,5	mg/kg	-	*0.5	-	<0.5	-
Acenaphthylene	208-96-8	0.5	mg/kg	-	<0.5	-	<0.5	-
Acenaphthene	83-32-9	0.5	maikg	+	+0.5	-	<0.5	-
Fluorene	86-73-7	D.5	mgikg	-	+0.5	-	<0.5	
Phenanthrene	85-01-8	0.5	mpikg	-	+0.5	-	<0.5	-
Anthracene	120-12-7	0.5	mg/kg	-	*0.5	-	<0.5	-
Fluoranthene	208-44-0	0.5	mg/kg	-	+0.5	-	<0.5	+
Pyrene	129-00-0	0.5	maika	-	<0.5	-	<0.5	-
Benz(a)anthracene	58-55-3	0.5	malkg	-	+0.5	-	40.5	-
Chrysene	218-01-9	0.5	malkg	-	<0.5	-	<0.5	-

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Sub-Matrix: SOIL (Matrix: SOIL)			ent sample ID ng date 7 time	TP14_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP13_0.5-0.6_26/06/1 3 26-JUN-2013 10:00	TP13_1.5-1.6_26/06/1 3 26-JUN-2013 10:00	TP9_0.3-0.4_26/06/13 26-JUN-2013 15:00	TP9_0.5-0.6_26/06/13 26-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-046	EW1301886-050	EW1301886-052	EW1301886-054	EW1301686-055
EP075(SIM)B: Polynuclear Aromatic Hyp			pint					
Benzo(b)fluoranthene	205-99-2	0.5	malka	-	<0.5		<0.5	-
Benzo(kifluoranthene	207-08-9	0.5	marka	-	<0.5		<0.5	
Benzo(a)pyrene	50-32-8	0.5	maka	-	<0.5		<0.5	
Indeno(1.2.3.cd)pyrene	193-38-5	0.5	mg/kg	-	<0.5	-	<0.5	
Dibenz(a,h)anthracene	53-70-3	0.5	maika	-	<0.5		+0.5	
Benzo(g.h.i)perviene	191-24-2	0.5	malka	-	<0.5	-	<0.5	- C
Sum of polycyclic aromatic hydrocarbons		0.5	malka	-	+0.5	-	<0.5	
Benzo(a)pyrene TEQ (WHO)	_	0.5	malka	-	<0.5	-	<0.5	-
EP080/071: Total Petroleum Hydrocarbo	105							
C6 - C9 Fraction	-	10	mgikg	-	<10		<10	-
C10 - C14 Fraction	-	50	malkg	-	<50	-	+50	-
C15 - C28 Fraction	_	100	maika		<100		<100	-
C29 - C36 Fraction	-	100	mg/kg	-	<100	-	<100	-
C10 - C36 Fraction (sum)		50	mg/kg		<50	-	#50	-
EP080/071: Total Recoverable Hydrocar	boos - NEPM 201	0 Draft	-		And the second se			
C6 - C10 Fraction		10	mg/kg		410	-	#10	-
C6 - C10 Fraction minus BTEX (F1)		10	mg/kg	-	<10	-	×10	-
+C10 - C16 Fraction	-	50	mg/kg	-	<50	-	-450	-
>C16 - C34 Fraction		100	mg/kg	-	<100		<100	(inc.)
>C34 - C40 Praction		100	mg/kg	-	<100	-	<100	
>C10 - C40 Fraction (sum)		50	mg/kg		<50	-	<50	
EP080: BTEX		-	-	Station of the local division of the	-			
Benzone	71-43-2	0.2	mg/kg	-	<0.2	-	<0.2	-
Toluene	108-88-3	0.5	mgikg		<0.5	-	<0.5	-
Ethylbenzene	100-41-4	0.5	malkg		≪0.5	-	<0.5	-
meta- & para-Xylene	108-38-3 106-42-3	0.5	malka	-	<0.5		<0.5	-
ortho-Xylene	85-47-6	0.5	ma/kg	-	<0.5		<0.5	
EP080: BTEXN				and the second se				
Total Xylenes	1330-20-7	0.5	mg/kg	-	<0.5		<0.5	
Sum of BTEX	-	0.2	maika	-	<0.2	-	<0.2	-
Naphthalene	91-20-3	4	mg/kg	-	41	-	57	
EP0685: Organochlorine Pesticide Surn	ogate			and the second se				
Dibromo-DDE	21655-73-2	0.1	-56	-	88.4	-	84.7	-

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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID		TP14_0.5-0.6_26/06/1	TP13_0.5-0.6_26/06/1	TP13_1.5-1.6_26/06/1	TP9_0.3-0.4_26/06/13	TP9_0.5-0.6_26/06/13
				3	3	3		
	Cá	ent sample	ng date / time	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 10:00	26-JUN-2013 15:00	26-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-046	EW1301885-050	EW1301886-052	EW1301886-054	EW1301886-055
EP068T: Organophosphorus Pestic	Ide Surrogate							
DEF	78-48-8	0.1	. %		84.6		96.4	-
EP075(SIM)S: Phenolic Compound	Surrogates	-						
Phenol-d6	13127-88-3	0.1	55		79.6		86.6	
2-Chlorophenol-D4	93951-73-6	0.1	. %r.	-	82.9		88.7	-
2.4.5-Tribromophenol	118-79-8	0.1	- 56	-	77.0	-	91.0	
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	5	-	86.2	-	93.9	-
Anthracene-d10	1719-08-8	0.1	76		89.8	-	98.2	-
4-Terphenyl-d14	1718-51-0	0,1	16		78.8	-	89.8	-
EP0805: TPH(V)/BTEX Surrogates	and the second second	-		-				
1.2-Dichloroethane-D4	17060-07-0	0.1	5	-	89.0		86.4	
Toluene-D8	2037-26-5	0.1	16	-	85.6	-	87.2	
4-Bromofluorobenzene	460-00-4	0.1	- N.		83.9	-	83.0	-

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Sub-Matrix: SOIL (Matrix: SOIL)		C	ent sample ID	TP10_0.0-0.1_26/06/1 3	TP10_0.5-0.6_26/06/1 3	TP11_0.1-0.2_26/06/1 3	TP11_0.9-1.0_26/06/1 3	TP12A_0.1-0.2_26/06/ 13
	0	lent sampl	ing date / time	26-JUN-2013 15:00	28-JUN-2013 15:00	28-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15.00
Compound	CAS Number	LOR	Unit	EW1301886-056	EW1301886-057	EW1301886-059	EW1301886-061	EW1301886-063
EA002 : pH (Solls)								
pH Value		0,1	pH Unit	6.8			5.2	-
EA055: Moisture Content	-			and the second				
Moisture Content (dried @ 103*C)		1,0	56	31.2	29.7	27.1	13,9	-
EA150: Soil Classification based on I	Particle Size	-			and the second s			
Clay (<2 µm)	-	1	- 54	24	-	-	22	(Anna)
EA200: AS 4964 - 2004 Identification	of Asbestos in bulk	samples						
Asbestos Detected	1332-21-4	0.1	g/kg	Yes		Yes		Yes
Asbestos Type	1332-21-4	0,1	-	-	-	-	-	Ch + Am
Asbestos Type	1332-21-4	1	-	Ch		Ch + Am	-	-
Sample weight (dry)	_	0.01	g	6290	-	9040	-	27.1
APPROVED IDENTIFIER:	-	1	-	C.OWLER		C.OWLER		-
APPROVED IDENTIFIER:	-		-	-	-	-	-	C.OWLER
EA200Q: Asbestos Quantification (no	n-NATAI	-						
Weight Used for % Calculation	-	0.0001	kg	5.29	-	9.04		-
Asbestos Containing Material	1332-21-4	0.1	g	64.6	-	<0,1	-	-
Fibrous Asbestos	_	0.002	g	0.008	-	0.007		-
Asbestos Fines	1332-21-4	-		Yes		Yes	-	-
Asbestos Containing Material (ACM >7mm)	1332-21-4	0.01	%	-	+	<0.01		
Asbestos Containing Material (ACM >7mm)	1332-21-4	0.01	%	0.10	-	-	-	
Asbestos Fines and Fibrous Asbestos (<7mm)	1332-21-4	0.001	.%	<0.001	-	<0.001		-
ED008: Exchangeable Cations								
Exchangeable Calcium		Q.1	meg/100g	21.7	-	-	0.7	-
Exchangeable Magnesium	-	0.1	meg/100g	1.7		-	12.6	
Exchangeable Potassium		0.1	meg/100g	0.7	-	-	<0.1	iner.
Exchangeable Sodium		0.1	meg/100g	0.2		-	6.3	-
Cation Exchange Capacity	_	0.1	meg/100g	24.3	-	-	19.7	
EG005T: Total Metals by ICP-AES		-	-					
Arsenic	7440-38-2	5	mg/kg	31	-45	18	<5	
Cadmium	7440-43-9	1	mg/kg	3	<1	41	41	-
Chromium	7440-47-3	2	mg/kg	16	24	15	14	-
Copper	7440-50-8	5	ma/ka	422	88	201	73	-

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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			TP10_0.5-0.6_26/06/1	TP11_0.1-0.2_26/06/1 3	TP11_0.9-1.0_26/06/1	TP12A_0.1-0.2_26/06/ 13
	Ca	ent sampli	ng date / time	25-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15:00
Combound	CAS Number	LOR	Une	EW1301886-056	EW1301886-067	EW1301886-059	EW1301886-061	EW1301886-063
EG005T: Total Metals by ICP-AES -	Continued							
Iron	7439-89-6	50	mg/kg	34800		-	22800	-
Lead	7439-92-1	5	mg/kg	124	9	21	6	-
Manganese	7439-98-5	5	mg/kg	88	15	39	21	
Nickel	7440-02-0	z	mg/kg	6	4	6	5	-
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	-
Zinc	7440-66-6	5	mp/kg	256	27	92	38	
EG035T: Total Recoverable Mercur	ty by FIMS	_	-					
Marcury	7439-97-6	0.1	mg/kg	0.2	*0,1	+0.1	<0.1	
EK055: Ammonia as N		-	-		and the second se			
Ammonia as N	7664-41-7	20	mg/kg	<20		<20	-	-
EP004: Organic Matter			-	and the second se	and the second se			
Organic Matter	-	0.5	5	5.6		-	0.6	-
Total Organic Carbon	_	0.5	5	3.2	÷		<0.5	-
EP068A: Organochlorine Pesticides	(OC)		-					
alpha-BHC	319-84-6	0.05	mg/kg	<0.05		<0.05		-
Hexachlorobenzene (HCB)	118-74-T	0.05	mg/kg	<0.05	-	×0.05	-	-
beta-BHC	319-85-7	0.05	mp/kg	<0.05	-	<0.05	-	-
gamma-BHC	58-89-9	0.05	mpikg	<0.05	-	<0.05		-
delta-BHC	319-86-8	0.05	mg/kg	<0.05		<0.05		-
Heptachlor	76-44-8	0.05	mg/kg	<0.05	-	<0.05		-
Aldrin	309-00-2	0.05	mg/kg	<0.05	-	<0.05	-	-
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	-	<0.05		-
Total Chlordane (sum)		0.05	mp/kg	<0.05		<0.05	-	-
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05		<0.05		-
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	-	<0.05		-
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	-	<0.05	-	-
Dieldrin	60-57-1	0.05	mp/kg	<0.05	-	<0.05		
4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	-	<0.05		-
Endrin	72-20-8	0.05	mg/kg	<0.05		<0.05		-
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	-	<0.05	-	-
Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	-	<0.05	-	-
4.4'-DDD	72-54-8	0.05	mg/kg	<0.05		<0.05	-	-
Endrin aldehyde	7421-93-4	0.05	mp/kg	<0.05		<0.05		-

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Sub-Maine: SOIL (Mains: SOIL)		Client sample ID			TP10_0.5-0.6_26/06/1 3	TP11_0.1-0.2_26/06/1 3	TP11_0.9-1.0_26/06/1 3	TP12A_0.1-0.2_26/06/ 13
	0	ent sampli	ig date / time	25-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15:00
Compound	CAS Number	LOR	Linit	EW1301886-856	EW1301885-057	EW1301885-059	EW1301886-061	EW1301886-063
EP068A: Organochlorine Pesticid	es (OC) - Continued							
Endosulfan sulfate	1031-07-8	0.05	109910	<0.05		<0.05	-	-
4.4'-ODT	50-29-3	0.2	mpikg	<0.2	-	<0.2	-	-
Endrin ketone	53494-70-5	0,05	marka	<0.05	1000	<0.05	- Free	-
Methoxychior	72-43-5	0.2	markg	<0.2	-	<0.2	-	-
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mp/kg	<0.05	-	<0.05	1.00	-
Sum of DDD + DDE + DDT	-	0.05	maka	<0.05	-	<0.05		-
EP0688: Organophosphorus Pes	ticides (OP)							
Dichlorvos	62-73-7	0.05	mg/kg	+6.05	-	=0.05	-	
Demoton-S-methyl	B19-88-8	0.05	maka	+0.05	-	<0.05	-	-
Monocrotophos	6923-22-4	0.2	marka	<0.2	-	<0.2		140
Dimethoate	60-51-5	0.05	maika	+0.05	-	<0.05		-
Distinon	333-41-5	0.05	morkd	<0.05	-	<0.05	-	-
Chlorpyrifos-methyl	5596-13-0	0.05	mg/kg	<0.05	-	+0.05		
Parathion-methyl	298-00-0	0.2	mpiling	<0.2		=0.2	-	-
Malathion	121-75-5	0.05	mg/kg	~0.05	-	<0.05		
Fenthion	55-38-6	0.05	mg/kg	40,D5	-	+0.05	-	
Chiorpyrifos	2921-88-2	0.05	mgikg	<0.05	-	+0.05		
Parathion	56-38-2	0.2	mgrkig	<0.2	-	<0.2	-	-
Pirimphos-ethyl	23505-41-1	0.05	maika	<0.05		<0.05	144	-
Chlorfenvinphos	470-90-6	0.05	migika	<0.05		≪0.05	-	
Bromophos-ethyl	4824-78-8	0.05	marka	<0,05	-	<0.05	-	-
Fenamiphos	22224-92-6	0,05	mg/kg	<0.05		<0.05	-	-
Prothiotos	34643-46-4	0.05	mp/kg	<0.05	-	<0.05	-	-
Ethion	563-12-2	0.05	mp/kg	<0.05	-	<0.05		-
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	-	<0.05	-	-
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05		<0.05		-
EP075(SIM)A: Phenolic Compoun	ds	-						
Phenol	108-95-2	0.5	mg/kg	<0.5		<0.5		-
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	(<0,5		-
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5		<0.5	-	-
3-& 4-Methylphenol	1319-77-3	1	mg/kg	<1	-	51	-	-
2-Nitrophenol	88-75-5	0.5	maika	<0.5		<0,5	_	-
2.4-Dimethylphenol	105-67-5	0.5	maika	<0.5		<0.5		-

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Sub-Matrix: SOIL (Matrix: SOIL)	CH		nt sample ID	TP10_0.0-0.1_26/06/1 3 26-JUN-2013 15:00	TP10_0.5-0.6_26/06/1 3 26-JUN-2013 15:00	TP11_0.1-0.2_26/06/1 3 26-JUN-2013 15:00	TP11_0.9-1.0_26/06/1 3 26-JUN-2013 15:00	TP12A_0.1-0.2_26/06/ 13 26-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301888-056	EW1301885-057	EW1301886-059	EW1301885-061	EW1301886-063
EP075(SIM)A: Phenolic Compounds - Cor		-						
2.4-Dichlorophenol	120-83-2	0.5	maika	<0.5	-	<0.5	-	-
2.6-Dichlorophenol	87-65-0	0.5	malkg	<0.5		<0.5		-
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	-	<0.5	-	-
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5		<0.5	-	-
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	-	<0.5	-	-
Pentachlorophenol	87-86-5	2	mg/kg	4		<2	-	-
P075(SIM)B: Polynuclear Aromatic Hyd	rocarboos		-					
Naphthalene	91-20-3	0.5	mg/kg	<0.5	-	<0.5	-	-
Acenaphthylene	208-96-8	0.5	mgikg	<0.5	-	<0.5	-	-
Aconaphthone	83-32-9	0.5	malka	<0.5	-	<0.5		
Fluorene	85-73-7	0.5	mg/kg	<0.5	-	<0.5	-	-
Phenanthrone	85-01-8	0.5	mg/kg	<0.5	-	+0.5		-
Anthracene	120-12-7	0.5	malkg	<0.5		<0.5	-	-
Fluoranthene	206-44-0	0.5	mp/kg	0.9	-	+0.5	-	-
Pyrene	129-00-0	0.5	mg/kg	1.1	-	<0.5	-	-
Benz(a)anthracene	56-55-3	0.5	mg/kg	=0.5	-	<0.5		
Chrysene	218-01-9	0.5	mgikg	0.5	-	<0.5	-	-
Benzo(b)fluoranthene	205-99-2	0.5	mgikg	0.8	-	<0.5	-	-
Benzo(k)fluoranthene	207-08-9	0.5	mgikg	<0.5		×0.5	-	-
Benzo(a)pyrene	50-32-8	0.5	mgikg	0,5	-	<0.5	-	-
indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5		<0.5		-
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	-	<0.5	-	-
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	0.6		<0.5	-	-
Sum of polycyclic aromatic hydrocarbons		0,5	mg/kg	4,5	-	<0.5	-	-
Benzo(a)pyrene TEQ (WHO)	_	0.5	mgikg	0.7	-	<0.5	-	-
P080/071: Total Petroleum Hydrocarbo	05	-						
C6 - C9 Fraction	-	10	mg/kg	<10	-	s10	-	-
C10 - C14 Fraction	-	50	mg/kg	<50	-	<50	-	-
C15 - C28 Fraction	-	100	mg/kg	<100	1-	<100	-	-
C29 - C36 Fraction		100	mg/kg	<100		<100	-	-
C10 - C36 Fraction (sum)	_	50	marka	<50	-	<50	-	-
P080/071: Total Recoverable Hydrocart	bons - NEPM 201	0 Draft	-					
C6 - C10 Fraction	-	10	mg/kg	<10		<10	-	

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Sub-Matrix: SOIL (Matrix: SOIL)	0		ent sample ID	TP10_0.0-0.1_26/06/1 3 26-JUN-2013 15:00	TP10_0.5-0.6_26/06/1 3 26-JUN-2013 15 00	TP11_0,1-0.2_26/06/1 3 26-JUN-2013 15:00	TP11_0.9-1.0_26/06/1 3 26-JUN-2013 15:00	TP12A_0.1-0.2_26/06/ 13 26-JUN-2013 15:00
Compound	CAS Number				EW1301886-057	EW1301888-059	EW1301886-061	EW1301886-063
EP080/071: Total Recoverable Hyd	and the second se		41.14					
C6 - C10 Fraction minus BTEX (F1)	rocaroons - NEPM 201	10	mp/kg	<10	-	<10	-	-
>C10 - C16 Fraction		50	mg/kg	<50	-	<50	-	-
>C16 - C34 Fraction		100	mg/kg	<100	4	<100	4	
>C34 - C40 Fraction		100	mg/kg	<100	-	<100	_	-
>C10 - C40 Fraction (sum)	2	50	mg/kg	<50		<50	-	
EPOSO: BTEX	and the second	-	ALC: NO. OF CO.	A state of the local division of the				
Benzene	71-43-2	0.2	mg/kg	<0.2	-	<0.2	-	-
Toluena	108-88-3	0.5	mp/kg	<0.5	-	<0.5	<u> </u>	÷
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	-	<0.5	-	-
meta- & para-Xylene	108-38-3 106-42-3	0.5	mp/kg	<0.5	-	<0.5	-	-
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	-	<0.5	-	-
POSO: BTEXN				and the second se				
Total Xylenes	1330-20-7	0.5	mp/kg	<0.5		<0.5	-	-
Sum of BTEX	-	0.2	mg/kg	<0.2		<0.2	-	-
Naphthalene	91-20-3	1	mg/kg	<1		st	-	-
EP068S: Organochlorine Pesticide	Surrogate	-		And in case of the local division of the loc				
Dibromo-DDE	21855-73-2	0,1	5	94.5	-	72.5	-	-
EP0687: Organophosphorus Pesti	cide Surrogate	-	-					
DEF	78-48-8	0.1	-54	91.8	-	76.5	-	-
EP075(SIM)S: Phenolic Compound	Surrogates	-		and the second se				
Phenol-d6	13127-88-3	0.1		85.4	-	78.7		-
2-Chiorophenol-D4	93951-73-6	0.1	5.	92.3	-	91,9	-	-
2.4.5-Tribromophenol	118-79-8	0,1	56	97.8	-	92.4	\rightarrow	-
EP075(SIM)T: PAH Surrogates			-					
2-Fluorobiphenyl	321-60-8	0.1	36	99.0	-	98.4	-	-
Anthracene-d10	1719-06-8	0,1	50	102	-	97.4		
4-Terphonyl-d14	1718-51-0	0.1	56	94.2	-	89.7		-
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	5	96.1	-	89.4	-	-
Toluene-D8	2037-26-5	0.1	5	99.0		89.6		
4-Bromofluorobenzene	460-00-4	0.1	.16	91.3	-	85.0		-

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Work Order	EW1301885
Client	PORT KEMBLA COPPER
Project	137623028



Sub-Matrix: SOIL (Matrix: SOIL)	c	Client sample ID			TP12_0.9-1.0_26/06/1 3 26-JUN-2013 15:00	TP8_0.0-0.1_26/06/13 26-JUN-2013 15:00	TP8_0.9-1.0_26/06/13 26-JUN-2013 15:00	QC101_26/06/13 28-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301885-064	EW1301886-066	EW1301886-067	EW1301886-069	EW1301888-070
EA002 : pH (Soils)			-					
pH Value	-	0.1	pH Unit	-	-	5.7	-	
EA055: Moisture Content								
Moisture Content (dried @ 103°C)		1.0	19	39.0	19,2	26.6	21.6	32.8
EA150: Soll Classification based on	Particle Size			-				
Clay (<2 µm)	-	1	- 56	-		18	-	
EA200: A5 4964 - 2004 Identification	of Asbestos in bulk	samples	1					
Asbestos Detected	1332-21-4	0.1	gikg	No	-	-	-	
Asbestos Type	1332-21-4	1	-		-	-		
Sample weight (dry)	_	0.01	9	7660	-		-	-
APPROVED IDENTIFIER:		1		C.OWLER	-	-	-	-
EA200Q: Asbestos Quantification (n	on-NATA)	-	-					
Weight Used for % Calculation	-	0.0001	kg	7.66		-	-	
Asbestos Containing Material	1332-21-4	0.1	g	<0.1	-	-	-	-
Fibrous Asbestos	-	0.002	9	<0.002	-		-	-
Asbestos Fines	1332-21-4			No		-	-	-
Asbestos Containing Material (ACM >7mm)	1332-21-4	0.01	5	<0.01	-	-	-	-
Asbestos Fines and Fibrous Asbestos (<7mm)	1332-21-4	0.001	56.	<0.001	-	-	-	-
ED008: Exchangeable Cations		-						
Exchangeable Calcium		0,1	meg/100g	+		7,2	-	
Exchangeable Magnesium		0.1	meg/100g		-	2.0	-	-
Exchangeable Potassium		0.1	meg/100g			0.4	-	-
Exchangeable Sodium		0,1	meg/100g		-	0.3	-	-
Cation Exchange Capacity		0,1	meq/100g	-	-	10.0	-	-
EG005T: Total Metals by ICP-AES			-					
Arsenic	7440-38-2	5	mg/kg	10	*5	-41	<5	- 44
Cadmium	7440-43-9	1	mg/kg	3	<1	10	st	14
Chromium	7440-47-3	2	mgikg	10	19	22	12	23
Copper	7440-50-8	5	mgikg	961	116	2280	76	1760
Iron	7439-89-8	50	mgikg	-	-	38500	-	-
Load	7439-92-1	5	mg/kg	173	6	677	<5	628
Manganese	7439-96-5	5	markg	456	64	609	28	492

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Work Order	EW1301886
Client	PORT KEMBLA COPPER
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Sub-Matrix: SOIL (Matrix: SOIL)	0	Glient sample ID Client sampling date / time			TP12_0.9-1.0_26/06/1 3 28-JUN-2013 15:00	TP8_0.0-0.1_26/06/13 26-JUN-2013 15:00	TP8_0.9-1.0_26/06/13	QC101_26/06/13
Compound	CAS Number	LOR	Lint	EW1301885-064	EW1301885-066	EW1301886-067	EW1301886-069	EW1301886-070
EG0057: Total Metals by ICP-AES	Continued		State of the local division of the local div					
Nickel	7440-02-0	2	mg/kg	8	14.	12	5	12
Selenium	7782-49-2	5	mg/kg	6	<5	<5	-	-5
Zinc	7440-66-6	5	mg/kg	187	88	397	31	529
EG035T: Total Recoverable Mercur	ry by FIMS							
Marcury	7439-97-6	0.1	mg/kg	0.3	<0.1	0.3	<0.1	0.4
EK055: Ammonia as N	and the second se	-		and the second second			-	
Ammonia as N	7664-41-7	20	mg/kg	*20	-	<20	- 1	<20
EP004: Organic Matter	and the second second							
Organic Matter	-	0.5	5	-	-	5.1	- 1	-
Total Organic Carbon		0.5	5	-	-	3.0	-	-
EP068A: Organochlorine Pesticides	s (OC)							
alpha-BHC	319-84-6	0.05	mp/kg	<0.05	-	40.05	-	40.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mphg	<0.05		<0.05	-	<0.05
beta-BHC	319-85-7	0.05	mg/kg	+0.05	-	<0.05	-	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	≈8.05	-	<0.05	-	×0.05
delta-BHC	319-86-8	0.05	mp/kg	=0.05	-	<0.05		<0.05
Heptachior	76-44-8	0.05	mp/kg	<0.05		<0.05	-	<0.05
Aldrin	309-00-2	0.05	mg/kg	=0.05	-	+0.05	-	<0.05
Haptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05		<0.05	-	<0.05
Total Ghlordane (sum)	-	0.05	mp/kg	<0.05		<0.05	-	<0.05
trans-Chlordane	5103-74-2	0.05	mp/kg.	+0.05	-	<0.05	-	<0.05
alpha-Endosullan	959-96-8	0.05	mp/kg	-<0.05	-	<0.05		<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg/m	<0.05	-	<0.05		<0.05
Diehtrin	60-57-1	0.05	mg/kg	<0.05	-	<0.05	-	<0.05
4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	-	<0.05		<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	-	<0.65	-	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05		<0.05		<0.05
Endosulfan (sum)	115-29-7	0.05	maika	<0.05	-	<0.05		<0.05
4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	-	<0.05		<0.05
Endrin aldehyde	7421-93-4	0.05	mp/kg	<0.05	-	<0.05	-	<0.05
Endosultan sulfate	1031-07-8	0.05	mp/kg	<0.05	-	<0.05		<0.05
4.4 -DDT	50-29-3	0.2	mp/kg	<0.2	-	<0.2	-	<0.2
Endrin ketone	53494-70-5	0.05	mpika	<0.05	_	<0.05		<0.05

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Sub-Matrix: SOIL (Matrix: SOIL)	Ch		nt sample TD	TP12_0.0. -0.1_26/06/13 26-JUN-2013 15:00	TP12_0.9-1.0_26/06/1 3 26-JUN-2013 15:00	TP8_0.0-0.1_26/06/13 25-JUN-2013 15:00	TP8_0.9-1.0_26/06/13 26-JUN-2013 15:00	QC101_26/06/13
Compound	CAS Number	LOR	Unit	EW1301886-064	EW1301886-066	EW1301586-067	EW1301886-069	EW1301886-070
EP068A: Organochlorine Pesticio								
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	-	<0.2	-	<0.2
Sum of Aldrin + Dieldrin	309-00-2/80-57-1	0.05	maika	<0.05		<0.05	-	<0.05
Sum of DDD + DDE + DDT	-	0.05	maika	<0.05		<0.05	-	<0.05
EP0688: Organophosphorus Per	licides (OP)	-						
Dichlorvos	62-73-7	0.05	malkg	<0.05	-	<0.05	-	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05		<0.05	-	<0.05
Monocrotophos	6923-22-4	0.2	mgikg	<0.2	-	<0.2	-	+0.2
Dimethoate	80-51-5	0.05	maka	<0.05		<0.05		<0.05
Diazinon	333-41-5	0.05	mgikg	<0.05		<0.05	-	<0.05
Chlorpyrifos-methyl	5508-13-0	0.05	mg/kg	<0.05	+.	<0.05	-	<0,05
Parathion-methyl	298-00-0	0.2	mgikg	<0.2		<0.2	-	<0,2
Malathion	121-75-5	0.05	mg/kg	<0.05		<0.05		<0.05
Fenthion	55-38-9	0.05	mg/kg	<0.05	-	<0.05	-	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	-	<0.05	-	<0.05
Parathion	56-38-2	9.2	mg/kg	<0.2	-	<0.2	-	<0.2
Pirimphos-ethyl	23505-41-1	0.05	maikg	<0.05	-	<0.05	-	<0.05
Chlorlenvinphos	470-90-6	0.05	mgikg	<0.05	-	<0.05	-	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	-	<0.05	-	<0.05
Fenamiphos	22224-92-8	0.05	mg/kg	<0.05	-	<0.05	-	<0.05
Prothiolos	34543-46-4	0.05	mailing	<0.05		<0.05	-	<0.05
Ethion	563-12-2	0.05	matka	<0.05	-	<0.05	-	<0.05
Carbophenothion	785-19-8	0.05	mgikg	<0.05	-	<0.05	-	<0.05
Azinphos Methyl	86-50-0	0.05	mgikg	+0.05		<0.05	-	<0,05
EP075(SIM)A: Phenolic Compour	nds							
Phenol	108-95-2	0,5	mgikg	₹0.5	-	<0.5	-	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	-	<0.5	-	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	-	\$0,5		<0.5
3- & 4-Methylphenol	1319-77-3	П.	maikg	<1	-	<t< td=""><td>-</td><td><1</td></t<>	-	<1
2-Nitrophenol	88-75-5	0.5	mgikg	<0.5	-	<0.5	-	<0.5
2.4-Dimethylphenol	105-87-9	0.5	mgikg	<0.5		<0.5	-	<0.5
2.4-Dichlorophenol	120-83-2	0,5	mgikg	<0.5	-	<0.5	-	<0.5
2.6-Dichlorophenol	87-65-0	0,5	mgikg	<0.5	-	<0.5	-	<0,5
4-Chloro-J-Methylphenol	59-50-7	0.5	malkg	<0.5	-	<0.5	_	<0.5

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Chert	PORT KEMBLA COPPER
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Sub-Matric: SOIL (Matric: SOIL)	Client sample ID			TP12_0.0. -0.1_26/06/13 26-JUN-2013 15:00	TP12_0.9-1.0_26/06/1 3 26-JUN-2013 15:00	TP8_0.0-0.1_26/06/13 26-JUN-2013 15:00	TP8_0.9-1.0_26/06/13 26-JUN-2013 15:00	QC101_26/06/13 26-JUN-2013 15:00
Composed	CAS Number	LOR	Unit	EW1301886-064	EW1301886-066	EW1301886-067	EW1301886-069	EW1301885-070
EP075(SIM)A: Phenolic Compounds - Co				and the second se				
2.4.5-Trichlorophenol	85-06-2	0.5	molkg	<0.5	-	<0.5	-	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	molkg	<0.5	-	<0.5		<0.5
Pentachlorophenol	87-86-5	7	marka	~2	-	9		<2
EP076(SIM)B: Polynuclear Aromatic Hyd	nonarbona			A CONTRACTOR OF THE OWNER OF	and the second second			
Naphthalene	91-20-3	0.5	maika	<0.5	-	<0.5	-	<0.5
Acenaphthylene	208-96-8	0.5	malkg	<0.5	-	<0.5	-	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	-	<0.5		<0.5
Fluorene	86-73-7	0.5	malkg	<0.5	-	<0.5	-	<0.5
Phenanthrone	85-01-8	0.5	mg/kg	<0.5		<0.5	-	<0.5
Anthracene	120-12-7	0.5	mpikg	<0,5	-	<0,5	-	<0.5
Fluoranthene	206-44-0	0,5	mgikg	<0.5	-	40.5	-	<0.5
Pyrene	129-00-0	0.5	maika	<0.5		<0.5	-	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	-	<0.5	-	+0.5
Chrysene	218-01-9	0.5	mpikg	<0.5	-	<0,5	-	∀0.5
Benzo(b)fluoranthene	205-99-2	0.5	mglkg	<0.5	-	<0.5	-	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mpikg	<0.5	-	+0.5	-	40.5
Benzo(a)pyrene	50-32-8	0.5	majka	<0,5	-	×0,5	-	<0.5
Indano(1.2.3.cd)pyrane	193-39-5	0.5	mpikg	+0.5		+0.5	-	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0,5		×0,5	-	+0.5
Benzo(g.h.i)perylene	191-24-2	0,5	mg/kg.	+0,5-	-	<0.5	-	<0.5
Sum of polycyclic aromatic hydrocarbons		0,5	mgikig	×0.5	-	<0,5	-	<0.5
Benzo(a)pyrene TEQ (WHO)	-	0.5	mgikg	<0.5		<0.5	-	<0.5
EP080/071: Total Petroleum Hydrocarbor	15		-					
C6 - C9 Fraction	-	10	mg/kg	410	-	<10	-	<10
C10 - C14 Fraction	-	50	mg/kg	<50		<50	-	~50
C15 - C28 Fraction		100	mg/kg	<100	-	<100	-	<100
C29 - C36 Fraction	-	100	mg/kg	<100	-	<100	-	-<100
C10 - C36 Fraction (sum)	-	50	malka.	<\$0		<50	-	<50
EP080/071: Total Recoverable Hydrocarb	ons - NEPM 2010	Draft						
C6 - C10 Fraction	-	10	migikg	<10	-	<10	-	<10
C6 - C10 Fraction minus BTEX (F1)	-	10	mg/kg	<10	-	<10	-	<10
>C10 - C16 Fraction	-	50	mg/kg	<50		<50	-	<50
>C15 - C34 Fraction		100	mg/kg	<100	-	<100	_	<100

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Work Order	EW1301886
Client	PORT KEMBLA COPPER
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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			TP12_0.9-1.0_26/06/1 3	TP8_0.0-0.1_26/06/13	TP8_0.9-1.0_26/06/13	QC101_26/06/13
	Cli	int sampli	ing date / time	26-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15:00	26-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-064	EW1301886-066	EW1301886-067	EW1301886-069	EW1301886-070
EP080/071: Total Recoverable Hy	drocarbons - NEPM 201	Draft-0	Cantinued					
>C34 - C40 Fraction	-	100	mg/kg	<100	-	<100		<100
>C10 - C40 Fraction (sum)	-	50	mg/kg	<50	-	<50	-	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2		<0,2	-	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	-	<0.5	-	<0.5
Ethylbenzene	100-41-4	0.5	mpikg	<0.5	-	<0.5	=	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	ma/kg	<0.5	-	<0.5	-	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	-	<0.5	-	<0.5
P080: BTEXN		-						
Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	-	<0.5		<0.5
Sum of BTEX		0.2	mg/kg	<0.2	-	<0.2	-	<0.2
Naphthalene	91-20-3	1	mg/kg	<t< td=""><td>-</td><td><1</td><td>-</td><td><1</td></t<>	-	<1	-	<1
EP068S: Organochlorine Pesticio	le Surrogate							
Dibromo-DDE	21655-73-2	0.1	- %	86.6	-	80.9	-	94.2
EP068T: Organophosphorus Pes	ticide Surrogate							
DEF	78-48-8	0.1	16	107		88.0	-	98.9
P075(SIM)S: Phenolic Compour	1d Surrogates							
Phenol-d6	13127-88-3	0.1	36	102	-	87.5	-	96.4
2-Chlorophenol-D4	93951-73-8	0.1	- 15	96.9	-	87.4	-	97.8
2.4.6-Tribromophenol	118-79-8	0.1	76	95.0	-	93.2	-	100
EP075(SIM)T: PAH Surrogates	10000		1. C.					
2-Fluorobiphenyl	321-60-8	0,1	56	102	-	103	-	103
Anthracene-d10	1719-06-8	0.1	15	100		98.4	-	104
4-Terphenyl-d14	1718-51-0	0.1	96	92.5	-	88.0	-	94.6
EP080S: TPH(V)/BTEX Surrogate	6							
1.2-Dichloroethane-D4	17050-07-0	0,1	76	92.1	-	89.0	-	96.7
Totuene-D8	2037-26-5	0.1	56	91.6	-	89.2	-	101
4-Bromofluorobenzene	460-00-4	0.1	%	85.4	-	85.5	-	100

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Work Order	EW1301886
Client	PORT KEMBLA COPPER
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Sub-Matrix: SOIL (Matrix: SOIL)		C	ient sample ID	QC401_26/06/13	TP7_0.3-0.4_27/06/13	TP7_0.5-0.6_27/06/13	TP6_0.2-0.3_27/06/13	TP6_0.5-0.6_27/06/13
	C	Sent samp.	ing date / time	26-JUN-2013 15:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10.00	27-JUN-2013 10.00
Compound	CAS Number	LOR	Line	EW1301885-071	EW1301886-074	EW1301886-075	EW1301885-078	EW1301886-079
EA002 : pH (Soils)								
pH Value	-	0.1	pH Unit	-	-	6.9	-	-
EA055: Moisture Content	-	-	And the second designed to the second designe					
Moisture Content (dried @ 103*C)		1.0	5	5.5	21.2	33.8	37.3	28.8
EA150: Soil Classification based on P	article Size							
Clay (<2 µm)			5.		→	60		
EA200: AS 4964 - 2004 Identification of	of Asbestos in bulk	samples	-					
Asbestos Detected	1332-21-4	0.1	gikg		No		-	-
Asbestos Type	1332-21-4	3	-	-	+	-		-
Sample weight (dry)	_	0.01		-	7320	-	-	
APPROVED IDENTIFIER:		1	-		C.OWLER			-
EA200Q: Asbestos Quantification (no	n-NATA)	-	and the second second					
Weight Used for % Calculation	-	0.0001	RØ	-	7.32			-
Asbestos Containing Material	1332-21-4	0.1	9	-	<0.1	-		-
Fibrous Asbestos	_	0.002	g		<0.002	-	Law.	-
Asbestos Fines	1332-21-4	~	-	-	No	-		-
Asbestos Containing Material (ACM >7mm)	1332-21-4	0.01		-	≺0.01	-	-	-
Asbestos Fines and Fibrous Asbestos (<7mm)	1332-21-4	0.001		***	<0.001	-		-
ED008: Exchangeable Cations		-						
Exchangeable Calcium	-	0.1	meg/100g	-	-	17.5	-	-
Exchangeable Magnesium	-	0.1	meg/100g	-	-	10.5	12	-
Exchangeable Potassium		0.1	meg/100g	-		0.1	-	-
Exchangeable Sodium		0.1	meg/100g		-	1,7		
Cation Exchange Capacity	-	0.1	meg/100g		-	29.5	-	-
EG005T: Total Metals by ICP-AES		-	and the second se					
Arsenic	7440-38-2	5	mgikg	<5	7	<5	37	+5
Cadmium	7440-43-8	1	mg/kg	<1	<1	<1	27	<1
Chromium	7440-47-3	. 2	mpikg	<2	20	24	6	22
Copper	7440-50-8	5	mgikg	<5	66	77	2740	61
Iron	7439-89-8	50	mg/kg.			89200		-
Lead	7439-92-1	.5	mg/kg	<5	19	9	216	7
Manganese	7439-96-5	5	mg/kg	12	50	20	362	48
Nickel	7440-02-0	2	mp/kg	<2	3	4	14	4

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Work Order	EW1301886
Client	PORT KEMBLA COPPER
Project	137623028



Sub-Matrix: SOIL (Matrix: SOIL)		Cit	ent sample ID	QC401_26/06/13	TP7_0.3-0.4_27/06/13	TP7_0.5-0.6_27/06/13	TP6_0.2-0.3_27/06/13	TP6_0.5-0.6_27/06/13
	Ch	Client sampling date / time			27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301886-071	EW1301886-074	EW1301886-075	EW1301885-078	EW1301886-079
EG005T: Total Metals by ICP-AES -	Continued							
Selenium	7782-49-2	5	mgikg	<5	<5	-45	<5.	-5
Zinc	7440-68-6	5	mg/kg	<5	41	24	500	9
EG035T: Total Recoverable Mercu	ry by FIMS			and the second				
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0,1	<0.1	<0.1
EK055: Ammonia as N		-						
Ammonia as N	7684-41-7	20	mgikg	<20	<20		<20	-
EP004: Organic Matter		-		and the second se				
Organic Matter		0.5	%	-	-	1.8	-	-
Total Organic Carbon	-	0.5	%			1.1	-	-
EP068A: Organochlorine Pesticide	s (OC)	0						
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05		<0.05	
Hexachlorobenzene (HCB)	118-74-1	0.05	maikg	<0.05	<0.05	-	<0.05	-
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	-	<2.05	-
gamma-BHC	58-89-9	0.05	maika	<0.05	<0.05	-	<0.05	-
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	-	<0.05	
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0,05	-	<0.05	-
Aldrin	309-00-2	0.05	mgikg	<0.05	<0.05	-	<0.05	-
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0,05	-	<0,05	-
Total Chlordane (sum)	-	0.05	mgikg	<0.05	<0.05	-	<0,05	-
trans-Chlordane	5103-74-2	0.05	mgikg	<0.05	<0.05	-	<0.05	-
alpha-Endosultan	959-98-8	0.05	marka	<0.05	<0.05	-	<0.05	-
cis-Chlordane	5103-71-9	0.05	mg/kg	*0.05	<0.05	-	<0.05	-
Dieldrin	60-57-1	0.05	mgikg	<0.05	<0.05	-	<0.05	-
4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	×0.05	-	<0.05	-
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
beta-Endosullan	33213-85-9	0.05	marka	<0.05	<0.05	-	<0.05	-
Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	-	<0,05	-
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	-	<0.05	
4.4 -DDT	50-29-3	0.2	mgikg	<0.2	<0.2	-	<0.2	-
Endrin ketone	53494-70-5	0.05	mgikg	+0.05	+0.05	(*)	<0,05	-
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	-	<0.2	-

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Sub-Matric: SOIL (Matric: SOIL)		Cli	ent sample ID	QC401_26/06/13	TP7_0.3-0.4_27/06/13	TP7_0,5-0.6_27/06/13	TP6_0.2-0.3_27/06/13	TP6_0.5-0.6_27/06/13
	Ci	erit sampli	ng date / time	26-JUN-2013 15:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10.00
Compound	CAS Number	LOR	Lint	EW1301886-671	EW1301886-074	EW1301886-075	EW1301886-078	EW1301886-079
EP068A: Organochlorine Pesticide								
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	maika	<0.05	<0.05		<0.05	-
Sum of DDD + DDE + DDT	-	0,05	mp/kg	<0.05	<0.05	-	<0.05	-
EP0688: Organophosphorus Pest	icidea (OP)							
Dichlorvos	62-78-7	0.05	mg%a	<0.05	<0.05	-	<0.05	-
Demeton-S-methyl	919-86-8	0.05	mg%g	<0.05	<0.05	-	<0.05	-
Monocrotophos	6923-22-4	0.2	mp/kg.	<0.2	<0.2	-	+0.2	-
Dimethoate	60-51-5	0.05	maika	<0.05	<0.05	-	<0.05	-
Diazinos	333-41-5	0.05	molkg	<0.05	<0.05	-	<0.05	-
Chlorpyrifos-methyl	5508-13-0	0.05	malkg	<0.05	<0.05	-	<0.05	-
Parathion-methyl	298-00-0	0.2	malka	<0.2	<0.2	-	<0.2	-
Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Fenthion	55-38-9	0.05	mg/kg	<0.05	+0.05	-	<0.05	-
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Parathion	55-38-2	0.2	marka	<0.2	<0.2	-	<0.2	
Pirimphos-ethyl	23505-41-1	0.05	marka	<0.05	<0.05	-	=0.05	-
Chlorfenvinphos	470-90-5	0.05	maika	<0.05	+0.05	-	<0.05	-
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Fenamiphos	22224-02-5	0.05	mg/kg	<0.05	<0.05		*0.05	
Prothiofos	34543-46-4	0.05	maikg	+0.05	<0.05	-	<0.05	-
Ethion	563-12-2	0.05	mphy	+0.05	<0.05	-	=0.05	-
Carbophenothion	785-19-5	0.05	ringility	+0.05	+0.05	_	<0.05	-
Azinphos Methyl	85-50-0	0.05	malkg	<0.05	<0.05		<0.05	
EP075(SIM)A: Phenolic Compound	1.1.1.1.5	-						
Phenol	108-95-2	0.5	malka	<0.5	<0.5	-	<0.5	-
2-Chlorophenol	95-57-8	0.5	maika	<0.5	40.5	-	<0.5	
2-Methylphenol	95-48-7	0.5	mg/kg	+0.5	<0.5	-	+0.5	-
3- 5 4-Methylphenol	1319-77-3	1	malka	13		_	41	
2-Nitrophenol	88-75-5	0.5	malkg	-0.5	<0.5		<0.5	
2.4-Dimethylphenol	105-67-9	0.5	mgikg	40.5	40.5		<0.5	- C
2.4-Dichlorophenol	120-83-2	0.5	malka	+0.5	<0.5	-	<0.5	_
2.6-Dichlorophenol	87-65-0	0.5	malka	<0.5	<0.5	-	<0.5	
4-Chloro-3-Methylphenol	59-50-7	0.5	malka	<0.5	40.5		40.5	
2.4.6-Trichlorophenol	88-06-2	0.5	marka	<0.5	<0.5		<0.5	

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Sub-Matrix: SOIL (Matrix: SOIL)		Ch	int sample ID	QC401_26/06/13	TP7_0.3-0.4_27/06/13	TP7_0.5-0.6_27/06/13	TP6_0.2-0.3_27/06/13	TP6_0.5-0.6_27/06/13
	Cli	ent sample	ng date / time	26-JUN-2013 15:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301886-071	EW1301886-074	EW1301886-075	EW1301885-078	EW1301886-079
EP075(SIM)A: Phenolic Compounds - Co	ntinued							
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5		+0.5	
Pentachiorophenol	87-86-5	2	mg/kg	+2	.12	-	+2	-
EP075(SIM)B: Polynuclear Aromatic Hyd	rocarbons	-						
Naphthalens	91-20-3	0.5	mgikg	+0.5	<0.5	-	<0.5	-
Acenaphthylene	208-96-8	0.5	malkg	<0.5	<0.5		<0.5	-
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
Phenanthrone	85-01-8	0.5	mg/kg	<0,5	×0.5	-	<0.5	-
Anthracene	120-12-7	0.5	mg/kg	<0.5	*0.5	-	<0.5	-
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	-	<0.5	-
Pyrone	125-00-0	0.5	mgikg	<0.5	×0.5	-	+0.5	-
Benz(a)anthracone	56-55-3	0.5	malkg	<0.5	×0.5	-	<0.5	-
Chrysene	218-01-9	0.5	mg/kg	<0.5	40.5	-	<0.5	-
Benzo(b)fluoranthene	205-99-2	0.5	maika	<0.5	40.5	-	<0.5	-
Benzo(k)fluoranthene	207-08-9	0.5	malka	<0.5	40.5	-	<0.5	-
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	+0.5	-	<0.5	-
indeno(1.2.3.cd)pyrene	193-39-5	0.5	maika	<0.5	<0.5	-	<0.5	-
Dibenz(a.h)anthracene	53-70-3	0.5	mgikg	<0.5	+0.5	-	<0.5	-
Benzo(g.h.i)perylene	191-24-2	0.5	malka	<0.5	<0.5	-	<0.5	-
Sum of polycyclic aromatic hydrocarbons	_	0.5	mgikg	<0,5	<0.5	-	+0.5	-
Benzo(a)pyrane TEQ (WHO)	-	0.5	mgikg	<0.5	<0,5	-	+0.5	_
EP080/071: Total Petroleum Hydrocarbo		-	and the second second	Statement of the local division of the local	and the second second			
C6 - C9 Fraction	-	10	malkg	<10	<10		<10	-
C10 - C14 Fraction		50	mgikg	<50	<50	-	<50	-
C15 - C28 Fraction		100	maika	<100	<100		<100	-
C29 - C36 Fraction		100	mg/kg	<100	<100	-	<100	_
C10 - C36 Fraction (sum)	-	50	maika	<50	<50	-	<50	-
EP080/071: Total Recoverable Hydrocart	ons - NEPM 201	Draft						
C6 - C10 Fraction	-	10	malka	<10	<10	-	<10	-
C6 - C10 Fraction minus BTEX (F1)		10	malkg	<10	<10	-	<10	-
>C10 - C16 Fraction	-	50	mgikg	<50	<50	-	<50	
>C16 - C34 Fraction	_	100	mg/kg	<100	<100	-	<100	-
-C34 - C40 Fraction	_	100	malka	<100	<100	_	<100	-
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Sub-Matrix: SOIL (Matrix: SOIL)		Cli	ent sample ID	QC401_26/05/13	TP7_0.3-0.4_27/06/13	TP7_0.5-0.6_27/06/13	TP6_0.2-0.3_27/06/13	TP6_0.5-0.6_27/06/13
	CA	Client sampling date / time			27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301886-071	EW1301886-074	EW1301886-075	EW1301886-078	EW1301886-079
EP080/071: Total Recoverable Hyp		Draft - 0	Continued					
>C10 - C40 Fraction (sum)	-	50	mg/kg	<50	<50	-	<50	-
EP080: BTEX		-						
Benzene	71-43-2	0.2	mpikg	<0.2	<0.2	-	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5		<0.5	-
Ethylbenzene	100-41-4	0,5	mpika	<0.5	<0.5		<0.6	
meta- & para-Xylene	105-38-3 106-42-3	0,5	mgikg	<0.5	<0,5	-	<0.5	-
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5		<0.5	
POSO: BTEXN								
Total Xylenes	1330-20-7	0.5	mpikg	-<0.5	<0.5	-	<0.5	
Sum of BTEX	_	0.2	mp%g	<0.2	<0.2	-	<0.2	
Naphthalane	91-20-3	1	mg/kg	-1	<1	-	<1	
EP068S: Organochlorine Pesticid	e Surrogate							
Dibromo-DDE	21655-73-2	0.1	54	100	95.4		105	-
P068T: Organophosphorus Pest	icide Surrogate		-					
DEF	78-48-8	0,1	5	108	106	-	108	-
P075(SIM)S: Phonolic Compound	Sumonates							
Phenol-d5	13127-88-5	0.1	16	86.2	90.0	-	69.2	-
2-Chlorophenol-D4	93951-73-6	0.1	16	93.8	94.1	-	81.9	-
2.4.6-Tribromophenol	118-79-6	0,1	76	93.2	93.4	-	77.2	-
EP075(SIM)T: PAH Surrogates	and the second se	-	and the second se					
2-Fluorobiphenyl	321-60-8	0,1	26	100	98.6	-	99.0	-
Anthracene-d10	1719-06-8	0.1	N	99.1	101	_	96.2	-
4-Terphenyl-d14	1718-51-0	0.1	16	91.7	93.8	_	91.3	-
P080S: TPH(V)/BTEX Surrogates	100 million (11 million)							
1.2-Dichloroethane-D4	17060-07-0	0.1	96 I	110	96.6	-	81.1	-
Toluane-D8	2037-26-5	0,1	46	87.7	87.3	_	89.6	
4-Bromofluorobenzene	450-00-4	0.1	-94	89.7	85.0	-	86.0	-

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Sub-Matrix: SOIL (Matrix: SOIL)		CI	ient sample ID	TP5_0.5-0.6_27/06/13	QC102_27/06/13	TP5_0.9-1.0_27/06/13	TP1_0.0-0.1_27/06/13	TP1_0.9-1.0_27/06/13 27-JUN-2013 10:00
	Cili	ent samp	ing date / time	27-JUN-2013 10:00	27-JUN-2013 10.00	27-JUN-2013 10:00	27-JUN-2013 10:00	
Compound	CAS Number	LOR Unt		EW1301885-082	EW1301886-083	EW1301886-084	EW1301885-086	EW1301885-088
EA002 : pH (Soils)		_	_					
pH Value	-	0.1	pH Unit	-	-	5.3	6.1	
EA055: Moisture Content	-		-	and an other states				
Moisture Content (dried @ 103*C)	-	1.0	56	26.1	26,1	25.2	26.0	9.6
EA150: Soil Classification based on F	Particle Size			and the second s				
Clay (<2 µm)		1	76	-	-	43	13	-
D008: Exchangeable Cations			-					
Exchangeable Calcium	-	0.1	meg/100g	-	-	2.5	9.9	
Exchangeable Magnesium	-	0.1	meg/100g	-	-	11.6	2.6	-
Exchangeable Potassium	-	0.1	meg/100g	-	-	0.2	0.3	-
Exchangeable Sodium		0.1	meg/100g	-	-	1.1	0.2	-
Cation Exchange Capacity		0.1	meg/100g			15.4	13.0	
EG005T: Total Metals by ICP-AES	-							
Arsenic	7440-38-2	5	mg/kg	33	<5	-45	6	4
Cadmium	7440-43-9	1	mg/kg	4	4	*1	-<1	<1
Chromium	7440-47-3	2	marka	13	12	17	13	14
Copper	7440-50-8	5	marka	467	59	69	140	87
Iron	7439-89-6	50	maka	-	-	33500	20300	-
Lead	7439-92-1	5	mp/kg	71	9	<5	29	<5
Manganese	7439-96-5	5	maika	94	37	<5	374	38
Nickel	7440-02-0	2	mpikg	6	Б	<2	11	9
Selenium	7782-49-2	5	mg/kg.	<5	<5	<5	<5	<5
Zinc	7440-66-6	5	maika	112	104	15	68	33
EG035T: Total Recoverable Mercury	by FIMS							
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EK055: Ammonia as N								
Ammonia as N	7664-41-7	20	mg/kg	<20	<20	-	<20	-
EP004: Organic Matter								
Organic Matter		0.5	- 5	-	-	1.0	3.8	-
Total Organic Carbon	-	0.5	5	-	-	0.6	2.2	-
EP068A: Organochlorine Pesticides	(OC)							
alpha-BHC	319-84-6	0.05	mgikg	<0.05	<0.05	-	<0.05	-
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
beta-BHC	319-85-7	0.05	maika	<0.05	<0.05	-	<0.05	-

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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			QC102_27/06/13	TP5_0.9-1.0_27/06/13	TP1_0.0-0.1_27/06/13	TP1_0.9-1.0_27/06/12
	CA	ent sampli	ng date I time	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Uni	EW1301886-082	EW1301886-083	EW1301886-084	EW1301886-086	EW1301886-088
EP068A: Organochlorine Pesticide	es (OC) - Continued	-		and the second se	and the second second			
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	-	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	<5.05	<0.05	-	<0.05	-
Heptachior	76-44-8	0.05	mg/kp	<0.05	<0.05	-	<0.05	-
Aldrin	309-00-2	0.05	mp/kg	<0.05	<0.05	-	<0.05	-
Heptachior epoxide	1024-57-3	0.05	mping	<0.05	<0.05	-	<0.05	-
Total Chiordane (sum)	-	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
trans-Chlordane	5103-74-2	0.05	ma/ka	<0.05	<0.05	-	<0.05	-
alpha-Endosulfan	959-98-8	0.05	mg/kg	<8.05	<0.05	-	<0.05	-
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
4.4 -DDE	72-55-9	0.05	malkg	<0.05	<0.05		<0.05	-
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
beta-Endosullan	33213-65-9	0.05	marka	<0.05	<0.05	-	<0.05	-
Endosulfan (sum)	115-29-7	0.05	ma/ka	<0.05	<0.05	-	<0.05	-
4.4 -DDD	72-54-8	0.05	ing/kg	<0.05	<0.05	-	<0.05	-
Endrin aldehyste	7421-93-4	0.05	marka	<0.05	<0.05	-	×0.05	-
Endosulfan sulfate	1031-07-8	0.05	malka	<0.05	<0.05	-	<0.05	-
4.4'-DDT	50-29-3	0.2	mg/kg	=0.2	<0.2	-	<0.2	-
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	-	=0.05	-
Methoxychlor	72-43-5	0.2	mp/kg	40.2	+0.2	-	+0.2	-
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	ma/kg	<0.05	⊲0.05		<0.05	-
Sum of DDD + DDE + DDT	_	0.05	mg/kg	<0.05	<0.05	-	-0.05	-
EP068B: Organophosphorus Pesti	icides (OP)	-						
Dichlorvos	62-73-7	0.05	ms/kg	<0.05	<0.05	-	<0.05	-
Demeton-S-methyl	919-86-8	0.05	mp/kg	×0.05	<0.05	-	<0.05	-
Monocrotophos	6923-22-4	0.2	ms/kp	<0.2	40.2	-	<0.2	_
Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	-	<0.05	_
Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	-	<0.05	-
Chlorpyrifos-methyl	5598-13-0	0.05	mp/kg	<0.05	<0.05	-	<0.05	-
Parathion-methyl	298-00-0	0.2	ma/kg	<0.2	<0.2	-	<0.2	-
Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	-	<0.05	
Fenthion	55-38-0	0.05	marka	<0.05	<0.05	-	<0.05	
Chiorpyrifos	2921-88-2	0.05	mp/kg	<0.05	<0.05	-	<0.05	-
Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2		<0.2	-

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Project	137623028



Sub-Matrix: SOIL (Matrix: SOIL)		CA	ent sample ID	TP5_0.5-0.6_27/06/13	QC102_27/06/13	TP5_0,9-1.0_27/06/13	TP1_0.0-0.1_27/06/13	TP1_0.9-1.0_27/06/1
	Client sampling date / time			27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Linit	EW1301886-082	EW1301886-083	EW1301886-084	EW1301886-086	EW1301886-088
EP075(SIM)B: Polynuclear Aromatic Hy	drocarbons - Cont	inued						
Benzo(k)fluoranthene	207-08-9	0.5	mpika	<0,5	<0,5		<0,5	
Benzo(a)pyrene	50-32-8	0.5	mpikg	<0.5	<0.5	-	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mpikg	<0.5	<0.5	-	<0.5	-
Dibenz(a.h)anthracene	53-70-3	0.5	malkg	<0.5	<0.5	-	<0.5	
Benzo(g.h.i)perylene	191-24-2	0.5	mpikg	<0.5	<0.5		<0,5	-
Sum of polycyclic aromatic hydrocarbons		0,5	mpikg	<0.5	<0.5	-	<0,5	-
Benzo(a)pyrene TEQ (WHO)	-	0,5	maika	<0,5	<0,5		<0.5	-
EP080/071: Total Petroleum Hydrocarb	ons							
C6 - C9 Fraction		10	mgikg	<10	<10	-	=10	-
C10 - C14 Fraction		50	mgikg	<50	<50	-	<50	_
C15 - C28 Fraction		100	mpikg	<100	<100	-	<100	-
C29 - C36 Fraction	_	100	mg/kg	<100	<100	-	<100	-
C10 - C36 Fraction (sum)	-	50	mg/kg	<50	<50	-	<50	-
EP080/071: Total Recoverable Hydrocal	bons - NEPM 201	Draft						
C6 - C10 Fraction	-	10	mgikg	<10	<10		= 10	
C6 - C10 Fraction minus BTEX (F1)		10	maikg	<10	*10	-	<10	-
>C10 - C16 Fraction	-	50	malka	<50	<50	-	<50	-
>C16 - C34 Fraction		100	mgikg	<100	=100	-	4100	-
>C34 - C40 Fraction	-	100	mgikg	<100	<100	-	<100	-
>C10 - C40 Fraction (sum)	-	50	malka	<50	~50	-	<50	-
EP080: BTEX	0	-		and the second division of the second divisio				
Benzene	71-43-2	0.2	mg/kg	40.2	*0.2		<0.2	-
Toluene	108-88-3	0.5	maika	40.5	<0.5	-	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	~0.5	<0.5	-	<0.5	-
meta- & para-Xylene	108-38-3 106-42-3	0.5	molka	40,5	40.5	-	<0,5	-
ortho-Xytene	95-47-6	0.5	mgikg	+0.5	<0.5		<0.5	-
EP080: BTEXN			-					
Total Xylenes	1330-20-7	0.5	maika	<0.5	<0.5	-	<0.5	-
Sum of BTEX	-	0.2	mg/kg	<0.2	<0.2	-	<0.2	_
Naphthalene	81-20-3	1	maika	<1	<1	-	<1	-
EP068S: Organochlorine Pesticide Surr				and the second se				
Dibromo-DDE	21655-73-2	0.1		97.3	10.6		85.0	-

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Client	PORT KEMBLA COPPER	
Client Project	137623028	(ALS)

Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			QC102_27/06/13	TP5_0.9-1.0_27/06/13	TP1_0.0-0.1_27/06/13	TP1_0.9-1.0_27/06/13
	Cit	ent sampli	ng date / time	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Linit	EW1301886-082	EW1301886-083	EW1301886-084	EW1301886-086	EW1301886-088
EP068T: Organophosphorus Pestic	Ide Surrogate - Continu	bot						
DEF	78-48-8	0.1	56	104	97.8		92.3	-
EP075(SIM)S: Phenolic Compound	Surrogates	-						
Phenol-d6	13127-88-3	0,1	. %	92.6	91,6	-	99.0	
2-Chlorophenol-D4	93951-73-6	0.1	56	95.4	97.9		107	-
2.4.6-Tribromophenol	118-79-8	0.1	56	96,3	96.1	-	106	
EP075(SIM)T: PAH Surrogates		100						
2-Fluorobiphenyl	321-60-8	0.1	76	103	105	-	117	-
Anthracene-d10	1719-06-8	0,1	56	99.8	95.7	-	116	
4-Terphenyl-d14	1718-51-0	0.1	%	92.5	86.9	÷+	108	-
EP080S: TPH(V)/BTEX Surrogates		-						
1.2-Dichloroethane-D4	17050-07-0	0.1	%	92.0	92.3	-	112	
Toluene-D8	2037-28-5	0.1	%	102	86.1		90.6	-
4-Bromofluorobenzene	450-00-4	0.1	46	98,4	80.7	-	84.4	

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Work Order	EW1301886
Client	- PORT KEMBLA COPPER
Project	137623028



Sub-Matrix: SOIL (Matrix: SOIL)		CA	ient sample ID	TP2_0.0-0.1_27/06/13	TP2_0.2-0.4_27/06/13	TP3_0.0-0.1_27/06/13	TP3_0.5-0.6_27/06/13	TP4_0.0-0.1_27/06/13
	0	lient sampl	ing date / time	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Linit	EW1301886-689	EW1301888-090	EW1301886-092	EW1301886-093	EW1301886-095
EA002 : pH (Soils)	-			Sector Se				
pH Value		0,1	pH Unit	-	-	-	5.2	-
EA055: Moisture Content		-	-	and the second se				
Moisture Content (dried @ 103*C)	-	1.0	16	17.1	31.6	30.5	30,9	26.5
EA150: Soil Classification based on F	Particle Size							
Clay (<2 pm)	_	1.	15				54	-
EA200: AS 4964 - 2004 Identification o	of Asbestos in bulk	samples						
Asbestos Detected	1332-21-4	0.1	gikg	-	-	No	-	-
Asbestos Type	1332-21-4	1	-	-	÷.		-	-
Sample weight (dry)		0.01	0	-		599	-	-
APPROVED IDENTIFIER:		1	-	+	He	C.OWLER	-	-
EA200Q: Asbestos Quantification (no	m-NATA)		-					
Weight Used for % Calculation	-	D.0001	kg	-		6.00	-	-
Asbestos Containing Material	1332-21-4	0.1	9			<0,9	-	-
Fibrous Asbestos	-	0.002	12	-	-	<0.002	-	-
Ashestos Fines	1332-21-4	-	-			No	-	-
Asbestos Containing Material (ACM >7mm)	1332-21-4	0.01	- %	-	-	-=0.01	-	-
Asbestos Fines and Fibrous Asbestos (<7mm)	1332-21-4	0.001	5	-	-	×0.001	-	-
ED008: Exchangeable Cations	-		And in case of the local division of the loc					
Exchangeable Calcium	-	0.1	meg/100g	-	-	-	3.6	-
Exchangeable Magnesium	-	0,1	meg/100g	-	-	-	9.1	-
Exchangeable Potassium	-	0,1	meg/100g	-	-	-	0.2	-
Exchangeable Sodium	_	0.1	meg/100g	(100)		-	2.9	_
Cation Exchange Capacity	_	0.1	meg/100g		-	-	16.8	-
EG005T: Total Metals by ICP-AES		-						
Arsenic	7440-38-2	5	mp/kg	<5	-45	1	<5	<5
Cadmium	7440-43-9	7	mgikg	<1	41	3	<1	<t -<="" td=""></t>
Chromium	7440-47-3	2	mg/kg	10	20	7	25	3
Copper	7440-50-8	5	mg/kg	10	82	589	80	287
Iron	7439-89-8	50	mg/kg		-	-	59000	-
Lead	7439-92-1	5	mg/kg	9	7	120	12	126
Manganese	7439-96-5	5	mg/kg	428	<5	136	19	216
Nickel	7440-02-0	2	mig/kg	7	3		4	2

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Sub-Matrix: SOIL (Matrix: SOIL)		Cile	nt sample ID	TP2_0.0-0.1_27/06/13	TP2_0.2-0.4_27/06/13	TP3_0.0-0.1_27/06/13	TP3_0.5-0.6_27/06/13	TP4_0.0-0.1_27/06/13
	CA	ent sample	g date / time	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301886-089	EW1301885-090	EW1301886-092	EW1301886-093	EW1301886-095
EG005T: Total Metals by ICP-AES -	Continued							
Selenium	7782-49-2	5	marka	<5	4	<5	<5	-45
Zinc	7440-66-6	5	mg/kg	18	12	162	25	32
EG035T: Total Recoverable Mercu	ry by FIMS							
Mercury	7439-87-6	ii.1	mgikg	<0.1	<0:1	<0.1	<0.1	<0.1
EK055: Ammonia as N		-	-	Statement of the local division of the local				
Ammonia as N	7664-41-7	20	marka	-	<20	<20	-	×20
EP004: Organic Matter			10000					
Organic Matter	-	0.5	5	-	-	-	1.9	
Total Organic Carbon	-	0,5	55.	-	-	-	1.1	-
EP068A: Organochlorine Pesticide	s (OC)							
alpha-BHC	319-84-6	0.05	mg/kg	-	<0.05	<0.05	-	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	malka		<0.05	<0.05		<0.05
beta-BHC	319-85-7	0.05	mg/kg	-	<0.05	<0.05	-	<0.05
gamma-BHC	58-89-9	0.05	marka	-	<0.05	<0.05	-	<0.05
delta-BHC	319-86-8	0.05	malka	-	<0.05	<0.05		<0.05
Heptachlor	76-44-8	0.05	mgikg	-	<0.05	<0.05	-	<0.05
Aldrin	309-00-2	0.05	mg/kg	-	<0.05	<0.05	-	<0.05
Heptachlor spoxide	1024-57-3	0.05	mgikg	-	<0.05	<0.05	-	<0.05
Total Chlordane (sum)	-	0.05	mgikg		<0.05	<0.05		<0.05
trans-Chlordane	5103-74-2	0.05	mgikg		<0.05	<0.05	-	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	-	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	-	<0.05	<0.05	-	<0.05
Dieldrin	60-57-1	0.05	marka	-	<0.05	<0.05	-	<0.05
4.4'-DDE	72-55-9	0.05	malka	-	<0.05	<0.05	-	+0.05
Endrin	72-20-8	0.05	marka	-	<0.05	<0.05	-	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	-	<0.05
Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	-	<0.05
4.4'-DDD	72-54-8	0.05	marka		<0.05	<0.05	-	<0.05
Endrin aldehyde	7421-85-4	0.05	mgikg	-	<0.05	<0.05	-	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	-	<0.05	<2.05	-	<0.05
4.4'-DDT	50-29-3	0.2	mgikg		*0.2	+0.2	+	<0.2
Endrin ketone	53494-70-5	0.05	mgikg	-	<0.05	<0.05	-	<0.05
Methoxychlor	72-43-5	0,2	mg/kg		<0.2	<0.2	-	<0.2

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Project	137623028



Sub-Matric: SOIL (Matrix: SOIL)		C34	ent sample /D	TP2_0.0-0.1_27/06/13	TP2_0.2-0.4_27/06/13	TP3_0.0-0.1_27/06/13	TP3_0.5-0.6_27/06/13	TP4_0.0-0.1_27/06/13
	0	Client sampling date / time			27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Umr	EW1301886-089	EW1301886-090	EW1301886-092	EW1301886-093	EW1301886-095
EP068A: Organochlorine Pesticid	es (OC) - Continued		-	Contract of the local division of the local				
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	maika	-	<0.05	<0.05	-	+0.05
Sum of DDD + DDE + DDT	_	0.05	marka	-	<0.05	<0.05		<0.05
EP0688: Organophosphorus Pest	ticides (OP)		-					
Dichlorvos	62-73-7	0.05	mgikg	-	<0.05	<0.05	-	<0.05
Demeton-S-methyl	919-85-8	0.05	mp/kg		<0.05	<0.05	-	₹0.05
Monocrotophos	6923-22-4	0.2	mg/kg	-	<0.2	<0.2	-	<0.2
Dimethoate	60-51-5	0.05	mg/kg	-	<0.05	<0.05		+0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	-	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	maika		<0.05	<0.05		<0.05
Parathion-methyl	298-00-0	0.2	mg/kg	-	<0.2	<0.2		<0.2
Malathion	121-75-5	0.05	mgikg	-	<0.05	<0.05	-	<0.05
Fenthion	55-38-9	0.05	mg/kg	-	<0.05	*0.05		<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg	-	<0.05	<0.05	-	+0.05
Parathion	56-38-2	0.2	molikg	-	<0.2	<0.2	_	<0.2
Pirimphos-sthyl	23505-41-1	0.05	mp/kg	-	<0.05	<0.05	-	<0.05
Chiorfenvinphos	470-90-6	9,05	marka		+0.05	<0.05		~0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg	-	<0.05	<0.05	-	<0.05
Fenamiphos	22224-02-6	0.05	molkg	-	+0.05	<0.05	-	+0.05
Prothiofos	34643-46-4	0.05	mg/kg	-	<0.05	×0.05	-	<0.05
Ethion	563-12-2	D.05	maika		=0.05	<0.05	-	+0.05
Carbophenothion	786-19-6	0.05	mo%g	-	<0.05	<0.05	-	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg	-	+0.05	+0.05	_	~0.05
EP075(SIM)A: Phenolic Compoun	dis	-						
Phenol	108-95-2	0.5	mgäg		×0.5	<0.5	-	<0.5
2-Chlorophenol	95-57-8	0.5	maha	-	×0,5	<0.5	-	<0.5
2-Methylphenol	95-48-7	0.5	prign	-	<0,5	<0,5		40.5
3- & 4-Methylphenol	1319-77-3	4.1	mpikg	-	+1	41	-	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	_	<0,5	<0.5	-	<0.5
2.4-Dimethylphenol	105-87-8	0.5	marka	-	-<0.5	<0.5	-	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mgikg	-	<0,5	<0.5	-	<0.5
2.6-Dichlorophenol	87-65-0	0.5	maka	-	+0.5	-10.5		<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mgikg	-	<0.5	+0.5	-	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	malka	-	<0.5	-40.5	-	<0.5

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Sub-Matrix: SOIL (Matrix: SOIL)		Cla	int sample ID	TP2_0.0-0.1_27/06/13	TP2_0.2-0.4_27/06/13	TP3_0.0-0.1_27/06/13	TP3_0.5-0.6_27/06/13	TP4_0.0-0.1_27/06/1
	Chi	nt sample	ng date / lime	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301886-089	EW1301886-090	EW1301886-092	EW1301885-093	EW1301886-095
P075(SIM)A: Phenolic Compounds - Cor	tinued							
2.4.5-Trichlorophenol	95-95-4	0.5	mp/kg	-	<0.5	<0.5	-	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	-	<2	<2	-	4
P075(SIM)B: Polynuclear Aromatic Hyd	rocarbons							
Naphthalene	91-20-3	0.5	mg/kg	-	~0.5	<0.5	-	×0.5
Acenaphthylene	208-96-8	0.5	mg/kg	-	<0.5	<0.5		<0.5
Aconaphthone	83-32-9	0.5	mp/kg	-	<0.5	<0.5	-	<0.5
Fluorene	86-73-7	0.5	mg/kg		+0.5	<0.5	-	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	-	<0.5	<0.5	-	<0.5
Anthracene	120-12-7	0.5	mg/kg	-	<0.5	<0.5	-	<0.5
Fluoranthene	206-44-0	0,5	mg/kg	-	40.5	=0.5	-	<0.5
Pyrane	129-00-0	0.5	mg/kg	-	+0.5	<0.5	-	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	-	+0.5	<0,5	-	<0.5
Chrysene	218-01-9	0,5	mg/kg	-	<0.5	<0.5	-	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	-	+0.5	<0.5	-	<0,5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	-	<0.5	<0.5	-	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	-	<0.5	<0.5		<0.5
indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	-	<0.5	<0.5		<0.5
Dibenz(a.h)anthracane	53-70-3	0.5	mg/kg	-	<0.5	<0.5	-	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	-	<0.5	<0.5	+	<0.5
Sum of polycyclic aromatic hydrocarbons		0.5	mgikg	-	<0,5	<0.5	-	<0.5
Benzo(a)pyrene TEQ (WHO)		0.5	mgikg	-	<0,5	<0.5	-	<0,5
P080/071: Total Petroleum Hydrocarbo	15							
C6 - C9 Fraction	-	10	mpikg	-	<10	<10	-	<10
C10 - C14 Fraction		50	mgikg	-	<50	<\$0	-	<50
C15 - C28 Fraction	-	100	mgikg	-	<100	<100	-	<100
C29 - C36 Fraction	_	100	mg/kg	-	<100	<100	-	<100
C10 - C36 Fraction (sum)	-	50	mg/kg	-	<50	<50	-	<50
P080/071: Total Recoverable Hydrocart	ons - NEPM 201	0 Draft						
C6 - C10 Fraction	-	10	mgikg	-	<10	<10		<10
C6 - C10 Fraction minus BTEX (F1)	-	10	mgikg		*10	<10		<10
>C10 - C16 Fraction		50	mgikg	-	<50	<50	-	<50
>C16 - C34 Fraction	-	100	mg/kg	-	<100	<100	-	<100
>C34 - C40 Fraction		100	mg/kg	-	<100	<100	-	<100

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Sub-Matric: SOIL (Matric: SOIL)		Cl	ent sample (D	TP2_0,0-0.1_27/06/13	TP2_0.2-0.4_27/06/13	TP3_0.0-0.1_27/06/13	TP3_0.5-0.6_27/06/13	TP4_0.0-0.1_27/06/13
	CA	Client sampling date / time			27-JUN-2013 10:00	27-JUN-2013 10.00	27-JUN-2013 10:00	27-JUN-2013 10:00
Compound	CAS Number	LOR	Unit	EW1301886-089	EW1301888-090	EW1301886-092	EW1301886-093	EW1301886-095
EP080/071: Total Recoverable Hy	drocarbons - NEPM 201	0 Draft - I	Continued					
>C10 - C40 Fraction (sum)		50	mpika		<50	<50	-	<50
EP080: BTEX		-	-	and the second se				
Benzene	71-43-2	0.2	maika	· · · · · · · · · · · · · · · · · · ·	<0.2	<0.2	-	<0.2
Toluene	108-88-3	0.5	malka		<0.5	<0.5	-	<0.5
Ethylbenzene	100-41-4	0.5	mpikg		<0.5	<0.5	-	<0.5
meta-& para-Xylene	105-38-3 106-42-3	0.5	maikg	-	<0.5	<0.5	-	<0.5
ortho-Xylene	95-47-6	0.5	marka	-	<0.5	<0.5		<0.5
EP080: BTEXN			-					
Total Xylenes	1330-20-7	0.5	maikg	-	<0.5	<0.5	-	<0.5
Sum of BTEX		0.2	malkg		<0.2	<0.2		<0.2
Naphthalene	91-20-3	1	maika	-	41	-41	-	<1
EP068S: Organochlorine Pesticid	la Surronate	-	-		the second s			
Dibramo-DDE	21655-73-2	0,1	· N ·	-	106	94.3	-	92.0
EP068T: Organophosphorus Pes	ticide Surrogate			the second s				
DEF	78-48-8	0.1	10	-	110	100		99.8
EP075(SIM)S: Phenolic Compoun	d Surrogates							
Phenol-d6	13127-88-5	0.1	16	-	91.7	88.0	-	95.1
2-Chlorophenol-D4	93951-73-6	0.1	- 66		92.4	97.6	-	103
2.4.6-Tribromophenol	118-79-6	0,1	- 10		98.1	109		100
EP075(SIM)T: PAH Surrogates		-	-					100
2-Fluorobiphenyl	321-60-8	1.0	5		110	106	-	112
Anthracene-d10	1719-08-8	0.1	- 16	-	99.7	105	-	102
4-Terphenyl-d14	1718-51-0	0.1	5	-	86.7	98.0	-	96.5
EP080S: TPH(V)/BTEX Surrogate		-						
1.2-Dichloroethane-D4	17060-07-0	0,1	5	-	90.9	91.3	-	91.0
Toluene-D8	2037-26-5	0,1	16	_	84.3	82.8		83.5
4-Bromofluorobenzene	460-00-4	0.1	4.	-	80.2	70.6	-	76.2



Sub-Matrix: SOIL (Matrix: SOIL)		Cie	int sample ID	TP4_0.5-0.6_27/06/13	QC402_27/06/13	OL1_0.0-0.2_27/06/13	OL1_0.3-0.5_27/06/13	OL2_0.0-0.2_27/06/11
	Ch	ent sample	g date / time	27-JUN-2013 10.00	27-JUN-2013 10:00	27-JUN-2013 15:00	27-JUN-2013 15:00	27-JUN-2013 15:00
Compaind	CAS Number	LOR	Unit	EW1301886-096	EW1301885-098	EW1301886-100	EW1301886-101	EW1301885-102
EA055: Moisture Content		-	-	and the second second				
Moisture Content (dried @ 103°C)	-	1.0	%	17.9	2.8	23.3	25.0	21.9
EG005T: Total Metals by ICP-AES		-						
Arsenic	7440-38-2	5	malka	9	<5	<5	<5.	32
Cadmium	7440-43-9	1	mg/kg	<t td="" <=""><td></td><td>d</td><td><1</td><td>8</td></t>		d	<1	8
Chromium	7440-47-3	2	mg/kg	16	42	17	21	10
Copper	7440-50-8	5	mg/kg	78	<5	48	66	1150
Lead	7439-92-1	5	malka	22	<5	10	9	383
Manganese	7439-96-5	5	mg/kg	21	.8	24.	12	148
Nickel	7440-02-0	2	mg/kg	3	42	3	5	12
Selenium	7782-49-2	5	mg/kg	*5	<5	<5	<5	- 45
Zinc	7440-66-6	5	mg/kg	16	+5	13	20	498
EG035T: Total Recoverable Mercury	by FIMS							
Mercury	7439-97-6	0.1	mg/kg	s0.1	+0.1	\$0.1	<0,1	0.2
EK055: Ammonia as N		-						
Ammonia as N	7664-41-7	20	mg/kg	-	<20	-	+	-
EP068A: Organochlorine Pesticides (00)	-	-					
sipha-BHC	319-84-6	0.05	mp/kg		<0.05	-	-	-
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	-	<0.05	-	-	-
beta-BHC	319-85-7	0.05	mg/kg	-	<0.05	-	-	-
gamma-BHC	58-89-9	0.05	mg/kg	-	<0.05	-	-	-
delta-BHC	315-86-8	0.05	mg/kg	-	<0.05	-	-	-
Heptachlor	76-44-8	0.05	mg/kg	-	<0.05	-	-	-
Aldrin	309-00-2	0.05	malka	-	<0.05	-	-	-
Heptachlor epoxide	1024-57-3	0.05	mg/kg	-	<0.05	-	-	-
Total Chlordane (sum)	-	0.05	mg/kg	-	<0.05	-	-	-
trans-Chlordane	5103-74-2	0.05	mg/kg	-	<0.05	-	-	-
sipha-Endosulfan	959-98-8	0.05	malka	-	<0.05	-	-	-
cis-Chlordane	5103-71-9	0.05	mg/kg	-	<0.05	-	-	-
Dieldrin	60-57-1	0.05	mg/kg	-	<0.05	-	-	-
4.4'-DDE	72-55-9	0.05	mg/kg	-	<0.05	-	-	-
Endrin	72-20-8	0.05	mg/kg	-	<0.05	-	-	-
beta-Endosulfan	33213-65-9	0.05	mg/kg	-	<0.05	-	-	-
Endosulfan (sum)	115-29-7	0.05	mp/kg	_	<0.05	_	-	-

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Sub-Matrix: SOIL (Matrix: SOIL)		Ch	int sample ID	TP4_0.5-0.6_27/06/13	QC402_27/06/13	OL1_0.0-0.2_27/06/13	OL1_0.3-0.6_27/06/13	OL2_0.0-0.2_27/06/13
	- CI	ent sample	ng date / time	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 15:00	27-JUN-2013 15:00	27-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-096	EW1301886-098	EW1301886-100	EW1301886-101	EW1301886-102
EP068A: Organochlorine Pesticid	es (OC) - Continued							
4.4°-DDD	72-54-8	0.05	malkg	-	<0.05	-	-	-
Endrin aldehyde	7421-93-4	0.05	mg/kg	-	<0.05	-		-
Endosultan sulfate	1031-07-8	0.05	malka	-	<0.05	-	-	-
4.4'-DDT	50-29-3	0.2	marka	-	40.2	-	-	-
Endrin ketone	53494-70-5	0.05	mgikg	-	<0.05	-	-	-
Methoxychlor	72-43-5	0.2	mg/kg	-	<0.2		_	-
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	-	<0.05	-	-	-
Sum of DOD + DDE + DDT	-	0.05	ma/kg	-	<0.05	-	-	-
EP0688: Organophosphorus Pest	icides (OP)	-						
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	-	-	-
Demeton-S-methyl	919-86-8	0.05	mp/kg	_	<0.05	-	_	_
Monocrotophos	6923-22-4	0.2	ma/kg	-	<0.2	-	-	-
Dimethoate	60-51-5	0.05	marka	-	<0.05	-	-	-
Diazinon	333-41-5	0.05	mg/kg	-	<0.05	-	-	-
Chlorpyrifos-methyl	5598-13-0	0.05	marka	-	<0.05	-	-	-
Parathion-methyl	298-00-0	0.2	mp/kg	-	<0.2	-	-	-
Matathion	121-75-5	0.05	mg/kg	-	<0,05	-	-	-
Fenthion	55-38-9	0.05	mg/kg	-	<0.05	-	-	
Chlorpyrifos	2921-88-2	0.05	maika		<0.05	-	-	
Parathion	56-38-2	0.2	marka	-	<0.2		-	-
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	-	<0.05	-	-	-
Chlorfenvinphos	470-00-6	0.05	mg/kg	-	<0.05	-	+	
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	-	-	-
Fenamiphos	22224-92-8	0.05	mg/kg		<0.05		-	-
Prothiofos	54543-46-4	0.05	mp/kg	-	<0.05	-	-	
Ethion	563-12-2	0.05	mg/kg	-	<0.05	-	-	
Carbophenothion	788-19-6	0.05	mg/kg	-	+0.05		-	-
Azinphos Methyl	86-50-0	9.05	mg/kg	-	<0.05	-	-	-
P075(SIM)A: Phenolic Compound	14							
Phenal	108-95-2	0,5	mg/kg	-	<0.5	-	-	-
2-Chlorophenol	95-67-8	0.5	mg/kg	-	<0.5	-	-	-
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	-	-	-
3- & 4-Methylphenol	1318-77-3	1	mp/kg	-	<1	-	-	-

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Polimia	- 137623028



Sub-Matrix: SOIL (Matrix: SOIL)		Cit	int sample ID	TP4_0.5-0.6_27/06/13	QC402_27/06/13	OL1_0.0-0.2_27/06/13	OL1_0.3-0.5_27/06/13	OL2_0.0-0.2_27/06/1
	Ch	int sample	ig date / time	27-JLIN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 15:00	27-JUN-2013 15:00	27-JUN-2013 15:00
Compound	CAS Number	LOR	Unit	EW1301886-096	EW1301886-098	EW1301886-100	EW1301886-101	EW1301886-102
EP075(SIM)A: Phenolic Compounds - Co								
2-Nitrophenol	88-75-5	0.5	mg/kg		+0.5	-	+	-
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		+0.5	-		-
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	-	<0.5	-	-	-
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		×0.5		-	-
4-Chioro-3-Methylphenol	59-50-7	0.5	mg/kg	-	<0.5	-	-	-
2,4.6-Trichlorophenol	88-05-2	0.5	mg/kg	-	<0.5	-	-	-
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		≪0.5	-	-	-
Pentachlorophenol	87-86-5	z	mg/kg	-	«2	-	-	-
P075(SIM)B: Polynuclear Aromatic Hyd	rocarbons							
Naphthalene	91-20-3	0,5	mg/kg	-	+0.5		-	-
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	-	-	-
Acenaphthène	83-32-9	0.5	mg/kg		<0.5	-	-	-
Fluorens	86-73-7	0.5	mg/kg	-	<0.5	-	-	-
Phonanthrene	85-01-8	0.5	mg/kg	-	<0.5	-	-	
Anthracene	120-12-7	0.5	mg/kg	÷.	<0.5	-	-	-
Fluoranthene	208-44-0	0.5	mg/kg	-	<0.5		-	-
Pyrens	129-00-0	0.5	mg/kg		<0.5	-	-	-
Benz(a)anthracene	56-55-3	0.5	mg/kg	-	<0.5	-	-	-
Chrysene	218-01-9	0.5	mg/kg		<0.5	-	-	-
Benzo(b)fluoranthene	205-89-2	0.5	mg/kg	-	<0.5	-	-	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5		-	-
Benzo(a)pyrene	50-32-8	0.5	mg/kg	-	<0.5	-	-	-
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	-	<0.5			
Dibenz(a.h)anthracene	53-70-3	0,5	mgikg		<0.5		-	-
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	-	-	
Sum of polycyclic aromatic hydrocarbons		0.5	mg/kg.	-	<0.5	-	-	-
Benzo(a)pyrene TEQ (WHO)		0.5	mg/kg	-	<0.5	-	-	-
P080/071: Total Petroleum Hydrocarbo	ns							
C6 - C9 Fraction		10	mgikg	-	<10	-		-
C10 - C14 Fraction	-	50	mg/kg	· · · · · · · · · · · · · · · · · · ·	<60	-		
C15 - C28 Fraction	-	100	mgikg		<100		-	-
C29 - C36 Fraction		100	mg/kg	-	<100			-
C10 - C36 Fraction (sum)	-	50	mg/kg	-	<50	-		

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Sub-Matrix: SOIL (Matrix: SOIL)		Ch	ent sample (D	TP4_0.5-0.6_27/06/13	QC402_27/06/13	OL1_0.0-0.2_27/06/13	OL1_0.3-0.5_27/06/13	OL2_0.0-0.2_27/06/13
	C	ent sampli	ng date / time	27-JUN-2013 10:00	27-JUN-2013 10:00	27-JUN-2013 15:00	27-JUN-2013 15:00	27-JUN-2013 15:00
Compound	CAS Number	LOR	Une	EW1201886-096	EW1301886-098	EW1301886-100	EW1301885-101	EW1301886-102
EP080/071: Total Recoverable Hydri	ocarbons - NEPM 201	0 Draft						
C6 - C10 Fraction		10	mg/kg	-	<10	-	-	-
C6 - C10 Fraction minus BTEX (F1)	-	10	mpika	-	<10	-		
>C10 - C16 Fraction		50	mp/kg	-	<50	-	-	-
>C16 - C34 Fraction	-	100	mg/kg		<100	-		-
>C34 - C40 Fraction		100	marka		<100	-	-	-
>C10 - C40 Fraction (sum)		50	mg/kg		<50	-		-
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	-	<0.2	-	-	-
Toluene	108-88-3	0.5	marka	-	<0.5	-		
Ethylbenzene	100-41-4	0.5	mg/kg	-	<0,5	-	-	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	-	<0.5	-	· ·	
ortho-Xylene	95-47-6	0,5	mg/kg	_	<0.5	-	-	-
EP080: BTEXN					and the second second			
Total Xylenes	1330-20-7	0.5	molkg		<0.5	-	-	-
Sum of BTEX	-	0.2	mailia	-	<0.2	-	-	-
Naphthalene	91-20-3	1	morkg	-	<1	-	-	-
EP068S: Organochlorine Pesticide 1	Surrogate			and the second division of the second divisio				
Dibromo-DDE	21655-73-2	0.1	- 15	-	104	-	-	
EP068T: Organophosphorus Pestici	de Surrogate	-						
DEF	78-48-8	0.1	55	-	102	-	-	
EP075(SIM)S: Phenolic Compound !	Surrogates		-					
Phenol-d6	13127-88-3	0.1	- 5	- 1	87.6	-	-	-
2-Chlorophenol-D4	93951-73-6	0.1	- 16	-	98.8	-	-	1
2.4.6-Tribromophenol	118-79-6	0.1	5	-	93.7	-	-	-
EP076(SIM)T: PAH Surrogates	-							
2-Fluorobiphenyl	321-80-8	0,1	5	-	102	-	-	-
Anthracene-d10	1719-06-8	0.1	. 5		99.6	-	-	-
4-Terphenyl-d14	1718-51-0	0.1	15	-	94,5	-	-	-
EP080S: TPH/VVBTEX Surrogates			-	and the second se				
1.2-Dichloroethane-D4	17060-07-0	0.1	5	-	116	-	-	
Toluene-D8	2037-26-5	0.1	- 5		102	-	-	-
4-Bromofluorobenzene	460-00-4	0.1	16		95.8	-	_	

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Sub-Matrix: SOIL (Matrix: SOIL)	Client sample ID		OL2_0.3-0.5_27/06/13	3	-	-	-	
	Cli	ent sample	ng date / time	27-JUN-2013 15:00	-	-	-	-
Compound	CAS Number	LOR	Linit	EW1301886-103	-	-		-
EA055: Moisture Content								
Moisture Content (dried @ 103°C)		1.0	%	30.8	-		-	-
EG005T: Total Metals by ICP-AES		-						
Arsonic	7440-38-2	5	mg/kg	<5		-	-	-
Cadmium	7440-43-9	1	mg/kg	<t l<="" td=""><td>-</td><td>-</td><td>-</td><td>-</td></t>	-	-	-	-
Chromium	7440-47-3	2	mg/kg	20	-	-	-	-
Copper	7440-50-8	5	mg/kg	111	-		-	-
Lead	7439-92-1	5	mg/kg	18	-	-	-	-
Manganese	7439-96-5	5	mg/kg	26	-	-	-	-
Nickel	7440-02-0	2	mg/kg	6	-	-	-	-
Selenium	7782-49-2	5	marka	<5		-	-	-
Zino	7440-66-6	5	mg/kg	78	-	-	-	
EG035T: Total Recoverable Mercury t	by FIMS							
Mercury	7439-97-6	0.1	mg/kg	<0.1	-		-	-

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Sub-Matrix: WATER (Matrix: WATER)		Client sample ID		QC300_25/06/13	QC301_26/06/13	QC302_27/06/13	-	
	0	ient sample	g date / time	25-JUN-2013 15:00	28-JUN-2013 15:00	27-JUN-2013 10:00	-	-
Compound	CAS Number	LOR	Une	EW1301886-022	EW1301886-072	EW1301886-099	-	-
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0,001	<0.001	<0.001	-	-
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	-	
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	-	-
Copper	7440-50-8	0.001	mg/L	<0.001	<0,001	<0.001		100
Lead	7439-92-1	0.001	mg/L.	<0.001	<0,001	<0.001	-	-
Manganese	7439-96-5	0.001	mg/L	<0,001	<0.001	<0.001	-	-
Nickel	7440-02-0	0.001	mp/L	<0.001	<0.001	<0.001	-	
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	<0.01		-
Zinc	7440-66-6	0,005	mg/L	<0.005	<0.005	<0.005		
EG0357: Total Recoverable Mercury i	by FIMS	-						
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	-	-
EP068A: Organochlorine Pesticides (0C)							
alpha-BHC	310-84-5	0.5	Jgu	<0.5	<0.5	<0.5	-	
Hexachlorobenzene (HCB)	118-74-1	0.5	LOH.	<0.5	<0,5	<0.5	-	
beta-BHC	319-85-7	0.5	Hg/L	<0.5	<0,5	<0.5	-	
gamma-BHC	58-89-9	0.5	HQ/L	<0,5	<0.5	<0,5	-	1.000
delta-BHC	319-86-8	0.5	HQ/L	<0.5	<0,5	<0,5	-	
Heplachlor	76-44-8	0.5	HOL	<0.5	<0,5	<0.5	-	
Aldrin	309-00-2	0.5	µg/L	<0,5	<0.5	<0.5	-	-
Heptachlor epoxide	1024-57-3	0.5	HD/L	<0.5	<0.5	<0.5	-	
trans-Chiordane	5103-74-2	0.5	JQU	<0.5	<0.5	<0.5	-	
alpha-Endosulfan	059-08-8	0.5	HD/L	<0.5	40.5	<0.5	-	iren.
cis-Chlordane	5103-71-9	0.5	Hg/L	<0.5	×0,5	×0,5	-	
Dieldrin	60-57-1	0.5	µg/L	<0.5	≺0.5	<0,5	-	
4.4'-DDE	72-55-9	0.5	up/L	<0.5	<0,5	+0,5	_	
Endrin	72-20-8	0.5	HØ/L	*0,5	×0.5	×0.5	-	-
beta-Endosulfan	33213-65-0	0.5	HD/L	<0,5	+0.5	*0.5	-	-
4.4'-DDD	72-54-8	0,5	Jey	<0.5	<0.5	+0.5	-	-
Endrin aldehyde	7421-93-4	0.5	HD/L	+0.5	×0.5	+0.5	-	-
Endosulfan sulfate	1031-07-8	0.5	U0/L	<0.5	<0.5	+0.5	_	-
4.4'-DDT	50-29-3	2.0	Ligh	×2.0	<2.0	+2.0	-	-
Endrin ketone	53494-70-5	0.5	Vg/L	<0.5	-\$0.5	+0.5	_	-
Methoxychlor	72-43-5	2.0	Hg/L	~2.0	<2.0	<2.0	-	-

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Sub-Matrix: WATER (Matrix: WATER)		Client sample ID			QC301_26/06/13	QC302_27/06/13	-	-
	Ch				26-JUN-2013 15:00	27-JUN-2013 10:00	-	-
Compound	CAS Number	LOR	Unit	EW1301886-022	EW1301885-072	EW1301886-099		
EP068A: Organochlorine Pesticides	(OC)- Continued							
Total Chlordane (sum)		0.5	Hgt	<0.5	+0.5	<0,5	-	-
Sum of DDD + DDE + DDT	-	0.5	µg1	<0,5	+0.5	<0.5	-	-
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.5	Hgit	<0.5	+0.5	<0.5	-	-
EP068B: Organophosphorus Pestic	ides (OP)							
Dichlorvos	62-73-7	0.5	µg/L	<0.5	+0.5	<0.5	-	
Demeton-S-methyl	919-66-8	0.5	µg1.	<0.5	<0.5	<0.5	-	-
Monocrotophos	6923-22-4	2.0	H9/L	<2.0	<2.0	<2.0	-	-
Dimethoate	60-51-5	0.5	ugit.	<0.5	+0.5	<0.5	-	-
Diazinon	333-41-5	0.5	µg/L	<0.5	<0.5	<0,5	-	-
Chlorpyrifos-methyl	5598-13-0	0.5	Hg/L	<0.5	<0.5	<0.5	-	-
Parathion-methyl	298-00-0	2.0	ygit	<2.0	<2.0	\$2.0	-	-
Malathion	121-75-5	0.5	µg1.	<0.5	<0.5	<0.5	-	-
Fenthion	55-38-9	0.5	Hort.	<0.5	<0.5	<0.5	-	-
Chlorpyrifos	2921-88-2	0.5	Pol	<0,5	<0.5	<0.5		_
Parathion	56-38-2	2.0	LOL	<2.0	<2.0	<2.0	-	-
Pirimphos-ethyl	23505-41-1	0.5	µ91.	<0.5	<0.5	<0.5	-	-
Chlorfenvinphos	470-90-6	0.5	JUGL.	<0.5	<0.5	<0.5	-	-
Bromophos-ethyl	4824-78-6	0.5	µgit.	<0.5	<0.5	<0.5	-	-
Fenamiphos	22224-92-6	0.5	HOL.	<0.5	<0.5	<0.5		-
Prothiofos	34643-46-4	0.5	µg L	<0.5	<0,5	<0.5	-	-
Ethion	563-12-2	0.5	µg/L	<0.5	<0.5	<0.5	-	-
Carbophenothion	786-19-6	0.5	Jgt.	<q.5< td=""><td>*0.5</td><td><0.5</td><td>-</td><td>-</td></q.5<>	*0.5	<0.5	-	-
Azinphos Methyl	86-50-0	0.5	ugit	<0.5	×0.5	<0.5	-	
EP075(SIM)A: Phenolic Compounds			-					
Phenol	108-95-2	1.0	LOL	<1.0	<1.0	<1.0	-	-
2-Chiorophenol	95-57-8	1.0	µg L	<1.0	<1.0	*1.0	-	-
2-Methylphenol	95-48-7	1.0	Hg1L	<1.0	<1.0	<1.0	-	-
3- & 4-Methylphenol	1319-77-3	2.0	L04	<2.0	<2.0	<2.0		-
2-Nitrophenol	88-75-5	1.0	µg1.	<1.0	<1.0	\$1.0	-	-
2.4-Dimethylphenol	105-67-9	1.0	µg1	<1.0	<1.0	<1.0	÷	-
2.4-Dichlorophenol	120-83-2	1.0	µg1_	<1,0	<1.0	<1.0	-	-
2.6-Dichlorophenol	87-65-0	1.0	upt	<1.0	<t,0< td=""><td>*1,0</td><td>-</td><td>-</td></t,0<>	*1,0	-	-
4-Chioro-3-Methylphenol	59-50-7	1.0	ugit	s1.0	<1.0	<1.0	-	-

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Client	PORT KEMBLA COPPER
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Sub-Matrix: WATER (Matrix: WATER)		Cite	ent sample ID	QC300_25/06/13	QC301_26/06/13	QC302_27/05/13	-	-
	Cli	Client sampling date / time			26-JUN-2013 15:00	27-JUN-2013 10:00	-	-
Compound	CAS Number	LOR	Unit	EW1301886-022	EW1301886-072	EW1301886-099	-	-
EP075(SIM)A: Phenolic Compounds - Co			-					
2.4.6-Trichlorophenol	88-06-2	1.0	. Hg/L	<1.0	<1.0	<1.0	-	-
2.4.5-Trichlorophenol	95-95-4	1.0	Hg/L	<1,0	<1.0	<1.0	-	-
Pentachlorophenol	87-86-5	2.0	49/L	<2.0	<2.0	<2.0	+	-
EP075(SIM)B: Polynuclear Aromatic Hys	frocarbons		-					
Naphthalene	91-20-3	1,0	Hort.	<1.0	<1.0	<1.0	-	-
Acenaphthylone	208-96-8	1.0	49%	<1.0	<1.0	<1.0		
Acenaphthene	83-32-9	1.0	HOL	<1.0	<1.0	<1.0	-	-
Fluorene	86-73-7	1,0	µg/L	<5.0	<1:0	<1.0	-	-
Phenanthrene	85-01-8	1.0	HOL	<1.0	<1.0	<1.0	-	-
Anthracene	120-12-7	1.0	HPL	<1.0	<1.0	<1.0	-	-
Fluoranthene	205-44-0	1.0	Jou .	<1,0	<1,0	<1.0	-	-
Pyrene	129-00-0	1.0	Jeu	<1.0	<1,0	<1.0	_	-
Benz(a)anthracene	56-55-3	1.0	101	<1,0	<1.0	<1.0	_	-
Chrysene	218-01-9	1.0	101	<1.0	<1.0	<1.0	-	-
Benzo(b)fluoranthene	205-99-2	1.0	JOH	<1.0	<1.0	<1.0		-
Benzo(k)fluoranthene	207-08-9	1.0	HOL.	<1.0	<1.0	<1.0	_	-
Benzo(a)pyrene	50-32-8	0.5	H9L	<0,5	<0.5	<0.5	-	-
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	Hat	<1.0	<1.0	<1.0	-	-
Dibenz(a.h)anthracene	53-70-3	1.0	H9L	<1.0	<1.0	<1.0	+	-
Benzo(g.h.i)perylene	191-24-2	1,0	HD/L	<1.0	<1.0	*1.0		
Sum of polycyclic aromatic hydrocarbons	-	0,5	Jeu	<0.5	<0.5	<0.5	-	-
Benzo(a)pyrene TEQ (WHO)		Q.5	Hot.	<0.5	<0.5	<0.5	-	-
EP080/071: Total Petroleum Hydrocarbo	ns							
C6 - C9 Fraction	-	20	HQ/L	<20	<20	<20	-	-
Ct0 - Ct4 Fraction		50	HQ/L	<50	<50	<50		-
C15 - C28 Fraction	-	100	1491.	<100	<100	#100	-	-
C29 - C36 Fraction		50	HD/L	<50	<50	<50	-	-
C10 - C36 Fraction (sum)	-	50	HØ/L	<50	<50	<50	-	
EP080/071: Total Recoverable Hydrocar	bons - NEPM 2010	Draft						
C6 - C10 Fraction		20	µg/L	<20	<20	<20		-
C6 - C10 Fraction minus BTEX (F1)		20	Hg/L	<20	<20	<20	-	-
>C10 - C16 Fraction	_	100	L/B/L	<100	<100	<100	-	-
>C16 - C34 Fraction	-	100	µg/L	<100	<100	<100	-	-

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Sub-Matrix: WATER (Matrix: WATER)		Chi	int sample ID	QC300_25/06/13	QC301_26/06/13	QC302_27/06/13		
		Client sampling date / time		25-JUN-2013 15:00	26-JUN-2013 15:00	27-JUN-2013 10:00		-
Combound	CAS Number	LOR	Unit	EW1301886-022	EW1301886-072	EW1301886-099	-	-
EP080/071: Total Recoverable Hydr	ocarbons - NEPM 201	Draft - 0	ontinued					
>C34 - C40 Fraction	-	100	µg/L	<100	<100	<100	-	-
>C10 - C40 Fraction (sum)		100	µg/L	<100	<100	<100	-	
EPO80: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	<1	-	-
Toluene	108-88-3	2	49/L	<2	*2	<2		
Ethylbenzene	100-41-4	2	µg/L	<2	~2	<2	-	
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	*2	<2	<2		
ortho-Xylene	95-47-6	z	µg/L	<2	<2	~2	-	
Total Xylenes	1330-20-7	2	H9/L	<2	<2	<2		
Sum of BTEX		1	µg/L	<1	<1	<1		
Naphthalene	91-20-3	5	ug/L	<5	<5	<5	-	-
EP068S: Organochlorine Pesticide	Surrogate			and the second s				
Dibromo-DDE	21655-73-2	0,1	5	106	58.9	90.0	-	-
EP065T: Organophosphorus Pestic	ide Surrogate							
DEF	78-48-8	0,1	5	78.8	57.5	85,5	-	-
EP075(SIM)S: Phenolic Compound	Surrogates	-						
Phenol-d6	13127-88-3	0.1	- 5	40.3	41.7	40.2		
2-Chlorophenol-D4	93951+73-6	0,1		63.7	81.2	78.2	-	-
2.4.6-Tribromophenol	118-79-6	0.1	- 5	80.0	89.2	79.4	-	
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	5	75.6	85.7	76.5	-	
Anthracene-d10	1719-06-8	0.1		75.1	84.8	77.1	-	÷ .
4-Terphenyl-d14	1718-51-0	0.1	5	67.6	74.1	\$7.9	-	-
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	16	80.6	82,4	82,1		
Toluene-D8	2037-26-5	0.1	. 15	85.9	89.8	87.1	-	-
4-Bromofluorobenzene	460-00-4	0.1	55	93.9	103	94.3		



Descriptive Results

Sub-Matto: SOIL

Method: Compound	Glient sample ID - Client sampling state / time	Analytical Histolits
EA200: A5 4964 - 2004 Identificati	on of Asbestos in bulk samples	
EA200 Description	TP20_0.5-0.8_26/06/13 - 26-JUN-2013 10:00	Mid grey-brown clay soil with some grey rocks plus some glass debris and several email (riable fragments of asbestos fibre board approx 5 x 5 x 2mm
EA200 Description	TP16A_0.9-1.0_26/06/13-26-JUN-2013 10:00	Three pieces of bonded asbestos cement sheeting approx 118 x 40 x 5mm
EA200 Description	TP168_0.1-0.2_26/08/13 - 26-JUN-2015 10:00	Several pieces of bonded asbestos cement sheeting approx 45 x 30 x 5mm
EA200 Description	TP15_0.0-0.1_26/06/13 - 28-JUN-2013 10:00	Mid brown ctay soil with some stag grains plus plenty of vegetation and one small piece of degraded and thable asbestos fibre board approx 6 x 5 x 3mm
EA200 Description	TP10_0.0-0.1_28/06/13 + 28-JUN-2013 15:00	Mid brown day sol with some grey rocks plus some concrete detris and planty of places of bondad eabestos wrty ble lake national approx 4.0 x 25 x 3mm and several small finable asbestop fibre bundles approx 4.1 x term
EA200: Description	TP11_0.1-0.2_26/06/13 - 26-JUN-2013 15:00	Mid brown day sol with some concrete debts plus some sisg grains and two small fregments of bonded asbestos cement sheeting approx 8 x 4 x 3mm
EA200 Description	TP12A_0.1-0.2_26/06/13 - 26-JUN-2013 15:00	One pièce of bonded asbestos cament sheeting approx 90 x 39 x 5mm
EA200 Description	TP12_0.00.1_26/06/13 - 26-JUN-2013 15:00	Mid grey-brown citay soil with some quartz and slag grains and plenty of vegetation
EA2011 Description	TP7_0.3-0.4_27/06/13 - 27-JUN-2013 10:00	Dark grey-brown clay soil with some small red rocks plus some vegetation
EA200 Description	TP3_0.0-0.1_27/06/13 - 27-JUN-2013 10.00	Dark grey-brown clay soil with some small grey rocks plus some vegetation

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Surrogate Control Limits

Sub-Matrix: SOIL		Recovery	LAmits (%)
Compound	CAS Number	Low	Nigh
EP068S: Organochlorine Pesticide	Surrogate		
Dibromo-DDE	21655-73-2	49	145
EP068T: Organophosphorus Pest	icide Surrogate		
DEF	78-48-8	32	142
EP075(SIM)S: Phenolic Compound	1 Surrogates		
Phenol-d6	13127-88-3	63	127
2-Chlorophenol-D4	93951-73-6	64	126
2.4.6-Tribromophenol	118-79-6	36	136
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	64	130
Anthracene-d10	1719-05-8	69	135
4-Terphenyl-d14	1718-51-0	64	136
EP080S: TPHIVVBTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	72.8	133.2
Toluene-D8	2037-26-5	73.9	132.1
4-Bromofluorobenzene	460-00-4	71.6	130.
Matrix: WATER		Recovery	Liesits (15)
Compound	CAS Number	Low	High
P065S: Organochlorine Pesticide			
Dibromo-DDE	21655-73-2	30	120
EP068T: Organophosphorus Pest	cide Surmaste		
DEF	78-48-8	26.8	129
EP075(SIM)S: Phenolic Compound			
Phenol-d6	13127-88-3	10.0	44
2-Chlorophenol-D4	93951-73-6	15.9	102
2.4.5-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20.4	112
Anthracene-d10	1719-06-8	29.6	118
4-Terphenyl-d14	1718-51-0	21.5	126
EP0805: TPH(V)/BTEX Surrogates 12-Dichloroethane-D4	17050-07-0	71	137
EP0805: TPH(V)/BTEX Surrogates		71 79	137





CERTIFICATE OF ANALYSIS						
Work Order	ES1322093	Page	1 of 15			
Client	GOLDER ASSOCIATES	Laboratory	Environmental Division Sydney			
Contact	MS CAROLINA OLMOS	Contact	Loren Schiavon			
Address	LEVEL 1, 124 PACIFIC HIGHWAY ST LEONARDS NSW, AUSTRALIA 2065	Address	277-289 Woodpark Road Smithfield NSW Australia 2164			
E-mail	colmos@golder.com.au	E-mail	loren.schiavon@alsglobal.com			
Telephone	+61 02 9478 3900	Telephone	+61 2 8784 8503			
Facsimile	+61 02 9478 3901	Facsimile	+61 2 8784 8500			
Project.	137623028	QC Level	NEPM 2013 Schedule B(3) and ALS QCS3 requirement			
Order number	1					
C-O-C number	-	Date Samples Received	10-OCT-2013			
Sampler	KY	Issue Date	17-OCT-2013			
Site	PKC - PRIMARY SCHOOL					
		No. of samples received	: 28			
Quote number	SY/493/13	No, of samples analysed	- 12			

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Surrogate Control Limits



www.alsglobal.com

HIGHT SOLUTIONS CONTENTS

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General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA. APHA, AS and NEPM in incuse developed procedures are employed in the absence of documented standards or by claim request,

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result in higher than the LOR, this may be due to primary sample extract/digestate division and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weigh) employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Key CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society. LOR = Limit of reporting

* = This result is computed from individual analyte detections at or above the level of reporting

- ALS is not NATA accredited for the analysis of Bifenthrin in soils when performed under ALS Method EP068D
- EG005T: Poor matrix spike recovery was obtained for Copper on sample ES1322003 2. Results have been confirmed by re-extraction and reanalysis.
- EG005T: Poor precision was obtained for Manganese on sample ES1322093 9 due to sample heterogeneity. Results have been confirmed by re-extraction and reanalysis.
- EK057G/EK058G/EK058G:LOR raised for Nitrite/NOx and Nitrate analysis on various samples due to sample matrix.
- · EK667G: Spike failed for Total P analysis due to matrix interferences(Confirmed by re-digestion and re-analysis)

~	NATA Accredited Laboratory 825	Signatories This document has been electronically	signed by the authorized signatories indic	cated below. Electronic signing has been carried out in
NATA	Accredited for compliance with ISO/IEC 17025.	compliance with procedures specified in 21 C Signatories	FR Part 11. Position	Accreditation Category
		Alex Rossi	Organic Chemist	Sydney Organics
WORLD RECOGNISED		Ankit Joshi	Inorganic Chemist	Sydney Inorganics
ACCREDITATION		Celine Conceicao	Senior Spectroscopist	Sydney Inorganics
		Hoa Nguyen	Senior Inorganic Chemist	Sydney Inorganics
		Pabi Subba	Senior Organic Chemist	Sydney Organics

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Client sa Aunber LO 9-96-5 5 1249-2 5 10-43-9 1 10-43-9 1 10-43-9 1 10-43-9 5 10-43-9	mgikg mgikg mgikg mgikg mgikg mgikg mgikg mgikg mgikg	06-0CT-2013 15.00 E\$1322083-002 15.6 248 <5 73 6 25 75 75 75 404 24 755	08-027-2013 15:00 E51322093-004 20:1 75 <5 <5 <5 <5 <5 <1 31 79 14 9	08-0CT-2013 15:00 E\$1322083-007 11.5 161 -<5 5 1 6 574 92	09-0CT-2013 15:00 ES1322093-009 20.9 103 <5 11 11 <1 25 53 53	09-OCT-2013 15.00 ES1322093-012 12.1 560 <5 <5 <1 32 130
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	maha maka maka maka maka maka maka maka	248 +5 73 5 28 717 404 24	75 <5 <1 31 79 14	161 <5 5 1 6 574	103 <5 11 <7 28 83	550 <5 <5 <1 32
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10-50-8 5 19-92-1 5 10-02-0 2 10-66-6 5	mgikg mgikg mgikg mgikg	717 404 24	79 14	574	83	
19-92-1 5 10-02-0 2 10-66-6 5	mg/kg mg/kg mg/kg	404 24	14			130
10-02-0 2 10-66-6 5	mgikg mgikg	24		92		
10-02-0 2 10-66-6 5	mgikg mgikg				44	10
		798		3	7	30
9-97-6 0.1			76	190	31	111
89-97-6 0.1			1			
	mg/kg	<0.1	<0.1	0.1	<0.1	<0,1
	The local division of					-
4-41-7 20	mpikg	<20	30	<20		<20
0.:	ma/ka	<1.0	<1.0		-	-
-		And in case of the local division of the loc	and the second se			
0.*	malka	<1.0	<1.0	-	-	-
ete Analyser	-	And in case of the local division of the loc				
0.1	mg/kg	<1.0	<1.0		-	-
	molka	120	880		-	-
		1				-
20	ma/ka	120	810	-	-	-
	mging		1			
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	niging	0.00				
0.04.0	5. molke	\$0.05	-	<0.05	-	<0.05
						<0.05
						<0.05
Berthold Contraction						<0.05
						<0.05
	lyser 20 	Jyser 20 mg/kg	htyser 20 mg/kg 128 20 mg/kg 128 19447 2 mg/kg 338 19446 0.05 mg/kg <0.09 19457 0.05 mg/kg <0.09 19457 0.05 mg/kg <0.09 19457 0.05 mg/kg <0.09	htyser 20 mg/hg 128 840 20 mg/hg 128 840 1947 2 mg/hg 128 840 1948 358 166 1948 405	http:///////////////////////////////////	http:///////////////////////////////////

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Cilient.	GOLDER ASSOCIATES
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Sub-Matrix: SOIL (Matrix: SOIL)		Cit	ent sample ID	BH4-0.4-09/10/13	BH4-1.0-09/10/13	BH5-0.1-09/10/13	BH5-1.0-09/10/13	BH6-0.3-09/10/13
	Ch	Client sampling date / time			09-OCT-2013 15:00	09-DCT-2013 15:00	09-007-2013 15:00	09-OCT-2013 15.00
Compound	CAS Number	LOR	Line	E\$1322093-002	E51322093-004	ES1322093-007	E\$1322893-009	E51322093-012
EP068A: Organochlorine Pesticid	es (OC) - Continued							
Heptachior	76-44-8	0.05	mig/kg	<0.05	-	<0.05	-	<0.05
Aldrin	309-00-2	0.05	map/kg	~0.05	-	<0.06	-	<0.05
Hoptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	-	<0.05		<0.05
Total Chlordane (sum)	-	0.05	mp/kg	<0.05	-	<0.05	-	<0.05
trans-Chlordane	5103-74-2	0,05	mg/kg	-40.05	-	<0.05	-	<0.05
alpha-Endosulfan	959-95-8	0.05	ing/kg	<0.05		<0.05	-	<0.05
cis-Chlordane	5103-71-9	0.05	ma/ka	<0.05	-	<0.05	-	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	-	<0.05	-	<0.05
4.4'-DDE	72-55-9	9.05	mg/kg	<0,05	-	<0.05	-	<0.05
Endrin	72-20-8	0.05	mig/kg	<0.05	-	<0.05	~	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05		<0.05	-	<0.05
Endosultan (sum)	115-29-7	0.05	mg/kg	<0.05	-	<0.05		<0.05
4.4 -DDD	72-54-8	0.05	mig/kg	<0.05		<0.05	-	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	-	<0.05		<0.05
Endosulfan sulfate	1031-07-8	0.05	mig/kg	<0.05	-	<0.05	-	<0.05
4.4 -DDT	50-29-3	0.2	mg/kg	<0.2	1446	<0.2		<0.2
Endrin ketone	53494-70-5	0.05	into/kg	<0.05	-	<0.05	-	<6.05
Methoxychior	72-43-5	0.2	mg/kg	<0.2		<0.2		<0.2
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	-	+0.05	-	<0.05
Sum of DDD + DDE + DDT		0.05	mg/kg	<0.05		=0.05	-	=0.05
EP075(SIM)A: Phenolic Compound	18							
Phenol	106-95-2	0.5	mg/kg	+0.5	-	<0.5	-	<0.5
2-Chlorophanol	95-57-8	0.8	mg/kg	+0.5		<0.5		<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0,5	-	<0.5	-	<0.5
3-& 4-Methylphenol	1319-77-3	1	mg/kg	<1		51	-	*1
2-Nitrophenol	88-75-5	0.5	ing/kg	<0.5	-	<0.5	-	<9.5
2.4-Dimethylphonol	105-67-9	0.5	mg/kg	×0.5	_	<0.5	-	<2.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	-0.5		<0.5	-	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5		<0.5	-	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	-	<7.5	-	<0.5
2.4.6-Trichlorophenol	88-05-2	0.5	mg/kg	<0.5	-	<0.5	-	<0.5
2.4.5-Trichlorophenol	R5-95-4	0.5	mg/kg	×0.5		<0.5	_	<0.8
Pentachlorophenol	57-86-5	2	mg/kg	4		4	-	52

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Work Order	ES1322093
Client	GOLDER ASSOCIATES
Project	137623028



Sub-Matrix: SOIL (Matrix: SOIL)		CI	ent sample ID	BH4-0,4-09/10/13	BH4-1.0-09/10/13	BH5-0.1-09/10/13	BH5-1.0-09/10/13	BH6-0.3-09/10/13
	Client sampling date / time			09-OCT-2013 15:00	09-OCT-2013 15:00	09-OCT-2013 15:00	09-007-2013 15:00	09-OCT-2013 15:00
Compound	GAS Number	LOR	Linit	ES1322093-002	E51322093-004	ES1322093-007	ES1322093-009	ES1322093-012
EP075(SIM)B: Polynuclear Aromatic Hyd	rocarbons							
Naphthalene	91-20-3	0.5	mg/kg	<0.5		<0.5	-	<0.5
Acenaphthylene	208-95-8	0.5	mg/kg	<0.5	+	<0.5	-	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	_	<0,5		<0.5
Fluorene	86-73-7	0,5	mgikg	<0.5		<0,5	-	<0.5
Phenanthrene	85-01-8	0.5	mgikg	<0.5	-	*0.5	-	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5		<0.5		<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	-	+0.5		<0.5
Pyrene	129-00-0	0.5	mgikg	<0.5		<0.5		<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	-	<0.5		<0.5
Chrysene	218-01-9	0.5	mg/kg	+0.5	-	<0.5	-	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	-	<0.5	-	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	maika	<0.5		<0.5	-	+0.5
Benzo(a)pyrene	50-32-8	0.5	maika	<0.5		<0.5		<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	marka	<0.5		«0.5-	-	+0.5
Dibenz(a.h)anthracene	53-70-3	0.5	marka	<0.5	4	<0.5	-	<0.5
Benzo(g,h.liperylene	191-24-2	0.5	mg/kg	<0.5		<0.5		<0.5
Sum of polycyclic aromatic hydrocarbons	_	0.5	mg/kg	<0.5	-	<0.5	-	+0.5
Benzo(a)pyrene TEQ (zero)	_	0.5	mgikg	<0.5	-	<0.5	-	+0.5
Benzo(a)pyrene TEQ (half LOR)	_	0.5	mg/kg	0.6	+	0,6	<u> </u>	0.6
Benzo(a)pyrene TEQ (LOR)	-	0.5	mg/kg	1.2		1.2	-	1.2
EP080/071: Total Petroleum Hydrocarbo	18.0			and the second se				
C6 - C9 Fraction		10	mgika	<10	-	<10	-	<10
C10 - C14 Fraction	_	50	mg/kg	<50		<50	-	<50
C15 - C28 Fraction	-	100	mg/kg	<100	+	<100	-	<100
C29 - C36 Fraction	_	100	maika	<100	-	<100	-	<100
C10 - C36 Fraction (sum)		50	mg/kg	<50	-	<50	-	<50
EP080/071: Total Recoverable Hydrocart	DODS - NEPM 201	1						
C6 - C10 Fraction	C6_C10	10	mg/kg	<10		<10	-	<10
C6 - C10 Fraction minus BTEX (F1)	C6_C10-87EX	10	mg/kg	<10	-	<10	+	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	-	+50	-	<50
>C16 - C34 Fraction		100	mg/kg	<100	-	<100	-	<100
>C34 - C40 Fraction	_	100	mg/kg	<100	-	<100	-	<100
>C10 - C40 Fraction (sum)		50	marka	<50	-	<50	-	<50

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Work Order	ES1322003
Client	GOLDER ASSOCIATES
Project	137623028



Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID		BH4-0.4-09/10/13	BH4-1.0-09/10/13	BH6-0.1-09/10/13	BH5-1,0-09/10/13	BH6-0.3-09/10/13
	GH	ent sampi	ing date / time	09-OCT-2013 15:00	09-OCT-2013 15:00	09-OCT-2013 15:00	09-0CT-2013 15:00	09-OCT-2013 15:00
Compound	CAS Number	LOR	Unit	ES1322093-002	ES1322093-004	ES1322093-007	ES1322093-009	ES1322093-012
EP080/071: Total Recoverable Hydroc	arbons - NEPM 201	3 - Contin	und					
>C10 - C16 Fraction minus Naphthalene (F2)	-	50	mg/kg	<50	-	<50	-	<50
EP080: BTEXN	-	-		and the second se				
Benzene	71-43-2	0.2	mg/kg	<0.2	-	<0.2	-	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5		<0,5	_	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	-	<0.5		<0.5
meta- & para-Xylene	108-38-3 106-42-3	0,5	mg/kg	<0.5	-	<0.5	-	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0,5	-	<0.5	-	<0.5
Sum of BTEX	-	0.2	mg/kg	=0.2	-	<0.2	+	<0.2
Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	-	<0.5		<0.5
Naphthalone	91-20-3	1	mg/kg	<1	-	<1		<1
EP068S: Organochlorine Pesticide Su	rrogate	-	-					
Dibromo-DDE	21655-73-2	0,1	96	77.1		86.9	-	79.2
EP068T: Organophosphorus Pesticide	Surrogate							1
DEF	78-48-8	0.1	16	64.4	-	85.2	-	74.6
EP075(SIM)S: Phenolic Compound Su	rrogates		and the second second	State of the local division of the local div				
Phenol-d6	13127-88-3	0.1	16	110		110	-	110
2-Chlorophenol-D4	93951-73-8	0.1	%	110	-	103	-	109
2.4.5-Tribromophenol	118-79-6	0.5	76	96.7	-	95.8	-	104
EP075(SIM)T: PAH Surrogates	-			and the second se				1
2-Fluorobiphenyl	321-60-8	0.1	16	96.8		97.6	-	100
Anthracene-d10	1719-08-8	0.1	16	91.2	-	65.6	-	94.1
4-Terphenyl-d14	1718-51-0	0.1	- 16	85.3	\rightarrow	82.8	-	86.9
P080S: TPH(V)/BTEX Surrogates		-		100 million (100 million)				
1.2-Dichloroethane-D4	17060-07-0	0.1	76	91.7	-	99.9	-	104
Toluene-D8	2037-26-5	0.1	76	96.6		104	-	102
4-Bramafluorobenzene	460-00-4	0.1	16	100	-	105	_	111

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Work Order	ES1322093
Client	GOLDER ASSOCIATES
Project	137523028



Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID Client sampling date / time			BH3-0.1-09/10/13	BH3-1.0-09/10/13	BH2-0.1-09/10/13 09-OCT-2013 15:00	BH2-1.0-09/10/13 09-OCT-2013 15:00
	Ch				09-OCT-2013 15:00	09-OCT-2013 15:00		
Compound	CAS Number	LOR	Unit	ES1322093-013	ES1322093-015	ES1322093-017	ES1322093-019	E\$1322093-021
EA055: Moisture Content		-	-					
Moisture Content (dried @ 103*C)	-	1.0	98.	13.4	16.3	27.2	11.6	18.8
EG005T: Total Metals by ICP-AES		-	-	and the second se	and the second se			
Manganose	7439-96-5	5	mg/kg	87	147	16	92	21
Selenium	7782-49-2	5	mgikg	<5	*5	<5	-45	<5
Arsenic	7440-38-2	5	mg/kg	<5	37	<5	6	<5
Cadmium	7440-43-9	1	mg/kg	<1	1	<1	<t< td=""><td><1</td></t<>	<1
Chromium	7440-47-3	2	ma/kg	25	20	26	9	30
Copper	7440-50-8	5	marka	137	436	102	82	68
Lead	7439-92-1	5	ma/ka	8	350	9	219	7
Nicket	7440-02-0	2	mg/kg	15	1	3	4	15
Zinc	7440-66-6	5	ma/kg	90	257	54	1150	38
EG035T: Total Recoverable Mercury	1.000.000							
Mercury	7439-97-6	0.1	mp/ko	<0.7	0.2	+0.1	0.2	<0.1
EK055: Ammonia as N				Concession of the local division of the loca	and the second se			
Ammonia as N	7664-41-7	20	marka	-	<20	-	<20	
EP068A: Organochlorina Pesticides	00			-				
alpha-BHC	319-84-6	0.05	mg/kg	-	<0.05	-	<0.05	-
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	-	<0.05		<0.05	
heta-BHC	319-85-7	0.05	ma/ka	-	<0.05	-	<0.05	-
gamma-BHC	58-89-8	0.05	ma/ka	14-14 C	<0.05	-	<0.05	-
delta-BHC	319-86-8	0.05	mg/kg		<0.05		<0.05	-
Heptachlor	76-44-8	0.05	mg/kg	-	<0.05	-	<0.05	
Aldrin	308-00-2	0.05	mg/kg	_	<0.05		<0.05	-
Heptachlor epoxide	1024-57-3	0.05	mg/kg	-	<0.05	-	<0.05	
Total Chlordane (sum)		0.05	mg/kg	_	<0.05		<0.05	-
trans-Chlordane	5103-74-2	0.05	mg/kg	-	<0.05		<0.05	
alpha-Endosulfan	959-98-8	0.05	mg/kg	-	<0.05		<0.05	-
cis-Chlordane	5103-71-9	0.05	mg/kg	-	<0.05		<0.05	-
Dieldrin	60-57-1	0.05	mg/kg	-	<0.05		<0.05	
4.4'-DDE	72-55-9	0.05	mg/kg	-	<0.05	-	<0.05	-
Endrin	72-20-8	0.05	mg/kg	-	<0.05	-	<0.05	-
beta-Endosulfan	33213-65-9	0.05	mg/kg	-	<0.05		+0.05	-
Endosultan (sum)	115-29-7	0.05	mg/kg	-	<0.05	-	<0.05	-

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Wark Order	ES1322093
Client	GOLDER ASSOCIATES
Project	137623028



	Client sample ID			BH3-0,1-09/10/13	BH3-1.0-09/10/13	BH2-0.1-09/10/13	BH2-1.0-09/10/13
CM	ent sampli	ng diste / lime	09-DCT-2013 15:00	09-DCT-2013 15:00	09-OCT-2013 15:00	08-007-2013 15:00	09-OCT-2013 15 00
CAS Number	CAS Number LOR Unit			E\$1322093-015	ES1322093-017	ES1322093-019	ES1322093-021
s (OC) - Continued		and the local division of					
72-54-8	0.05	ma/kg	-	<0.05		<0.05	-
7421-93-4	0.05	ma/ka	-	<0.05	-	<0.05	-
1031-07-8	0.05	mg/kd	_	<0.05	-	<0.05	
50-29-3	0.2	mg/kg	-	<0.2	-	<0.2	-
53494-70-5	0.05	tmg/kg	-	<0.05		<0.05	-
72-43-5	0.2	mg/kg	-	<0.2	-	<0.2	_
309-00-2/60-57-1	0.05	mg/kg	-	<0.05		<0.05	
	0.05	mg/kg	_	×0.05	-	<0.05	-
1	-	-	Contraction of the local division of the loc				
108-95-2	0.5	mg/kg	_	<0.5	-	<0.5	-
95-57-8	0.5	mg/kg	-	<0.5		<0.5	-
95-48-7	0.5	mg/kg	-	<0.5	-	<0.5	-
1319-77-3	1	mp/kg	-	ct.		d	_
88-75-5	0.5	mg/kg	-	+0.5	_	<0.5	-
105-67-9	0.5	mg/kg	-	+2.5	_	<0.5	_
120-83-2	0.5	img/kg		<0.5	-	<0.5	-
87-85-0	0.5	molkig	-	<0.5	-	<0.5	-
59-50-7	0.5	mig/kd	_	<0.5	-	+0.5	-
88-05-2	0.5	malka		<0.5		#0.5	
95-05-4	0.5	ma/kg	-	+0.5	-	10.5	_
87-86-5	2	ma/kg	-	4	-	2	-
r Hydrocarbons							
	0.5	maka	-	+0.5	-	<0.5	-
	0.5		_	<0.5	0		-
	0.5		-	+0.5	-		
	0.5		_	<0.5	-		
85-01-8	0.5	marka	-	<0.5		<0.5	_
	0.5		-				
	0.5		_	<0.5	_		
	0.5		_				-
					-		2
			-	11.			-
	(C4S Aurors 4 (CC) - Development 7 (254) 7 (254) 7 (254) 7 (254) 7 (254) 1 (254) 7 (254) 7 (254) 7 (255) 7 (2	Diet sample CAS torms COP 72:54.4 60.5 72:54.5 60.5 91:07.4 60.5 91:07.4 60.5 91:07.4 60.5 91:07.4 60.5 91:07.4 60.5 92:07.45 6.8 92:07.6 6.5 92:07.6 0.5 92:07.6 0.5 92:07.6 0.5 92:07.6 0.5 92:07.6 0.5 92:07.6 0.5 92:07.6 0.5 92:07.6 0.5 92:07.6 0.5 93:07.6 0.5 93:07.6 0.5 94:07.6 0.5 95:07.6 0.5 95:07.6 0.5 95:07.6 0.5 95:07.6 0.5 95:07.6 0.5 95:07.6 0.5 95:07.6 0.5 95:07.6 0.5 95:07.6	2(C)-Semment 0.33 mgrag 72-59.4 0.39 mgrag 1313-71 0.05 mgrag 5029-5 0.2 mgrag 5029-5 0.2 mgrag 5029-5 0.2 mgrag 5040-000-5 0.80 mgrag 74-55 0.2 mgrag 90-000057 0.81 mgrag - 0.25 mgrag 0.545-7 0.5 mgrag 10547-7 1 mgrag 10547-8 0.5 mgrag 10542-0 0.5 mgrag 10542-0 0.5 mgrag 0545-0 0.5 mgrag 0545-0 0.5 mgrag 0545-0 0.5 mgrag 0545-0.5 <t< td=""><td>Direct sampling site / Imat 00-007-3013 18.00 CAS Auxona OP Uny ES1322032-013 2 (CD)-00000000 COM Uny ES1322032-013 2 (CD)-000000000000000000000000000000000000</td><td>Direct sampling with r /ms Direct cols <thdirect cols<="" th=""> Direct cols <thdirect co<="" td=""><td>Direct sampling with vitre 00-007-00115000 <th< td=""><td>Dest sampling black /ms Control of the Co</td></th<></td></thdirect></thdirect></td></t<>	Direct sampling site / Imat 00-007-3013 18.00 CAS Auxona OP Uny ES1322032-013 2 (CD)-00000000 COM Uny ES1322032-013 2 (CD)-000000000000000000000000000000000000	Direct sampling with r /ms Direct cols Direct cols <thdirect cols<="" th=""> Direct cols <thdirect co<="" td=""><td>Direct sampling with vitre 00-007-00115000 <th< td=""><td>Dest sampling black /ms Control of the Co</td></th<></td></thdirect></thdirect>	Direct sampling with vitre 00-007-00115000 <th< td=""><td>Dest sampling black /ms Control of the Co</td></th<>	Dest sampling black /ms Control of the Co

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Work Order	ES1322093
Client	GOLDER ASSOCIATES
Project	137623028



Sub-Matrix: SOIL (Matrix: SOIL)	Client sample ID			BH6-1.0-09/10/13	BH3-0.1-09/10/13	BH3-1.0-09/10/13	BH2-0.1-09/10/13	BH2-1.0-09/10/13
	CH	sit sample	ng date / time	09-OCT-2013 15:00	09-007-2013 15:00	09-OCT-2013 15 00	09-OCT-2013 15:00	09-OCT-2013 15:00
Compaund	CAS Number	LOR	Unit	ES1322093-013	ES1322093-015	ES1322093-017	ES1322093-019	ES1322093-021
EP075(SIM)B: Polynuclear Aromatic Hy		nued						
Benzo(a)pyrene	50-32-8	0.5	mg/kg	-	*0.5	-	<0.5	-
Indeno(1.2.3.cd)pyrane	193-39-5	0.5	mg/kg		<0.5		<0,5	-
Dibenz(a.h)anthraceno	53-70-3	0.5	mg/kg	-	<0.5	-	<0,5	-
Benzolg.h.iperylene	191-24-2	0.5	mg/kg	-	<0.5	-	<0.5	
Sum of polycyclic aromatic hydrocarbons		0.5	mg/kg	-	<0.5		<0.5	-
Benzo(a)pyrene TEQ (zero)	-	0.5	mg/kg	-	<0.5	-	<0.5	
Benzo(a)pyrene TEQ (half LOR)		0.5	mg/kg	-	0.6		0.6	-
Benzo(a)pyrene TEQ (LOR)		0.5	mg/kg	-	1.2		1.2	-
EP080/071: Total Petroleum Hydrocart	ons	-		and the second second				
C6 - C9 Fraction		10	mg/kg		-<10	-	<10	-
C10 - C14 Fraction	-	50	mg/kg	-	<50	-	<50	-
C15 - C28 Fraction	-	100	mg/kg	-	<100		<100	-
C29 - C36 Fraction		100	mg/kg	-	<100	-	<100	-
C10 - C36 Fraction (sum)	-	50	mg/kg	-	<50	-	<50	-
EP080/071: Total Recoverable Hydroca	rbons - NEPM 201	1						
C6 - C10 Fraction	C6_C10	10	mg/kg	-	<10	-	<10	
C6 - C10 Fraction minus BTEX (F1)	CB_C10-BTEX	10	migiko		<10	-	<10	-
>C10 - C16 Fraction	>010_016	50	mg/kg	-	<50	-	<50	
>C16 - C34 Fraction	-	100	mig/kg		<100	-	<100	
>C34 - C40 Fraction	-	100	mg/kg	-	<100	-	<100	-
>C10 - C40 Fraction (sum)		50	mg/kg	-	<50	-	<50	
>C10 - C16 Fraction minus Naphthalene (F2)	-	50	mg/kg	-	<50	-	<50	-
EP080: BTEXN								
Benzene	71-43-2	0,2	mg/kg	-	<0.2		<0.2	-
Toluene	108-88-3	0,5	mg/kg	-	<0.5	-	<0.5	-
Ethylbonzene	100-41-4	0,5	mg/kg	+	<0.5	-	<0.5	-
meta- & para-Xylene	105-38-3 108-42-3	0.5	mg/kg	-	<0.5	-	<0.5	-
ortho-Xylene	95-47-6	0.5	mg/kg	-	<0.5	-	<0.5	-
Sum of BTEX	-	0.2	mg/kg	-	<0.2	-	<0.2	-
Total Xylenes	1330-20-7	0.5	mg/kg	-	<0.5	-	<0.5	
Nophthalene	91-20-3	1	mg/kg		<1	-	<1	

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Work Order	ES1322093
Client	GOLDER ASSOCIATES
Project	137623028



Sub-Matrix: SOIL (Matrix: SOIL)		Cik	ent sample ID	BH6-1.0-09/10/13	BH3-0.1-09/10/13	BH3-1.0-09/10/13	BH2-0.1-09/10/13	BH2-1.0-09/10/13
Sompound	CI	ent sample	ng date / time	09-OCT-2013 15:00	09-0CT-2013 15:00	09-OCT-2013 15:00	09-OCT-2013 15:00	09-OCT-2013 15:00
Compound	CAS Number	LOR	Unit	ES1322093-013	ES1322093-015	ES1322093-017	ES1322093-019	E51322093-021
EP068S: Organochlorine Pesticide	Surrogate							
Dibrome-DDE	21655-73-2	0.1	15	-	79.0		78,1	_
EP068T: Organophosphorus Pestic	ide Surrogate	-	and the other distance of the local distance					
DEF	78-48-8	0.1	55	-	68.2	-	77.1	-
EP075(SIM)S: Phenolic Compound	Surrogates							
Phonol-d6	13127-88-3	0,1	5	()	108		112	-
2-Chlorophenol-D4	93951-73-6	0.1	%	-	113	-	103	-
2.4.6-Tribromophenol	118-79-6	0.1	-94		93.3	_	64.6	_
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0,1			98.2	-	101	-
Anthracene-d10	1719-08-8	0.1	- 50		92.7	-	90.6	
4-Terphenyi-d14	1718-51-0	0.1	75		86.4		34.5	-
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	5	-	96.0	-	96.8	-
Toluene-D8	2037-26-5	0.1	- 55		97.7		95.9	-
4-Bromofluorobenzene	460-00-4	0.1	- 15	-	104	-	98.3	

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Work Order	- ES1322093
Client	GOLDER ASSOCIATES
Project	137623028



Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID			BH1-1.0-09/10/13		-	
	CIM	ent samplin	g date / time	09-QCT-2013 15:00	09-OCT-2013 15:00	-	-	-
Compaund	CAS Number	LOR	Unit	ES1322093-025	E51322093-026			-
EA055: Moisture Content			-		and the second se			
Moisture Content (dried @ 103*C)	-	1.0	96	29.2	19.0	-	-	
EG005T: Total Metals by ICP-AES		-	-	and the second se	la construction de la constructi			
Manganese	7439-96-5	5	mg/kg	19	<5		-	-
Selenium	7782-49-2	5	mg/kg	<5	<5		-	-
Arsenic	7440-38-2	5	mg/kg	<5	-45			
Cadmium	7440-43-9	1	mg/kg	<1	<1			-
Chromium	7440-47-3	2	mg/kg	32	11		-	
Copper	7440-50-8	5	mg/kg	74	49	-	-	
Lead	7439-92-1	5	mg/kg	8	7	-	-	
Nickel	7440-02-0	2	mg/kg	6	12			
Zinc	7440-56-6	5	mg/kg	28	17	-	-	-
EG035T: Total Recoverable Mercury	by FIMS	-	1000					
Mercury	7439-97-6	0,1	mg/kg	<0.1	<0,1	÷+		-
EK055: Ammonia as N								
Ammonia as N	7664-41-7	20	mg/kg	-	<20			
EP068A: Organochlorine Pesticides	(00)	-						
alpha-BHC	319-84-6	0.05	mg/kg	-	<0.05	-	-	-
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kp	-	<0.05	144	·	
beta-BHC	319-85-7	0.05	mg/kg	<u> </u>	<0.05	-	-	
gamma-BHC	58-89-9	0.05	mg/kg	-	<0.05		-	
delta-BHC	319-86-8	0.05	mg/kg	-	<0.05		-	
Heptachlor	76-44-8	0.05	mg/kg	-	<0.05	-		
Aldrin	309-00-2	0.05	mg/kg	-	<0.05	-		-
Heptachlor epoxide	1024-57-3	0.05	mg/kg	-	<0.05	-	-	-
Total Chlordane (sum)		0.05	mg/kg	-	<0.05	→	1.000	-
trans-Chlordane	5103-74-2	0.05	mg/kg	-	<0.05	-		-
alpha-Endosulfan	959-96-8	0.05	mg/kg	-	<0.05			- ()
cis-Chlordane	5103-71-9	0.05	mg/kg	-	<0.05	-		
Dieldrin	60-57-1	0.05	mg/kg	-	<0.05	-	-	
4.4'-DDE	72-55-9	0.05	mg/kg	-	<0.05		-	
Endrin	72-20-8	0.05	mg/kg	-	<0.05	-		\rightarrow
beta-Endosulfan	33213-65-9	0.05	mg/kg	-	<0.05			-
Endosulfan (sum)	115-29-7	0.05	mg/kg	-	<0.05	-	-	

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Work Order	ES1322093				
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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID		BH1-0.5-09/10/13	BH1-1.0-09/10/13	-	-	-
	Cli	Client sampling date / time			09-OCT-2013 15:00	-	-	-
Compound	CAS Number	LOR	Unit	ES1322093-025	E\$1322093-026	-		-
EP068A: Organochlorine Pasticide	es (OC) - Continued		-		Contraction of the local division of the loc			
4.4'-000	72-54-8	0.05	mg/kg	-	<0.05	-	-	
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	\rightarrow	-	-
Endosulfan sulfate	1031-07-8	0.05	mg/kg	_	<0.05	-	4	
4,4'-DDT	50-29-3	0.2	mg/kg		<0.2	-	-	-
Endrin ketone	53494-70-5	0.05	ma/ka		<0.05	-	1.000	
Methoxychlor	72-43-5	0.2	mig/kg	-	<0.2	-	-	-
Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	-	<0.05	-		
Sum of DDD + DDE + DDT	-	0.05	rog/kg	-	<0.05	-	-	-
EP075(SIM)A: Phenolic Compound	da .			and the owner of the				
Phenol	108-95-2	0.5	mg/kg	_	<0.5	-	-	
2-Chiorophenol	95-57-8	0.5	mg/kg	-	<0.5	-	-	-
2-Methylphenol	95-48-7	0.5	mg/kg	-	<0.5	-	-	
3- & 4-Methylphenol	1319-77-3	1	mg/kg	-	<1	-	-	-
2-Nitrophenol	88-75-5	0.5	mg/kg	-	<0.5	-		
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	-	<0.5	-	-	-
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	-	<0.5		-	1.000
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	_	<0.5	-	-	
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	_	×0.5	-	-	-
2.4.5-Trichlorophenol	55-05-2	0.5	mg/kg	_	<0.5		-	
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	_	<0.5	_	-	-
Pentachlorophenol	87-86-5	2	mp/kg	-	42	4		
EP075(SIM)B: Polynuclear Aromat	in Hudrocarbons			the second second		and the second se		
Naphthalane	91-20-3	0.5	mg/kg	_	<0.5	_	-	-
Acenaphthylene	208-95-8	0.5	ma/kg	_	<0.5		-	-
Acenaphthene	83-32-9	0.5	mg/kg	-	<0.5	-	-	-
Fluorene	86-75-7	0.5	mg/kg	-	<0.5	_	_	-
Phenanthrene	85-01-8	0.0	mg/kg		<0.5	_	-	-
Anthracene	120-12-7	0.5	mp/kg	_	<0.5	-	_	
Fluoranthene	208-44-0	0.5	mo/ka	_	<0.5	_	-	-
Pyrene	129-00-0	0.5	mp/kg	-	<0.5	-		-
Benz(a)anthracene	56-55-3	0.5	mo/kg	_	<0.5	-		
Chrysene	218-01-9	0.5	mg/kg	-	<0.5			-
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	_	<0.5		2	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5			

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Sub-Matrix: SOIL (Matrix: SOIL)	Client sample ID Client sampling date / lime			BH1-0.5-09/10/13	BH1-1.0-09/10/13	-	-	-
				09-OCT-2013 15.00	09-OCT-2013 15:00	-	-	-
Compound	CAS Number	LOR	Unit	ES1322093-025	ES1322093-026	-		-
EP075(SIM)B: Polynuclear Aromatic H		nued						
Benzo(a)pyrene	50-32-8	0.5	mg/kg	-	<0.5		- Law	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	-	<0.5			
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	-	<0.5	-	-	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	-	<0.5	-		-
Sum of polycyclic aromatic hydrocarbons	-	0,5	mg/kg.	-	+0.5		-	-
Benzo(a)pyrene TEQ (zero)	_	0.5	mg/kg	_	<0.5			
Benzo(a)pyrene TEQ (half LOR)		0.5	mg/kg	-	0.6	-		-
Benzo(a)pyrene TEQ (LOR)		0.5	mg/kg	·	1.2	-		
EP080/071: Total Petroleum Hydrocart	bons							
C6 - C9 Fraction	-	10	mg/kg	-	<10		-	-
C10 - C14 Fraction		50	mg/kg	-	<\$0	-		-
C15 - C28 Fraction		100	mg/kg	_	<100			-
C29 - C36 Fraction	9 - C36 Fraction 100 mg/kg			-	<100	-	-	-
C10 - C36 Fraction (sum)	-	50	mg/kg	-	<50		-	-
EP080/071: Total Recoverable Hydroc	arbons - NEPM 201	3	-					
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	-	-	-
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	-	<10.	-	-	-
>C10 - C16 Fraction	>C10_C16	50	mg/kg	-	<50	-	-	
>C16 - C34 Fraction		100	mg/kg	-	<100	-	-	-
>C34 - C40 Fraction		100	mg/kg		<100	-	-	-
>C10 - C40 Fraction (sum)		50	mg/kg	-	<50	-	-	-
>C10 - C16 Fraction minus Naphthalone (F2)	-	50	mgikg		<\$0	-	-	-
EP080: BTEXN		-						
Benzene	71-43-2	0.2	mg/kg	-	<0.2	-		-
Tolusne	108-88-3	0.5	mg/kg		<0.5	-	-	-
Ethylbenzene	100-41-4	0.5	mg/kg	-	<0.5	-	-	-
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	-	-	-
ortho-Xylene	95-47-6	0.5	mg/kg	+	<0.5	-	-	-
Sum of BTEX	-	0.2	mgikg	-	<0.2	-	-	-
Total Xylenes	1330-20-7	0.5	mg/kg		<0.5	-	-	-
Naphthalane	91-20-3	1	mg/kg	-	<1		-	-

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Sub-Matrix: SOIL (Matrix: SOIL)		Client sample ID		BH1-0.5-09/10/13	BH1-1.0-09/10/13	-	-	-
	CH	ent samplir	ng date / time	09-OCT-2013 15:00	09-OCT-2013 15:00	-	-	-
Compound	CAS Number	LOR	Unit	ES1322093-025	ES1322093-026		-	-
EP068S: Organochlorine Pesticide	Surrogate							-
Dibromo-DDE	21655-73-2	0,1	74		74.9	-	-	-
EP068T: Organophosphorus Pestic	ide Surrogate							
DEF	78-48-8	0,1	%		65.0	-	-	- 1
EP075(SIM)S: Phenolic Compound	Surrogates							
Phenol-d6	13127-88-3	0,1	- %	-	106	-	-	-
2-Chlorophenol-D4	93951-73-8	0,1	%	-	111	-	-	-
2.4.6-Tribromophenol	118-79-6	0,1	%		100		-	-
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-80-8	0.1	96	-	98.9	-	-	
Anthracene-d10	1719-06-8	0,1	%		90,0	-	-	-
4-Terphenyl-d14	1718-51-0	0.1	%	-	84.9	-	-	-
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17080-07-0	0.1	%	-	101	-	-	-
Toluene-D8	2037-26-5	0.1	96	-	96.9	-	-	-
4-Bromofluorobenzene	460-00-4	0.1	96	-	104	-		-

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Surrogate Control Limits

Sub-Matrix: SOIL		Recovery	Limits (%)
Compound	CAS Number	Law	High
EP068S: Organochlorine Pesticide	Surrogale		
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pestic	ide Surrogate		
DEF	78-48-8	35	143
EP075(SIM)S: Phenolic Compound	Surrogates		
Phenol-d6	13127-68-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenal	118-79-6	40	136
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	72.8	133.2
Toluene-D8	2037-26-5	73,9	132,1
4-Bromofluorobenzene	460-00-4	71.0	130.0







Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	ES1316167	Page	1 of 9
Glienit	PORT KEMBLA COPPER	Laboratory	Environmental Division Sydney
Contact	MS CAROLINA OLMOS	Contact	Client Services
Address	SYDNEY	Add/ess	277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	colmos@golder.com.au	E-mail	sydney@alsglobal.com
Telephone		Telephone	+61-2-8784 8555
Factimile		Facsimile	=61-2-8784 8500
Project	137623028	QC Level	NEPM 2013 Schedule B(3) and ALS OCS3 requirement
Order number			the second se
C-O-C number		Date Samples Received	17-JUL-2013
Sampler	CO	tabue Date	: 24-JUL-2013
Situ	PHC-PRIMARY SCHOOL		
		No. of samples received	3
Quote number		No. of samples analysed	3

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

NATA Accredited Laboratory 825

Accredited for compliance with

Signatories

- General Comments
- Analytical Results
- Surrogate Control Limits



This	document	has	been	electronically	signed	by	the	authorized	signatories	indicated	below.	Electronic	signing	has	been
carrie	d out in con	npiliano	ce with	procedures so	ecified in	21 0	FRF	art 11.							

M	ISO/IEC 17025.	Signatories	Position	Accreditation Category	
		Alex Rossi	Organic Chemist	Sydney Organics	
OSPIET		Alex Rossi	Organic Chemist	Sydney Organics	
ATION		Ankit Joshi	Inorganic Chemist	Sydney Inorganics	
		Ankit Joshi	Inorganic Chemist	Sydney Inorganics	
		Celine Conceicao	Senior Spectroscopist	Sydney Inorganics	

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NIGHT SOLUTIONS INCOME PARTY

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Work Order	ES1316167				
Client	PORT KEMBLA COPPER				
Project	137623028				



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationality recognized procedures such as those published by the USEPA, APHA, AS and NEPM, In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing surpless.

Key: CAS Number + CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society. LOR + Limit of reporting

* = This result is computed from individual analyte detections at or above the level of reporting

· EG051G:Spike failed for Ferrous Iron analysis due to matrix interference(confirmed by re analysis)

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Client	PORT KEMBLA COPPER
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Sub-Matrix: WATER (Matrix: WATER)		Cle	int sample ID	D1_17/07/13	D4_17/07/13	QC300_17/07/13	-	-
	Client sampling date / time			17-JUL-2013 02:30	17-JUL-2013 03:30	17-JUL-2013 15:00	-	-
Compound	CAS Number	LOR	Linit	ES1316167-001	ES1316167-002	ES1316167-003	+	
EA015: Total Dissolved Solids		-						
Total Dissolved Solids @180°C		10	mgL	567	1860	- 1	-	-
ED037P: Alkalinity by PC Titrator	No. of Concession, Name	-						
Hydroxide Alkalinity as CaCO3	DMO-210-801	1.	mg/L	<1	4		-	
Carbonate Alkalinity as CaCO3	3812-32-8	.1.	mg/L	<1	-1	++	-	1.000
Bicarbonate Alkalinity as CaCO3	71-52-3	1	img/L	20	9	-	-	-
Total Alkalinity as CaCO3	_	1.	mg/L.	20	9	-	-	-
ED038A: Acidity			-					1
Acidity as CaCO3	-	1	mg/L	103	99	- 1	-	I
ED041G: Sulfate (Turbidimetric) as SC	4 2- by DA	-						
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mgiL	122	597	- 1		
ED045G: Chloride Discrete analyser		-						
Chloride	16887-00-6	1	Jon	208	270			-
ED093F: Dissolved Major Cations				Concession of the local division of the loca				-
Calcium	7440-70-2	1	mgiL	5	1	-	-	
Magnesium	7439-95-4	1	mg/L	5	18	_		
Sodium	7440-23-5	1	mg/L	189	682	-	-	-
Potassium	7440-09-7	1	mail	4	3	-		-
EG020F: Dissolved Metals by ICP-MS				and the second	and the second se			
Aluminium	7429-90-5	0.01	mg/L	0.38	0.25	-	-	-
Araeolo	7440-38-2	0.001	mg/L	0.052	0,001	-		
Cadmium	7440-43-9	0.0001	mg/L	0.0009	<0.0001	Contraction of the	-	-
Chromium	7440-47-3	0.001	mail	<0.001	<0.001	_	-	-
Cobalt	7440-48-4	0.001	mg/L	0.063	0.013		_	-
Copper	7440-50-8	0.001	ing/L	0,082	0.033	-	-	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	_	_	
Manganese	7439-96-5	0.001	mg/L	0.033	0.114			
Nickel	7440-02-0	0.001	mg/L	0.004	0.012	_		
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01			2
Zinc	7440-66-8	0.005	mg/L	0.082	0.041			
Iron	7439-89-8	0.05	mg/L	0.48	<0.05	24	-	
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	0.004	0.005	<0.001		-
Cadmium	7440-43-9	0.0001	mg/L	0.0011	<0.0001	<0.0001		

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Project	137623028



ub-Matrix: WATER (Matrix: WATER)		Clier	nt sample ID	D1_17/07/13	D4_17/07/13	QC300_17/07/13	-	_
	Clie	Client sampling date / time			17-JUL-2013 03:30	17-JUL-2013 15:00	-	-
Compound	CAS Number	LOR	Unit	ES1316167-001	ES1316167-002	ES1316167-003	-	-
EG020T: Total Metals by ICP-MS - Conti					Contrast on the local division of the			
Chromium	7440-47-3	0.001	mg/L	0.003	0.003	<0.001	-	-
Copper	7440-50-8	0.001	mg/L	0.163	0.062	<0.001		-
Nickel	7440-02-0	0.001	mg/L	0.008	0.015	<0.001	-	-
Lead	7439-92-1	0.001	mo/L	0.004	0.003	<0.001	-	-
Zinc	7440-66-6	0.005	mo/L	0.105	0.055	<0.005	-	-
Manganese	7439-96-5	0.001	mg/L	0.042	0.150	<0.001	-	-
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	<0,01	-	-
	.70240-2			and the second se		1		
EG035F: Dissolved Mercury by FIMS Mercury	7439-97-5	0.0001	mo/L	<0.0001	<0.0001			-
					1			
EG035T: Total Recoverable Mercury b Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	-	-
	3 19 E J U E J	9,9941	ngh					
EG051G: Ferrous Iron by Discrete Ana		0.05	mo/L	0.45	<0.05	- 1	-	-
Ferrous Iron		0.05	mgr	0,40	40,00			
EG052G: Silica by Discrete Analyser				64.1	112	- 1		1
Reactive Silica		0,10	mg/L	64.1	112			
EK055G: Ammonia as N by Discrete Ai					<0.01	- 1	-	-
Ammonia as N	7664-41-7	0.01	mg/L	0.08	<0.01			
EK057G: Nitrite as N by Discrete Anal						1	_	-
Nitrite as N		0.01	mg/L	<0.01	<0,01	-		
EK058G: Nitrate as N by Discrete Ana								-
Nitrate as N	14797-55-8	0.01	mg/L	0,02	120	-	-	-
EK059G: Nitrite plus Nitrate as N (NO)	by Discrete Anal	lyser						
Nitrite + Nitrate as N	-	0.01	mg/L	0.02	120	+	-	-
EK061G: Total Kjeldahl Nitrogen By Di	screte Analyser							
Total Kjeldahl Nitrogen as N		0.1	mg/L	0.8	29.8		-	-
EK062G: Total Nitrogen as N (TKN + N	Ox) by Discrete An	alvsor						
Total Nitrogen as N		0.1	mg/L	0.8	150	-	-	-
EK067G: Total Phosphorus as P by Di	screte Analyser							
Total Phosphorus as P		0,01	mg/L	0.47	0.52		-	-
EN055: Ionic Balance	100 C			All of the local division of the local divis				
Total Anions		0.01	meg/L	8.81	-		-	-
Total Anions		0.01	meq/L		28.8	-	-	-
Total Cations		0.01	meg/L	8.98	31.4			-

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Sub-Maltix: WATER (Matrix: WATER)		Cle	ent sample ID	D1_17/07/13	D4_17/07/13	QC360_17/07/13	-	-
	Cá	Client sampling date / time			17-JUL-2013 03:30	17-JUL-2013 15:00	-	1-
Compound	CAS Number	LOR	Unit	ES1316167-001	ES1316167-002	ES1316167-003	-	-
EN055: Ionic Balance - Continued	a service and							-
Ionic Balance	-	0.01	70	0.97		-	-	-
Ionic Balance	-	0.01	96	-	4.28	-	-	-
EP068A: Organochlorine Pesticides	(0C)		-	the second s				
alpha-BHC	319-84-6	0.5	Light 1	<0.5	+0.5			-
Hexachlorobenzene (HCB)	118-74-1	0.5	Jug/L	40.5	<0.5	-		-
beta-BHC	319-85-7	0.5	HQ/L	<0.5	<0.5	-		-
gamma-BHC	58-89-9	0.5	µg/L	<0.5	<0.5		-	_
delta-BHC	319-86-8	0.5	Hg/L	<0.5	<0.5	-	-	-
Heptachilor	76-44-8	0.5	HO/L	<0.5	<0.5	-		-
Aldrin	309-00-2	0.5	HOL	<0.5	<0.5	-	-	-
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	<0.5	-	-	-
trans-Chlordane	5103-74-2	0.5	HOL	<0.5	<0.5		-	-
alpha-Endosulfan	959-98-8	0.5	ug/L	<0.5	<0.5	-		-
cls-Chlordane	5103-71-9	0.5	ug/L	<0.5	<0.5	-	-	_
Dieldrin	60-57-1	0.5	har.	<0.5	<0.5	-	-	-
4.4'-DDE	72-55-9	0,5	Hort.	<0.5	<0.5	_	-	-
Endrin	72-20-8	0,5	Hg/L	<0.5	<0.5	-	-	-
beta-Endosulfan	33213-65-9	0.5	Lac	<0.5	<0.5	-	-	-
4.4'-DDD	72-54-8	0.5	HOL	<0.5	<0.5	-	~	-
Endrin aldehyde	7421-93-4	0,5	ug/L.	<0.5	<0.5	_		-
Endosulfan sulfate	1031-07-8	0.5	Hall.	<0.5	<0.5	-	-	-
4.4'-DDT	50-29-3	2,0	HO/L	<2.0	<2.0	-	+	-
Endrin ketone	53494-70-5	0.5	µg/L	<0.5	<0.5	· · · · · · · · · · · · · · · · · · ·		-
Methoxychior	72-43-5	2.0	µg/L.	\$2.0	<2.0	-	-	-
Total Chlordane (sum)		0.5	Hg/L	<0.5	<0.5		-	-
Sum of DDD + DDE + DDT		0,5	Hg/L	<0.5	<0.5	-	-	-
Sum of Aldrin + Dieldrin	309-00-2/80-57-1	0.5	Hall	<0.5	<0,5	-		-
EP068B: Organophosphorus Pestici	des (OP)		-					
Dichlorvos	62-73-7	0,5	µg/L	<0.5	*0.5		-	-
Demeton-S-methyl	919-88-8	0.5	Hg/L	<0.5	<0.5	-	-	-
Monocrotophos	6923-22-4	2.0	µg/L	<2.0	<2.0	-	-	-
Dimethoate	60-51-5	0.5	HB/L	<0,5	<0.5		-	-
Diazinon	333-41-5	0,5	µg/L	<0,5	<0.5	-	-	-
Chiorpyrifos-methyl	5598-13-0	0.5	HQ/L	<0.5	<0.5		-	-

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ub-Matrix: WATER (Matrix: WATER)		Cile	nt sample ID	D1_17/07/13	D4_17/07/13	QC300_17/07/13	-	
	Ca	Client sampling date / time		17-JUL-2013 02:30	17-JUL-2013 03:30	17-JUL-2013 15:00	-	
Compound	CAS Number	LOR	Linit	ES1316167-001	ES1316167-002	ES1316167-003	-	-
EP068B: Organophosphorus Pesticid	es (OP) - Continued	-						
Parathion-methyl	298-00-0	2.0	ug/L	<2.0	<2.0		-	-
Malathion	121-75-5	0.5	ug/L	<0.5	<0.5	-		-
Fenthion	55-38-9	0.5	ug/L	<0.5	<0.5	-		-
Chlorpyrifos	2921-88-2	0,5	ug/L	<0.5	<0.5	-		-
Parathion	58-38-2	2.0	µg/L	<2.0	<2.0	-	-	-
Pirimphos-ethyl	23505-41-1	0.5	HQ/L	<0.5	<0.5	-	-	-
Chlorfenvinphos	470-90-5	0.5	µg/L.	<0.5	<0.5	-	-	-
Bromophos-ethyl	4824-78-6	0.5	HQ1	<0.5	<0.5	-	-	
Fenamiphos	22224-92-6	0.5	µg/L	<0.5	<0.5	-	-	
Prothiofos	34643-46-4	0.5	µg/L	<0.5	<0.5	-		-
Ethion	563-12-2	0.5	ug/L	<0.5	<0.5	-		-
Carbophenothion	786-19-6	0.5	ug/L	<0.5	<0.5	-	-	
Azinphos Methyl	86-50-0	0.5	ug/L	<0.5	<0.5	-	-	-
EP075(SIM)A: Phenolic Compounds		-	-	and the second se	and the second se			
Phenol	108-95-2	1.0	ug/L	<1.0	×1.0	<1.0		-
2-Chlorophenol	95-57-8	1.0	µg/L	×1.0	<1.0	<1.0		-
2-Methylphenol	95-48-7	1.0	uga	×1.0	<1.0	<1.0		-
3- & 4-Methylphenol	1319-77-3	2.0	µg/L	<2.0	<2.0	<2.0	-	-
2-Nitrophenol	88-75-5	1.0	ugh	<1,0	<1.0	<1.0	-	
2.4-Dimethylphenol	105-87-9	1.0	µg/L	<1.0	<1.0	<1.0	-	-
2.4-Dichlorophenol	120-83-2	1.0	µg/L	<1.0	<1.0	<1.0		
2.6-Dichlorophenol	87-65-0	1.0	µg/L	<1.0	<1.0	*1.0	-	-
4-Chloro-3-Methylphenol	69-50-7	1.0	ug/L	41.0	<1.0	<1.0	++	
2.4.6-Trichlorophenol	88-06-2	1.0	ug/L	<1.0	<1.0	<1.0	-	-
2.4.5-Trichlorophenol	95-95-4	1.0	ug/L	.41.0	<1.0	<1.0		
Pentachlorophenol	87-86-5	2.0	µg/L	<2.0	<2.0	<2.0	-	-
EP075(SIM)B: Polynuclear Aromatic H	lydrocarbons							
Naphthalene	91-20-3	1.0	ug/L	*1.0	<1,0	<1.0		-
Acenaphthylene	208-96-8	1.0	ug/L	<1.0	<1,0	<1.0		
Acenaphthene	83-32-9	1.0	ug/L	<1.0	<1,0	<1.0		-
Fluorene	88-73-7	1,0	µg/L	<1.0	<1.0	<1,0		-
Phonanthrene	85-01-8	1.0	HOL	*1.0	<1.0	<1.0		
Anthracene	120-12-7	1.0	ug/L	<1.0	<1.0	<1.0	-	

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Project	137623028



Sub-Matrix: WATER (Matrix: WATER)		Cite	ent sample ID	D1_17/07/13	D4_17/07/13	QC300_17/07/13	-	-
	Client sampling date / time			17-JUL-2013 02:30	17-JUL-2013 03:30	17-JUL-2013 15:00		-
Compound	GAS Number	LÓR	Unit	ES1316167-001	ES1316167-002	ES1316167-003	-	-
EP075(SIM)B: Polynuclear Aromatic H	vdrocarbons - Cont	Inved		and the second se				
Fluoranthene	208-44-0	1.0	µg/L	<1.0	<1.0	<1.0	-	-
Pyrene	129-05-0	1.0	µg/L	<1.0	<1.0	<t.0< td=""><td>-</td><td>-</td></t.0<>	-	-
Benz(a)anthracene	56-55-3	1.0	ug/L	<1.0	<1.0	<1.0	-	
Chrysene	218-01-9	1.0	µg/L	<1,0	<1.0	<1.0	-	
Benzo(b)fluoranthene	205-99-2	9,0	µg/L	<1.0	<1.0	<1.0		-
Benzo(k)fluoranthene	207-08-9	1.0	Pg/L	<1.0	<1.0	<1.0	-	-
Benzo(a)pyrene	50-32-8	0.5	HQ/L	<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<1.0	-	-
Dibenz(a.h)anthracene	\$3-70-3	1,0	Hg/L	<1.0	<1.0	<1.0		-
Benzo(g.h.liperylene	191-24-2	1,0	ug/L	<1.0	<1.0	<1.0	-	-
Sum of polycyclic aromatic hydrocarbons		0.5	Jug/L.	<0.5	<0.5	<0.5	-	-
Benzo(a)pyrene TEQ (WHO)	_	0.5	VO/L	<0.5	<0.5	<0.5	-	-
EP080/071: Total Petroleum Hydrocart	ons	-	-	and the second se				
C6 - C9 Fraction		20	Ho/L	<20	<20	<20	-	
C10 - C14 Fraction	-	50	+Ip/L	<50	<50	<50		-
C15 - C28 Fraction		100	up/L	<100	<100	<100		-
C29 - C36 Fraction	-	50	µg/L	<50	<50	<50	-	-
C10 - C36 Fraction (sum)		\$0	- ug/L	<50	<50	<50	-	-
EP080/071: Total Recoverable Hydroca	rbons - NEPM 201	0 Draft			the second second			
C6 - C10 Fraction		20	Ng/L	<20	<20	<20	-	-
C6 - C10 Fraction minus BTEX (F1)		20	Jug/L	<20	<20	<20	-	-
>C10 - C16 Fraction		100	ug/L	<100	+100	<100	-	-
>C16 - C34 Fraction		100	ug/L	<100	×100	<100	-	-
>C34 - C40 Fraction	-	100	µg/L	<100	*100	~100	-	-
>C10 - C40 Fraction (sum)		100	ug/L	=100	<100 ⁻	<100	-	-
EP080: BTEXN		_						-
Benzene	71-43-2	1	ug/L	<1	-1	- 41	-	-
Toluene	108-88-3	2	pg/L	4	2	2	-	-
Ethylbenzene	100-41-4	z	Hg/L	4	<2	-2	-	-
meta- & para-Xylene	108-38-3 105-42-3	2	µg/L	42	<2	2	-	-
ortho-Xylano	95-47-6	2	ug/L	12	*2	~2	-	
Total Xylenes	1330-20-7	2	Hart	<2	<2	<2	_	-
Sum of BTEX	_	1	- ugit_	<1	<1	<1	-	-

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ub-Matrix: WATER (Metrix: WATER)		Cite	ant sample ID	D1_17/07/13	D4_17/07/13	QC300_17/07/13	-	-
	CH	ent sample	ng date / time	17-JUL-2013 02:30	17-JUL-2013 03:30	17-JUL-2013 15:00	-	-
Compound	CAS Number	LOR	Unit	ES1316167-001	ES1316167-002	ES1316167-003	+	-
EP080: BTEXN - Continued								
Naphthalene	91-20-3	5	ug/L	<5	-45	<5	-	-
EP068S: Organochlorine Pesticide Su	rrogate			and the second se				
Dibromo-DDE	21655-73-2	0.1	76	74.3	69.7	/ ==	-	
EP068T: Organophosphorus Pesticide	Surrogate		-					
DEF	76-48-8	Q.1	76	85.7	77.1			
EP075(SIM)S: Phenolic Compound Su	rrogates							
Phenol-d6	13127-88-3	0.1	%	24.2	24.4	27.5	++	
2-Chlorophenol-D4	93951-73-6	0.1	16	56.9	55.8	59.4	-	
2.4.6-Tribromophenol	118-79-6	0.1	%	62.5	61,4	68.2	++	
EP075(SIM)T: PAH Surrogates			-					
2-Fluorobiphenyl	321-60-8	0,1	96	64.8	68.7	68.0	-	
Anthracene-d10	1719-06-8	0.1	%	64.8	68.6	69.2		
4-Terphenyl-d14	1718-51-0	0.1	%	64.2	62,4	64.6	-	-
EP080S: TPH(V)/BTEX Surrogates			-					
1.2-Dichloroethane-D4	17080-07-0	0,1	76	104	103	105	÷	10 2-
Toluene-D8	2037-26-5	0.1	-96	113	115	110	-	-
4-Bromofluorobenzene	460-00-4	0.1	%	112	110	112		

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Surrogate Control Limits

Sub-Matrix: WATER		Recovery	Limits (%)
Compound	CAS Number	Low	High
EP068S: Organochlorine Pesticide	Surrogate		
Dibromo-DDE	21655-73-2	30	120
EP068T: Organophosphorus Pestic	ide Surrogate		
DEF	78-48-8	26.8	129
EP075(SIM)S: Phenolic Compound	Surrogates		
Phenol-d6	13127-88-3	10.0	-44
2-Chlorophenol-D4	83951-73-6	15.9	102
2.4.6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20.4	112
Anthracene-d10	1719-06-8	29.6	118
4-Terphenyl-d14	1718-51-0	21.5	126
EPOBOS: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128



Appendix D

Laboratory Results Summary Table

Douglas Partners

Table 1: Laboratory	Doculto Summary	(All reculte in	ma/ka unloce	othorwice stated)
	Results Summary	(All results in	ilig/kg uliess	Uniel wise stateu)

Table 1: Laboratory Results	s Summary	(All re	sults in	n mg/kg			wise st	ated)																							
Sample ID Fill /	Soil Type				Heavy				-				-	/BTEX					PAHs		Phenol				OCP	1 1				OPP	Asbestos ID
Natural		As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	F1	F2	F3 F4	Benzene	Toluene	Ethyl benzene	Total Xylene Golder (2013	Total PAH	B(a)P TEQ	B(a)P	Napthalene		Aldrin + Dieldrin	Chlordane	DDT + DDD + DDE	Endosulfan	Endrin	Heptachlor	HCB	Methoxychlor	Chlorpyrifos	I
TP1_0.0-0.1_27/06/13 Fill	sandy CLAY	6	<1	13	140	29	<0.1	11	68	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.05	< 0.05	<0.05	< 0.05	<0.05	< 0.05	< 0.05	<0.2	<0.05	
	BEDROCK	<5	<1	14	87	<5	<0.1	9	33	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
TP2_0.0-0.1_27/06/13 Fill	sandy CLAY	<5	<1	10	10	9	<0.1	7	18	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
TP2_0.2-0.4_27/06/13 Natural	CLAY	<5	<1	20	82	7	<0.1	3	12	<10		<100 <100		<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	-
	sandy CLAY	8	3	7	589	120	<0.1	6	152	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.5	<0.5	< 0.5	<0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	NO
TP3_0.5-0.6_27/06/13 Fill	CLAY	<5	<1	25	80	12	<0.1	4	25	-	-		-	-	-		-	-	-	-	-			•	-	· ·	-	-	-		-
TP4_0.0-0.1_27/06/13 Fill	SAND	<5 9	<1	3	287	126	<0.1	2	32	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	-
	BEDROCK silty CLAY	33	<1 4	16 13	78 467	22	<0.1 <0.1	6	16 112	<10	<50	<100 <100	<0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	
	gravelly CLAY	<5	<1	17	69	<5	<0.1	<2	112	-			<0.2																<0.2 -	<0.05	
TP6 0.2-0.3 27/06/13 Fill	CWR	37	27		2740	216	<0.1	_		<10	<50	<100 <100	<0.2	< 0.5	< 0.5	<0.5	<0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	- 1
TP6_0.5-0.6_27/06/13 Natural	silty CLAY	<5	<1	22	61	7	<0.1	4	9	-	-		-	-	-		-	-	-	-	-		-	-	-		-	-	-		-
TP7_0.3-0.4_27/06/13 Fill g	gravelly CLAY	7	<1	20	66	19	<0.1	3	41	<10	<50	<100 <100	<0.2	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	NO
TP7_0.5-0.6_27/06/13 Natural	CLAY	<5	<1	24	77	9	<0.1	4	24	-			-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-		-
TP8_0.0-0.1_26/06/13 Natural (Top		41	10	22	2280	677	0.3	12	397	<10	<50	<100 <100	<0.2	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	-
	BEDROCK	<5	<1		76	<5	<0.1		31	-	-		-	-	-	-			-	-		-	-	-	-	-	-	-	-		-
TP9_0.3-0.4_26/06/13 Fill TP9_0.5-0.6_26/06/13 Natural	silty CLAY	36 <5	11 <1	21 21	1020 82	192 10	0.3 <0.1	9	443 17	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	< 0.05	<0.05	< 0.05	< 0.05	<0.2	< 0.05	-
TP9_0.5-0.6_26/06/13 Natural TP10_0.0-0.1_26/06/13 Fill	silty CLAY silty CLAY	31	3	16	422	124	0.2	6	256	<10	<50	<100 <100	<0.2	< 0.5	< 0.5	< 0.5	4.5	0.7	0.6	<0.5	<0.5	<0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	YES + AF
TP10_0.5-0.6_26/06/13 Natural	CLAY	<5	<1	24	88	9	<0.1	4	230	-					-	-	-	-	-				-								-
TP11_0.1-0.2_26/06/13 Fill	SAND	<5	<1	19	201	21	<0.1	6	92	<10	<50	<100 <100	<0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 0.5	<0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	YES + AF
TP11_0.9-1.0_26/06/13 Natural	CLAY	<5	<1	14	73	6	<0.1	5	38	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	· ·	-		-
	clayey SAND	10	3	10	961	173	0.3	8	187	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	< 0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.2	<0.05	NO
	BEDROCK	<5	<1	19	116	6	<0.1	14	88	<u> </u>	Ļ∙ļ	· ·	· ·	· ·		· _	<u> </u>	· ·	-	-	<u> </u>	· · ·			· ·	<u>↓ · </u>]		↓ · ↓	-	7	<u> </u>
TP12A_0.1-0.2_26/06/13 Fill	silty CLAY		-	-		-	-	<u> : </u>	-	-		100 1	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	YES
	clayey SAND BEDROCK	17 <5	<1 <1	_	171 63	38	<0.1 <0.1	4	35 21	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.2	<0.05	<u> </u>
	clayey SAND	<5 11	<1	15	63 660	6 415	<0.1	2	85	- <10	- <50	<100 <100	- <0.2	- <0.5	- <0.5	- <0.5	- <0.5	- <0.5	- <0.5	- <0.5	- <0.5	- <0.05	- <0.05	- <0.05	- <0.05	- <0.05	- <0.05	- <0.05	- <0.2	- <0.05	
TP14_0.0-0.1_20/00/13 Pill TP14_0.5-0.6_26/06/13 Natural	silty CLAY	<5	<1	18	60	6	<0.1	2	13					-0.3		-0.3		- 0.3	-0.0	-0.3	-0.3	-0.05			-0.03	-0.03	-0.03		~v.z	-0.03	
	sandy CLAY	8	4	8	1620	239	0.2	10	231	<10	<50	<100 <100	<0.2	<0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	YES + AF
	BEDROCK	<5	<1	20	139	10	<0.1	18	98	-	-		-	-	-		-	-	-	-	-		-	-	-		-	-	-	-	<u> </u>
TP16A_0.2-0.3_26/06/13 Fill	CWR	11	10	12	320	48	0.1	24	369	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	-
TP16A_0.5-0.6_26/06/13 Fill	silty CLAY	33	5	13	335	61	0.2	6	145	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.5	< 0.5	<0.5	<0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	<u> </u>
	silty CLAY	-	-	-	-	-	-	-	-	-	·			-	-		-	-	-	-	-		-	-	-	· ·	-	-	-	<u> </u>	YES
	sandy CLAY	-	-	- 10	-	-	-	- 7	-	- 10	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	YES
	silty CLAY gravelly CLAY	166 <5	4 <1	19 27	1330 110	489	0.8 <0.1	10	237 76	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	YES
TP24_0.0-0.1_26/06/13 Fill	silty CLAY	16	4	13	1480	191	0.5	9	286	-			-		-	-				-		-	-	-	-		-	-	-		-
TP24_0.5-0.6_26/06/13 Natural	CLAY	<5	<1	29	123	70	<0.1	7	258	<10	<50	<100 <100	<0.2	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	
TP25_0.0-0.1_26/06/13 Fill	silty CLAY	10	3	9	791	243	0.2	12	514	<10	<50	480 <100		< 0.5	< 0.5	< 0.5	4.3	< 0.5	< 0.5	<0.5	< 0.5	<0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	-
TP25_0.9-1.0_26/06/13 Fill	silty CLAY	209	4	11	1060	253	0.4	6	200	-	-		-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-
TP26_0.5-0.6_25/06/13 Fill	silty CLAY	9	<1	22	132	66	0.1	5	154	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	!	-
	gravelly CLAY	22	2	17	923	156	0.1	22	179	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	< 0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	-
TP27_0.0-0.1_25/06/13 Fill	silty CLAY	<5	<1	6	262	38	<0.1	8	132	-	-		-		-	-		-				-	-	-	-	-	-	-	-		-
TP27_0.5-0.6_25/06/13 Fill TP28_0.0-0.1_25/06/13 Fill	CWR silty CLAY	35 26	8	12 9	479 2240	155 397	0.2	13 12	404 176	<10 <10	<50 70	<100 <100 1330 220	<0.2 <0.2	<0.5 0.6	<0.5 <0.5	<0.5 0.5	<0.5 19.7	<0.5	<0.5 0.7	<0.5 0.8	<0.5 <0.5	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.2 <0.2	<0.05 <0.05	-
	silty CLAY	<5	<1	14	72	22	<0.1	6	107	<10	70	1330 220	<0.2	0.0	<0.5	0.5	19.7		0.7	0.0	<0.0	<0.05	<0.05	<0.05	<0.05	<0.00	<0.05	<0.05	<0.2	<0.05	-
TP29_0.3-0.4_25/06/13 Natural	silty CLAY	13	13	5	333	44	0.1	7	154	<10	<50	<100 <100	<0.2	< 0.5	< 0.5	<1.0	<0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	
	BEDROCK	6	<1	17	99	14	<0.1	6	54	-	· ·		-	-	-	-		-	-	-		-	-	-	-			-	-		-
TP30_0.0-0.1_25/06/13 Natural	silty CLAY	201	10	13	2820	657	1.2	11	415	<10	<50	<100 <100	<0.2	<0.5	<0.5	<1.0	1.8	< 0.5	< 0.5	<0.5	<0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	-
TP30_0.5-0.6_25/06/13 Natural	CLAY	<5	1	21	249	67	<0.1	4	157	-	ĿT		-	-	-	<u> </u>	-	-	-	-	-	-	-	-	-		-	1 - T	-		
	andy silty CLAY	<5	<1	32	74	8	<0.1	6	28	-		· ·	-	· ·	-	·	-	· ·	-	-	-		-	-	· ·	<u>↓ ·</u> ↓	-	I ∴ I	-		<u> </u>
	andy silty CLAY	<5	<1	11 9	49	7	<0.1	<2	17	<10	<50	<100 <100		< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.2		<u> </u>
~ ~ ~	velly sandy CLAY sandy CLAY	6 <5	<1 <1	30	82 68	219	0.2 <0.1	4	1150 38	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.2		<u> </u> − − − −
	velly sandy CLAY	37	3	20	436	350	0.2		257	<10	<50	<100 <100	<0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2		
BH3-1.0-09/10/13 Natural	silty CLAY	<5	<1	26	102	9	<0.1	3	54	-	<u> </u>		-	-	-		-	-	-	-	-	-	-	-	-		-	-	-		<u> </u>
	avelly silty CLAY	73	5	26	717	404	<0.1	_	798	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	< 0.05	<0.05	<0.05	<0.05	< 0.05	< 0.05	<0.2		-
1	avelly silty CLAY	<5	<1	31	79	14	<0.1	9	76	-	-		-	-	-	-	-	-	-	-		-	-	-	-		-	-	-		-
BH5-0.1-09/10/13 Fill		5	1		574	92	0.1		190	<10	<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	7	
	avelly silty CLAY		<1		83	44		_		-	·	100 1	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	avelly silty CLAY			32	130	10		30			<50	<100 <100	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	< 0.05	<0.05	< 0.05	< 0.05	<0.2	-	<u> </u>
BH6-1.0-09/10/13 Natural gra	avelly silty CLAY	<5	<1	25	137	8	<0.1	15	90	-	<u> </u>	· I ·	· ·	<u> </u>	-	- Summary S	Statistics	<u> </u>	-	-	-	-	-	-	<u> </u>		· ·	1 - 1	-	-	· · ·
Min		5	1	3	10	6	0.1	2	9	<10	70	480 220	<0.2	0.6	<0.5	0.5	1.8	0.7	0.6	0.8	<0.5	<0.05	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	<0.2	<0.05	.
Max		209			2820	677						1330 220		0.6	<0.5	0.5	1.0	1	0.0	0.8	<0.5	<0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.2	< 0.05	
Median		16		17	138			7		-		905 220		1	-	1	4	1	1	1	-	-	-	-		-	-	-	-	-	<u> </u>
Arithmatic Mean		36.9	6.1		475.9		0.3	8.4	166.2		70.0			0.6	-	0.5	7.6	0.9	0.7	0.8		<u> </u>	-	-	-	<u> </u>	-	-			· ·
Standard Deviation		53	6	7	665	160	0.26	6	202	-		425 -	-	-	-	-	7	0.15	0.05	-		-	-	-	-	-	-	-	-		-
				1							· ·				1	Site Assessm				1			-	-			-	· · ·			
HIL-A		100	20	100	6000	300	40	400	7400		-			-	-	-	300	3	-	-	100	6	50	240	270	10	6	10	300	160	NAD
HSL-A Direct Contact HSL-A Vapour Intrusion - San	nd	-	-	+ ·	-	-	· ·	+ • +	-		3300 110	4500 6300		14000 160	4500 55	12000	· ·	· ·	-	1400	-	· ·	-	-	· ·	+	-	<u>↓ ·</u> ↓	-		
HSL-A Vapour Intrusion - San HSL-A Vapour Intrusion - Cla		-	-	+ ·	-		<u> </u>	+ • • •	-	45	280	<u>· ·</u>	0.5	480	55 NL	40	<u> </u>	· ·	-	3	<u> </u>	-	-	-	· ·	+ ·	-				<u> </u> − − − −
EIL coarse soils	- j	100	-	520	- 170	- 1100	<u> </u>	160	- 410	- 50	200		0.7	40U	- IVL		<u> </u>	1	-	5	<u> </u>			180	<u> </u>		<u> </u>		-		
EIL coalse soils		100	-	660	190	1100	<u> </u>	280			<u> </u>		· .	l .	· .		<u> </u>	· ·	-	170		-	-	180	· ·	1.1	-	1.1	-	-	<u> </u>
ESL coarse soils		-	-	-	-		-		-	180	120	300 2800	50	85	70	105	-	· ·	0.7	-	-	-	-	-	· ·	- 1	-	1 . 1	-	-	<u> </u>
ESL fine soil		-	-	-	-	-	-	-	-	180	120	1300 5600	65	105	125	45	-	-	0.7	-		<u> </u>	-	-	-	<u> </u>	-	-			· ·
Management Limits coarse so		-	-	-	-	-	-	-	-			2500 10000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Management Limits fine soils	s	-	-	-	-	-		·	·	800	1000	3500 10000) -	·	-	·	-	·	-	-	-	-	-	-		·	-	I - T	-		
Notes:																															

BOLD

Exceedance of HIL A Exceedance of or equal to ELUESL Not tested/not available Value recorded for Avoidor 1254. All other recorded PCBs below POL. Coal Washery Rejects No asbesitos detected NEPC, National Environment Protection (Assessment of Site Contamination) Measure 1999 (Amended 2013), Schedule B1, Table 1A (1) Health investigation levels for soil contaminants - HIL A, Residential with garden/accessible soil CRC CARE Cooperative Research Centre for Contamination Measure 1999 (Amended 2013), Schedule B1, Table 1A (1) Health investigation levels for soil contaminants - HIL A, Residential with garden/accessible soil CRC CARE Cooperative Research Centre for Contamination Measure 1999 (Amended 2013), Schedule B1, Table 1A (3) Soil health screening levels for vapour intrusion - HSL & HSL & Low-High density residential for sadn or clay soils at depths of the Environment Technical Report no. 10 Health screening levels for vapour intrusion - HSL & HSL & Low-High density residential for sadn or clay soils at depths of the contamination) Measure 1999 (Amended 2013), Schedule B1, Table 1A (3) Soil health screening levels for vapour intrusion - HSL & HSL & Low-High density residential for sadn or clay soils at depths of the contamination) Measure 1999 (Amended 2013), Schedule B1, Table 1B (6) ESLs for TPH fractions F1 - F4, BTEX and benzo(a)pyrene in soi - urban residential and public open space for coarse and fine soil types NEPC, National Environment Protection (Assessment of Site Contamination) Measure 1999 (Amended 2013), Schedule B1, Table 1B (7) Management Limits for TPH fractions F1 - F4 in soil - Residential Parkland and public open space for coarse and fine soil types NEPC, National Environment Protection (Assessment of Site Contamination) Measure 1999 (Amended 2013), Schedule B1, Table 1B (7) Management Limits for TPH fractions F1 - F4 in soil - Residential Parkland and public open space for coarse and fine soil types Calculated as being TRH - C₀, minus Napthalene TRH > C16-C34 TRH > C34-C40 BOLD CWR NAD HIL - A HSL-A Direct Contact HSL-A Vapour Intrusion EIL ESL Management Limits F1 F2 F3 F3 F4