6.4.6 The carrying out of any additions or alterations or other works to the Premises by any Lessee Party;

6.4.7 The use by any Lessee Party of any car parking facilities permitted by this Lease;

6.4.8 The happening of any accident or event in or about the Premises,

and the Lessor shall not be liable to the Lessee for any injury loss or damage which may be suffered or sustained to any property or by a Lessee Party on the Premises unless caused by the wilful act or omission of the Lessor its servants or agents.

6.5 Comply with all requirements and recommendations of the Lessor's insurer and not do or omit to do anything on or about the Premises which may increase the premium above the ordinary rate or render any additional premium payable for the Lessor's insurance or which may make void or voidable that policy and reimburse the Lessor forthwith on demand any additional premium which may have been paid or become payable by reason of that act or omission together with all expenses incurred by the Lessor in relation to the renewal of any policy of insurance (which shall not form part of the Insurance Cost).

6.6 Inform the Lessor of any thing arising from the Lessee's use of the Premises affecting the Lessor's insurances.

6.7 If the Building is damaged or destroyed by any of the Insured Risks and the insurance money under the insurance policy is wholly or partially irrecoverable by reason (solely or in part) of any act or default of a Lessee Party the Lessee shall forthwith pay to the Lessor the whole or as the case may require a fair proportion of the cost of rebuilding and reinstating the Building.

PART 7 - ALIENATION:

7.1 The Lessee shall not assign, transfer, sublet, part with or share possession of the Premises or its interest in the Premises provided that the Lessee may assign this Lease or sub-let with the prior consent of the Lessor (consent not to be unreasonably withheld in the case of a respectable and responsible assignee or sub lessee). A change in effective management or control of the Lessee (if not a listed public company) constitutes an assignment of this Lease.

7.2 If the assignee or sub lessee is not a listed public company then the directors and principal shareholders shall if required by the Lessor jointly and severally covenant with the Lessor in the manner set out in Part 12.

7.3 Upon any assignment of this Lease the assignee shall if required by the Lessor covenant with the Lessor to observe and perform the Obligations.

7.4 Any subletting shall be upon the same terms as this Lease and at a rent which is no less than the Rent and shall be capable of being determined by the Lessor upon determination of this Lease.

7.5 Upon any assignment of this Lease the Lessor shall not be obliged to release the Lessee from the Obligations or the Guarantor from Part 12.

PART 8 - DEFAULT AND DETERMINATION:

8.1 The Lessor shall be entitled to exercise any of the rights specified in Clause 8.2 if:

8.1.1 the Lessee repudiates this Lease:

8.1.2 there is a breach of an essential provision;

8.1.3 the Rent or any other moneys payable by the Lessee to the Lessor pursuant to this Lease are in arrears or unpaid for a period of fourteen (14) days (whether or not demanded);

8.1.4 the Lessee defaults in the performance of an Obligation (not relating to the payment of Rent or other moneys) which is not an essential provision and that default is reasonably capable of remedy and the Lessee fails to comply with a notice giving a period of not less than twenty eight days within which the default must be remedied;

8.1.5 the Lessee is a corporation:

(a) an order is made or a resolution is passed for its winding up or proceedings are initiated or a meeting called to obtain any such order or to pass such resolution;

(b) a receiver manager or receiver and manager of its undertaking or any part is appointed or an official manager or provisional liquidator is appointed;

(c) if the Lessee is not a public listed company and without the prior written consent of the Lessor any sale transfer or other disposition of the shares in its issued capital or any issue or allotment of any new shares in its capital or any other act matter or thing occurs is done or performed the effect of which is to transfer directly or indirectly the effective management and control of the Lessee.

8.1.6 the Lessee is an individual and:

(a) dies or becomes incapable of managing his own affairs;

(b) is declared bankrupt or makes any arrangement with his creditors; or

(c) any execution or other process of any Court or other authority issues out against or is levied upon any of the property of the Lessee;

8.1.7 the Lessee stops or threatens to stop payment of its debts or without the prior written consent of the Lessor ceases or threatens to cease to carry on its business;

8.1.8 any warranty or representation expressed in or implied by this Lease or otherwise made by or on behalf of the Lessee to the Lessor prior to entering into this Lease is found to be materially incorrect;

8.1.9 a final judgement is entered in any Court against the Lessee and is not satisfied within twenty eight (28) days;

8.1.10 the Lessee without the prior written consent of the Lessor creates or purports to create any charge or mortgage over its interest in this Lease.

8.2 Upon the happening of any of the events specified in Clause 8.1 the Lessor may exercise any of the following rights:

8.2.1 to re-enter (forcibly if necessary) the Premises or any part of the Premises in the name of the whole and repossess the Premises as of its former estate and expel and remove the Lessee and all other occupiers without liability for the tort of trespass or to the Lessee for any liability it may incur and without prejudice to any remedies which might otherwise be available to the Lessor to recover arrears of Rent or in respect to any antecedent breach of the Obligations and to repair and/or reinstate the Premises to the condition required by the Obligations and recover the costs of so doing from the Lessee as a liquidated debt payable on demand, and re-entry shall (unless the Lessor otherwise expressly elects) immediately cause this Lease to determine as if it had expired by effluxion of time but the Lessee shall remain liable for all Rent due to the date of re-entry and for all other moneys due pursuant to this Lease; or

8.2.2 to reduce the Term by giving the Lessee written notice expiring on a date being no earlier than twenty eight days after the date of service of the notice.

8.3 Upon re-entry pursuant to Clause 8.2.1 the Lessor may retain any furniture fittings fixtures or other items belonging to the Lessee in the Premises and the Lessor shall have the right to sell those items by public auction and apply the proceeds of sale towards the payment of any moneys payable to the Lessor pursuant to this Lease and for the purpose of any sale pursuant to the Clause, the Lessee irrevocably appoints the Lessor Attorney of the Lessee and authorises the Lessor to do all things necessary to effect any sale and to retain from the proceeds of any sale any amount received until the Lessor has been paid 100 cents in the dollar in respect of the indebtedness of the Lessee to the Lessor.

8.4 If any of the events specified in Clause 8.1.5 occurs to any Guarantor being a corporation or if any of the events specified in Clause 8.1.6 occurs to any Guarantor being an individual then the Lessee shall within fourteen (14) days of that event procure an additional guarantee and indemnity of the Obligations (in the form contained in Part 12) by a respectable responsible and solvent person acceptable to the Lessor.

PART 9 - ESSENTIAL PROVISIONS:

9.1 The Lessee represents that it will at all times comply with the Obligations and the Lessee acknowledges that the Lessor has entered into this Lease on the basis of that representation.

9.2 The following Obligations:

Part 1: Rent and Outgoings: Clauses 1.1. and 1.4
Part 3: Permitted Use and Conduct: Clause 3.1
Part 4: Repair and Maintenance: Clause 4.1
Part 6: Insurance and Indemnities: Clauses 6.1 and 6.4
Part 7: Alienation: Clause 7.1

are essential provisions provided that nothing shall prevent any other Obligations from being construed as essential.

9.3 The acceptance by the Lessor of arrears of rent or outgoings does not constitute a waiver of the essential nature of Clauses 1.1 and 1.4.

9.4 If there is a breach of an essential provision the Lessor is entitled to recover damages from the Lessee for that breach in addition to any other right to which the Lessor is entitled.

9.5 If the Lessee repudiates this Lease or defaults in the performance of an Obligation the Lessee covenants to compensate the Lessor for the loss of or damage suffered by reason of the repudiation or default.

9.6 The Lessee indemnifies the Lessor against any liability or loss arising from the Lessee repudiating this Lease or defaulting in the performance of an Obligation.

9.7 The Lessor is entitled to recover damages against the Lessee in respect of repudiation of this Lease or default in the performance of an Obligation for damage suffered by the Lessor over the entire period of this Lease.

9.8 The Lessee indemnifies the Lessor in respect of repudiation of this Lease or default in the performance of an Obligation against any liability or loss arising from re-entry of the Premises by the Lessor or arising from any difference between the Rent and other moneys which would have been payable by the Lessee to the Lessor pursuant to this Lease for the unexpired period of the Term and the amount which the Lessor using reasonable endeavours has actually received as rent as at the date of the Lessor's demand from any subsequent occupier of the Premises in respect of the unexpired period of the Term.

9.9 The Lessor's entitlement to recover damages or to receive the benefit of an indemnity under this Part is not affected by the Lessee abandoning the Premises, by the Lessor re-entering the Premises or terminating this Lease or converting this Lease to a periodic tenancy, by the Lessor accepting the Lessee's repudiation or by the parties' conduct constituting a surrender by operation of law.

PART 10 - COSTS AND NOTICES:

10.1 The Lessee will pay to the Lessor:

10.1.1 on demand, all legal and other costs and disbursements (including stamp duty) incurred by the Lessor in relation to any application by the Lessee for consent to an assignment of this Lease or the granting of a sub-lease or any other dealing with the Lessee's interest herein or any other matter requiring the consent of the Lessor pursuant to an Obligation or in connection with any breach or threatened breach of

any Obligation or with any proceeding for enforcement of payment of Rent or any other Obligation.

10.1.2 upon the signing of this Lease the Lessor's legal and other costs and disbursements in connection with the preparation of this Lease and the stamping and registration of it;

10.1.3 all Financial Institutions or similar duty incurred by the Lessor in relation to the payment of the Rent and any other moneys payable pursuant to this Lease.

10.2 Service of any notice required or authorised by this Lease may be effected in the manner permitted by Section 170 of the Conveyancing Act, 1919.

PART 11 - LESSOR'S COVENANTS:

11.1 The Lessee upon paying the Rent and performing the Obligations shall peaceably hold and enjoy the Premises during the Term without any interference from the Lessor or any person rightfully claiming under or in trust for the Lessor.

11.2 The Lessor will use its best endeavours to provide the Lessor's Services on normal working days (excluding public holidays) during normal business hours provided that the Lessor shall not be liable for any failure at any time to provide any of the Lessor's Services.

PART 12 - GUARANTEE AND INDEMNITY:

12.1 The Guarantor and the Lessee acknowledge that this Lease has been granted by the Lessor at the request of the Guarantor upon condition that the Guarantor guarantees to the Lessor the Obligations. In this Part the Obligations shall also include the payment to the Lessor by the Lessee of mesne profits.

12.2. The Guarantor guarantees to the Lessor that the Lessee will perform all the Obligations and in default of performance by the Lessee of any of the Obligations the Guarantor covenants with the Lessor to perform the Obligations or cause them to be performed as if the Obligations were primarily the responsibility of the Guarantor.

12.3 The Guarantor indemnifies and keeps indemnified the Lessor from and against all losses damages costs charges liabilities and expenses of whatsoever kind which may at any time be suffered or incurred by the Lessor by reason or in consequence of default by the Lessee in the performance of the Obligations or in consequence of the Lessor attempting to enforce performance of the Obligations.

12.4 The Guarantor acknowledges to and agrees with the Lessor that:-

12.4.1 This guarantee and indemnity is a continuing guarantee and indemnity and principal obligation between the Guarantor and the Lessor and shall not be affected by any claim or right which the Lessee or the Guarantor may have or purport to have against the Lessor on any account whatsoever.

12.4.2 The amount of any moneys from time to time due and payable by it and the performance of its obligations pursuant to this Part shall be paid and performed by

the Guarantor in accordance with the provisions of this Lease and if not so specified then on demand by the Lessor.

12.4.3 The liability of the Guarantor shall not be avoided or impaired by:

(a) the Lessor granting time or other indulgence to or making any composition with the Lessee or the Guarantor;

(b) the Lessee or the Guarantor being wound up or passing a resolution for their respective liquidation or by the appointment of a receiver or liquidator respectively;

(c) the Lessee or the Guarantor becoming bankrupt or entering into any composition or arrangement with its respective creditors or becoming of unsound mind or dying;

(d) the Lessee or the Guarantor entering into any composition or arrangement with its respective creditors or assigning its respective estates or any part thereof for the benefit of creditors;

(e) the Lessor obtaining any further or other covenant security or guarantee for the Obligations from the Lessee or from any other person;

(f) the Lessor forbearing, neglecting compromising abandoning or failing to exercise any remedy or right for the enforcement of its rights or powers under this Lease or any other security or guarantee;

(g) any of the covenants of the Lessee or the Guarantor being or becoming illegal invalid void or unenforceable;

(h) the absence of any notice to the Guarantor of default by the Lessee or the Guarantor or any other person who may become a guarantor;

(i) the existence of any legal disability of the Lessee or the Guarantor;

(j) the Lessor waiving any breach or default by the Lessee or the Guarantor;

(k) the variation, alteration or renewal of the Lease whether or not the variation alteration or renewal was with the consent knowledge or agreement of the Guarantor;

(l) the Lease not having been registered.

12.4.4 The execution of this Lease by the Guarantor constitutes a consent to and an awareness of the Obligations and any variation compromise or release of the Obligations.

12.4.5 No payment by any person shall operate to discharge or reduce the Guarantor's liability to the Lessor if that payment is or may be or may become voidable as a preference under any law relating to bankruptcy or the winding up of companies or

other corporate entities and no grant of discharge or release consequent upon such a payment shall discharge the liability of the Guarantor.

12.4.6 The Guarantor's liability hereunder shall not be affected by any claim or right to set off or cross action which the Lessee or the Guarantor may respectively have or claim to have against the Lessor on any account nor shall the Guarantor be entitled to any set off against the Lessor.

12.5 The Guarantor:

12.5.1 covenants that upon the bankruptcy or liquidation of the Lessee the Guarantor will not prove in any such bankruptcy or liquidation in competition with the Lessor and the Guarantor irrevocably appoints the Lessor the Attorney of the Guarantor and authorises the Lessor to prove for all moneys which the Guarantor has paid on behalf of the Lessee or is entitled to receive from the Lessee or the estate of the Lessee and to retain and to carry to a suspense account and appropriate at the discretion of the Lessor any amount received until the Lessor has been paid one hundred cents in the dollar in respect of the indebtedness of the Lessee or the Guarantor as the case may be;

12.5.2 waives all rights inconsistent with the provisions of this Part including rights as to contribution and subrogation which the Guarantor might otherwise as surety be entitled to claim and enforce; and

2.5.3 covenants with the Lessor that so far as is within its power and is permissible by law to do all things as may be reasonably required by the Lessor to give effect to the provisions of this Part.

12.6 The Guarantor covenants with and acknowledges to the Lessor that the guarantee and indemnity expressed in this Part shall enure for the benefit of the Lessor and its successors and assigns and that the Guarantor will at the request of the Lessor at any time enter into a deed with any transferee of the Building from the Lessor confirming this guarantee and indemnity to such transferee.

PART 13 - BANK GUARANTEE:

13.1 The Lessee shall deliver to the Lessor, on or before execution of this Lease, the Bank Guarantee.

13.2 If the Lessee defaults in the performance of any Obligation or if mesne profits are owed to the Lessor then the Lessor is authorised to demand that the guaranteeing bank pay to the Lessor the amount that (in the opinion of the Lessor) is due to the Lessor.

13.3 The Lessor shall be entitled to recover Rent and damages for breach of covenant without being limited to the amount secured under the Bank Guarantee.

13.4 Any demand made shall not constitute a waiver by the Lessor of any default or shall not prejudice any other right of the Lessor.

13.5 Should any amount of the Bank Guarantee be demanded from time to time by the Lessor then the Lessee shall upon demand by the Lessor provide to the Lessor a further Bank

Guarantee for the amount demanded in order to reinstate the amount of the Bank Guarantee.

13.6 The Lessor shall return the Bank Guarantee to the Lessee on expiry or termination of this Lease subject to the Lessee vacating the Premises and otherwise complying with the Obligations (unless Clause 13.3 applies).

PART 14 - ANCILLARY RIGHTS, EXCEPTIONS AND RESERVATIONS:

14.1 This Lease includes the rights specified in Item 17 and if the right to park cars in the carparking areas of the Building is specified the following provisions shall apply:

14.1.1 The Lessee shall park cars only in the carparking area in the positions designated by the Lessor.

14.1.2 The Lessee shall have the right to identify its car parking spaces by painting appropriate identifying numbers letters or names in its spaces or by erecting at its own expense and with the consent in each case of the Lessor appropriate identifying name plates adjacent to each space and the Lessee covenants to remove its signs or painting at its own expense on the termination of this Lease and to make good any damage.

4.1.3 The Lessee shall not permit or allow any car to be cleaned greased oiled washed or repaired in any part of the Building.

14.1.4 The Lessee shall not store or permit or suffer to be stored or kept in any part of the Building any petrol or other inflammable fuel except as is contained in the petrol or other fuel feed tanks forming a permanent part of a car.

14.1.5 The Lessor shall not be held responsible for the loss of or damage to any car or for the loss of or damage to any article or thing in or upon any car or for any injury to any person howsoever that loss damage or injury may arise or be caused.

14.2 There is excepted and reserved from this Lease:

14.2.1 the right at all times upon giving reasonable prior notice to the Lessee (except in the case of emergency where no notice shall be required) for the Lessor to enter the Premises for any purpose;

14.2.2 the free and uninterrupted passage and running at all times of water oil gas electricity and other services from and to the Premises and any adjoining or neighbouring premises whether belonging to the Lessor or not through and along the conduits which are now or may hereafter be in the Premises and the right for the Lessor to lay move remove replace and maintain those conduits;

14.2.3 all rights of light or air now subsisting or which might (but for this exception) be acquired over any neighbouring land or premises; and

14.2.4 as may be specified in the Certificate of Title for the Premises.

14.3 The Lessee shall have the right to use the Common Parts for their designated use in common with other authorised persons.

PART 15 - GOODS AND SERVICES TAX

15.1 If the Lessor is liable for any GST on any Primary Payment or other supply by the Lessor to the Lessee, the Lessee must pay to the Lessor the amount of the GST on the supply in addition to any Primary Payment.

15.2 Subject to clauses 15.3 and 15.4 the Lessee must pay to the Lessor any amount in respect of GST that the Lessee is required to pay under this Lease at the same time and in the same manner, as the Lessee is required to pay or provide the consideration for the supply to which the amount in respect of GST relates.

15.3 The Lessor will issue a Tax Invoice in respect of:

(i) Rent and Outgoings on or before the 14th day of the calendar month in which the Primary Payment is due; and

(ii) any other Primary Payment within 14 days of the Primary Payment being made.

15.4 If the Lessor refunds to the Lessee any amount under this agreement, the Lessor must also refund to the Lessee an amount in respect of any GST that the Lessee paid to the Lessor in respect of that amount.

15.5 The Lessee's obligation under the terms of this Lease to pay or reimburse Outgoings or other expenses of the Lessor does not include an obligation to pay any amount of Input Tax paid or payable by the Lessor in respect of those expenses and for which the Lessor is entitled to an Input Tax credit.

PART 16. INTERPRETATION AND DEFINITIONS:

16.1 A reference to:

16.1.1 this Lease includes the Reference Schedule to this Lease;

16.1.2 an Item means the respective Item in the Reference Schedule;

16.1.3 a Clause or Part means the respective Clause and Part of this Lease;

16.1.4 a word importing the singular includes the plural number and vice versa;

16.1.5 a statutory provision includes that provision as amended or re-enacted (either before or after the date of this Lease) from time to time;

16.1.6 a party to this Lease includes the legal personal representatives or permitted assigns of that party;

16.1.7 a determination by a Valuer or other independent person of any dispute or matter arising pursuant to this Lease means a determination by that person acting as an expert and not as an arbitrator.

16.2 Where commencing with a capital letter:

16.2.1 **"Bank Guarantee"** means the banker's guarantee or undertaking in a form reasonably acceptable to the Lessor to secure the performance by the Lessee of the Obligations for the amount specified in Item 16.

16.2.2 **"Building"** means the land specified in Item 1, improvements erected on the land and Lessor's fixtures and fittings (including any part of the Building) as modified extended or altered at any time.

16.2.3 **"Common Parts"** means those parts of the Building provided by the Lessor from time to time for common use by the occupants of the Building including the entrances, lobbies, corridors, stairways, car parking areas, lifts, tea-rooms, washrooms and toilets.

16.2.4 **"Decorate"** means to clean, repair and prepare in a good and workmanlike manner and then to paint in colours approved by the Lessor (approval not to be unreasonably withheld) with at least two coats of paint all parts of the Premises previously painted and to paper varnish and otherwise treat all parts of the Premises previously treated in a manner approved by the Lessor (approval not to be unreasonably withheld) and to carry out all work using good quality materials.

16.2.5 **"Environmental Protection Law"** means any statute, rule, order, regulation, ordinance, instruction, directive, authority, permit or licence regulating the discharge, emission, release, discarding or escape of any Pollutant.

16.2.6 **"Estimate"** means the written estimate of Outgoings by the Lessor.

16.2.7 **"Further Term"** means the period specified in Item 9.

16.2.8 **"Guarantor"** means the person specified in Item 15.

16.2.9 **"Index Number"** means the Consumer Price Index Number for Sydney (All Groups) as published from time to time by the Australian Bureau of Statistics or any official substitution for that number.

16.2.10 **"Insurance Cost"** means insurance premiums and other fees and charges (including stamp duties and statutory fees) arising from insuring the Building for the amount which the Lessor reasonably considers from time to time to be the full reinstatement value of the Building against the Insured Risks, loss of Rent and Outgoings, employers' risks, public liability and plate glass.

16.2.11 **"Insured Risks"** means fire lightning storm tempest and other risks against which the Lessor from time to time reasonably considers expedient to insure the

Building, including the costs of demolition and removal of debris, and other incidental costs.

16.2.12 **"Lessee"** means the person referred to as the lessee on the front page of this Lease and includes its successors in title and permitted assigns.

16.2.13 **"Lessee Party"** means the Lessee and its servants agents employees contractors or visitors (whether or not by invitation) and any person claiming through or under the Lessee or any person under the control or direction of the Lessee.

16.2.14 **"Lessee's Percentage"** means the percentage specified in Item 8.

16.2.15 **"Lessor"** means the person referred to as the Lessor on the front page of this lease and includes the persons for the time being entitled to the reversion immediately expectant upon expiry of the Term.

16.2.16 **"Lessor's Services"** means lighting power heating airconditioning ventilation management caretaking cleaning security lifts elevators and landscaping (including any contract for the provision of any service) and any other service or facility from time to time provided by the Lessor (at its discretion) for the benefit of the Lessee notwithstanding that service may also be of benefit to the Lessor or other occupants of the Building.

16.2.17 **"Obligations"** means all of the obligations of the Lessee both in law and equity to the Lessor pursuant to this Lease, including payment of Rent and all other moneys payable by the Lessee to the Lessor pursuant to this Lease or pursuant to any tenancy arising as a result of the Lessee holding over with the consent of the Lessor, or the performance and observance of any other provision.

16.2.18 **"Outgoings"** means:

(a) rates taxes (including Land Tax on the basis specified in Section 26 of the Retail Leases Act, 1994) charges impositions and fees payable by the Lessor to any government or authority in respect of the Building charged to or payable by the Lessor provided that if the Building is not separately assessed or charged in respect of any such rate tax charge imposition or fee there shall be included in the Outgoings the Lessor's estimate (which shall be final and binding on the Lessee except in the case of manifest error) of the rates taxes charges impositions or fees (as the case may be) attributable to the Building;

(b) charges incurred by the Lessor in relation to the supply and usage of electricity, gas, water sewerage and drainage to and the removal of waste and garbage from the Building provided that if the Building is not separately charged rated or metered in respect of any service there shall be included in the Outgoings the Lessor's estimate (which shall be final and binding on the Lessee except in the case of manifest error) of the charges attributable to the Building;

(c) charges for lighting, power, heating, air conditioning and ventilation incurred by the Lessor in relation to the Building;

(d) Lessor's Services;

(e) Insurance Cost;

(f) if the Premises are or become subject to the Strata Titles Act, 1973, levies and other charges, other than those for capital costs, made by the Body Corporate in respect of the lot comprising the Premises or the lot of which the premises forms part;

(g) charges incurred by the Lessor for maintenance and repairs to the Building other than structural maintenance and repairs and other than capital costs; and

(h) management fees reasonably incurred by the Lessor in relation to the Building.

16.2.19 **"Pollutant"** means any hazardous material or contaminant whether in solid, liquid or gaseous form which on discharge, emission, release, discarding or escape may give rise to a contamination of the physical, chemical or biological condition of the atmosphere, land or water.

16.2.20 **"Premises"** means that part of the Building being the premises referred to on the front page of this Lease (including any part of the Premises) which for the purposes of obligation as well as grant exclude any Common Parts but include the surface of all internal walls floors and ceilings and all floor and wall coverings, all doors and door frames, all windows and window frames, all internal partitioning (erected by the Lessor or the Lessee or any other person at any time) and all the Lessor's fixtures and fittings in the Premises (including any lighting power heating air conditioning and ventilation plant and equipment exclusively serving the Premises).

16.2.21 **"Rent"** means the amount specified in Item 2 as reviewed from time to time.

16.2.22 **"Rent Commencement Date"** means the date specified in Item 4.

16.2.23 **"Review Dates"** means the dates specified in Item 5.

16.2.24 **"Specified Rate"** means the rate which is three per centum above the annual interest rate from time to time charged by the Lessor's principal bankers on unarranged overdrafts of more than $100,000.00.

16.2.25 **"Term"** means the term granted by this Lease.

16.2.26 **"Valuer"** means a valuer who is a member of not less than five (5) years standing of the Australian Institute of Land Valuers and Economists (NSW Division) Inc with experience in assessing properties of the same nature as the Premises.

16.2.27 **"GST Act"** means A New Tax System (Goods and Services Tax) Act 1999 and any amendment and replacement of that Act.

16.2.28 **"GST"** means GST within the meaning of the GST Act.

16.2.29 **"Input Tax"** means an amount equal to the amount of GST paid or payable for the supply of anything acquired.

16.2.30 **"Primary Payment"** means any payment by the Lessee to the Lessor of any Rent or Outgoings or any other amount payable under this Lease.

16.2.31 **"Tax Invoice"** means a tax invoice within the meaning of the GST Act.

16.3 When two or more persons comprise the Lessee or Guarantor all the provisions of this Lease bind those persons jointly and each of them severally and also bind the respective personal representatives assigns and successors in title of each of them jointly and severally.

16.4 The covenants powers and provisions implied in leases by virtue of the Conveyancing Act, 1919 (as amended) are expressly negatived except in so far as they are included in this Lease.

16.5 A reference to the Lessor includes a reference to any superior lessor or any mortgagee from the Lessor or any superior lessor of the Premises:

16.5.1 where there are rights easements and reservations exercisable by or benefiting the Lessor;

16.5.2 where there is an obligation to obtain consent from the Lessor; and

16.5.3 where there are any indemnities in favour of the Lessor.

16.6 An Obligation not to do or omit any act or thing extends to an obligation not to permit any third party to do or omit the same.

16.7 A reference to the Lessor includes a reference to the Body Corporate if the Premises become subject to the Strata Titles Act, 1973.

16.8 An approval consent permission or notice required by this Lease is not valid unless in writing.

16.9 Marginal notes and headings are for the purpose of identification only and not to be considered in the interpretation of this Lease.

16.10 This Lease shall be interpreted in accordance with the laws of New South Wales.

16.11 The Lessor shall be entitled to exercise any right on its behalf expressed in or implied by this Lease by itself, its employees agents servants or contractors.

16.12 To the extent permitted by law the application to this Lease of any moratorium or other statute ordinance rule or regulation which reduces or postpones the payment of rent or extends the Term or otherwise affects the operation of any of the provisions of this Lease to the detriment of the Lessor is expressly excluded and negatived.

16.13 Any provision of this Lease which is or shall be or become in breach of the Trade Practices Act, 1974 or any other statute rule or regulation and in consequence of that breach is void voidable unenforceable or invalid shall for so long as it is in breach be severable from this Lease and this Lease shall be interpreted as if that provision was not expressed in it.

PART 17 - DEVELOPMENT BREAK CLAUSE

17.1 The Lessee acknowledges that the Lessor may require the Building for redevelopment or for demolition, or for sale for redevelopment or demolition, at any time during the Term, and that this Lease may be terminated by the Lessor by not less than twelve (12) months' prior written notice to the Lessee ("Termination Notice").

17.2 If the Lessor gives a Termination Notice then as from the date of the giving of the Termination Notice the Term is reduced to expire on the day specified in the Termination Notice, being a day not less than twelve (12) months after the date of the giving of the Termination Notice.

17.3 This Lease shall terminate on the date of expiry of the Termination Notice and the Lessee shall yield up the Premises to the Lessor with vacant possession and otherwise in accordance with the Lessee's covenants contained in this Lease.

17.4 If the Term is reduced pursuant to Clause 17.2 then the Lessor shall (notwithstanding anything herein contained) be freed, released and discharged from any and all actions, suits, claims, demands by or obligations to, the Lessee under or by virtue of this Lease, and the Lessor shall not be liable to the Lessee under or by virtue of this Lease, and the Lessor shall not be liable to the Lessee or to any other person whatsoever for any reason whatsoever including (without limiting the foregoing) whether or not the termination arose as a direct or indirect result of the negligence, wilful act, omission or default of the Lessor or others and whether or not such termination was foreseeable or contemplated by the Lessor at any time or times.

17.5 The Lessor covenants that he will not give a Termination Notice specifying a date for termination of this Lease which is less than 2 years from the Commencing Date, and if any such notice is given it will be deemed to expire on the second anniversary of the Commencing Date.

INDEX

PAGE NO.

EXECUTED AS A DEED

The Common Seal of)
GEORGIO ALTOMONTE HOLDINGS PTY LIMITED)
is affixed in accordance with its Articles of Association)
in the presence of:)

Common Seal
GEORGIO ALTOMONTE HOLDINGS PTY. LIMITED
A.C.N 000 798 943

Signature of authorised person

Director
Office held

A.G. ALTOMONTE
Name of authorised person

Signature of authorised person

Director
Office held

G. ALTOMONTE
Name of authorised person

The Common Seal of)
CAMPO'S SPORT AND LEISUREWEAR PTY LTD)
is affixed in accordance with its Articles of Association)
in the presence of:)

Common Seal
Campo's Sports & Leisure Wear Pty. Ltd.
A.C.N. 060 662 124

X Julie MacGraw
Signature of authorised person

X SECRETARY
Office held

X JULIE MACGRAW
Name of authorised person

X
Signature of authorised person

X DIRECTOR
Office held

X DARYL MACGRAW
Name of authorised person

Signed sealed and delivered by)
DARYL MACGRAW)
who is the guarantor in the presence of:)

X
Witness

X

Signed sealed and delivered by)
JULIE MACGRAW)
who is the guarantor in the presence of:)

X Julie MacGraw
.....

X
.....
Witness

Signed sealed and delivered by)
DAVID CAMPESE)
who is the guarantor in the presence of:)

X
.....
Witness

X
.....

leases/campos.lse

Req:R449136 /Doc:DL 8476363 /Rev:05-Apr-2002 /Sts:SC.OK /Prt:24-Oct-2013 15:32 /Pgs:ALL /Seq:1 of 1
Ref: /Src:U

Form: 01TL
Release: 1
www.lpi.nsw.gov.au

TRANSFER OF LEASE MORTGAGE OR CHARGI

New South Wales
Real Property Act 1900

8476363B

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY
23-01-2002 0000871867-001
SECTION 18(2)
DUTY $ ***********2.00

(A) **LEASE/MORTGAGE/ CHARGE**

Sub-lease 7450906

(B) **TORRENS TITLE**

1/654047

(C) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODE
516L	McCay Grove - Atkinson Reference: FITE/CORMI	TL TM TC

(D) **TRANSFEROR**

FITE HOLDINGS PTY LIMITED ACN 001 927 608

(E) The transferor acknowledges receipt of the consideration of $ 612,500.00
and transfers to the transferee all the transferor's estate and interest in the above lease

(F) Encumbrances (if applicable):

(G) **TRANSFEREE**

CORMI PTY LIMITED ACN 096 235 737

(H) **TENANCY:**

DATE February 22, 2002

Certified correct for the purposes of the Real Property Act 1900 by the corporation named below the common seal of which was affixed pursuant to the authority specified and in the presence of the authorised person(s) whose signature(s) appear(s) below.
Corporation: FITE HOLDINGS PTY. LIMITED.
Authority:

Common Seal
FITE HOLDINGS PTY. LTD.
A.C.N. 001 927 608

Signature of authorised person:
Name of authorised person: VICTORIA MARGARET HOSKINS
Office held: DIRECTOR

Signature of authorised person:
Name of authorised person: TIMOTHY ROBERT HOSKINS
Office held: DIRECTOR

Certified for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: Ian S Goddard
Signatory's capacity: transferee's solicitor

All handwriting must be in block capitals.

Form: 07L
Release: 1.1
www.lpi.nsw.gov.au

LEASE

New South Wales
Real Property Act 1900

9874175H

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY
11-08-2003 [illegible]
LEASE - GENERAL
DUTIABLE AMOUNT $ ********288,987.00
DUTY $ **********1,011.50

(A) **TORRENS TITLE**

Property leased: if appropriate, specify the part or premises

Folio Identifier 1/654047
PART being Shop 2, Ground Floor, 870 Pacific Highway, Gordon

(B) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODE
1W	Ralph Fitzgerald, Solicitor PO Box 427 Gordon NSW 2072 Tel: 9418 5511 Fax: 9418 1860 Reference:	L

(C) **LESSOR**

GEORGIO ALTOMONTE HOLDINGS PTY LIMITED ABN 18 000 798 943

The lessor leases to the lessee the property referred to above.

(D) Encumbrances (if applicable): Mortgage 5524256

(E) **LESSEE**

CORMI PTY LIMITED ABN 78 197 447 714
of Shop 2, 870 Pacific Highway, Gordon

(F) **TENANCY:**

(G)
1. **TERM:** Four (4) years
2. **COMMENCING DATE:** 1 April 2003
3. **TERMINATING DATE:** 31 March 2007
4. ~~With an **OPTION TO RENEW** for a period of set out in clause of~~
5. ~~With an **OPTION TO PURCHASE** set out in clause of~~
6. Together with and reserving the **RIGHTS** set out in clause 14.2 of Annexure "A"
7. Incorporates the provisions set out in **ANNEXURE** "A" hereto.
8. ~~Incorporates the provisions set out in **MEMORANDUM** filed at Land and Property Information New South Wales as No.~~
9. The **RENT** is set out in item No. 2 . of the Reference Schedule.

All handwriting must be in block capitals.

DATE 6th May 2003

(H)

Certified correct for the purposes of the Real Property Act 1900 by the corporation named below the common seal of which was affixed pursuant to the authority specified and in the presence of the authorised person(s) whose signature(s) appear(s) below.
Corporation: Georgio Altomonte Holdings Pty Limited
Authority:

Signature of authorised person:

Name of authorised person: George Altomonte
Office held: Director

Signature of authorised person:

Name of authorised person: James Henry Stubbs
Office held: Secretary

Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.
Corporation: Cormi Pty Limited
Authority: BOARD DECISION

Signature of authorised person:

Name of authorised person: MICHAEL MARK
Office held: DIRECTOR

Signature of authorised person:

Name of authorised person: CORALIE PALMER
Office held: DIRECTOR

(I) **STATUTORY DECLARATION**

I,

solemnly and sincerely declare that—

1. The time for the exercise of option to in expired lease No. has ended;
2. The lessee under that lease has not exercised the option

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act 1900.

Made and subscribed at in the State of New South Wales

on

in the presence of—

Signature of witness:

Signature of lessor:

Name of witness:

Address of witness:

Qualification of witness:

THIS AND THE FOLLOWING 25 PAGES IS ANNEXURE "A" TO DEED OF LEASE DATED THE 6th DAY OF May 2003
BETWEEN GEORGIO ALTOMONTE HOLDINGS PTY LTD ("LESSOR")
AND CORMI PTY LIMITED ("LESSEE")
AND MICHAEL JOHN PALMER and CORALIE ANN PALMER("GUARANTORS")

THE REFERENCE SCHEDULE

ITEM 1: BUILDING

Folio Identifier 1/654047 together with improvements erected on the land and known as 870 Pacific Highway, Gordon

ITEM 2: RENT:

Fifty five thousand one hundred and seventy eight dollars ($55,178.00) per annum plus GST of $5,517.80 totalling $60,696.80 including GST.

ITEM 3: INSTALMENTS OF RENT:

Equal calendar monthly instalments of $5,057.98 including GST.

ITEM 4: RENT COMMENCEMENT DATE:

1 April 2003.

ITEM 5: REVIEW DATES:

Date	Manner of Rent Review
1.4.2004	Percentage
1.4.2005	Percentage
1.4.2006	Percentage

ITEM 6: PERCENTAGE RATE FOR INCREASE(S):

5%

ITEM 7: INITIAL AMOUNT ATTRIBUTABLE TO CAR PARKING:

Included in rental.

ITEM 8: LESSEE'S PERCENTAGE OF OUTGOINGS:

20.4%

ITEM 9: FURTHER TERM:

No applicable.

ITEM 10: REVIEW DATES FOR FURTHER TERM:

Date	Manner of Rent Review
Not applicable	

ITEM 11: PERMITTED USE:

Retail printing shop and associated sales and marketing activities.

ITEM 12: ACCESS TIMES:

At all times subject to the Lessee complying with the Obligations.

ITEM 13: DECORATION TIMES:

31 March, 2007

ITEM 14: PUBLIC LIABILITY COVER:

Ten Million Dollars ($10,000,000-00)

ITEM 15: GUARANTOR:

Michael John Palmer of 3 Wallace Street, Greenwich and
Coralie Ann Palmer of 3 Wallace Street, Greenwich

ITEM 16: AMOUNT OF BANK GUARANTEE:

FIFTEEN THOUSAND THREE HUNDRED & TWENTY THREE DOLLARS & 61 CENTS

~~Twelve thousand dollars ($12,000.00).~~

ITEM 17: ANCILLARY RIGHTS:

The right to park (at the entire risk of the lessee) in two car parking spaces in the car parking areas of the premises as the lessor shall from time to time designate.

PART 1 - RENT AND OUTGOINGS:

1.1 The Lessee shall:

1.1.1 pay the Rent to the Lessor during the Term without deduction or demand by equal calendar monthly instalments as specified in Item 3 (or as reviewed pursuant to this Lease) in advance on the first day of each month during the Term. When the commencement date of the Term is not the first day of the month, then the first instalment is to be paid on the commencement date of the Term by an instalment being the sum of the proportionate part of the monthly instalment until the commencement date of the next calendar month plus the monthly instalment in respect of that next calendar month. Subsequent calendar monthly instalments shall be payable on the first day of each month. When the commencement day of the Term is not the first day of the month then the last instalment shall be the proportionate part of the monthly instalment until the last day of the Term.

1.1.2 if the Lessor requires pay the Rent by bank authority to an account nominated from time to time by the Lessor.

1.1.3 if any Rent or other moneys whether or not in the nature of rent payable by the Lessee to the Lessor pursuant to this Lease remain unpaid for seven (7) days after they have become due (whether demanded or not) pay to the Lessor interest calculated daily on any amounts remaining unpaid at the Specified Rate from the earlier of the date those moneys first became due by the Lessee or are outlaid or incurred by the Lessor (as the case may be) to the date upon which those moneys are paid or reimbursed to or recovered by the Lessor (both days inclusive). The Lessor shall be entitled to recover any such interest as rent in arrears. The Lessee acknowledges that the payment to or the demand receipt or recovery by the Lessor of that interest shall not prejudice or otherwise affect the Lessor's other rights upon the default by the Lessee in paying the Rent or any other moneys.

1.2 The Rent shall be reviewed on each of the Review Dates in the following manner:

1.2.1 On each Review Date specified in Item 5 as a Market Review Date the Rent shall increase to the amount agreed by the Lessor and the Lessee as the current market rent of the Premises at the relevant Review Date for the year commencing on that date as between a willing Lessor and a willing Lessee with vacant possession for a term equal to the sum of the Term and the Further Term and upon the terms and conditions of this Lease PROVIDED THAT if the current market rent of the Premises is less than the Rent, then the Rent shall not be reduced. If no agreement is reached prior to the Review Date the current market rent shall be determined by a Valuer who shall:

(a) take no account of the value of any goodwill attributable to the Lessee's business and the value of the Lessee's fixtures and fittings in the Premises;

(b) take no account of any deleterious condition of the Premises if such condition results from any breach of any Obligation;

(c) take account of the provisions of this Lease;

(d) take account of the current market rent of comparable premises in the Building, comparable premises in the vicinity of the Building, and other premises of a quality size and location similar to the Premises;

(e) assume that the Premises are fit for immediate occupation and use even if work has been carried out by the Lessee or subtenant which has diminished the current market rent of the Premises and if the Premises are destroyed or damaged as if they had been fully restored and were in tenantable repair;

(f) assume that the Premises are available to be let by a willing landlord to a willing tenant as a whole without premium but with vacant possession and subject to the provisions of this Lease for a term equal to the Term and Further Term of this Lease;

(g) assume that all Obligations have been fully performed;

(h) where the Premises are more than one floor take account of the Premises on a floor-by-floor basis;

(i) take no account of any difference in the annual open market rental that is accountable to fluctuations caused by any subleasing of the Premises;

1.2.2 On each Review Date specified in Item 5 as a Percentage Review Date the Rent shall increase by the relevant percentage specified in Item 6.

1.2.3 On each Review Date specified in Item 5 as a Consumer Price Index Review Date the Rent shall increase by the percentage that the Index Number has increased since the last Review Date (or in the case of the first Review Date since the commencement date of the Term). For the purposes of ascertaining the increase the relevant Index Number shall be in the case of the first Review Date, the Index Number for the quarter immediately prior to the commencement date of the Term and in the case of each subsequent Review Date the Index Number for the quarter immediately prior to the last Review Date. An Index Number will be the relevant number notwithstanding that its date of publication may be after the relevant Review Date.

1.2.4 Where more than one method of review is specified for any Review Date in Item 5 then the Rent shall increase by the amount calculated by using the method of review which gives the greatest increase in Rent from the methods specified.

1.2.5 For the purpose of Clause 1.2 the part of the Rent at the commencement of the Term which is attributable to the right to park cars in the Building (pursuant to Clause 14.1) is specified in Item 7.

1.3 Any delay in agreeing or determining Rent shall not prejudice the Lessor's right subsequently to require the Rent to be reviewed in accordance with this Lease. Where there is a delay in agreeing or determining Rent the Lessee shall:

(a) continue to pay Rent at the rate payable immediately prior to the relevant Review Date up to the date of agreement or determination;

(b) within seven (7) days after the Rent is agreed or determined pay an amount equal to any increase for the period from the relevant Review Date to the date of agreement or determination;

(c) pay interest on and at the same time as the amount payable pursuant to Clause 1.3(b) calculated at the Specified Rate from the date of agreement or determination to the date of its payment; and

(d) pay the Rent as increased or the new rent (as the case may be) from the date any such increase is agreed or determined.

1.4 The Lessee covenants with the Lessor to pay the Lessee's Percentage of Outgoings to the Lessor as follows:

1.4.1 For the purposes of this Clause a reference to a year shall mean a period of twelve (12) months commencing on the same day as the Term or such other date as the Lessor may at any time elect.

1.4.2 At least one month before the beginning of each year which is wholly or partly within the Term the Lessor shall give to the Lessee the Estimate in respect of that year.

1.4.3 For each year (or part of a year) during the Term the Lessee shall pay to the Lessor on account of the Lessee's Percentage of Outgoings for that year the Lessee's Percentage of the Estimate (or if the year to which the Estimate relates is partly outside the Term that part of the Estimate as is attributable to that part of the year within the Term) by equal monthly instalments in advance throughout the year to which the Estimate relates or that part of that year which is within the Term (as the case may be). Instalments shall be paid on the same day of the month that the instalments of Rent are payable pursuant to this Lease or such other day as the Lessor may from time to time specify to the Lessee.

1.4.4 Within three months after the end of each year during the Term and if Term expires or is determined during a year immediately after the end of that year (or as soon as is practicable) the Lessor shall give the Lessee a report showing the total of the actual Outgoings for that year (or if the year to which the statement relates is partly outside the Term such amount of the actual Outgoings as is attributable to that part of the year within the Term) and also showing the amount due to the Lessor or the Lessee (as the case may require after taking account of any payments by the Lessee pursuant to an Estimate) which amount shall be paid within one month after the end of each year.

1.4.5 If any amount is due to the Lessee pursuant to Clause 1.4.5 and if the Lessee owes the Lessor any arrears or other money pursuant to the Lease, then the Lessor may apply any moneys payable to the Lessee pursuant to Clause 1.4.5 towards those arrears or other moneys owing, and if the Lessor does this he shall account to the Lessee for the amount appropriated.

1.5 Clause 1.4 shall survive the expiry or termination of this Lease for the purpose of making any balancing adjustment to Clause 1.4.4.

1.6 The Lessee shall pay for all services supplied or provided to the Premises (including gas, electricity water telephones and telex) provided that if the Premises are not separately metered or charged in respect of that service (and the cost of such service is not included in the Outgoings) the Lessor may pay for the provision of that service and if so the Lessee shall forthwith pay to the Lessor the Lessor's estimate (which shall be final and binding on the Lessee except in the case of manifest error) of the cost of the provision of that service attributable to the Premises.

1.7 If the Premises become subject to the Strata Titles Act, 1973 Item 8 is amended by deleting the specified percentage and by inserting "100%".

PART 2 - HOLDING OVER AND OPTION FOR FURTHER TERM:

2.1 If the Lessee continues to occupy the Premises after the expiration of the Term, with the consent of the Lessor, otherwise than pursuant to a further lease expressly granted by the Lessor to the Lessee, it shall do so as a monthly tenant only, at a rent payable monthly in advance equal to one-twelfth of the Rent last payable during the Term reviewed to the amounts determined in accordance with clause 1.2.3 as if the expiry of the Term was a Review Date and thereafter on each anniversary of the expiry of the Term in the same manner. The tenancy shall be terminable at any time by either party giving to the other one (1) month's written notice but otherwise shall be subject to the provisions of this Lease as are consistent with a monthly tenancy.

2.2 Deleted.

PART 3 - USE OF AND CONDUCT ON PREMISES:

3. The Lessee shall:

3.1 Not use the Premises:

3.1.1 for any purpose other than as specified in Item 11;

3.1.2 for any illegal purpose or for any purpose in contravention of any approval consent or zoning by any competent authority;

3.1.3 as a dwelling or sleeping place or keep any animals birds or other livestock thereon;

3.1.4 for an auction sale;

3.1.5 except during the times specified in Item 12.

3.2 Not without the prior written consent of the Lessor (who may require plans and details as it considers necessary to be submitted to it by the Lessee) make or permit or suffer any alteration or addition whatsoever to the Premises (including the erection, demolition, installation, or alteration of any partitioning within the Premises) or mark drill cut maim injure or deface or in any way damage the Premises, and at the end of the Term or any

further Term if the Lessor so requires remove those alterations and additions and restore the Premises to their condition prior to the making of those alterations and additions to the satisfaction of the Lessor and at the cost of the Lessee.

3.3 Comply with:

3.3.1 the regulations relating to fire and fire prevention of the Fire Brigade and any competent authority; and

3.3.2 any statute regulation ordinance and by-law and the requirements of every government or other competent authority.

3.4 Not cause any damage to or obstruction of the Building the Common Parts or any road serving the Building and not place or store any goods outside the Premises.

3.5 Not erect or display any sign or advertisement on the Building or the outside of the Premises or within the Premises so that the sign or advertisement can be seen from outside the Premises without the prior written consent of the Lessor (consent not to be unreasonably withheld) and the consents of all competent authorities and upon the termination of this Lease to remove all signs and advertisements.

3.6 Not use the lavatories conveniences and water apparatus in the Premises for any purpose other than those for which they were constructed and on demand pay to the Lessor an amount sufficient to compensate the Lessor for damage resulting from misuse by the Lessee.

3.7 Not without the written consent of the Lessor bring into install use place or permit or suffer to be brought into the Premises plant machinery or other articles which may cause undue noise or vibrations or which are of a weight or size which may cause damage directly or indirectly to the Premises.

3.8 Not bring on to the Premises any dangerous inflammable explosive noxious or offensive substance except in accordance with the purpose specified in Item 11 and provided that the Lessee ensures that all proper and prudent measures are taken in the storage and use of the substance and that the Lessor is previously notified of the nature and extent of the substance brought on to the Premises.

3.9 Not do any act or thing which in the reasonable opinion of the Lessor may be offensive or cause a nuisance damage or annoyance or inconvenience to the Lessor or to the owners lessees or occupiers of any adjoining or neighbouring premises or land.

3.10 Not overload the electric wires and cables serving the Premises.

3.11 Give to the Lessor full particulars of any licence consent permission notice order requirement recommendation or proposal given or issued in respect of or in connection with the Premises by any competent authority within seven (7) days of its receipt by the Lessee.

3.12 Comply with any reasonable regulations the Lessor may make for the more efficient management of the Building (including its security and that of its lessees and occupants).

3.13 Observe and perform any restrictions stipulations and covenants referred to in the Certificate of Title for the Building.

3.14 Not obstruct any of the windows or ventilators belonging to the Premises nor to permit any new window or ventilator or other encroachment or easement of which the Lessee is aware to be made against or over the Premises.

3.15 In carrying out any construction fitting out reinstatement or removal works or alterations to the Premises:

3.15.1 ensure that the works and alterations are carried out in a good and workmanlike manner by licensed and reputable tradepersons; and

3.15.2 immediately repair and reinstate any damage caused in carrying out the works or alterations to the satisfaction of the Lessor.

3.16 Observe the covenants on the part of the Lessee contained in any head lease (except those relating to the payment of rent or insurances and those which are inconsistent with the Obligations).

3.17 Keep the premises free and clear of pests and vermin and if requested by the Lessor have the Premises treated regularly for the eradication of pests and vermin.

3.18 Obtain maintain and renew from time to time all licences permits consents and registrations required to lawfully use the Premises for the purpose specified in Item 11.

3.19 The Lessee shall not permit or suffer any Pollutant to escape or be released into or from the Premises or Building or any part thereof and shall comply with all Environmental Protection Laws to which it is subject pursuant to its occupation of the Premises.

3.20 The Lessee shall give the Lessor notice in writing of all notices or restraining orders issued in respect of the Building or Premises pursuant to any Environmental Protection Law.

3.21 The Lessee shall permit the Lessor at any time to enter the Premises and affix upon any external parts of the Premises noticeboards or other signs advertising any proposed sale and during the last six months of the Term the reletting of the Premises, and the Lessee shall not remove or obscure those notices. The Lessee shall permit the Lessor and those authorised by it at all reasonable times to show the Premises to prospective purchasers and at all reasonable times during the last three months during the Term and at any stage during any holding over period to show the Premises to prospective tenants.

3.22 The Lessor makes no warranty that the Premises are suitable to be used for any particular purpose, and the Lessee acknowledges that in entering into this Lease it has not relied upon any representation made by or on behalf of the Lessor as to the suitability of the Premises for any particular purpose.

3.23 The Lessor makes no warranty that the Premises can be lawfully used for the purpose specified in Item 11.

3.24 The Lessor will (at the cost of the Lessee) supply the Lessee with keys enabling the Lessee to gain access to the Premises. The Lessee shall immediately inform the Lessor if any of

the keys supplied is lost and if so required by the Lessor pay for the changing of any locks. The Lessee shall return all keys supplied by the Lessor at the end of the Term.

3.25. The Lessee shall be responsible for protecting and keeping safe the Premises from theft and robbery and shall keep all windows and doors properly locked at all times that the Premises are unoccupied.

PART 4 - REPAIR & MAINTENANCE:

The Lessee shall:

4.1 Repair, maintain and keep the Premises in good and substantial repair and condition having regard to their state of repair and condition at the commencement date of the Term (reasonable wear and tear and damage by any of the Insured Risks excepted provided that no policy of insurance effected by the Lessor has been rendered void or voidable by virtue of any act matter or thing done by the Lessee or a Lessee Party). It is hereby acknowledged and agreed that the Lessee shall not be obliged by anything expressed in or implied by this Lease to carry out any structural repairs or works to the Premises unless the same arise (whether directly or indirectly) as a result of any of the following:

4.1.1 The neglect or default by any Lessee party to observe or perform any of the Obligations;

4.1.2 The use or occupation of the Premises by the Lessee or any sublessee;

4.1.3 The employment of any person in the premises by the Lessee or any sublessee;

4.1.4 The use of any fixtures fittings plant machinery or goods in the Premises by the Lessee or any sublessee;

4.1.5 The carrying out of any alterations or additions to the Premises by the Lessee or any sublessee or the reinstatement of the Premises following any alterations or additions thereto;

4.1.6 The bringing onto the Premises by the Lessee or any sublessee of any plant machinery or other items (whether consented to by the Lessor or not),

In which event the Lessee shall at the option of the Lessor either at its own cost forthwith repair and reinstate the structure of the Building so requiring repair, or carry out such structural works as may be necessary to comply with the requirements of any competent authority to the reasonable satisfaction of the Lessor and all relevant authorities or if the Lessor has itself elected to carry out such repairs and reinstatement or works, the Lessee shall forthwith upon demand by the Lessor pay to the Lessor all its costs and expenses (including all professional fees) incurred in connection therewith.

4.2 Decorate the Premises at or not more than sixty (60) days prior to the dates specified in Item 13.

4.3 If required by the Lessor enter into and maintain fully comprehensive maintenance contracts for the maintenance of any lighting power heating ventilation fire prevention air conditioning and other equipment or plant which exclusively serve the Premises with reputable maintenance contractors first approved by the Lessor (approval not to be unreasonably withheld) and produce to the Lessor at any time upon demand such contracts and evidence that any sums due thereunder have been fully paid.

4.4 Replace broken glass in the Premises with glass of the same or similar quality and all broken or damaged plumbing, lighting, heating and electrical equipment appliances and other fixtures and fittings of the Lessor in the Premises.

4.5 At the expiration or sooner determination of the Term yield up to the Lessor the Premises (but excluding any fittings and fixtures which are tenants' trade fixtures or fittings or which are otherwise required to be removed pursuant to this Lease) duly repaired and maintained in accordance with the Obligations and, if required by the Lessor, immediately remove any tenants trade fixtures or fittings and make good any damage caused to the Premises by such removal and re-alter any alterations made to the Premises by the Lessee so as to restore the Premises to their condition at the commencement of the Lease.

4.6 Permit the Lessor its servants agents and workmen to enter upon the Premises upon giving not less than two days notice to the Lessee except in the case of emergency when no notice shall be required:

4.6.1 to take a plan of or to examine the state of repair and condition of the Premises and to take inventories; and

4.6.2 to execute repairs alterations or other work to the Premises or any adjoining or neighbouring premises or land and for the purpose of building upon any adjoining or neighbouring land provided that the person or persons exercising this right shall make good in a reasonable manner all consequential damage to the Premises and cause as little inconvenience to the Lessee as is practical.

4.7 Keep the Premises including external surfaces of windows and doors clean and tidy and not place leave or permit to be placed or left any debris or rubbish in any part of the Premises.

4.8 Keep waste, trash and garbage in proper receptacles.

4.9 Keep the fire extinguishers hoses and other fire fighting or prevention equipment serving the Premises in good working order and condition and ensure that it is inspected at least once in every year of the Term by the competent authority.

4.10 If the Lessor does not as part of the Lessor's Services arrange for the cleaning of the Premises the Lessee shall enter into and maintain a comprehensive cleaning contract for the daily cleaning of the Premises with a reputable commercial cleaning contractor first approved by the Lessor (approval not to be unreasonably withheld) and produce to the Lessor at any time upon demand a copy of that contract.

PART 5 - DESTRUCTION:

5.1 If the Premises are destroyed or damaged so as to render the Premises or any substantial part substantially unfit for the use of or occupation by the Lessee or so as to deprive the Lessee of substantial use of or access to the Premises:

5.1.1. This Lease may be terminated without compensation by either the Lessor or the Lessee by written notice to the other provided that the Lessee shall not be entitled to terminate this Lease unless the Premises have not been rendered fit for the use and occupation of the Lessee or the use of and access to the Premises have not been substantially restored within a reasonable time after the destruction or damage.

5.1.2 Termination shall be without prejudice to the rights of either party in respect of any antecedent breach or matter.

5.1.3 On the happening of the damage or destruction (provided that any insurance moneys that would have been payable to the Lessor are not wholly or partially irrecoverable by reason of any act or default of a Lessee Party) the Rent and the Lessee's Proportion of Outgoings or a proportionate part thereof (according to the nature and extent of the damage) shall abate and all or any remedies for the recovery of abated Rent and the Lessee's Proportion of Outgoings are suspended until the Premises are rebuilt or reinstated or made fit for the occupation and use of the Lessee or until access is provided or until the Lease is terminated pursuant to Clause 5.1.1 as the case may be. Any dispute arising out of this clause shall be determined by a Valuer whose fees shall be paid by the Lessor and Lessee in equal shares unless otherwise awarded.

5.2 Nothing imposes any obligation upon the Lessor to rebuild or reinstate or make fit for occupation the Premises following damage or destruction.

PART 6 - INSURANCES AND INDEMNITIES:

6. The Lessee shall:

6.1 At its own cost effect and keep current a policy of public risk insurance with a reputable and solvent insurer with respect to the Premises and the business carried on in the Premises in which limits of public risk shall not be less than the amount specified in Item 14 (or such other amount as the Lessor may from time to time reasonably require) as the amount payable in respect of liability arising out of any one single accident or event and shall deliver to the Lessor on demand a copy of the policy and a current certificate of insurance;

6.2 At its own cost effect and keep current plate glass insurance (for the full replacement value) in respect of all plate glass attached to or forming part of the Premises and shall deliver to the Lessor on demand a copy of the policy and a current certificate of insurance;

6.3 Include as the insured parties in respect of each of the policies effected pursuant to Clause 6.1 and 6.2 the Lessor, any superior Lessor, and any person or persons nominated by the Lessor as being mortgagees of the Premises.

6.4 Indemnify and keep indemnified the Lessor from and against all actions claims demands losses damages costs and expenses which the Lessor may sustain or incur or for which the Lessor may become liable in respect of or arising from:

6.4.1 The neglect or default of any Lessee Party to observe or perform any of the Obligations;

6.4.2 The negligent use or misuse waste or abuse by any Lessee Party of any water gas electricity or other services to the Premises;

6.4.3 The overflow, leakage or escape of water fire gas electricity or any other harmful agent whatsoever in or from the Premises;

6.4.4 The failure of the Lessee upon becoming aware of any defect in the Lessor's Services to notify the Lessor of that defect;

6.4.5 The use of the Premises and the Common Parts by any Lessee Party;

6.4.6 The carrying out of any additions or alterations or other works to the Premises by any Lessee Party;

6.4.7 The use by any Lessee Party of any car parking facilities permitted by this Lease;

6.4.8 The happening of any accident or event in or about the Premises,

and the Lessor shall not be liable to the Lessee for any injury loss or damage which may be suffered or sustained to any property or by a Lessee Party on the Premises unless caused by the wilful act or omission of the Lessor its servants or agents.

6.5 Comply with all requirements and recommendations of the Lessor's insurer and not do or omit to do anything on or about the Premises which may increase the premium above the ordinary rate or render any additional premium payable for the Lessor's insurance or which may make void or voidable that policy and reimburse the Lessor forthwith on demand any additional premium which may have been paid or become payable by reason of that act or omission together with all expenses incurred by the Lessor in relation to the renewal of any policy of insurance (which shall not form part of the Insurance Cost).

6.6 Inform the Lessor of any thing arising from the Lessee's use of the Premises affecting the Lessor's insurances.

6.7 If the Building is damaged or destroyed by any of the Insured Risks and the insurance money under the insurance policy is wholly or partially irrecoverable by reason (solely or in part) of any act or default of a Lessee Party the Lessee shall forthwith pay to the Lessor the whole or as the case may require a fair proportion of the cost of rebuilding and reinstating the Building.

PART 7 - ALIENATION:

7.1 The Lessee shall not assign, transfer, sublet, part with or share possession of the Premises or its interest in the Premises provided that the Lessee may assign this Lease or sub-let with the prior consent of the Lessor (consent not to be unreasonably withheld in the case of a respectable and responsible assignee or sub lessee). A change in effective management or control of the Lessee (if not a listed public company) constitutes an assignment of this Lease.

7.2 If the assignee or sub lessee is not a listed public company then the directors and principal shareholders shall if required by the Lessor jointly and severally covenant with the Lessor in the manner set out in Part 12.

7.3 Upon any assignment of this Lease the assignee shall if required by the Lessor covenant with the Lessor to observe and perform the Obligations.

7.4 Any subletting shall be upon the same terms as this Lease and at a rent which is no less than the Rent and shall be capable of being determined by the Lessor upon determination of this Lease.

7.5 Upon any assignment of this Lease the Lessor shall not be obliged to release the Lessee from the Obligations or the Guarantor from Part 12.

PART 8 - DEFAULT AND DETERMINATION:

8.1 The Lessor shall be entitled to exercise any of the rights specified in Clause 8.2 if:

8.1.1 the Lessee repudiates this Lease:

8.1.2 there is a breach of an essential provision;

8.1.3 the Rent or any other moneys payable by the Lessee to the Lessor pursuant to this Lease are in arrears or unpaid for a period of fourteen (14) days (whether or not demanded);

8.1.4 the Lessee defaults in the performance of an Obligation (not relating to the payment of Rent or other moneys) which is not an essential provision and that default is reasonably capable of remedy and the Lessee fails to comply with a notice giving a period of not less than twenty eight days within which the default must be remedied;

8.1.5 the Lessee is a corporation:

(a) an order is made or a resolution is passed for its winding up or proceedings are initiated or a meeting called to obtain any such order or to pass such resolution;

(b) a receiver manager or receiver and manager of its undertaking or any part is appointed or an official manager or provisional liquidator is appointed;

(c) if the Lessee is not a public listed company and without the prior written consent of the Lessor any sale transfer or other disposition of the shares in its issued capital or any issue or allotment of any new shares in its capital or any other act matter or thing occurs is done or performed the effect of which is to transfer directly or indirectly the effective management and control of the Lessee.

8.1.6 the Lessee is an individual and:

(a) dies or becomes incapable of managing his own affairs;

(b) is declared bankrupt or makes any arrangement with his creditors; or

(c) any execution or other process of any Court or other authority issues out against or is levied upon any of the property of the Lessee;

8.1.7 the Lessee stops or threatens to stop payment of its debts or without the prior written consent of the Lessor ceases or threatens to cease to carry on its business;

8.1.8 any warranty or representation expressed in or implied by this Lease or otherwise made by or on behalf of the Lessee to the Lessor prior to entering into this Lease is found to be materially incorrect;

8.1.9 a final judgement is entered in any Court against the Lessee and is not satisfied within twenty eight (28) days;

8.1.10 the Lessee without the prior written consent of the Lessor creates or purports to create any charge or mortgage over its interest in this Lease.

8.2 Upon the happening of any of the events specified in Clause 8.1 the Lessor may exercise any of the following rights:

8.2.1 to re-enter (forcibly if necessary) the Premises or any part of the Premises in the name of the whole and repossess the Premises as of its former estate and expel and remove the Lessee and all other occupiers without liability for the tort of trespass or to the Lessee for any liability it may incur and without prejudice to any remedies which might otherwise be available to the Lessor to recover arrears of Rent or in respect to any antecedent breach of the Obligations and to repair and/or reinstate the Premises to the condition required by the Obligations and recover the costs of so doing from the Lessee as a liquidated debt payable on demand, and re-entry shall (unless the Lessor otherwise expressly elects) immediately cause this Lease to determine as if it had expired by effluxion of time but the Lessee shall remain liable for all Rent due to the date of re-entry and for all other moneys due pursuant to this Lease; or

8.2.2 to reduce the Term by giving the Lessee written notice expiring on a date being no earlier than twenty eight days after the date of service of the notice.

8.3 Upon re-entry pursuant to Clause 8.2.1 the Lessor may retain any furniture fittings fixtures or other items belonging to the Lessee in the Premises and the Lessor shall have the right to sell those items by public auction and apply the proceeds of sale towards the payment of

any moneys payable to the Lessor pursuant to this Lease and for the purpose of any sale pursuant to the Clause, the Lessee irrevocably appoints the Lessor Attorney of the Lessee and authorises the Lessor to do all things necessary to effect any sale and to retain from the proceeds of any sale any amount received until the Lessor has been paid 100 cents in the dollar in respect of the indebtedness of the Lessee to the Lessor.

8.4 If any of the events specified in Clause 8.1.5 occurs to any Guarantor being a corporation or if any of the events specified in Clause 8.1.6 occurs to any Guarantor being an individual then the Lessee shall within fourteen (14) days of that event procure an additional guarantee and indemnity of the Obligations (in the form contained in Part 12) by a respectable responsible and solvent person acceptable to the Lessor.

PART 9 - ESSENTIAL PROVISIONS:

9.1 The Lessee represents that it will at all times comply with the Obligations and the Lessee acknowledges that the Lessor has entered into this Lease on the basis of that representation.

9.2 The following Obligations:

Part 1: Rent and Outgoings: Clauses 1.1. and 1.4
Part 3: Permitted Use and Conduct: Clause 3.1
Part 4: Repair and Maintenance: Clause 4.1
Part 6: Insurance and Indemnities: Clauses 6.1 and 6.4
Part 7: Alienation: Clause 7.1

are essential provisions provided that nothing shall prevent any other Obligations from being construed as essential.

9.3 The acceptance by the Lessor of arrears of rent or outgoings does not constitute a waiver of the essential nature of Clauses 1.1 and 1.4.

9.4 If there is a breach of an essential provision the Lessor is entitled to recover damages from the Lessee for that breach in addition to any other right to which the Lessor is entitled.

9.5 If the Lessee repudiates this Lease or defaults in the performance of an Obligation the Lessee covenants to compensate the Lessor for the loss of or damage suffered by reason of the repudiation or default.

9.6 The Lessee indemnifies the Lessor against any liability or loss arising from the Lessee repudiating this Lease or defaulting in the performance of an Obligation.

9.7 The Lessor is entitled to recover damages against the Lessee in respect of repudiation of this Lease or default in the performance of an Obligation for damage suffered by the Lessor over the entire period of this Lease.

9.8 The Lessee indemnifies the Lessor in respect of repudiation of this Lease or default in the performance of an Obligation against any liability or loss arising from re-entry of the Premises by the Lessor or arising from any difference between the Rent and other moneys which would have been payable by the Lessee to the Lessor pursuant to this Lease for the

unexpired period of the Term and the amount which the Lessor using reasonable endeavours has actually received as rent as at the date of the Lessor's demand from any subsequent occupier of the Premises in respect of the unexpired period of the Term.

9.9 The Lessor's entitlement to recover damages or to receive the benefit of an indemnity under this Part is not affected by the Lessee abandoning the Premises, by the Lessor re-entering the Premises or terminating this Lease or converting this Lease to a periodic tenancy, by the Lessor accepting the Lessee's repudiation or by the parties' conduct constituting a surrender by operation of law.

PART 10 - COSTS AND NOTICES:

10.1 The Lessee will pay to the Lessor:

10.1.1 on demand, all legal and other costs and disbursements (including stamp duty) incurred by the Lessor in relation to any application by the Lessee for consent to an assignment of this Lease or the granting of a sub-lease or any other dealing with the Lessee's interest herein or any other matter requiring the consent of the Lessor pursuant to an Obligation or in connection with any breach or threatened breach of any Obligation or with any proceeding for enforcement of payment of Rent or any other Obligation.

10.1.2 upon the signing of this Lease the Lessor's legal and other costs and disbursements in connection with the preparation of this Lease and the stamping and registration of it;

10.1.3 all Financial Institutions or similar duty incurred by the Lessor in relation to the payment of the Rent and any other moneys payable pursuant to this Lease.

10.2 Service of any notice required or authorised by this Lease may be effected in the manner permitted by Section 170 of the Conveyancing Act, 1919.

PART 11 - LESSOR'S COVENANTS:

11.1 The Lessee upon paying the Rent and performing the Obligations shall peaceably hold and enjoy the Premises during the Term without any interference from the Lessor or any person rightfully claiming under or in trust for the Lessor.

11.2 The Lessor will use its best endeavours to provide the Lessor's Services on normal working days (excluding public holidays) during normal business hours provided that the Lessor shall not be liable for any failure at any time to provide any of the Lessor's Services.

PART 12 - GUARANTEE AND INDEMNITY:

12.1 The Guarantor and the Lessee acknowledge that this Lease has been granted by the Lessor at the request of the Guarantor upon condition that the Guarantor guarantees to the Lessor the Obligations. In this Part the Obligations shall also include the payment to the Lessor by the Lessee of mesne profits.

12.2 The Guarantor guarantees to the Lessor that the Lessee will perform all the Obligations and in default of performance by the Lessee of any of the Obligations the Guarantor covenants with the Lessor to perform the Obligations or cause them to be performed as if the Obligations were primarily the responsibility of the Guarantor.

12.3 The Guarantor indemnifies and keeps indemnified the Lessor from and against all losses damages costs charges liabilities and expenses of whatsoever kind which may at any time be suffered or incurred by the Lessor by reason or in consequence of default by the Lessee in the performance of the Obligations or in consequence of the Lessor attempting to enforce performance of the Obligations.

12.4 The Guarantor acknowledges to and agrees with the Lessor that:-

12.4.1 This guarantee and indemnity is a continuing guarantee and indemnity and principal obligation between the Guarantor and the Lessor and shall not be affected by any claim or right which the Lessee or the Guarantor may have or purport to have against the Lessor on any account whatsoever.

12.4.2 The amount of any moneys from time to time due and payable by it and the performance of its obligations pursuant to this Part shall be paid and performed by the Guarantor in accordance with the provisions of this Lease and if not so specified then on demand by the Lessor.

12.4.3 The liability of the Guarantor shall not be avoided or impaired by:

(a) the Lessor granting time or other indulgence to or making any composition with the Lessee or the Guarantor;

(b) the Lessee or the Guarantor being wound up or passing a resolution for their respective liquidation or by the appointment of a receiver or liquidator respectively;

(c) the Lessee or the Guarantor becoming bankrupt or entering into any composition or arrangement with its respective creditors or becoming of unsound mind or dying;

(d) the Lessee or the Guarantor entering into any composition or arrangement with its respective creditors or assigning its respective estates or any part thereof for the benefit of creditors;

(e) the Lessor obtaining any further or other covenant security or guarantee for the Obligations from the Lessee or from any other person;

(f) the Lessor forbearing, neglecting compromising abandoning or failing to exercise any remedy or right for the enforcement of its rights or powers under this Lease or any other security or guarantee;

(g) any of the covenants of the Lessee or the Guarantor being or becoming illegal invalid void or unenforceable;

(h) the absence of any notice to the Guarantor of default by the Lessee or the Guarantor or any other person who may become a guarantor;

(i) the existence of any legal disability of the Lessee or the Guarantor;

(j) the Lessor waiving any breach or default by the Lessee or the Guarantor;

(k) the variation, alteration or renewal of the Lease whether or not the variation alteration or renewal was with the consent knowledge or agreement of the Guarantor;

(l) the Lease not having been registered.

12.4.4 The execution of this Lease by the Guarantor constitutes a consent to and an awareness of the Obligations and any variation compromise or release of the Obligations.

12.4.5 No payment by any person shall operate to discharge or reduce the Guarantor's liability to the Lessor if that payment is or may be or may become voidable as a preference under any law relating to bankruptcy or the winding up of companies or other corporate entities and no grant of discharge or release consequent upon such a payment shall discharge the liability of the Guarantor.

12.4.6 The Guarantor's liability hereunder shall not be affected by any claim or right to set off or cross action which the Lessee or the Guarantor may respectively have or claim to have against the Lessor on any account nor shall the Guarantor be entitled to any set off against the Lessor.

12.5 The Guarantor:

12.5.1 covenants that upon the bankruptcy or liquidation of the Lessee the Guarantor will not prove in any such bankruptcy or liquidation in competition with the Lessor and the Guarantor irrevocably appoints the Lessor the Attorney of the Guarantor and authorises the Lessor to prove for all moneys which the Guarantor has paid on behalf of the Lessee or is entitled to receive from the Lessee or the estate of the Lessee and to retain and to carry to a suspense account and appropriate at the discretion of the Lessor any amount received until the Lessor has been paid one hundred cents in the dollar in respect of the indebtedness of the Lessee or the Guarantor as the case may be;

12.5.2 waives all rights inconsistent with the provisions of this Part including rights as to contribution and subrogation which the Guarantor might otherwise as surety be entitled to claim and enforce; and

2.5.3 covenants with the Lessor that so far as is within its power and is permissible by law to do all things as may be reasonably required by the Lessor to give effect to the provisions of this Part.

12.6 The Guarantor covenants with and acknowledges to the Lessor that the guarantee and indemnity expressed in this Part shall enure for the benefit of the Lessor and its successors and assigns and that the Guarantor will at the request of the Lessor at any time enter into a deed with any transferee of the Building from the Lessor confirming this guarantee and indemnity to such transferee.

PART 13 - BANK GUARANTEE:

13.1 The Lessee shall deliver to the Lessor, on or before execution of this Lease, the Bank Guarantee.

13.2 If the Lessee defaults in the performance of any Obligation or if mesne profits are owed to the Lessor then the Lessor is authorised to demand that the guaranteeing bank pay to the Lessor the amount that (in the opinion of the Lessor) is due to the Lessor.

13.3 The Lessor shall be entitled to recover Rent and damages for breach of covenant without being limited to the amount secured under the Bank Guarantee.

13.4 Any demand made shall not constitute a waiver by the Lessor of any default or shall not prejudice any other right of the Lessor.

13.5 Should any amount of the Bank Guarantee be demanded from time to time by the Lessor then the Lessee shall upon demand by the Lessor provide to the Lessor a further Bank Guarantee for the amount demanded in order to reinstate the amount of the Bank Guarantee.

13.6 The Lessor shall return the Bank Guarantee to the Lessee on expiry or termination of this Lease subject to the Lessee vacating the Premises and otherwise complying with the Obligations (unless Clause 13.3 applies).

PART 14 - ANCILLARY RIGHTS, EXCEPTIONS AND RESERVATIONS:

14.1 This Lease includes the rights specified in Item 17 and if the right to park cars in the carparking areas of the Building is specified the following provisions shall apply:

14.1.1 The Lessee shall park cars only in the carparking area in the positions designated by the Lessor.

14.1.2 The Lessee shall have the right to identify its car parking spaces by painting appropriate identifying numbers letters or names in its spaces or by erecting at its own expense and with the consent in each case of the Lessor appropriate identifying name plates adjacent to each space and the Lessee covenants to remove its signs or painting at its own expense on the termination of this Lease and to make good any damage.

4.1.3 The Lessee shall not permit or allow any car to be cleaned greased oiled washed or repaired in any part of the Building.

14.1.4 The Lessee shall not store or permit or suffer to be stored or kept in any part of the Building any petrol or other inflammable fuel except as is contained in the petrol or other fuel feed tanks forming a permanent part of a car.

14.1.5 The Lessor shall not be held responsible for the loss of or damage to any car or for the loss of or damage to any article or thing in or upon any car or for any injury to any person howsoever that loss damage or injury may arise or be caused.

14.2 There is excepted and reserved from this Lease:

14.2.1 the right at all times upon giving reasonable prior notice to the Lessee (except in the case of emergency where no notice shall be required) for the Lessor to enter the Premises for any purpose;

14.2.2 the free and uninterrupted passage and running at all times of water oil gas electricity and other services from and to the Premises and any adjoining or neighbouring premises whether belonging to the Lessor or not through and along the conduits which are now or may hereafter be in the Premises and the right for the Lessor to lay move remove replace and maintain those conduits;

14.2.3 all rights of light or air now subsisting or which might (but for this exception) be acquired over any neighbouring land or premises; and

14.2.4 as may be specified in the Certificate of Title for the Premises.

14.3 The Lessee shall have the right to use the Common Parts for their designated use in common with other authorised persons.

PART 15 - GOODS AND SERVICES TAX

15.1 If the Lessor is liable for any GST on any Primary Payment or other supply by the Lessor to the Lessee, the Lessee must pay to the Lessor the amount of the GST on the supply in addition to any Primary Payment.

15.2 Subject to clauses 15.3 and 15.4 the Lessee must pay to the Lessor any amount in respect of GST that the Lessee is required to pay under this Lease at the same time and in the same manner, as the Lessee is required to pay or provide the consideration for the supply to which the amount in respect of GST relates.

15.3 The Lessor will issue a Tax Invoice in respect of:

(i) Rent and Outgoings on or before the 14th day of the calendar month in which the Primary Payment is due; and

(ii) any other Primary Payment within 14 days of the Primary Payment being made.

15.4 If the Lessor refunds to the Lessee any amount under this agreement, the Lessor must also refund to the Lessee an amount in respect of any GST that the Lessee paid to the Lessor in respect of that amount.

15.5 The Lessee's obligation under the terms of this Lease to pay or reimburse Outgoings or other expenses of the Lessor does not include an obligation to pay any amount of Input Tax paid or payable by the Lessor in respect of those expenses and for which the Lessor is entitled to an Input Tax credit.

PART 16. INTERPRETATION AND DEFINITIONS:

16.1 A reference to:

16.1.1 this Lease includes the Reference Schedule to this Lease;

16.1.2 an Item means the respective Item in the Reference Schedule;

16.1.3 a Clause or Part means the respective Clause and Part of this Lease;

16.1.4 a word importing the singular includes the plural number and vice versa;

16.1.5 a statutory provision includes that provision as amended or re-enacted (either before or after the date of this Lease) from time to time;

16.1.6 a party to this Lease includes the legal personal representatives or permitted assigns of that party;

16.1.7 a determination by a Valuer or other independent person of any dispute or matter arising pursuant to this Lease means a determination by that person acting as an expert and not as an arbitrator.

16.2 Where commencing with a capital letter:

16.2.1 **"Bank Guarantee"** means the banker's guarantee or undertaking in a form reasonably acceptable to the Lessor to secure the performance by the Lessee of the Obligations for the amount specified in Item 16.

16.2.2 **"Building"** means the land specified in Item 1, improvements erected on the land and Lessor's fixtures and fittings (including any part of the Building) as modified extended or altered at any time.

16.2.3 **"Common Parts"** means those parts of the Building provided by the Lessor from time to time for common use by the occupants of the Building including the entrances, lobbies, corridors, stairways, car parking areas, lifts, tea-rooms, washrooms and toilets.

16.2.4 **"Decorate"** means to clean, repair and prepare in a good and workmanlike manner and then to paint in colours approved by the Lessor (approval not to be unreasonably withheld) with at least two coats of paint all parts of the Premises previously painted and to paper varnish and otherwise treat all parts of the Premises previously treated in a manner approved by the Lessor (approval not to be unreasonably withheld) and to carry out all work using good quality materials.

16.2.5 **"Environmental Protection Law"** means any statute, rule, order, regulation, ordinance, instruction, directive, authority, permit or licence regulating the discharge, emission, release, discarding or escape of any Pollutant.

16.2.6 **"Estimate"** means the written estimate of Outgoings by the Lessor.

16.2.7 **"Further Term"** means the period specified in Item 9.

16.2.8 **"Guarantor"** means the person specified in Item 15.

16.2.9 **"Index Number"** means the Consumer Price Index Number for Sydney (All Groups) as published from time to time by the Australian Bureau of Statistics or any official substitution for that number.

16.2.10 **"Insurance Cost"** means insurance premiums and other fees and charges (including stamp duties and statutory fees) arising from insuring the Building for the amount which the Lessor reasonably considers from time to time to be the full reinstatement value of the Building against the Insured Risks, loss of Rent and Outgoings, employers' risks, public liability and plate glass.

16.2.11 **"Insured Risks"** means fire lightning storm tempest and other risks against which the Lessor from time to time reasonably considers expedient to insure the Building, including the costs of demolition and removal of debris, and other incidental costs.

16.2.12 **"Lessee"** means the person referred to as the lessee on the front page of this Lease and includes its successors in title and permitted assigns.

16.2.13 **"Lessee Party"** means the Lessee and its servants agents employees contractors or visitors (whether or not by invitation) and any person claiming through or under the Lessee or any person under the control or direction of the Lessee.

16.2.14 **"Lessee's Percentage"** means the percentage specified in Item 8.

16.2.15 **"Lessor"** means the person referred to as the Lessor on the front page of this lease and includes the persons for the time being entitled to the reversion immediately expectant upon expiry of the Term.

16.2.16 **"Lessor's Services"** means lighting power heating airconditioning ventilation management caretaking cleaning security lifts elevators and landscaping (including any contract for the provision of any service) and any other service or facility from time to time provided by the Lessor (at its discretion) for the benefit of the Lessee notwithstanding that service may also be of benefit to the Lessor or other occupants of the Building.

16.2.17 **"Obligations"** means all of the obligations of the Lessee both in law and equity to the Lessor pursuant to this Lease, including payment of Rent and all other moneys payable by the Lessee to the Lessor pursuant to this Lease or pursuant to any tenancy arising as a result of the Lessee holding over with the consent of the Lessor, or the performance and observance of any other provision.

16.2.18 **"Outgoings"** means:

(a) rates taxes (including Land Tax on the basis specified in Section 26 of the Retail Leases Act, 1994) charges impositions and fees payable by the

Lessor to any government or authority in respect of the Building charged to or payable by the Lessor provided that if the Building is not separately assessed or charged in respect of any such rate tax charge imposition or fee there shall be included in the Outgoings the Lessor's estimate (which shall be final and binding on the Lessee except in the case of manifest error) of the rates taxes charges impositions or fees (as the case may be) attributable to the Building;

(b) charges incurred by the Lessor in relation to the supply and usage of electricity, gas, water sewerage and drainage to and the removal of waste and garbage from the Building provided that if the Building is not separately charged rated or metered in respect of any service there shall be included in the Outgoings the Lessor's estimate (which shall be final and binding on the Lessee except in the case of manifest error) of the charges attributable to the Building;

(c) charges for lighting, power, heating, air conditioning and ventilation incurred by the Lessor in relation to the Building;

(d) Lessor's Services;

(e) Insurance Cost;

(f) if the Premises are or become subject to the Strata Titles Act, 1973, levies and other charges, other than those for capital costs, made by the Body Corporate in respect of the lot comprising the Premises or the lot of which the premises forms part;

(g) charges incurred by the Lessor for maintenance and repairs to the Building other than structural maintenance and repairs and other than capital costs; and

(h) management fees reasonably incurred by the Lessor in relation to the Building.

16.2.19 **"Pollutant"** means any hazardous material or contaminant whether in solid, liquid or gaseous form which on discharge, emission, release, discarding or escape may give rise to a contamination of the physical, chemical or biological condition of the atmosphere, land or water.

16.2.20 **"Premises"** means that part of the Building being the premises referred to on the front page of this Lease (including any part of the Premises) which for the purposes of obligation as well as grant exclude any Common Parts but include the surface of all internal walls floors and ceilings and all floor and wall coverings, all doors and door frames, all windows and window frames, all internal partitioning (erected by the Lessor or the Lessee or any other person at any time) and all the Lessor's fixtures and fittings in the Premises (including any lighting power heating air conditioning and ventilation plant and equipment exclusively serving the Premises).

16.2.21 **"Rent"** means the amount specified in Item 2 as reviewed from time to time.

16.2.22 **"Rent Commencement Date"** means the date specified in Item 4.

16.2.23 **"Review Dates"** means the dates specified in Item 5.

16.2.24 **"Specified Rate"** means the rate which is three per centum above the annual interest rate from time to time charged by the Lessor's principal bankers on unarranged overdrafts of more than $100,000.00.

16.2.25 **"Term"** means the term granted by this Lease.

16.2.26 **"Valuer"** means a valuer who is a member of not less than five (5) years standing of the Australian Institute of Land Valuers and Economists (NSW Division) Inc with experience in assessing properties of the same nature as the Premises.

16.2.27 **"GST Act"** means A New Tax System (Goods and Services Tax) Act 1999 and any amendment and replacement of that Act.

16.2.28 **"GST"** means GST within the meaning of the GST Act.

16.2.29 **"Input Tax"** means an amount equal to the amount of GST paid or payable for the supply of anything acquired.

16.2.30 **"Primary Payment"** means any payment by the Lessee to the Lessor of any Rent or Outgoings or any other amount payable under this Lease.

16.2.31 **"Tax Invoice"** means a tax invoice within the meaning of the GST Act.

16.3 When two or more persons comprise the Lessee or Guarantor all the provisions of this Lease bind those persons jointly and each of them severally and also bind the respective personal representatives assigns and successors in title of each of them jointly and severally.

16.4 The covenants powers and provisions implied in leases by virtue of the Conveyancing Act, 1919 (as amended) are expressly negatived except in so far as they are included in this Lease.

16.5 A reference to the Lessor includes a reference to any superior lessor or any mortgagee from the Lessor or any superior lessor of the Premises:

16.5.1 where there are rights easements and reservations exercisable by or benefiting the Lessor;

16.5.2 where there is an obligation to obtain consent from the Lessor; and

16.5.3 where there are any indemnities in favour of the Lessor.

16.6 An Obligation not to do or omit any act or thing extends to an obligation not to permit any third party to do or omit the same.

16.7 A reference to the Lessor includes a reference to the Body Corporate if the Premises become subject to the Strata Titles Act, 1973.

16.8 An approval consent permission or notice required by this Lease is not valid unless in writing.

16.9 Marginal notes and headings are for the purpose of identification only and not to be considered in the interpretation of this Lease.

16.10 This Lease shall be interpreted in accordance with the laws of New South Wales.

16.11 The Lessor shall be entitled to exercise any right on its behalf expressed in or implied by this Lease by itself, its employees agents servants or contractors.

16.12 To the extent permitted by law the application to this Lease of any moratorium or other statute ordinance rule or regulation which reduces or postpones the payment of rent or extends the Term or otherwise affects the operation of any of the provisions of this Lease to the detriment of the Lessor is expressly excluded and negatived.

16.13 Any provision of this Lease which is or shall be or become in breach of the Trade Practices Act, 1974 or any other statute rule or regulation and in consequence of that breach is void voidable unenforceable or invalid shall for so long as it is in breach be severable from this Lease and this Lease shall be interpreted as if that provision was not expressed in it.

INDEX

EXECUTED AS A DEED

The common seal of GEORGIO ALTOMONTE HOLDINGS PTY LTD is affixed in accordance with its Articles of Association in the presence of:

Common Seal
GEORGIO ALTOMONTE HOLDINGS PTY. LIMITED
A.C.N 000 798 943

Signature of authorised person

Secretary
Office held

JAMES HENRY STUBBS
Name of authorised person

Signature of authorised person

Director
Office held

GEORGE ALTOMONTE
Name of authorised person

Signed on behalf
~~The common seal of~~ CORMI PTY LIMITED ~~is affixed in accordance with its articles of association the presence of:~~ by the authorised persons whose signatures appear below

Signature of authorised person

DIRECTOR
Office held

MICHAEL PALMER
Name of authorised person

Signature of authorised person

DIRECTOR
Office held

CORALIE PALMER
Name of authorised person

Signed by the guarantor MICHAEL JOHN PALMER in the presence of:

Signature of Witness

Cheryl Randall
Name of Witness

5 Heeseltyne Street
Address of Witness Lendfield 2070

Signed by the guarantor)
CORALIE ANN PALMER)
in the presence of:)

x .....

x .....
Signature of Witness

Cheryl Randall
Name of Witness

15 Heerelyn Street
Address of Witness Lendfield 2070.

leases/Lease Snap

APPENDIX D

WORKCOVER NSW INFORMATION

NSW GOVERNMENT | WorkCover

WorkCover NSW
92-100 Donnison Street, Gosford, NSW 2250
Locked Bag 2906, Lisarow, NSW 2252
T 02 4321 5000 F 02 4325 4145
WorkCover Assistance Service 13 10 50
DX 731 Sydney workcover.nsw.gov.au

Our Ref: D13/125707
Your Ref: David Yonge

24 October 2013

Attention: David Yonge
SMEC Testing Services Pty Ltd
PO Box 6989
Wetherill Park NSW 2164

Dear Mr Yonge,

RE SITE: 870-898 Pacific Hwy Gordon NSW

I refer to your site search request received by WorkCover NSW on 18 October 2013 requesting information on licences to keep dangerous goods for the above site.

Enclosed are copies of the documents that WorkCover NSW holds on Dangerous Goods Licence 35/011852 relating to the storage of dangerous goods at the above-mentioned premises, as listed on the Stored Chemical Information Database (SCID).

If you have any further queries please contact the Dangerous Goods Licensing Team on (02) 4321 5500.

Yours Sincerely

Brent Jones
Senior Licensing Officer
Dangerous Goods Notification Team

283

Wo... New South Wales, 400 Kent Street, Sydney 2000. Tel: 9370 5000 Fax: 9370 5999 ALL MAIL TO G.P.O. BOX 5364 SYDNEY 2001

Licence No. 35/011852

APPLICATION FOR RENEWAL

OF LICENCE TO KEEP DANGEROUS GOODS

WORKCOVER NEW SOUTH WALES

ISSUED UNDER AND SUBJECT TO THE PROVISIONS OF THE DANGEROUS GOODS ACT, 1975 AND REGULATION THEREUNDER

DECLARATION: Please renew licence number 35/011852 to 14/10/2001 . I confirm that all the licence details shown below are correct (amend if necessary).

P Rafter | PAT RAFTER | 21 · 9 · 2000

(Signature) *(Please print name)* *(Date signed)*

for: ALTO FORD P/L

*THIS **SIGNED** DECLARATION SHOULD BE **RETURNED TO: (please do not fax)***

WorkCover New South Wales
Dangerous Goods Licensing Section
GPO BOX 5364
SYDNEY 2001

Enquiries: ph (02) 9370 5187
fax (02) 9370 6104

Details of licence on 1 September 2000

Licence Number 35/011852 **Expiry Date** 14/10/2000

Licensee ALTO FORD P/L ACN 000 344 123
ALTO FORD GORDON

Postal Address: ALTO FORD GORDON 880-890 PACIFIC HWY GORDON NSW 2072

Licensee Contact ~~DAVID CONNAH~~ PAT RAFTER Ph. 9418 5420 Fax.

Premises Licensed to Keep Dangerous Goods
ALTO FORD P/L ALTO FORD GORDON
880-890 PACIFIC HWY GORDON 2072

Nature of Site CAR RETAILING

Major Supplier of Dangerous Goods MOBIL

Emergency Contact for this Site ~~DAVID CONNAH~~ PAT RAFTER Ph. 9418 5420

Site staffing 10 HRS 5 DAYS + HALF DAY

Details of Depots

Depot No.	Depot Type	Goods Stored in Depot	Qty
1	**UNDERGROUND TANK**	**Class 3**	**10000 L**
	UN 1203 PETROL		0 L
2	**UNDERGROUND TANK**	**Class 3**	**10000 L**
	UN 1203 PETROL		10000 L
3	**UNDERGROUND TANK**	**Class 3**	**10000 L**
	UN 1203 PETROL		10000 L
4	**FLAMMABLE LIQUIDS CABINET**	**Class 3**	**250 L**
	UN 1263 PAINT, (ZINC RICH KIT)		60 L
	UN 1993 FLAMMABLE LIQUID, , N.O.S.		120 L

Form DG10

WorkCover New South Wales, 400 Kent Street, Sydney 2000. Tel: (02) 9370 5000 ALL MAIL TO LOCKED BAG 10, CLARENCE STREET, SYDNEY 2000
DX 13067, MARKET ST. SYDNEY

WORKCOVER NEW SOUTH WALES

Reference

APPLICATION FOR RENEWAL
OF LICENCE TO KEEP DANGEROUS GOODS

ISSUED UNDER AND SUBJECT TO THE PROVISIONS OF THE DANGEROUS GOODS ACT, 1975 AND REGULATION THEREUNDER

DECLARATION: *Please renew licence number 35/011852 to 1998. I confirm that all the licence details shown below are correct (amend if necessary).*

D Connah ..... DAVID CONNAH ....

(Signature) *(Please print name)* *(Date signed)*

for: ALTO FORD P/L

*THIS **SIGNED** DECLARATION SHOULD BE **RETURNED TO:***

WorkCover New South Wales
Dangerous Goods Licensing Section (Level 3)
Locked Bag 10
P O CLARENCE STREET 2000

Enquiries: ph (02) 9370 5187
fax (02) 9370 6105

Details of licence on 5 September 1997

Licence Number 35/011852 **Expiry Date** 15/10/97

Licensee ALTO FORD P/L ACN 000 344 123
ALTO FORD GORDON

Postal Address 880-890 PACIFIC HWY, GORDON 2072

Licensee Contact ~~Garry Smyth Ph. 498 1133~~ DAVID CONNAH 94185420

Premises Licensed to Keep Dangerous Goods
880-890 PACIFIC HWY
GORDON 2072

Nature of Site NEW MOTOR VEHICLE & PARTS DEALERS **Major Supplier of Dangerous Goods** MOBIL

Emergency Contact for this Site ~~Garry Smyth ph. 498 1133~~ DAVID CONNAH 94185420

Site staffing 10 HRS 5 DAYS + HALF DAY

Details of Depots

Depot No.	Depot Type	Goods Stored in Depot	Qty
1	UNDERGROUND TANK ✓	Class 3	10000 L
		UN 1203 PETROL	0 L
2	UNDERGROUND TANK ✓	Class 3	10000 L
		UN 1203 PETROL	10000 L
3	UNDERGROUND TANK ✓	Class 3	10000 L
		UN 1203 PETROL	10000 L
4	FLAMMABLE LIQUID CABINET ✓	Class 3	250 L
		UN 1263 PAINT RELATED MATERIAL	60 L
		UN 1993 FLAMMABLE LIQUID,N.O.S	120 L

Alto Ford

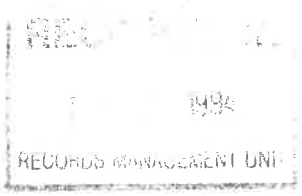
Gordon

Alto Ford Pty Limited
A.C.N. 000 344 123
Incorporated in NSW

880 Pacific Highway
PO Box 226
Gordon NSW 2072

Telephone (02) 498 1133
Fax (02) 499 2471
Fax (02) 498 2555 (Sales)

Chief Inspector of Dangerous Goods
Locked Bag 10
Clarence Street
Sydney NSW 2000



14th November 1994,

Dear Sir,

In relation to your letter dated 29 September 1994.
(Your reference 35/011852)

The tank mentioned was filled with sand and all attaching pipes capped on filled with concrete some years ago and there is no intention to reuse this tank in the future.

I trust this complies with the dangerous goods act. If any further action is required please advise.

Yours sincerely,

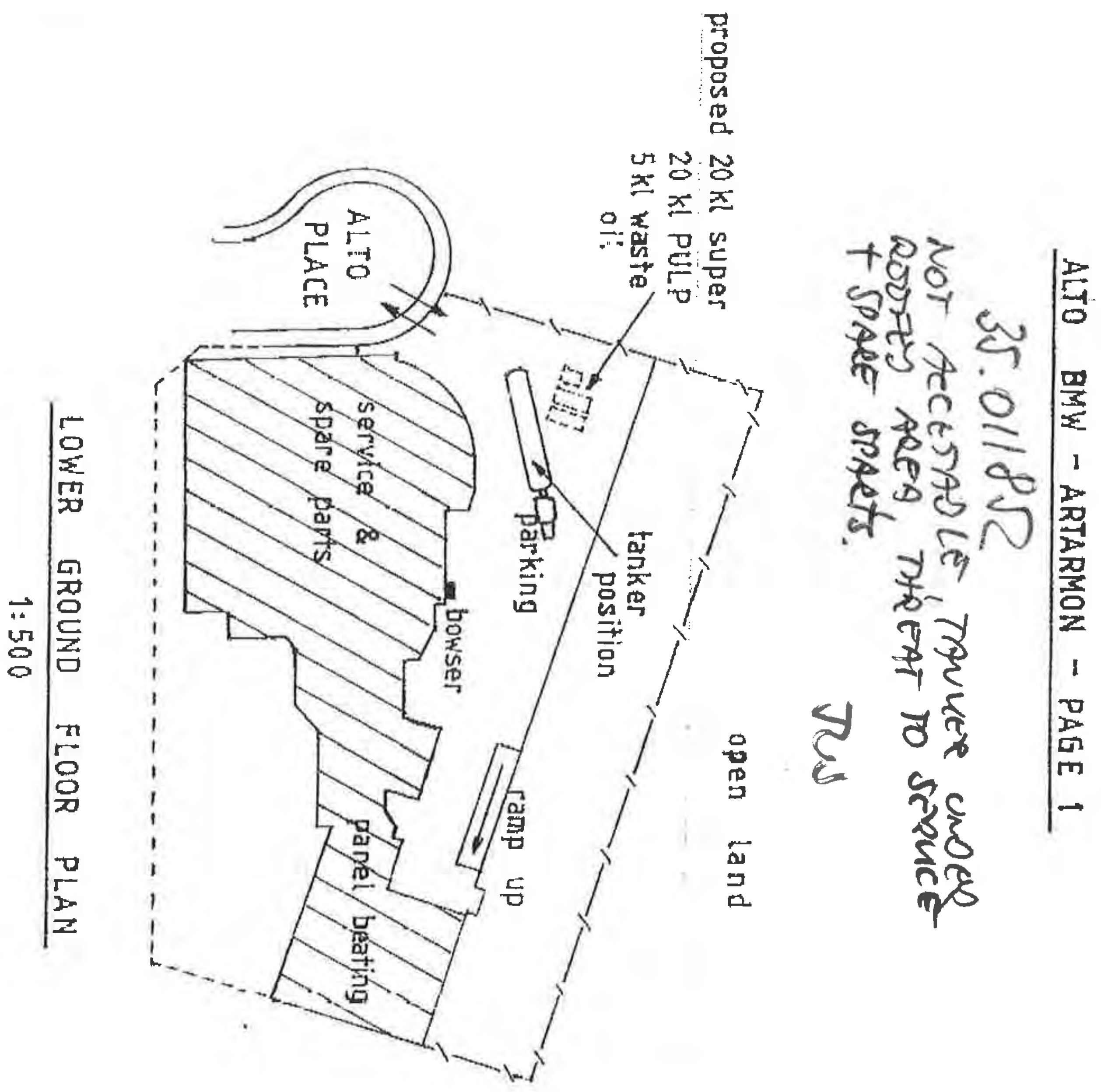
Garry Smyth.
Service Manager.

FAX TO : JURGEN STRAUCH

WORK COVER

9th August, 1996

2 Pages



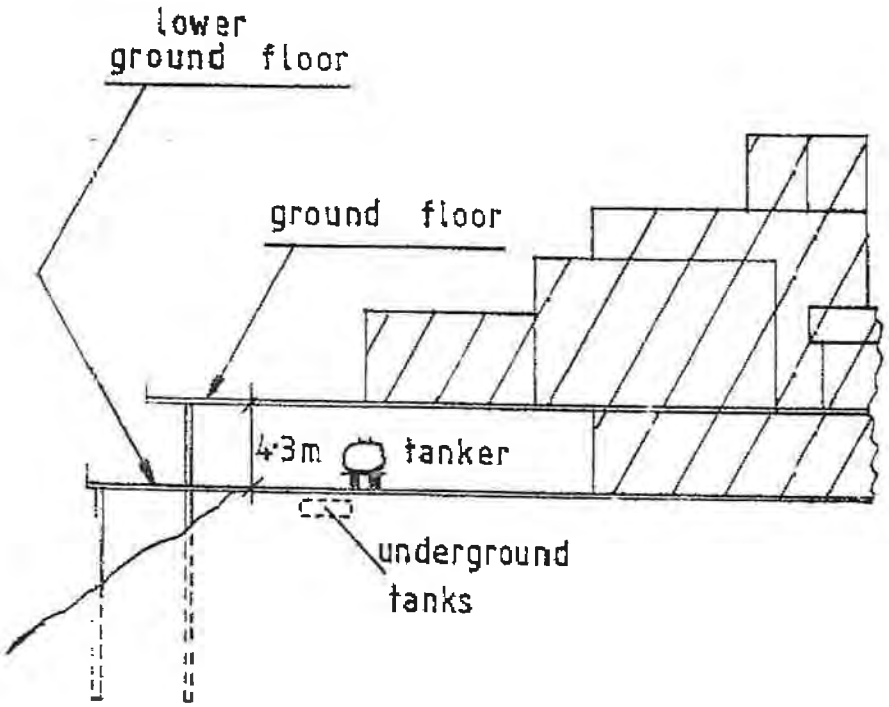
Jurgen,

Could you have a look at this layout informally and advise if OK based on previous concerns.

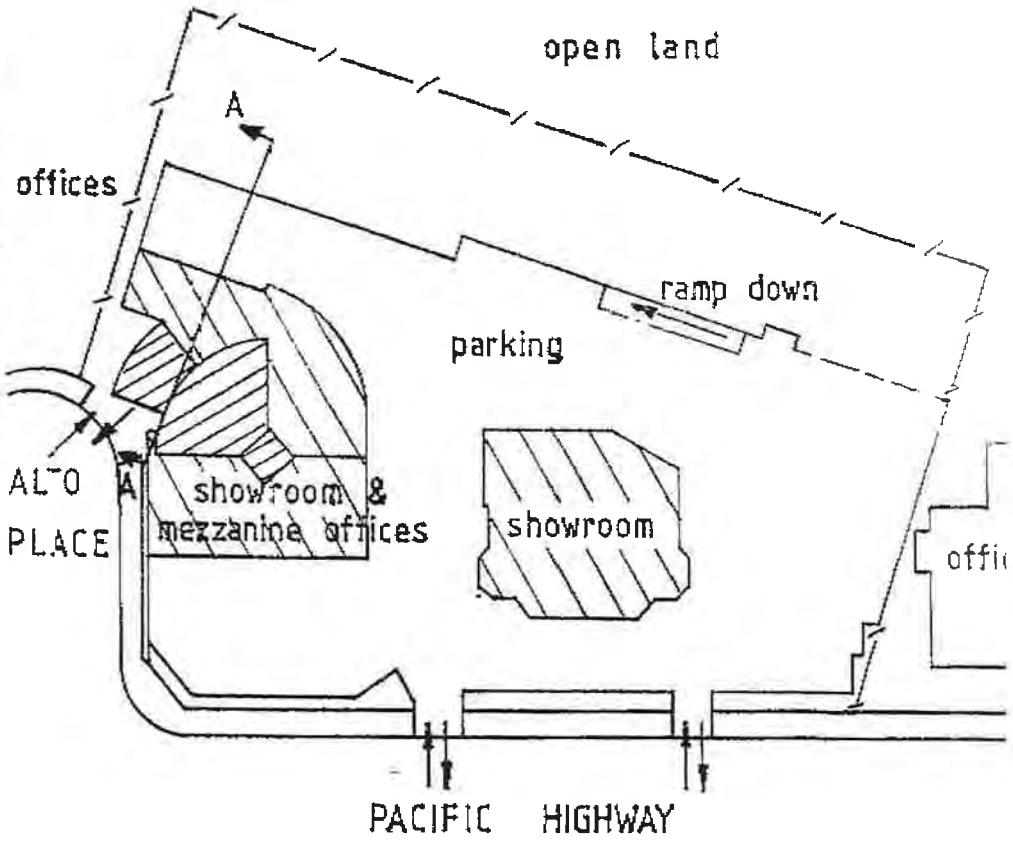
Sam Khoury (0414) 964892

9772 3374 (B & Fax)

ALTO BMW - ARTARMON - PAGE 2



SECTION A-A
1: 500



GROUND FLOOR PLAN
1: 500

THE NEW SOUTH WALES GOVERNMENT
Putting people first by managing better

WORKCOVER AUTHORITY

LICENCE TO KEEP DANGEROUS GOODS

(Dangerous Goods Act 1975)

Application for new licence, amendment or transfer

1. Name of applicant: ALTO FORD PTY LTD — ACN: 000 344 123

2. Site to be licensed
   No: 880 — Street: PACIFIC HIGHWAY
   Suburb/Town: GORDON — Postcode: 2072

3. Previous licence number (if known): 35/011852

4. Nature of site: MOTOR VEHICLE FRANCHISE

5. Emergency contact on site:
   Phone: 449 8350 — Name: JOHN STARLING

6. Site staffing: Hours per day: 9 — Days per week: 7

7. Major supplier of dangerous goods: MOBIL

8. If new site or significant modification
   Plan stamped by: Accredited consultant's name: — Date stamped:

9. Number of dangerous goods depots at site:

10. Trading name or occupier's name: ALTO FORD PTY LTD

11. Postal address of applicant: P.O BOX 226 — Suburb/Town: GORDON — Postcode: 2072

12. Contact for licence enquiries:
    Phone: 498 1133 — Fax: 4992471 — Name: GARRY SMYTH

I certify that the details contained in this application (or the accompanying computer disk) are true and correct

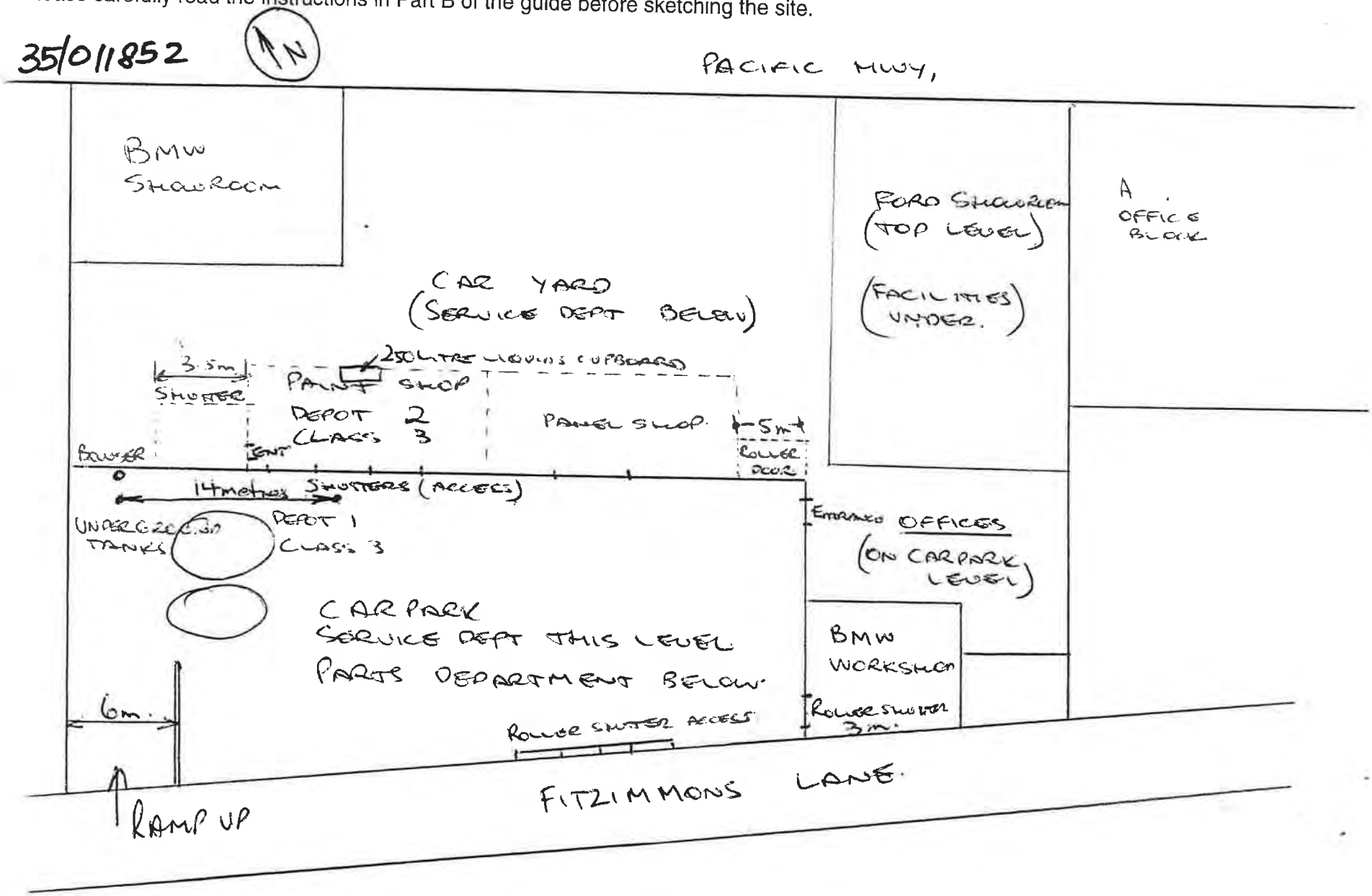
13. Signature of applicant: Garry Smyth — Date: 22/6/93

Please complete attached site sketch, depot listing and check sheet (if required) and return to WorkCover Authority in envelope provided

Form DG1

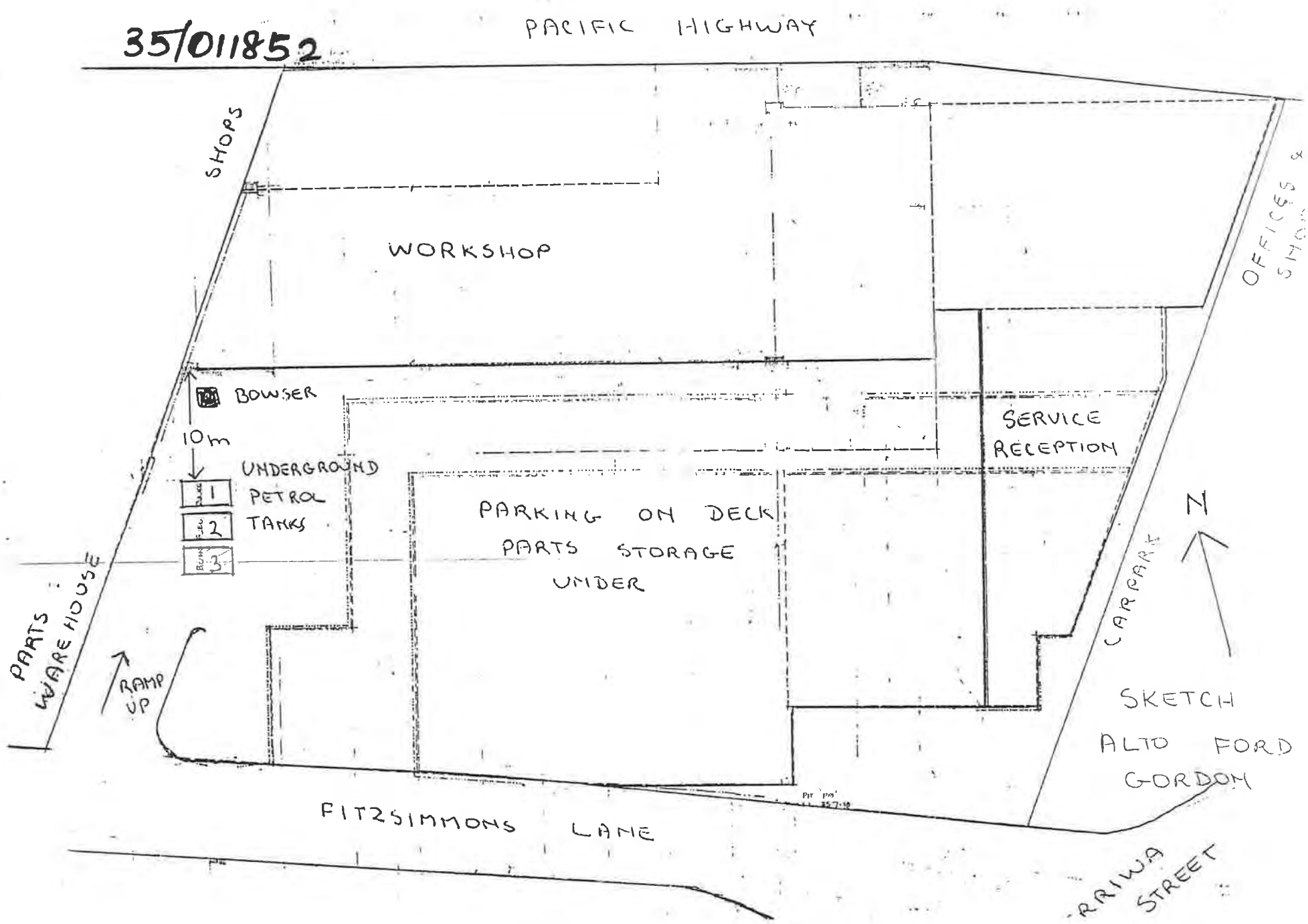
Site Sketch

Please carefully read the instructions in Part B of the guide before sketching the site.



PART B

35/011852


PACIFIC HIGHWAY
SHOPS
WORKSHOP
OFFICES & SHOWROOM
BOWSER
10m
UNDERGROUND PETROL TANKS
1
2
3
SERVICE RECEPTION
PARKING ON DECK
PARTS STORAGE UNDER
CARPARK
N
PARTS WAREHOUSE
RAMP UP
SKETCH
ALTO FORD GORDON
FITZSIMMONS LANE
RIWA STREET

Complete 1 section per depot

If you have more depots than the space provided, photocopy sufficient sheets first.

Depot number	Type of depot	Class	Licensed maximum storage capacity
1	UNDERGROUND TANK	3	10,000

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³
1203	MOBIL OIL AUST	3	2	3A1	PETROL	0	L

Depot number	Type of depot	Class	Licensed maximum storage capacity
2	UNDERGROUND TANK	3	10,000

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³
1203	MOBIL OIL AUST	3	2	3A1	PETROL	10 000	L

Depot number	Type of depot	Class	Licensed maximum storage capacity
3	UNDERGROUND TANK	3	10,000

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³
1203	MOBIL OIL AUST	3	2	3A1	PETROL	10000	L

Depot number	Type of depot	Class	Licensed maximum storage capacity

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³

Application for Registration of Premises or Store License under Division or for the transfer alteration or amendment of any such Registration or License, for the keeping of Inflammable Liquid and/or Dangerous Goods, in accordance with the provisions of the Inflammable Liquid Act, 1915 (as amended), for the ensuing year.

New licence

EXPLANATORY

issue from. 15/10/68

Inflammable Liquid-

Mineral Oil - includes kerosene, mineral turpentine and white spirit (for cleaning), and compositions containing same.
Mineral Spirit - includes petrol, benzene, benzolene, benzol and naphtha, and compositions containing same.

"Caltex"

Dangerous Goods -

Class 1 - acetal, acetaldehyde, acetone, acrolein, amyl mercaptan, butyl acetate, butyl mercaptan, butyl propionate, crotonaldehyde, dichloro-ethylene, diethylketone, dioxane, diethylamine, dimethyl hydrozine, dipropylamine, divinyl ether, dipropyl ether, ethyl acetate, ethyl acrylate, ethyl chloride, ethyl ether, dichloroethane (ethylene dichloride), ethyl mercaptan, ethyl methacrylate, ethyl methyl ether, ethyl propyl ether, ethyl propionate, methyl propyl ketone, methyl acetate, methyl acrylate, methylal, methyl ethyl ether, methyl ethyl ketone, methyl methacrylate, methyl vinyl ketone, methyl vinyl acetate, piperidine, propanal, propyl acetate, propylamine, propylene oxide, pyridine, tetrahydrofuran, thiophene, triethylamine, valeraldehyde, vinyl acetate, vinyl allyl ether, vinyl butyl ether, vinyl butyrate, vinyl cyanide (acrylonitrile), vinylidene chloride, vinyl ethyl ether, vinyl propyl ether, vinyl propionate, any combination of substances of an inflammable character suitable for use as an industrial solvent and having a true flashing point of less than 73 degrees Fahrenheit, manufactured products, containing organic solvents, having a true flashing point of less than 73 degrees Fahrenheit.

Class 2 - acetic acid, acetyl acetone, acetic anhydride, allyl alcohol, amyl acetate, amyl alcohol, butyl alcohol, butyl methacrylate, chlorobenzene, cyclohexanone, dibutyl ether, dibutyl ketone, dipentene, epichlorohydrin, ethanol (ethyl alcohol), ethyl benzene, ethylene diamine, furfural, mesityl oxide, methyl alcohol, methyl amyl ketone, methyl butyl ketone, pine oil (having a flashing point below 150°F), propyl benzene, propanol, vegetable turpentine, vinyl benzene (styrene monomer), any liquid containing more than 50 per centum ethyl alcohol, manufactured products, containing organic solvents, having a true flashing point of 73 degrees Fahrenheit and above but not exceeding 150 degrees Fahrenheit.

Class 3 - nitro-cellulose moistened with an alcohol, nitro-cellulose product.

Class 4 - compressed or dissolved acetylene contained in a porous substance.

Class 5 (A) - liquefied inflammable gases (liquefied petroleum gas, vinyl chloride, ethylene chloride, ethylene oxide, butadine, methylamine, dimethylamine and trimethylamine).

Class 9 - Carbon disulphide, ethyl nitrite.

DIRECTIONS

Applications must be forwarded to the Chief Inspector of Inflammable Liquid, Explosives Department, Department of Mines, Sydney, and must be accompanied by the prescribed fee, as set out in Regulation 7.

1. Name in full of occupier	ALTO FORD PTY. LTD
2. Occupation	
3. Locality of the premises in which the depot or depots are situated	No. or Name 880-890 Street PACIFIC HIGHWAY Town GORDON
4. Nature of premises (Dwelling, Garage, Store, etc.) 16/10	Postcode 2072

5. Particulars of construction of depots and maximum quantities of inflammable liquid and/or Dangerous Goods to be kept at any one time

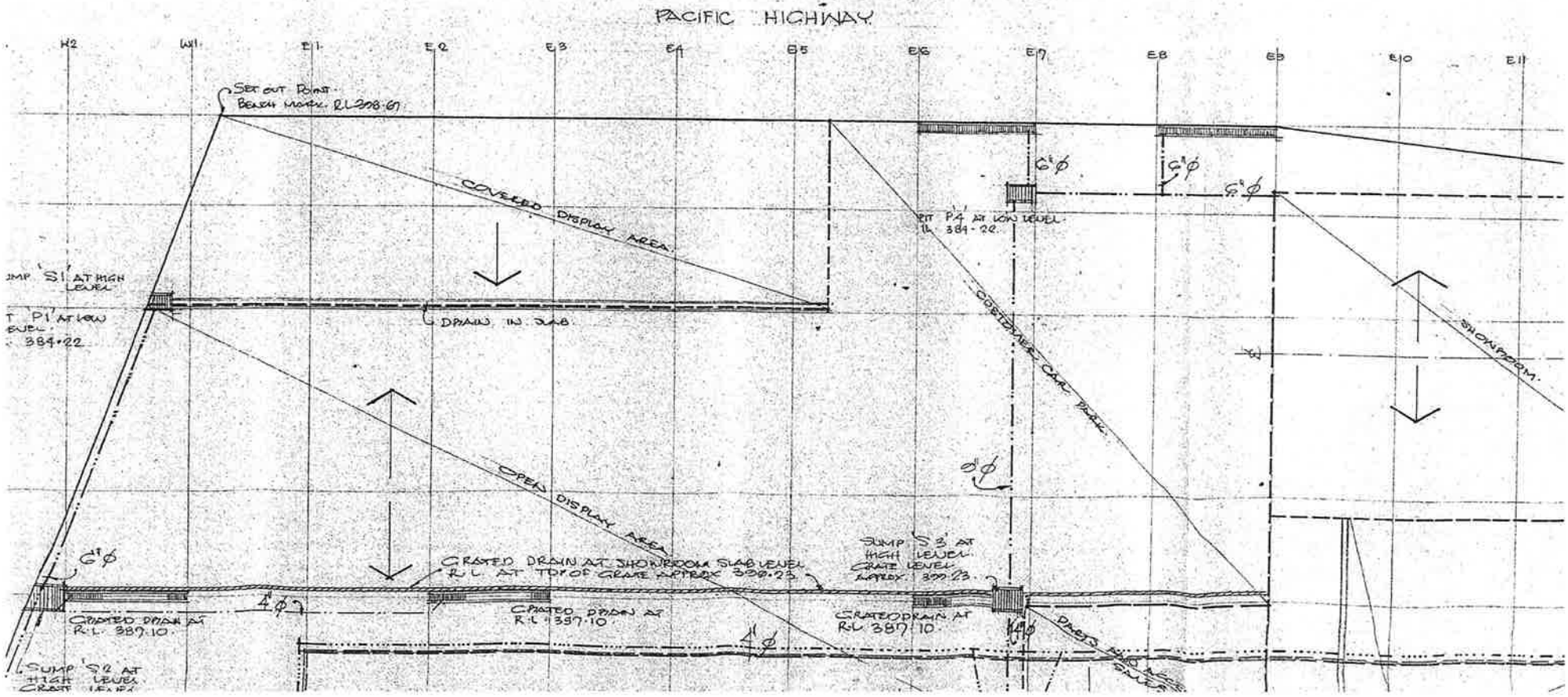
PLEASE ATTACH PLAN OF PREMISES.

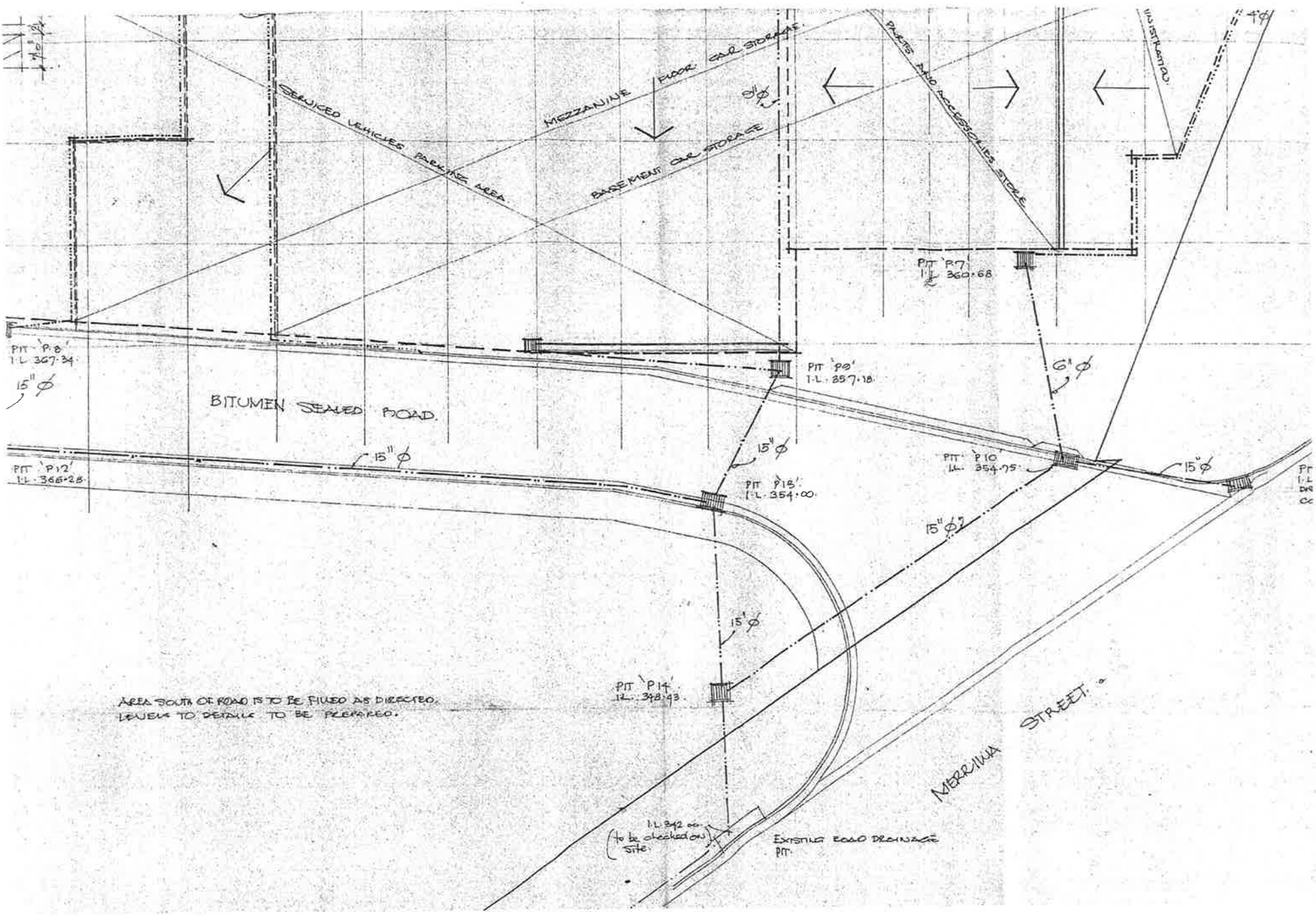
Depot No.	Construction of depots*			Inflammable liquid		Dangerous goods					
	Walls	Roof	Floor	Mineral Spirit gallons	Mineral Oil gallons	Class 1 gallons	Class 2 gallons	Class 3 lb	Class 4 cu ft	Class 5 A water gallons	Class 9 gallons
1	underground tanks			2,000							
2	do		do	2,000							
3	do		do	2,000							
4											
5											
6											
7											
8											
9											
10											

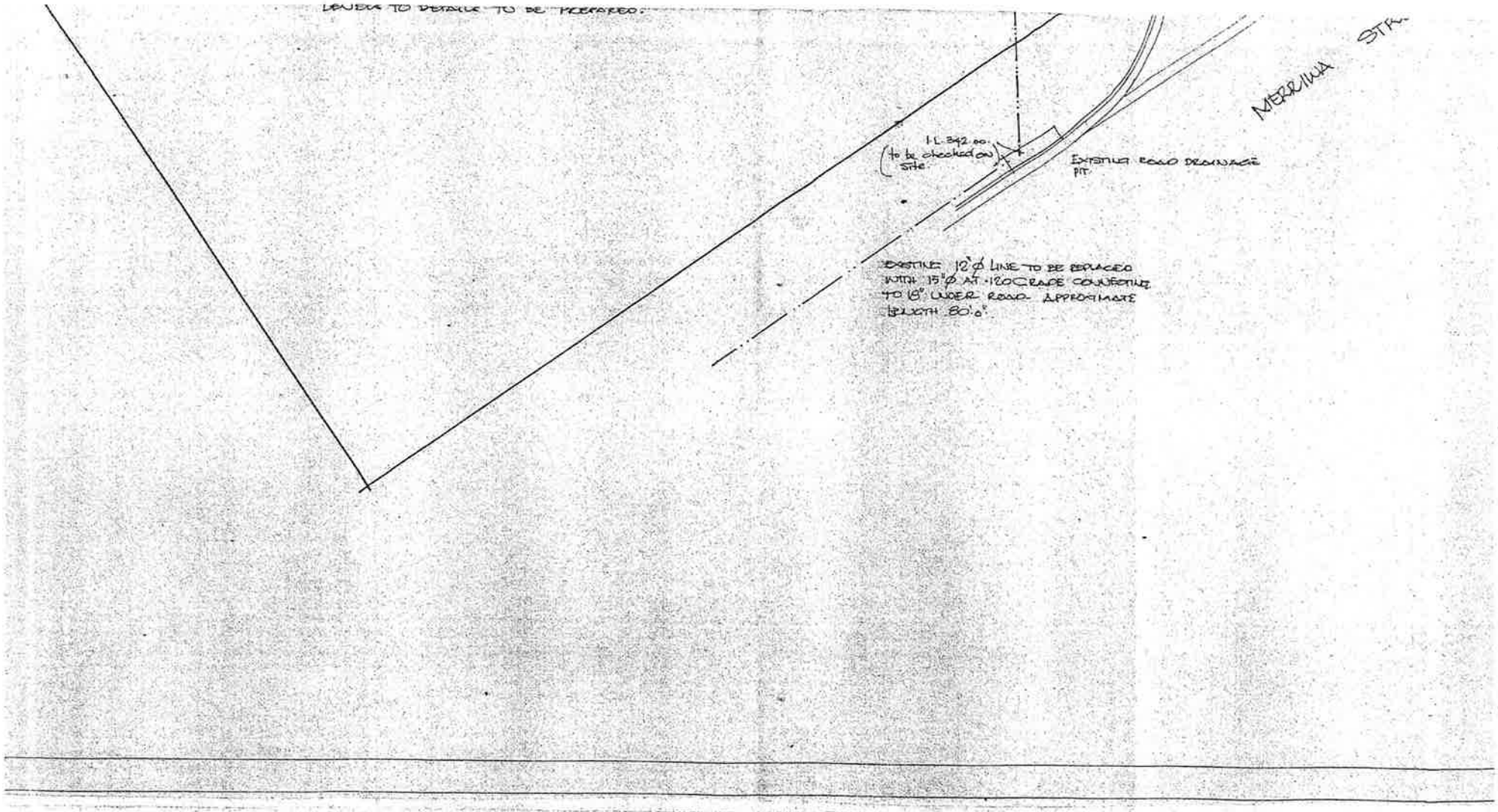
PUBLIC REVENUE A/c
$ 15
(Date) 18/11/68
Receipt No. 4126

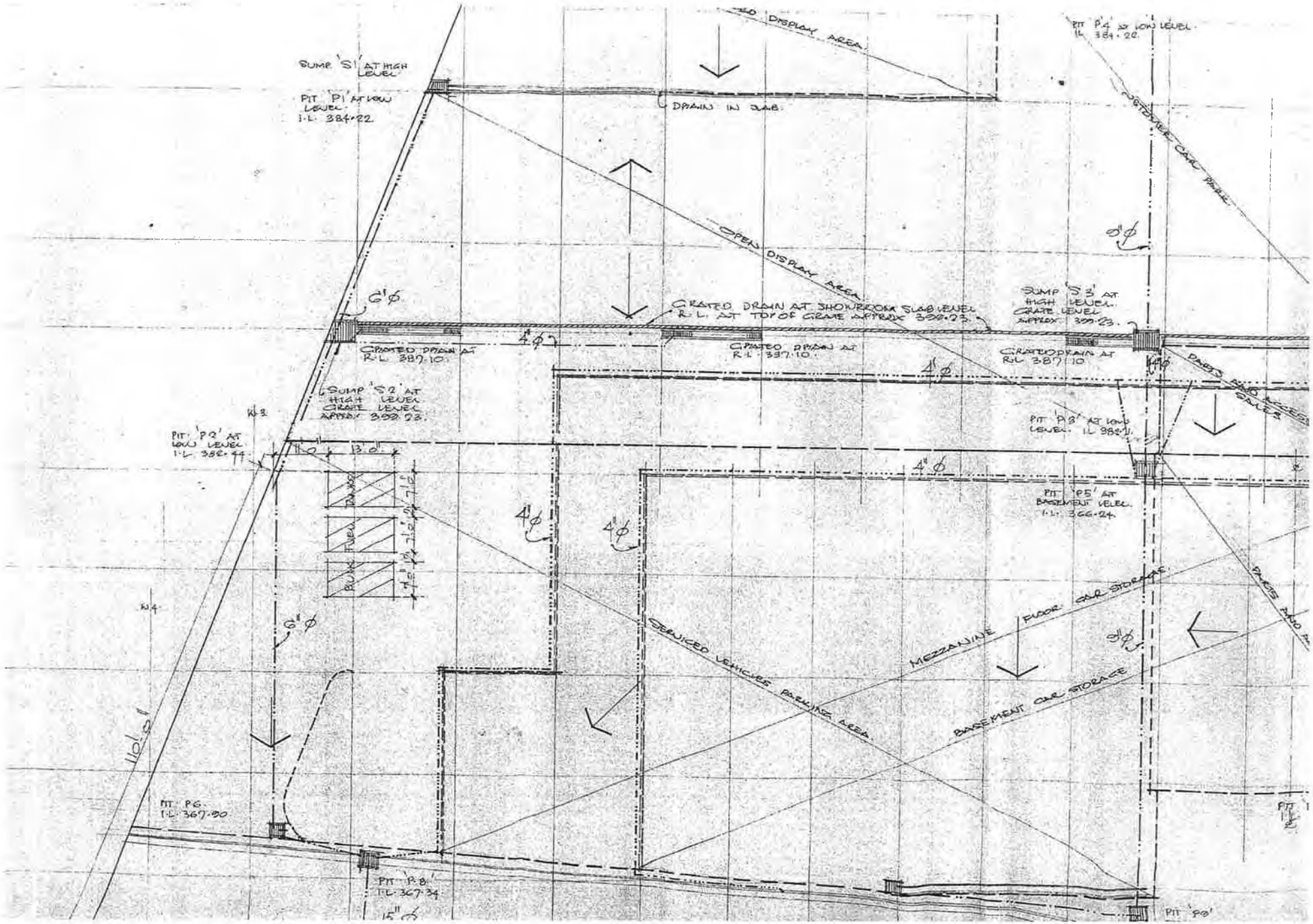
* If product is kept in tanks describe depots as underground or aboveground tanks.

Signature of Applicant [illegible]
Postal Address


PACIFIC HIGHWAY
H2
W1
E1
E2
E3
E4
E5
E6
E7
E8
E9
E10
E11
SET OUT POINT
BENCH MARK RL 398.67
COVERED DISPLAY AREA
DRAIN IN SLAB
SUMP 'S1' AT HIGH LEVEL
'P1' AT LOW LEVEL
384.22
PIT 'P4' AT LOW LEVEL
RL 389.22
CONTINUOUS CAR PARK
SHOWROOM
OPEN DISPLAY AREA
GRATED DRAIN AT SHOWROOM SLAB LEVEL
R.L AT TOP OF GRATE APPROX 399.23
SUMP 'S3' AT HIGH LEVEL
GRATE LEVEL APPROX 399.23
GRATED DRAIN AT R.L 397.10
GRATED DRAIN AT R.L 397.10
GRATED DRAIN AT RL 397.10
SUMP 'S2' AT HIGH LEVEL


SERVICED VEHICLES PARKING AREA
MEZZANINE FLOOR CAR STORAGE
BASEMENT CAR STORAGE
PARTS AND ACCESSORIES STORE
PIT 'P7'
I.L. 360.68
PIT 'P8'
I.L. 367.34
15" ϕ
BITUMEN SEALED ROAD.
PIT 'P9'
I.L. 357.18
6' ϕ
15" ϕ
PIT 'P12'
I.L. 365.28
PIT 'P13'
I.L. 354.00
PIT 'P10'
I.L. 354.75
15" ϕ
15" ϕ
15" ϕ
PIT 'P14'
I.L. 348.43
AREA SOUTH OF ROAD IS TO BE FILLED AS DIRECTED.
LEVELS TO DETAILS TO BE PREPARED.
MERRIWA STREET.
I.L. 342 ca.
(to be checked on site)
EXISTING ROAD DRAINAGE PIT.


LENGTHS TO DETAILS TO BE PREPARED.
MERRIWA STR.
I.L. 342.00.
(to be checked on site.
EXISTING ROAD DRAINAGE PIT.
EXISTING 12"Ø LINE TO BE REPLACED WITH 15"Ø AT -12.0 GRADE CONSISTING TO 18" UNDER ROAD. APPROXIMATE LENGTH 80.0'.


SUMP 'S1' AT HIGH LEVEL
PIT 'P1' AT LOW LEVEL I.L. 384.22.
DRAIN IN SLAB.
OPEN DISPLAY AREA
PIT 'P4' AT LOW LEVEL I.L. 384.20.
AUTOMOBILE CAR PARK
6"ϕ
GRATED DRAIN AT R.L. 387.10.
GRATED DRAIN AT SHOWROOM SLAB LEVEL R.L. AT TOP OF GRATE APPROX 388.23.
GRATED DRAIN AT R.L. 387.10.
SUMP 'S3' AT HIGH LEVEL. GRATE LEVEL APPROX 388.23.
GRATED DRAIN AT R.L. 387.10
4"ϕ
SUMP 'S2' AT HIGH LEVEL GRATE LEVEL APPROX 388.23.
PIT 'P2' AT LOW LEVEL I.L. 382.44
PIT 'P3' AT LOW LEVEL. I.L. 382.11.
PIT 'P5' AT BASEMENT LEVEL I.L. 366.24.
RAMP
FUEL
SERVICED VEHICLES PARKING AREA.
MEZZANINE FLOOR CAR STORAGE
BASEMENT CAR STORAGE
PIT P6 I.L. 367.80
PIT P8 I.L. 367.34
PIT 'P9'

APPENDIX E

SOIL PROFILE LOG SHEETS

SMEC Testing Services Pty Ltd — **GEOTECHNICAL LOG - NON CORE BOREHOLE**

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway Gordon
Location: Refer to Drawing No. 13/2084/2

Project / STS No.: 19399/3606C
Date : October 22, 2013
Logged: JK Checked By: DY

BOREHOLE NO.: BH 1
Sheet 1 of 2

WATER TABLE	DEPTH (m)	SAMPLES / RECOVERY	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE	PID (ppm)	WELL CONSTRUCTION DETAILS
		S28	CONCRETE: (180 mm thick)				0.9	
			GRAVELLY SAND: dark grey with light grey, fine to coarse grained, gravel, brick, ash	GW		M		
		S29					0.7	
	1.0		FILL					
			SILTY CLAY: dark brown with orange brown, medium plasticity, trace of gravel	CL		M-VM		
		S30/S31 /S32					0.5	
	2.0							
		S33						
	3.0		FILL					
		S34					0.6	
	4.0		SILTY CLAY: orange brown with dark brown and dark grey, medium to high plasticity, trace of gravel	CL/CH		M		
	5.0		FILL					

NOTES: D - Disturbed Sample; U - Undisturbed Tube Sample; B - Bulk Sample
N - Standard Penetration Test (SPT); H - Hand (recovery); M- Machine (recovery)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°):
Drill Bit: Spiral

SMEC Testing Services Pty Ltd | **GEOTECHNICAL LOG - NON CORE BOREHOLE**

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway Gordon
Location: Refer to Drawing No. 13/2084/2

Project / STS No.: 19399/3606C
Date : October 22, 2013
Logged: JK Checked By: DY

BOREHOLE NO.: BH 1
Sheet 2 of 2

WATER TABLE	DEPTH (m)	SAMPLES / RECOVERY	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE	PID (ppm)	WELL CONSTRUCTION DETAILS
			SILTY CLAY: orange brown with dark brown and dark grey, medium to high plasticity, trace of gravel	CL/CH		M		
			FILL					
	7.0		BOREHOLE DISCONTINUED AT 7.0 M					
			STANDPIPE PIEZOMETER INSTALLED					
	8.0							
	9.0							
	10.0							
	11.0							

NOTES: D - Disturbed Sample U - Undisturbed Tube Sample B - Bulk Sample
N - Standard Penetration Test (SPT) H - Hand (recovery) M- Machine (recovery)

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°):
Drill Bit: Spiral

See explanation sheets for meaning of all descriptive terms and symbols

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 2

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S10/S11/S12 @ 0.2 m		CONCRETE: 9160 mm thick)			
			PID = 0.4 ppm			
			GRAVELLY SAND: light brown/grey, fine to coarse grained, gravel	GW		M-D
	S13 @ 0.5 m		PID = 0.6 ppm			
		1.0	FILL			
			GRAVELLY CLAY: light brown/grey, medium plasticity, gravel	CL		VM
	S14 @ 1.5 m		PID = 0.4 ppm			
		2.0				
	S15 @ 2.5 m		PID = 0.7 ppm			
		3.0				
	S16 @ 3.5 m		PID = 0.5 ppm			
			FILL			
		4.0	BOREHOLE DISCONTINUED AT 4.0 M			
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date: October 22, 2013
Logged: JK

BOREHOLE NO.: BH 3

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S17 @ 0.2 m		CONCRETE: (180 mm thick) PID = 0.9 ppm			
	S18 @ 0.5 m		GRAVELLY SAND: dark grey with light grey, fine to coarse grained, ash FILL	GW		D
			GRAVELLY SANDY CLAY: light brown with occasional dark grey, fine to medium grained sand, low plasticity, gravel, bricks, concrete pieces PID = 5.2 ppm	CL		M
		1.0				
	S19 @ 1.5 m		PID = 20.2 ppm			
			VOID			
		2.0				
		3.0	FILL			
			SILTY CLAY: red brown with occasional dark grey, medium plasticity, trace of ironstone gravel	CL		M
	S20 @ 4.0 m	4.0	FILL PID = 0.7 ppm			
			BOREHOLE DISCONTINUED AT 4.0 M			
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 4

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S21/S22/S23 @ 0.2 m		CONCRETE: (160 mm thick) PID = 0.7 ppm			
			SAND: light brown, fine to medium grained, occasional gravel FILL	SP		M
	S24 @ 0.5 m		GRAVELLY CLAYEY SAND: dark brown with dark grey, fine to coarse grained, gravel PID = 0.3 ppm FILL	SC		M
		1.0	GRAVELLY SANDY CLAY: dark brown/grey, low plasticity, fine to medium grained sand, gravel	CL		M
	S25 @ 1.5 m		PID = 5.2 ppm FILL			
			SILTY CLAY: dark brown/grey, medium plasticity, trace of gravel	CL		M
		2.0				
	S26 @ 2.5 m		PID = 5.1 ppm			
		3.0				
	S27 @ 3.5 m		PID = 0.7 ppm FILL			
		4.0	BOREHOLE DISCONTINUED AT 4.0 M			
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 5

Sheet 1 of 2

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S1		CONCRETE: (150 mm thick)			
	@ 0.2 m		SANDY GRAVEL: dark grey, fine to coarse grained PID=0.8 ppm FILL	GW		M
	S2		SILTY CLAY: orange brown with dark brown, medium to high plasticity, trace of gravel	CL/CH		M
	@ 0.3 m		PID=0.4 ppm			
	S3					
	@ 1.0 m	1.0	PID = 0.7 ppm			
			FILL			
	S4		SILTY CLAY: orange brown with light grey, medium to high plasticity, trace of gravel and glass	CL/CH		M
	@ 1.5 m		PID = 0.5 ppm			
		2.0				
		3.0	FILL			
			SILTY CLAY: bottled dark grey, light grey orange brown and dark brown, medium plasticity, trace of gravel	CL		M-D
	S5					
	@ 3.5 m		PID = 0.6 ppm			
		4.0				
	S6		FILL			
	@ 4.5 m		GRAVELLY CLAY: dark grey with occasional light grey and orange brown, medium plasticity, gravel			D
			PID = 0.6 ppm			
		5.0				
			FILL			

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 5

Sheet 2 of 2

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
			GRAVELLY CLAY: dark grey with occasional light grey and orange brown, medium plasticity, gravel			D
	S7 @ 7.0 m	7.0	PID = 0.5 ppm			
			FILL			
			BOREHOLE DISCONTINUED AT 5.7 M			
		8.0				
		9.0				
		10.0				
		11.0				

NOTES: D - disturbed sample
U - undisturbed tube sample
B - bulk sample
WT - level of water table or free water
N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 6

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
			CONCRETE: (220 mm thick)			
	S50 @ 0.4 m		VOID			
			GRAVELLY SAND: light brown, fine to medium grained, gravel and concrete PID = 0.5 ppm FILL	GW		M
			AUGER REFUSAL AT 0.5 M			
		1.0				
		2.0				
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date: October 22, 2013
Logged: JK

BOREHOLE NO.: BH 6a
Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S54 @ 0.2 m		CONCRETE: (180 mm thick)			
			SILTY CLAY: orange brown with light grey and dark grey, medium to high plasticity, occasional gravel	CL/CH		M
			FILL			
	S55/S56/S57 @ 1.0 m	1.0	SILTY CLAY: dark grey with occasional orange brown, medium plasticity, trace of gravel	CL		M
			PID = 10.7 ppm			
	S58 @ 2.0 m	2.0	PID = 0.9 ppm			
			FILL			
			SILTY CLAY: orange brown with occasional light grey, medium to high plasticity	CL/CH		M
			BOREHOLE DISCONTINUED AT 2.2 M			
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date: October 22, 2013
Logged: JK

BOREHOLE NO.: BH 7

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S40/S41/S42 @ 0.2 m		CONCRETE: (130 mm thick)			
			SILTY CLAY: dark brown with orange brown and light grey, medium plasticity, trace of fine sand, occasional gravel PID = 0.5 ppm	CL		M-D
		1.0	FILL			
	S43 @ 1.5 m		SILTY CLAY: orange brown with light grey and dark grey, low plasticity, trace of gravel PID = 0.4 ppm	CL		D
		2.0	BOREHOLE DISCONTINUED AT 2.0 M			
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 8

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S46 @ 0.2 m S47 @ 0.4 m		CONCRETE: (120 mm thick)			
			SAND: light brown, fine to medium grained PID = 0.3 pm FILL	SP		M-D
			SILTY CLAY: orange brown with light grey, medium plasticity, trace of gravel PID = 0.4 ppm	CL		M
		1.0	BOREHOLE DISCONTINUED AT 1.0 M			
		2.0				
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date: October 22, 2013
Logged: JK

BOREHOLE NO.: BH 9

Sheet 1 of 2

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
			ASPHALT/SANDY GRAVEL: dark grey, fine to coarse grained	GW		D
	S8 @ 0.3 m		SILTY CLAY: dark brown/grey with occasional orange brown and light grey, low plasticity, trace of gravel PID = 0.5 ppm FILL	CL		D
	S9 @ 0.7 m		SILTY CLAY: orange brown with light grey, medium to high plasticity PID = 0.7 ppm	CL/CH		M
		1.0				
			SILTY CLAY: light grey with orange brown, medium plasticity, trace of gravel	CL		M-D
		2.0	SHALE: dark grey, occasional clayey seams			D
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited	Project No.: 19399/3606C	**BOREHOLE NO.: BH 9**
Project: 870-898 Pacific Highway, Gordon	Date : October 22, 2013	Sheet 2 of 2
Location: Refer to Drawing No. 13/2084/2	Logged: JK	

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
			SHALE: dark grey, occasional clayey seams			D
		7.0				
			BOREHOLE DISCONTINUED AT 7.5 M			
		8.0				
		9.0				
		10.0				
		11.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date: October 22, 2013
Logged: JK

BOREHOLE NO.: BH 10

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S48 @ 0.2 m		CONCRETE: (80 mm thick)			
			GRAVELLY CLAY: dark brown with orange brown, low plasticity, gravel PID = 0.4 ppm	CL		M
			AUGER REFUSAL AT 0.3 M			
		1.0				
		2.0				
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 11

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S49 @ 0.2 m		CONCRETE: (160 mm thick)			
			SILTY SAND: light brown/grey fine to medium grained, trace of gravel PID = 0.7 ppm FILL	SM		M
			HAND AUGER REFUSAL AT 0.4 M			
		1.0				
		2.0				
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Hand Auger/Crow Bar
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date: October 22, 2013
Logged: JK

BOREHOLE NO.: BH 12

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S44 @ 0.2 m		CONCRETE: (160 mm thick)			
			SILTY GRAVELLY CLAY: dark brown with orange brown, medium plasticity, trace of fine sand, trace of gravel PID = 0.5 ppm	CL		M
		1.0	FILL			
	S45 @ 1.3 m		WEATHERED SHALE: dark brown/grey with orange brown, clayey seams PID = 0.4 ppm		EXTREMELY LOW STRENGTH	D
			BOREHOLE DISCONTINUED AT 1.5 M ON WEATHERED SHALE			
		2.0				
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date: October 22, 2013
Logged: JK

BOREHOLE NO.: BH 13
Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
			CONCRETE: (220 mm thick)			
	S39 @ 0.3 m		SANDY GRAVEL: dark grey, fine to medium grained, dark grey gravel, occasional clayey seams PID = 0.3 ppm	CL		D
		1.0				
		2.0	FILL			
			SILTY CLAY: light brown/grey, low plasticity	CL		D
			BOREHOLE DISCONTINUED AT 2.5 M			
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample
U - undisturbed tube sample
B - bulk sample
WT - level of water table or free water
N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date: October 22, 2013
Logged: JK

BOREHOLE NO.: BH 14

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
			CONCRETE: (300 mm thick)			
	S37 @ 0.4 m		SANDY GRAVEL/GRAVELLY SAND: dark brown/grey, fine to medium grained, dark grey gravel PID = 0.4 ppm	GW/SP		D
		1.0	FILL			
	S38 @ 2.0 m	2.0	SILTY CLAY: light grey with orange brown, low plasticity, trace of gravel PID = 0.5 ppm	CL		D
			BOREHOLE DISCONTINUED AT 2.5 M			
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 15

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S59		CONCRETE: (160 mm thick)			
	@ 0.2 m		SAND: dark brown/orange brown, fine to coarse grained PID = 0.6 ppm FILL	SP		M
	S60 @ 0.5 m		SILTY CLAY: light brown/orange brown, medium plasticity, occasional gravel PID = 0.3 ppm	CL		M-D
		1.0	BOREHOLE DISCONTINUED AT 1.0 M			
		2.0				
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 16

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S35 @ 0.2 m		CONCRETE: (130 mm thick)			
			SAND: light brown, fine to medium coarse gravel PID = 0.4 ppm	SP		M
	S36 @ 0.5 m		FILL			
			SILTY CLAY: orange brown with light grey, medium plasticity, trace of gravel PID = 0.7 ppm	CL		D
		1.0	BOREHOLE DISCONTINUED AT 1.0 M			
		2.0				
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: JK

BOREHOLE NO.: BH 17
Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
	S51 @ 0.1 m		SILTY CLAY: dark brown with occasional orange brown, low plasticity, occasional gravel PID= 0.4 ppm TOPSOIL	CL		D-M
			HAND AUGER DISCONTINUED AT 0.2 M			
		1.0				
		2.0				
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Hand Auger
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: DWY

BOREHOLE NO.: BH 18

Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
			CONCRETE: (150 mm thick)			
			VOID SPACE			
		1.0				
	S52 @ 2.0 m	2.0	PID 0.6 ppm			
			SANDY CLAY: red brown FILL			M
			WEATHERED SHALE: grey brown		EXTREMELY LOW STRENGTH	D-M
			HAND AUGER REFUSAL AT 2.1 M ON WEATHERED SHALE			
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

SMEC Testing Services Pty Ltd

GEOTECHNICAL LOG - NON CORE BOREHOLE

Client: Alto Prestige Pty Limited
Project: 870-898 Pacific Highway, Gordon
Location: Refer to Drawing No. 13/2084/2

Project No.: 19399/3606C
Date : October 22, 2013
Logged: DWY

BOREHOLE NO.: BH 19
Sheet 1 of 1

WATER TABLE	SAMPLES	DEPTH (m)	DESCRIPTION OF DRILLED PRODUCT (Soil type, colour, grain size, plasticity, minor components, observations)	SYMBOL	CONSISTENCY (cohesive soils) or RELATIVE DENSITY (sands and gravels)	MOISTURE
			CONCRETE: (150 mm thick)			
			VOID SPACE			
		1.0				
	S52 @ 2.0 m	2.0	PID = 0.7 ppm SANDY CLAY: grey and brown FILL			M
			WEATHERED SHALE: grey brown		EXTREMELY LOW STRENGTH	D-M
			HAND AUGER REFUSAL AT 2.0 M ON WEATHERED SHALE			
		3.0				
		4.0				
		5.0				

NOTES: D - disturbed sample U - undisturbed tube sample B - bulk sample
WT - level of water table or free water N - Standard Penetration Test (SPT)

See explanation sheets for meaning of all descriptive terms and symbols

Contractor: STS
Equipment: Christie II
Hole Diameter (mm): 100
Angle from Vertical (°) 0

E1. CLASSIFICATION OF SOILS

E1.1 Soil Classification and the Unified System

An assessment of the site conditions usually includes an appraisal of the data available by combining values of engineering properties obtained by the site investigation with descriptions, from visual observation of the materials present on site.

The system used by SMEC in the identification of soil is the Unified Soil Classification system (USC) which was developed by the US Army Corps of Engineers during World War II and has since gained international acceptance and has been adopted in its metricated form by the Standards Association of Australia.

The Australian Site Investigation Code (AS1726-1981, Appendix D) recommends that the description of a soil includes the USC group symbols which are an integral component of the system.

The soil description should contain the following information in order:

Soil composition

- SOIL NAME and USC classification symbol (IN BLOCK LETTERS)
- plasticity or particle characteristics
- colour
- secondary and minor constituents (name estimated proportion, plasticity or particle characteristics, colour

Soil condition

- moisture condition
- consistency or density index

Soil structure

- structure (zoning, defects, cementing)

Soil origin

interpretation based on observation eg FILL, TOPSOIL, RESIDUAL, ALLUVIUM.

E1.2 Soil Composition

(a) Soil Name and Classification Symbol

The USC system is summarised in Figure E1.2.1. The primary division separates soil types on the basis of particle size into:

- Coarse grained soils - more than 50% of the material less than 60 mm is larger than 0.06 mm (60 μm).
- Fine grained soils - more than 50% of the material less than 60 mm is smaller than 0.06 mm (60 μm).

Initial classification is by particle size as shown in Table E1.2.1. Further classification of fine grained soils is based on plasticity.

TABLE E1.2.1 - CLASSIFICATION BY PARTICLE SIZE

NAME	SUB-DIVISION	SIZE
Clay (1)		< 2 μm
Silt (2)		2 μm to 60 μm
Sand	Fine Medium Coarse	60 μm to 200 μm 200 μm to 600 μm 600 μm to 2 mm
Gravel (3)	Fine Medium Coarse	2 mm to 6 mm 6 mm to 20 mm 20 mm to 60 mm
Cobbles (3)		60 mm to 200 mm
Boulders (3)		> 200 mm

Where a soil contains an appropriate amount of secondary material, the name includes each of the secondary components (greater than 12%) in increasing order of significance, eg sandy silty clay.

Minor components of a soil are included in the description by means of the terms "some" and "trace" as defined in Table E1.2.2.

TABLE E1.2.2 - MINOR SOIL COMPONENTS

TERM	DESCRIPTION	APPROXIMATE PROPORTION (%)
Trace	presence just detectable, little or no influence on soil properties	0-5
Some	presence easily detectable, little influence on soil properties	5-12

The USC group symbols should be included with each soil description as shown in Table E1.2.3

TABLE E1.2.3 - SOIL GROUP SYMBOLS

SOIL TYPE	PREFIX
Gravel	G
Sand	S
Silt	M
Clay	C
Organic	O
Peat	Pt

The group symbols are combined with qualifiers which indicate grading, plasticity or secondary components as shown on Table E1.2.4

TABLE E1.2.4 - SOIL GROUP QUALIFIERS

SUBGROUP	SUFFIX
Well graded	W
Poorly Graded	P
Silty	M
Clayey	C
Liquid Limit <50% - low to medium plasticity	L
Liquid Limit >50% - low to medium plasticity	H

(b) Grading

"Well graded" Good representation of all particle sizes from the largest to the smallest.

"Poorly graded" One or more intermediate sizes poorly represented

"Gap graded" One or more intermediate sizes absent

"Uniformly graded" Essentially single size material.

(c) Particle shape and texture

The shape and surface texture of the coarse grained particles should be described.

Angularity may be expressed as "rounded", "sub-rounded", "sub-angular" or "angular".

Particle **form** can be "equidimensional", "flat" or elongate".

Surface texture can be "glassy", "smooth", "rough", pitted" or striated".

(d) Colour

The colour of the soil should be described in the moist condition using simple terms such as:

Black White Grey Red
Brown Orange Yellow Green
Blue

These may be modified as necessary by "light" or "dark". Borderline colours may be described as a combination of two colours, eg red-brown.

For soils that contain more than one colour terms such as:

- Speckled Very small (<10 mm dia) patches
- Mottled Irregular
- Blotched Large irregular (>75 mm dia)
- Streaked Randomly oriented streaks

(e) Minor Components

Secondary and minor components should be individually described in a similar manner to the dominant component.

E1.3 Soil Condition

(a) Moisture

Soil moisture condition is described as "dry", "moist" or "wet".

The moisture categories are defined as:
Dry (D) - Little or no moisture evident. Soils are running.
Moist (M) - Darkened in colour with cool feel. Granular soil particles tend to adhere. No free water evident upon remoulding of cohesive soils.

In addition the moisture content of cohesive soils can be estimated in relation to their liquid or plastic limit.

(b) Consistency

Estimates of the consistency of a clay or silt soil may be made from manual examination, hand penetrometer test, SPT results or from laboratory tests to determine undrained shear or unconfined compressive strengths. The classification of consistency is defined in Table E1.3.1.

TABLE E1.3.1 - CONSISTENCY OF FINE-GRAINED SOILS

TERM	UNCONFINED STRENGTH (kPa)	FIELD IDENTIFICATION
Very Soft	<25	Easily penetrated by fist. Sample exudes between fingers when squeezed in the fist.
Soft	25 - 50	Easily moulded in fingers. Easily penetrated 50 mm by thumb.
Firm	50 - 100	Can be moulded by strong pressure in the fingers. Penetrated only with great effort.
Stiff	100 - 200	Cannot be moulded in fingers. Indented by thumb but penetrated only with great effort.
Very Stiff	200 - 400	Very tough. Difficult to cut with knife. Readily indented with thumb nail.
Hard	>400	Brittle, can just be scratched with thumb nail. Tends to break into fragments.

Unconfined compressive strength as derived by a hand penetrometer can be taken as approximately double the undrained shear strength ($q_u = 2\ c_u$).

(c) Density Index

The insitu density index of granular soils can be assessed from the results of SPT or cone penetrometer tests. Density index should not be estimated visually.

TABLE E1.3.2 - DENSITY OF GRANULAR SOILS

TERM	SPT N VALUE	STATIC CONE VALUE q_c (MPa)	DENSITY INDEX (%)
Very Loose	0 - 3	0 - 2	0 - 15
Loose	3 - 8	2 - 5	15 - 35
Medium Dense	8 - 25	5 - 15	35 - 65
Dense	25 - 42	15 - 20	65 - 85
Very Dense	>42	>20	>85

E1.4 Soil Structure

(a) Zoning

A sample may consist of several zones differing in colour, grain size or other properties. Terms to classify these zones are:

Layer - continuous across exposure or sample
Lens - discontinuous with lenticular shape
Pocket - irregular inclusion
Each zone should be described, their distinguishing features, and the nature of the interzone boundaries.

(b) Defects

Defects which are present in the sample can include:

- fissures
- roots (containing organic matter)
- tubes (hollow)
- casts (infilled)

Defects should be described giving details of dimensions and frequency. Fissure orientation, planarity, surface condition and infilling should be noted. If there is a tendency to break into blocks, block dimensions should be recorded

E1.5 Soil Origin

Information which may be interpretative but which may contribute to the usefulness of the material description should be included. The most common interpreted feature is the origin of the soil. The assessment of the probable origin is based on the soil material description, soil structure and its relationship to other soil and rock materials.

Common terms used are:

"Residual Soil" - Material which appears to have been derived by weathering from the underlying rock. There is no evidence of transport.

"Colluvium" - Material which appears to have been transported from its original location. The method of movement is usually the combination of gravity and erosion.

"Landslide Debris" - An extreme form of colluvium where the soil has been transported by mass movement. The material is obviously distributed and contains distinct defects related to the slope failure.

"Alluvium" - Material which has been transported essentially by water. usually associated with former stream activity.

"Fill" - Material which has been transported and placed by man. This can range from natural soils which have been placed in a controlled manner in engineering construction to dumped waste material. A description of the constituents should include an assessment of the method of placement.

E1.6 Fine Grained Soils

The physical properties of fine grained soils are dominated by silts and clays.

The definition of clay and silt soils is governed by their Atterberg Limits. Clay soils are characterised by the properties of cohesion and plasticity with cohesion defines as the ability to deform without rupture. Silts exhibit cohesion but have low plasticity or are non-plastic.

The field characteristics of clay soils include:

- dry lumps have appreciable dry strength and cannot be powdered
- volume changes occur with moisture content variation
- feels smooth when moist with a greasy appearance when cut.

The field characteristics of silt soils include:

- dry lumps have negligible dry strength and can be powdered easily
- dilatancy - an increase in volume due to shearing - is indicted by the presence of a shiny film of water after a hand sample is shaken. The water disappears upon remoulding. Very fine grained sands may also exhibit dilatancy.
- low plasticity index
- feels gritty to the teeth

E1.7 Organic Soils

Organic soils are distinguished from other soils by their appreciable content of vegetable matter, usually derived from plant remains.

The soil usually has a distinctive smell and low bulk density.

The USC system uses the symbol Pt for partly decomposed organic material. The O symbol is combined with suffixes "O" or "H" depending on plasticity.

Where roots or root fibres are present their frequency and the depth to which they are encountered should be recorded. The presence of roots or root fibres does not necessarily mean the material is an "organic material" by classification.

Coal and lignite should be described as such and not simply as organic matter.

E2 CLASSIFICATION OF ROCKS

E2.1 Uniform Rock Description

The aim of a rock description for engineering purposes is to give an indication of the expected engineering properties of the material.

In a similar manner to soil materials, the assessment of site conditions where rock is encountered has to be based on the use of a descriptive method which is uniform and repeatable. Description has to:

- provide a clear identification of the rock substance and its engineering properties, and
- include details of the features which affect the engineering properties of the rock mass.

There is no internationally accepted system for rock description but SMEC Testing Services Pty Ltd has adopted a method which incorporates terminology defined by common usage in the engineering geological profession. Most feature definitions are as recommended by the International Society of Rock Mechanics and by the Standards Association of Australia.

For uniform presentation the different features are described in order:

Rock Substance

- NAME (in block letters)
- Mineralogy
- Grain Size
- Colour
- Fabric
- Strength
- Weathering/Alteration

Rock Mass

- Defect type
- Defect orientation
- Defect features
- Defect spacing

E2.2 Rock Substance

(a) Rock name

Each rock type has a specific name which is based on:

- mineralogy
- grain size
- fabric
- origin

The only method of determining the precise rock name is by thin section petrography.

Field identification of rocks for engineering purposes should be based on the use of common, easily understood, simple, geological names. In many cases knowledge of the precise name is of little consequence in the assessment of site conditions. If required the "field name" can be qualified by reference to a petrographic report. Reference to local geological reports often provides information on the rock types which may be expected.

(b) Mineralogy

The rock description should include the identification of the prominent minerals. This identification is usually restricted to the more common minerals in medium and coarse grained rocks.

(c) Grain Size

Rock material descriptions should include general grouping of the size of the predominant mineral grains as defined in Table E2.2.1. The maximum size, or size range, of the larger mineral grains or rock fragments should be recorded.

TABLE E2.2.1. - GRAIN SIZE GROUPS

TERM	GRAIN SIZE (mm)
Very Coarse	>60
Coarse	2 – 60
Medium	0.06 – 2
Fine	0.002 - 0.06
Very Fine	<0.002
Glassy	

(d) Colour

The colour of the rock should be described in the moist condition using simple terms such as:

Black White Grey Red
Brown Orange Yellow Green
Blue

These may be modified as necessary by "light" or "dark". Borderline colours may be described by a combination of two colours, eg: grey-blue.

(e) Fabric

The fabric of a rock includes all the features of texture and structure, though the term refers specifically to the arrangement of the constituent grains or crystals in a rock. The fabric can provide an indication of the mode of formation of the rock:

- in sedimentary rocks bedding indicates depositional conditions,
- in igneous rocks the texture indicates the rate of cooling, and
- in metamorphic rocks the foliation indicates the stress conditions

Descriptions of fabric should include structure orientation, either with reference to North and horizontal, or to a plane normal to the core axis.

Tables E2.2.2, E2.2.3 and E2.2.4 list common textural features of sedimentary, igneous and metamorphic rocks with the subdivision of stratification spacing in Table E2.2.5.

TABLE E2.2.2 - COMMON STRUCTURES IN IGNEOUS ROCKS

STRATIFICATION (Planar)	STRATIFICATION (Irregular)
Bedding	Washout
Cross Bedding	Slump Structure
Graded Bedding	Shale Breccia
Lamination	

TABLE E2.2.3 - COMMON STRUCTURES IN IGNEOUS ROCKS

	FINE GRAINED ROCKS	COARSE GRAINED ROCKS
Uniform Grain Size	Massive	Massive
	Flow Banded	Granitic
	Vesicular	Pegmatitic
Different Grain Size	Porphyritic	Porphyritic

TABLE E.2.2.4 - COMMON STRUCTURES IN METAMORPHIC ROCKS

FINE GRAINED ROCKS	COARSE GRAINED ROCKS
Slatey Cleavage	Granoblastic
Spotted	Porphyroblastic
Hornsfelsic	Lincated
Foliated	Gneissic
Mylonitic	Mylonitic

TABLE E2.2.5 - STRATIFICATION SPACING

TERM	SEPARATION (mm)
Very Thickly Bedded	>2000
Thickly Bedded	600 - 2000
Medium Bedded	200 - 600
Thinly Bedded	60 - 200
Very Thinly Bedded	20 - 60
Laminated	6 - 20
Thinly Laminated	<6

(f) Strength

Substance strength is one of the most important engineering features of a rock and every description should include at least an estimate of the rock strength class of the material. This estimate can be calibrated by test results, either by Point Loan Strength Index or by Unconfined Compressive Strength.

The rock strength class in As 1726-1981 is defined by Point Loan Strength Index I_s,(50). The relationship between Point Loan and Unconfined Strength is commonly assumed to be about 20, but can range from 4 (in some carbonate rocks) to 40 (in some igneous rocks). It is necessary to confirm the relationship for each rock type and project. classification should be based on material at field moisture content, as some rocks give a significantly higher strength when tested dry.

Table E2.2.6 defines the rock strength classes, with indicative field tests listed in Table E2.2.7 which assist in classification when testing equipment is not available.

TABLE E2.2.6 - CLASSIFICATION OF ROCK STRENGTH

SYMBOL	TERM	POINT LOAD STRENGTH (MPa)	APPROX Qu (MPa)
EL	Extremely low	<0.03	<1
VL	very low	0.03 - 0.1	1 - 3
L	Low	0.1 - 0.3	3 - 10
M	Medium	0.3 - 1	10 - 30
H	High	1 - 3	30 - 70
VH	very high	3 - 10	70 - 200
EH	Extremely high	>10	>200

TABLE E2.2.7 - FIELD TESTS FOR ROCK STRENGTH CLASSIFICATION

STRENGTH CLASS	FIELD TEST
Extremely Low	Indented by thumb nail with difficulty
Very Low	Scratched by thumb nail
Low	Easily broken by hand or pared with a knife
Medium	Broken by hand or scraped with a knife
High	Broken in hand by firm hammer blows
Very High	Broken against solid object with several hammer blow
Extremely High	Difficult to break against solid object with several hammer blows

(g) Weathering/Alteration

In addition to the description of rock substance as examined, an assessment is required of the extent to which the original rock material has been affected by subsequent events. The usual processes are:

- Weathering - Decomposition due to the effect of surface or near surface activities
- Alteration - Chemical modification by the action of materials originating from within the mantle below.

The classification of weathering/alteration presented in Table E2.2.8 is based on the extent/degree to which the original rock substance has been affected. This classification has little engineering significance, as the properties of the rock as examined may bear no relationship to the properties of the fresh rock.

TABLE E2.2.8 - CLASSIFICATION OR ROCK WEATHERING/ALTERATION

TERMS	DEFINITION
Fresh (Fr)	Rock substance unaffected.
Fresh Stained (FR St)	Rock substance unaffected. Staining of defect surfaces.
Slightly (SW)	Partial staining or discolouration of rock substance.
Moderately (MW)	Staining or discolouration extends throughout the whole rock substance.
Highly (HW)	Rock substance partly decomposed.
Completely (CW)	Rock substance entirely decomposed.

E2.3 Rock Mass

The engineering properties of rock mass reflect the effect which the presence of defects has on the properties of the rock substance. Description of the rock mass properties consists of supplementing the description covered by Section E2.2 with data on the defects which are present.

(a) Defect type

The different defect types are described in Table E2.3.1.

(b) Defect orientation

Descriptions of defects should include orientation, either of individual fractures or of groups of fractures. Orientation should be with reference to North and horizontal, or to a plane normal to the core axis.

TABLE E2.3.1 - ROCK DEFECT TYPES

TYPE	SYMBOL	DESCRIPTION
Parting	Pt	A defect parallel or subparallel to a layered arrangement of mineral grains or micro-fractures which has caused planar anistrophy in the rock substance.
Joint	Jt	A defect across which the rock substance has little tensile strength and is not related to textural or structural features with the rock substance.
Sheared Zone	SZ	A zone with roughly parallel planar boundaries or rock substance containing closely spaced, often slickensided, joints.
Crushed Zone	CZ	A zone with roughly parallel planar boundaries of rock substance composed of disoriented, usually angular, fragments of rock.
Seam	Sm	A zone with roughly parallel boundaries infilled by soil or decomposed rock.

(c) Defect features

The character of a defect is described by its continuity, planarity, surface roughness, width, and infilling.

Continuity In outcrop the extent of a joint, bedding plane or similar defect both along and across the strike can be measured. In core, continuity measurement is restricted to defects nearly parallel to the core axis.

Planarity Described as "Planar", "Irregular", "Curved" or "Undulose".

Roughness Described as "Rough", "Smooth", "Polished" or "Slickensided".

Width Measured in millimetres normal to the plane of the defect

Infilling Described as "Clean", "Stained", "Veneer" (<1 mm) or "Infill" (>1 mm). The coating or infilling material should be identified.

(d) Defect spacing

The spacing of defects, particularly where they occur in parallel groups or sets, provides an indication of the rock block sizes which:

- have to be supported in the face or roof of an excavation
- will be produced by the excavation operation.

It is preferable to provide measured data but discontinuity spacing is grouped as shown in Table E2.3.2.

TABLE E2.3.2 - DISCONTINUITY SPACING

DESCRIPTION	SPACING (mm)
Extremely Widely Spaced	>6000
Very Widely Spaced	2000 - 6000
Widely Spaced	600 - 2000
Medium Spaced	200 - 600
Closely Spaced	60 - 200
Very Closely Spaced	20 - 60
Extremely Closely Spaced	<20

E3. DESCRIPTION OF WELL CONSTRUCTION, PID AND GROUNDWATER SYMBOLS

TABLE E3.1 – BORE CONSTRUCTION DETAILS

SHADING / SYMBOL	DESCRIPTION
	Cement-Based Grout
	Bentonite Seal
	Sand Filter
	Borehole Cuttings
	Class 18 PVC casing
	Class 18 PVC Slotted Screen
	End Caps
	Vapour Probe Tip
	Teflon Tubing

TABLE E3.2 – PID SYMBOLS

SYMBOL	MEANING
I	Insitu
A	Above Soil
H	Headspace

TABLE E3.3 – WATERTABLE SYMBOLS

SYMBOL	DESCRIPTION
	Standing Water Level
	Inflow
	Outflow

SMEC Testing Services

APPENDIX F

GROUNDWATER WELL PURGING SHEETS

SMEC Testing Services Pty Ltd
14/1 Cowpasture Place, Wetherill Park NSW 2164
Phone: (02)9756 2166 Fax: (02)9756 1137 Email: enquiries@smectesting.com.au

WELL PURGING FIELD PARAMETERS

Job No: 19399|3606C Date: 31|10|13 RL Top of PVC: –
Well No: GW1 RL Pavement: –
Client: Alto Prestige Pty Ltd By: P.I Stick Up: None m
Project: Groundwater Sampling Depth to Water: 5.15 m from top PVC
Time Start: 1:10 PM RL Top of Water: –
Time End: 2:25 PM Depth of Well: 6.9 m from top PVC
Standpipe Vol.: 3.5 litres Pump Method: Low flow peristaltic
LNAPL Present? Yes/(No) Meters Calibrated? (Yes)/No
Depth to Water after Sampling: 5.55 m Depth to Pump Intake: 6.8 m

Time (min)	Drawdown (m)	Flow rate (L/min)	Cum. Vol. (L)	Temp. (C)	EC (µs/cm)	pH (units)	Redox (mv)	DO (ppm)	Comments
9	<0.2	0.06	0.5	21.2	519	6.13	92	1.53	slightly turbid
12	<0.2	0.08	1.0	21.7	541	5.76	101	1.33	clear water
16	<0.2	0.09	1.5	22.3	553	7.61	107	1.19	"
24	<0.2	0.08	2.0	24.9	551	8.14	125	1.09	"
30	0.22	0.08	2.5	22.1	555	10.49	110	1.03	"
37	0.27	0.08	3.0	22.6	570	9.03	129	1.00	"
48	0.31	0.07	3.5	23.5	584	8.97	124	1.02	"
55	0.35	0.08	4.0	21.9	572	8.96	133	0.99	"
67	0.40	0.08	4.5	23.4	579	8.91	135	1.01	"
Stabilisation Criteria					±3% ✓	±0.1 ✓	±10 ✓	±10% ✓	Stabilisation Achieved? Yes/No

Sampling Details

TPH ☐ SVOCs ☐ PAHs ☐ Sulfate ☐ Cations ☐ Anions ☐
BTEX ☐ VOCs ☑ Ammonia ☐ OCP/OPP ☐ Metals ☐ Filtered? ☑ @ 0.45µm
Cyanide ☐ Turbidity L☑ M☐ H☐ Sheen? Yes/(No) Colour clear Odour None
Sample No. GW1-1 QC Duplicate No. – No. bottles 3 bottles + 2 vials

Cold	☐	Cool	☐	Mild	☐	Dry	☑	Humid	☐	Medium	☐	Rain	☐
Warm	☑	Hot	☐	Clear	☑	Cloudy	☐	Still	☐	Breeze	☑	Windy	☐

APPENDIX G

CHAIN OF CUSTODY DOCUMENTATION

ALS Group

Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order	: **ES1323205**		
Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: DAVID YONGE	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: dyonge@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 9756 2166	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9756 1137	Facsimile	: +61-2-8784 8500
Project	: 19399 3606C	Page	: 1 of 4
Order number	: 10490		
C-O-C number	: P19399-COC1	Quote number	: ES2013SMETES0267 (EN/025/13)
Site	: ----		
Sampler	: ----	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: 25-OCT-2013	Issue Date	: 25-OCT-2013 20:00
Client Requested Due Date	: 01-NOV-2013	Scheduled Reporting Date	: **01-NOV-2013**

Delivery Details

Mode of Delivery	: Carrier	Temperature	: 21.2°C
No. of coolers/boxes	: 2 HARD	No. of samples received	: 49
Security Seal	: Not intact.	No. of samples analysed	: 33

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Samples received in appropriately pretreated and preserved containers.
- Asbestos analysis will be subcontracted to ASET.
- Samples S12, S23, S32 and S42 to be forwarded to ALS Brisbane.
- Analysis not indicated for samples S3, S6, S9, S11, S13, S15, S18, S22, S24, S29, S31, S33, S36, S43, S45 and S47 therefore sample to be held until further notice.
- **Samples received in appropriately pretreated and preserved containers.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (14 days), Solid (60 days) from date of completion of work order.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process neccessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default to 15:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory for processing purposes and will be shown bracketed without a time component.

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) SOIL - No analysis requested	SOIL - ASB-SOL (Subcontracted) - Asbestos - Count (Solid)	SOIL - EA055-103 - Moisture Content	SOIL - EK026SF (Solids) - Total Cyanide By Segmented Flow Analyser	SOIL - EP035G (solids) - Total Phenol by Discrete Analyser	SOIL - EP074DEFG (solids) - VOC - Fumigants, Hal Aliphatics, Hal Aromatics,	SOIL - S-02 - 8 Metals (incl. Digestion)	SOIL - S-05 - TRH/BTEXN/8 Metals
ES1323205-003	22-OCT-2013 15:00	S3	✓							
ES1323205-004	22-OCT-2013 15:00	S4		✓		✓		✓	✓	
ES1323205-006	22-OCT-2013 15:00	S6	✓							
ES1323205-009	22-OCT-2013 15:00	S9	✓							
ES1323205-011	22-OCT-2013 15:00	S11	✓							
ES1323205-012	22-OCT-2013 15:00	S13	✓							
ES1323205-014	22-OCT-2013 15:00	S15	✓							
ES1323205-016	22-OCT-2013 15:00	S17		✓						
ES1323205-017	22-OCT-2013 15:00	S18	✓							
ES1323205-018	22-OCT-2013 15:00	S19								✓
ES1323205-021	22-OCT-2013 15:00	S22	✓							
ES1323205-023	22-OCT-2013 15:00	S25								✓
ES1323205-024	22-OCT-2013 15:00	S26	✓							
ES1323205-026	22-OCT-2013 15:00	S28		✓	✓	✓		✓		
ES1323205-027	22-OCT-2013 15:00	S29	✓							
ES1323205-029	22-OCT-2013 15:00	S31	✓							
ES1323205-030	22-OCT-2013 15:00	S33	✓							
ES1323205-032	23-OCT-2013 15:00	S35				✓				
ES1323205-033	23-OCT-2013 15:00	S36	✓							
ES1323205-034	23-OCT-2013 15:00	S37				✓	✓	✓		
ES1323205-035	23-OCT-2013 15:00	S38					✓			
ES1323205-036	23-OCT-2013 15:00	S39					✓			
ES1323205-039	23-OCT-2013 15:00	S43	✓							
ES1323205-040	23-OCT-2013 15:00	S44				✓		✓		
ES1323205-041	23-OCT-2013 15:00	S45	✓							
ES1323205-043	23-OCT-2013 15:00	S47	✓							
ES1323205-044	25-OCT-2013 15:00	S48		✓						
ES1323205-045	24-OCT-2013 15:00	S49					✓	✓		
ES1323205-046	24-OCT-2013 15:00	S50		✓			✓	✓		
ES1323205-047	24-OCT-2013 15:00	S51		✓						
ES1323205-048	[25-OCT-2013]	S52		✓						
ES1323205-049	[25-OCT-2013]	S53		✓						

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	SOIL - S-06 TRH/BTEXN/Pb	SOIL - S-07 TRH/BTEXN/PAH (SIM)	SOIL - S-12 OC/OP Pesticides	SOIL - S-19 TRH/BTEXN/P/Phl/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES1323205-001	22-OCT-2013 15:00	S1		✓			
ES1323205-002	22-OCT-2013 15:00	S2				✓	
ES1323205-004	22-OCT-2013 15:00	S4		✓	✓		
ES1323205-005	22-OCT-2013 15:00	S5				✓	
ES1323205-007	22-OCT-2013 15:00	S7				✓	
ES1323205-008	22-OCT-2013 15:00	S8				✓	
ES1323205-010	22-OCT-2013 15:00	S10	✓				
ES1323205-013	22-OCT-2013 15:00	S14	✓				
ES1323205-015	22-OCT-2013 15:00	S16	✓				
ES1323205-016	22-OCT-2013 15:00	S17		✓			
ES1323205-019	22-OCT-2013 15:00	S20	✓				
ES1323205-020	22-OCT-2013 15:00	S21					✓
ES1323205-022	22-OCT-2013 15:00	S24	✓				
ES1323205-023	22-OCT-2013 15:00	S25			✓		
ES1323205-025	22-OCT-2013 15:00	S27	✓				
ES1323205-026	22-OCT-2013 15:00	S28				✓	
ES1323205-028	22-OCT-2013 15:00	S30	✓				
ES1323205-031	22-OCT-2013 15:00	S34				✓	
ES1323205-032	23-OCT-2013 15:00	S35					✓
ES1323205-034	23-OCT-2013 15:00	S37		✓			
ES1323205-035	23-OCT-2013 15:00	S38					✓
ES1323205-036	23-OCT-2013 15:00	S39				✓	
ES1323205-037	23-OCT-2013 15:00	S40					✓
ES1323205-038	23-OCT-2013 15:00	S41					✓
ES1323205-040	23-OCT-2013 15:00	S44				✓	
ES1323205-042	23-OCT-2013 15:00	S46					✓
ES1323205-044	24-OCT-2013 15:00	S48				✓	
ES1323205-045	24-OCT-2013 15:00	S49					✓
ES1323205-046	24-OCT-2013 15:00	S50					✓
ES1323205-047	24-OCT-2013 15:00	S51				✓	
ES1323205-048	[25-OCT-2013]	S52				✓	
ES1323205-049	[25-OCT-2013]	S53			✓		✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ALL INVOICES		
- A4 - AU Tax Invoice (INV)	Email	accounts@smectesting.com.au
ALL REPORTS		
- *AU Certificate of Analysis - NATA (COA)	Email	enquiries@smectesting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	enquiries@smectesting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	enquiries@smectesting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	enquiries@smectesting.com.au
- Attachment - Report (SUBCO)	Email	enquiries@smectesting.com.au
- Chain of Custody (CoC) (COC)	Email	enquiries@smectesting.com.au
- EDI Format - ENMRG (ENMRG)	Email	enquiries@smectesting.com.au
- EDI Format - ESDAT (ESDAT)	Email	enquiries@smectesting.com.au
DAVID YONGE		
- *AU Certificate of Analysis - NATA (COA)	Email	dyonge@smectesting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	dyonge@smectesting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	dyonge@smectesting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN	Email	dyonge@smectesting.com.au
- Attachment - Report (SUBCO)	Email	dyonge@smectesting.com.au
- Chain of Custody (CoC) (COC)	Email	dyonge@smectesting.com.au
- EDI Format - ENMRG (ENMRG)	Email	dyonge@smectesting.com.au
- EDI Format - ESDAT (ESDAT)	Email	dyonge@smectesting.com.au

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 19399/3606C Order No: 10490

Laboratory: ALS Laboratory Group - Sydney Environmental Division
277-289 Woodpark Road, SMITHFIELD NSW 2164
Telephone: (02) 8784 8555 Fax: (02) 8784 8500 Contact: Jacob Waugh

Environmental Division
Sydney
Work Order
ES1323205
Telephone : +61-2-8784 8555

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	S2 Metals	S3 Metals	S7	S6	S4	S12	S19	Total Cyanide	VHC Scan	Asbestos	Total Phenolic Compounds	pH + EC	Sulfate + Chloride
1	S1	1		22/10/2013		soil				X										
2	S2	1		22/10/2013		soil								X						
3	S3	1		22/10/2013		soil														
4	S4	1		22/10/2013		soil		X		X			X		X	X	X			
5	S5	1		22/10/2013		soil								X						
6	S6	1		22/10/2013		soil														
7	S7	1		22/10/2013		soil								X						
8	S8	1		22/10/2013		soil								X						
9	S9	1		22/10/2013		soil														
10	S10	1		22/10/2013		soil					X									
11	S11	1		22/10/2013		soil														
	S12	1		22/10/2013		soil	Please forward to ALS Brisbane													
12	S13	1		22/10/2013		soil														
13	S14	1		22/10/2013		soil					X									
14	S15	1		22/10/2013		soil														
15	S16	1		22/10/2013		soil					X									
16	S17	1		22/10/2013		soil				X							X			
17	S18	1		22/10/2013		soil														
18	S19	1		22/10/2013		soil		X				X								
19	S20	1		22/10/2013		soil					X									
20	S21	1		22/10/2013		soil		X		X										
21	S22	1		22/10/2013		soil														
	S23	1		22/10/2013		soil	Please forward to ALS Brisbane													

Recd By
Ravinesh ALS SJ1
14:55
25/10/13

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 19399/3606C Order No: 10490

Laboratory: ALS Laboratory Group - Sydney Environmental Division
277-289 Woodpark Road, SMITHFIELD NSW 2164
Telephone: (02) 8784 8555 Fax: (02) 8784 8500 Contact: Jacob Waugh

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	ANALYSIS: S2 Metals	S3 Metals	S7	S6	S4	S12	S19	Total Cyanide	VHC Scan	Asbestos	Total Phenolic Compounds	pH + EC	Sulfate + Chloride						
22	S24	1		22/10/2013		soil					X															
23	S25	1		22/10/2013		soil		X				X	X														
24	S26	1		22/10/2013		soil																					
25	S27	1		22/10/2013		soil					X																
26	S28	1		22/10/2013		soil								X	X	X	X										
27	S29	1		22/10/2013		soil																					
28	S30	1		22/10/2013		soil					X																
29	S31	1		22/10/2013		soil																					
14	S32	1		22/10/2013		soil	Please forward to ALS Brisbane																				
30	S33	1		22/10/2013		soil																					
31	S34	1		22/10/2013		soil								X													
32	S35	1		23/10/2013		soil		X		X					X												
33	S36	1		23/10/2013		soil																					
34	S37	1		23/10/2013		soil				X					X	X		X									
35	S38	1		23/10/2013		soil		X		X								X									
36	S39	1		23/10/2013		soil								X				X									
37	S40	1		23/10/2013		soil		X		X																	
38	S41	1		23/10/2013		soil		X		X																	
4	S42	1		23/10/2013		soil	Please forward to ALS Brisbane	X		X																	
39	S43	1		23/10/2013		soil																					
40	S44	1		23/10/2013		soil								X	X	X											
41	S45	1		23/10/2013		soil																					
42	S46	1		23/10/2013		soil		X		X																	

Rec'd By: 14:55
Reviewed ALS SM 25/10/13

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 19399/3606C Order No: 10490

Laboratory: ALS Laboratory Group - Sydney Environmental Division
277-289 Woodpark Road, SMITHFIELD NSW 2164
Telephone: (02) 8784 8555 Fax: (02) 8784 8500 Contact: Jacob Waugh

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	S2 Metals	S3 Metals	S7	S6	S4	S12	S19	Total Cyanide	VHC Scan	Asbestos	Total Phenolic Compounds	pH + EC	Sulfate + Chloride
43	S47	1		23/10/2013		soil														
44	S48	1		24/10/2013		soil								X			X			
45	S49	1		24/10/2013		soil		X		X						X		X		
46	S50	1		24/10/2013		soil		X		X						X	X	X		
47	S51	1		24/10/2013		soil								X			X			
48	S52	1		25/10/2013		soil								X			X			
49	S53	1		25/10/2013		soil		X		X			X				X			
TOTAL		53						13		14	7	2	3	11	5	6	8	5		

ANALYSIS

Released by SMEC Testing Services
David Yonge
Signed:
Date: 25/10/2013
Time: 2:30 PM

Received by:
Signed:
Date:
Time:

CoC Number: P19399 - COC1

Your quotation: SMEC 2012 (EN/025/12)

Preliminary results by: Fri 1 Nov 2013

Final results by: Fri 1 Nov 2013

Comments:

Standard Detection Limits Apply, Standard Turnaround Required on Results

Please forward samples S12, S23, S32 & S42 to ALS Brisbane for Analysis

Rec'd by :
Ravinesh 14:55
ACS 25/10/13

Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order	: **ES1323293**		
Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: ALL REPORTS	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: enquiries@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: GORDON 19399	Page	: 1 of 2
Order number	: 10574		
C-O-C number	: 210997	Quote number	: ES2013SMETES0267 (EN/025/13)
Site	: ----		
Sampler	: JK	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: 28-OCT-2013	Issue Date	: 28-OCT-2013 17:28
Client Requested Due Date	: 04-NOV-2013	Scheduled Reporting Date	: **04-NOV-2013**

Delivery Details

Mode of Delivery	: Client Drop off	Temperature	: 16.3'C
No. of coolers/boxes	: 1 BAG	No. of samples received	: 7
Security Seal	: N/A	No. of samples analysed	: 6

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Samples received in appropriately pretreated and preserved containers.
- Analysis not indicated for sample S60, sample to be held until further notice.
- Asbestos analysis will be subcontracted to ASET.
- **Samples received in appropriately pretreated and preserved containers.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (14 days), Solid (60 days) from date of completion of work order.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process neccessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default to 15:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory for processing purposes and will be shown bracketed without a time component.

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) SOIL No analysis requested	SOIL - ASB-SOL (Subcontracted) Asbestos - Count (Solid)	SOIL - EP074DEFG (solids) VOC - Fumigants, Hal Aliphatics, Hal Aromatics,	SOIL - S-04 TRH/BTEXN	SOIL - S-07 TRH/BTEXN/PAH (SIM)	SOIL - S-19 TRH/BTEXN/P/Phl/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES1323293-001	[28-OCT-2013]	S54					✓		
ES1323293-002	[28-OCT-2013]	S55			✓				✓
ES1323293-003	[28-OCT-2013]	S56					✓		
ES1323293-004	[28-OCT-2013]	S57					✓		
ES1323293-005	[28-OCT-2013]	S58				✓			
ES1323293-006	[28-OCT-2013]	S59		✓				✓	
ES1323293-007	[28-OCT-2013]	S60	✓						

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ALL INVOICES		
- A4 - AU Tax Invoice (INV)	Email	accounts@smectesting.com.au
ALL REPORTS		
- *AU Certificate of Analysis - NATA (COA)	Email	enquiries@smectesting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	enquiries@smectesting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	enquiries@smectesting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	enquiries@smectesting.com.au
- Attachment - Report (SUBCO)	Email	enquiries@smectesting.com.au
- Chain of Custody (CoC) (COC)	Email	enquiries@smectesting.com.au
- EDI Format - ENMRG (ENMRG)	Email	enquiries@smectesting.com.au
- EDI Format - ESDAT (ESDAT)	Email	enquiries@smectesting.com.au

CHAIN OF CUSTODY

ALS Environmental

ALS Laboratory: please tick

ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsenviro.com
BRISBANE 32 Shand Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsenviro.com
GLADSTONE 46 Callemondah Drive Clinton QLD 4680 Ph: 07 4971 5600 E: gladstone@alsglobal.com
MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com
MELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsenviro.com
MUDGEE 27 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com
NEWCASTLE 5 Rosegum Road Warabrook NSW 2304 Ph: 02 4968 9433 E: samples.newcastle@alsenviro.com
NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com
PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsenviro.com
SYDNEY 277 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsenviro.com
TOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 E: townsville.environmental@alsenviro.com
WOLLONGONG 99 Kenny Street Wollongong NSW 2500 Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: SUEZ Testing Services
OFFICE: Wetherill Park, 4
PROJECT: Gordon 19399
PURCHASE ORDER NUMBER: 10574
PROJECT MANAGER: Enquiries@suez-testing.com.au CONTACT PH: 97862188
SAMPLER: J.L SAMPLER MOBILE: 0490936855

TURNAROUND REQUIREMENTS: (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)
☐ Standard TAT (List due date):
☑ Non Standard or urgent TAT (List due date): 4/11/13

ALS QUOTE NO.:

COC SEQUENCE NUMBER (Circle)
COC: 1 2 3 4 5 6 7
OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (Circle)
Custody Seal Intact? Yes No N/A
Free Ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: °C
Other comment:

COC emailed to ALS? (YES / NO) EDD FORMAT (or default):
Email Reports to (will default to PM if no other addresses are listed):
Email Invoice to (will default to PM if no other addresses are listed):

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 24/10/13 pm	DATE/TIME: 25/10/13 4:30pm	DATE/TIME:	DATE/TIME:

COMMENTS/ SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX - SOLID (S), WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED Including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE/ TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	S2 Metals	S7	S19	Asbestos	VHC	S4			Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	~~S54~~ S59	28/10/13	S	Jar / Ice.			X							
2	~~S55~~ S55					X	X			X				
3	S56						X							
4	S57						X							
5	S58										X			
6	S59							X	X					
7	S60													
				TOTAL										

Environmental Division
Sydney
Work Order
ES1323293

Telephone : +61-2-8784 8555

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic; V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

210997

ALS Group

Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order	: **ES1323721**		
Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: ALL REPORTS	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: enquiries@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: 19399 3606C	Page	: 1 of 2
Order number	: 10589		
C-O-C number	: P19399-COC2	Quote number	: ES2013SMETES0267 (EN/025/13)
Site	: ----		
Sampler	: ----	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: 01-NOV-2013	Issue Date	: 01-NOV-2013 16:43
Client Requested Due Date	: 06-NOV-2013	Scheduled Reporting Date	: **06-NOV-2013**

Delivery Details

Mode of Delivery	: Carrier	Temperature	: 13.2'C
No. of coolers/boxes	: 1 HARD	No. of samples received	: 1
Security Seal	: Not intact.	No. of samples analysed	: 1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (14 days), Solid (60 days) from date of completion of work order.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process neccessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default to 15:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory for processing purposes and will be shown bracketed without a time component.

Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - W-05 TRH/BTEXN/8 Metals
ES1323721-001	31-OCT-2013 15:00	GW1-1	✔	✔

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ALL INVOICES

- A4 - AU Tax Invoice (INV)	Email	accounts@smectesting.com.au

ALL REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	enquiries@smectesting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	enquiries@smectesting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	enquiries@smectesting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	enquiries@smectesting.com.au
- Chain of Custody (CoC) (COC)	Email	enquiries@smectesting.com.au
- EDI Format - ENMRG (ENMRG)	Email	enquiries@smectesting.com.au
- EDI Format - ESDAT (ESDAT)	Email	enquiries@smectesting.com.au

TAT

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd Job No: 19399/3606C Order No: 10589

PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164

Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Laboratory: ALS Laboratory Group - Sydney Environmental Division
277-289 Woodpark Road, SMITHFIELD NSW 2164
Telephone: (02) 8784 8555 Fax: (02) 8784 8500 Contact: Jacob Waugh

Laboratory number	Sample number	jar/ bottle	vial	Date sampled	Composite number	Sample type	Comments	W2 Metals (dissolved)	W4	Ammonia
1	GW1-1	3	2	29/10/2013		water		X	X	X
TOTAL		3	2					1	1	1

Released by SMEC Testing Services
David Yonge
Signed:
Date: 1/11/2013
Time: 3:30PM

Received by: ALS
Signed:
Date: 01/11/13
Time: 1600 13-2C

CoC Number: P19399 - COC2

Your quotation: SMEC 2012 (EN/025/12)

Preliminary results by:	Final results by:
Wed 6 November 2013	Wed 6 November 2013

Comments:

Standard Detection Limits Apply, 3 Day Turnaround Required on Results

Environmental Division
Sydney
Work Order
ES1323721

Telephone : +61-2-8784 8555

ALS Group

Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order	: **EB1326372**		
Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Brisbane
Contact	: DAVID YONGE	Contact	: Customer Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 2 Byth Street Stafford QLD Australia 4053
E-mail	: dyonge@smectesting.com.au	E-mail	: Brisbane.Enviro.Services@alsglobal.com
Telephone	: +61 02 9756 2166	Telephone	: +61 7 3243 7222
Facsimile	: +61 02 9756 1137	Facsimile	: +61 7 3243 7218
Project	: 19399 3606C	Page	: 1 of 2
Order number	: 10490		
C-O-C number	: ----	Quote number	: ES2013SMETES0267 (EN/025/13)
Site	: ----		
Sampler	: ----	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: 29-OCT-2013	Issue Date	: 30-OCT-2013 17:00
Client Requested Due Date	: 05-NOV-2013	Scheduled Reporting Date	: **05-NOV-2013**

Delivery Details

Mode of Delivery	: Carrier	Temperature	: 6.8°C - Ice present
No. of coolers/boxes	: 1 MEDIUM	No. of samples received	: 4
Security Seal	: Intact.	No. of samples analysed	: 1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Breaches in recommended extraction / analysis holding times (if any) are displayed overleaf in the Proactive Holding Time Report table.**
- Discounted Package Prices apply only when specific ALS Group Codes ('W', 'S', 'NT' etc. suites) are referenced on COCs.
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / breakages to Matt Goodwin.
- Analysis will be conducted by ALS Environmental, Brisbane, NATA accreditation no. 825, Site No. 818 (Micro site no. 18958),
- Sample Disposal - Aqueous (14 days), Solid (60 days) from date of completion of work order.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process neccessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default to 15:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory for processing purposes and will be shown bracketed without a time component.

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) SOIL No analysis requested	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-07 TRH/BTEX/PAH (SIM)
EB1326372-001	22-OCT-2013 15:00	S12	✓		
EB1326372-002	22-OCT-2013 15:00	S23	✓		
EB1326372-003	22-OCT-2013 15:00	S32	✓		
EB1326372-004	23-OCT-2013 15:00	S42		✓	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ALL INVOICES		
- A4 - AU Tax Invoice (INV)	Email	accounts@smectesting.com.au
ALL REPORTS		
- *AU Certificate of Analysis - NATA (COA)	Email	enquiries@smectesting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	enquiries@smectesting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	enquiries@smectesting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	enquiries@smectesting.com.au
- Chain of Custody (CoC) (COC)	Email	enquiries@smectesting.com.au
- EDI Format - ENMRG (ENMRG)	Email	enquiries@smectesting.com.au
DAVID YONGE		
- *AU Certificate of Analysis - NATA (COA)	Email	dyonge@smectesting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	dyonge@smectesting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	dyonge@smectesting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN	Email	dyonge@smectesting.com.au
- Chain of Custody (CoC) (COC)	Email	dyonge@smectesting.com.au
- EDI Format - ENMRG (ENMRG)	Email	dyonge@smectesting.com.au

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 19399/3606C Order No: 10490

SMEC Testing Services

Laboratory: ALS Laboratory Group - Sydney Environmental Division
277-289 Woodpark Road, SMITHFIELD NSW 2164
Telephone: (02) 8784 8555 Fax: (02) 8784 8500 Contact: Jacob Waugh

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	S2 Metals	S3 Metals	S7	S6	S4	S12	S19	Total Cyanide	VHC Scan	Asbestos	Total Phenolic Compounds	pH + EC	Sulfate + Chloride
1	S1	1		22/10/2013		soil				X										
2	S2	1		22/10/2013		soil								X						
3	S3	1		22/10/2013		soil														
4	S4	1		22/10/2013		soil		X		X			X		X	X	X			
5	S5	1		22/10/2013		soil								X						
6	S6	1		22/10/2013		soil														
7	S7	1		22/10/2013		soil								X						
8	S8	1		22/10/2013		soil														
9	S9	1		22/10/2013		soil														
10	S10	1		22/10/2013		soil					X									
11	S11	1		22/10/2013		soil														
✗	S12	1		22/10/2013		soil	Please forward to ALS Brisbane													
12	S13	1		22/10/2013		soil														
13	S14	1		22/10/2013		soil					X									
14	S15	1		22/10/2013		soil														
15	S16	1		22/10/2013		soil					X									
16	S17	1		22/10/2013		soil				X										
17	S18	1		22/10/2013		soil														
18	S19	1		22/10/2013		soil		X				X								
19	S20	1		22/10/2013		soil					X									
20	S21	1		22/10/2013		soil		X		X										
21	S22	1		22/10/2013		soil														
✗	S23	1		22/10/2013		soil	Please forward to ALS Brisbane													

Environmental Division
Brisbane
Work Order
EB1326372
Telephone : +61-7-3243 7222

SCANNED

Subcon / Forward Lab / Split WO
Lab / Analysis:
Organised By / Date:
Relinquished By / Date:
Connote / Courier:
WO No:
Attach By PO / Internal Sheet

Rec'd By Ravinesh ALS Syd 14:55 25/10/13

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 19399/3606C Order No: 10490

Laboratory: ALS Laboratory Group - Sydney Environmental Division
277-289 Woodpark Road, SMITHFIELD NSW 2164
Telephone: (02) 8784 8555 Fax: (02) 8784 8500 Contact: Jacob Waugh

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	ANALYSIS: S2 Metals	S3 Metals	S7	S6	S4	S12	S19	Total Cyanide	VHC Scan	Asbestos	Total Phenolic Compounds	pH + EC	Sulfate + Chloride
22	S24	1		22/10/2013		soil					X									
23	S25	1		22/10/2013		soil		X				X	X							
24	S26	1		22/10/2013		soil														
25	S27	1		22/10/2013		soil					X									
26	S28	1		22/10/2013		soil								X	X	X	X			
27	S29	1		22/10/2013		soil														
28	S30	1		22/10/2013		soil					X									
29	S31	1		22/10/2013		soil														
(3)	S32	1		22/10/2013		soil	Please forward to ALS Brisbane													
30	S33	1		22/10/2013		soil														
31	S34	1		22/10/2013		soil								X						
32	S35	1		23/10/2013		soil		X		X					X					
33	S36	1		23/10/2013		soil														
34	S37	1		23/10/2013		soil				X					X	X		X		
35	S38	1		23/10/2013		soil		X		X								X		
36	S39	1		23/10/2013		soil								X				X		
37	S40	1		23/10/2013		soil		X		X										
38	S41	1		23/10/2013		soil		X		X										
(4)	S42	1		23/10/2013		soil	Please forward to ALS Brisbane	X		X										
39	S43	1		23/10/2013		soil														
40	S44	1		23/10/2013		soil								X	X	X				
41	S45	1		23/10/2013		soil														
42	S46	1		23/10/2013		soil		X		X										

Rec'd By: 14:55
Ravinesh ALS SYD 25/10/13

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd Job No: 19399/3606C Order No: 10490

PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164

Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Laboratory: ALS Laboratory Group - Sydney Environmental Division
277-289 Woodpark Road, SMITHFIELD NSW 2164
Telephone: (02) 8784 8555 Fax: (02) 8784 8500 Contact: Jacob Waugh

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	ANALYSIS: S2 Metals	S3 Metals	S7	S6	S4	S12	S19	Total Cyanide	VHC Scan	Asbestos	Total Phenolic Compounds	pH + EC	Sulfate + Chloride
43	S47	1		23/10/2013		soil														
44	S48	1		24/10/2013		soil								X			X			
45	S49	1		24/10/2013		soil		X		X						X		X		
46	S50	1		24/10/2013		soil		X		X						X	X	X		
47	S51	1		24/10/2013		soil								X			X			
48	S52	1		25/10/2013		soil								X			X			
49	S53	1		25/10/2013		soil		X		X			X				X			
TOTAL		53						13		14	7	2	3	11	5	6	8	5		

Released by SMEC Testing Services
David Yonge
Signed: [signature]
Date: 25/10/2013
Time: 2:30 PM

CoC Number: P19399 - COC1
Your quotation: SMEC 2012 (EN/025/12)

Received by:
Signed:
Date:
Time:

Preliminary results by: Fri 1 Nov 2013
Final results by: Fri 1 Nov 2013

Comments:

Standard Detection Limits Apply, Standard Turnaround Required on Results

Please forward samples S12, S23, S32 & S42 to ALS Brisbane for Analysis

Rec'd By:
Ravinesh
ALS Syd
14:55
25/10/13

SMEC Testing Services

APPENDIX H

ANALYTICAL LABORATORY REPORTS

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3128447) - continued									
ES1323205-020	S21	EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3128457)									
ES1323205-035	S38	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1323205-047	S51	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)A: Phenolic Compounds (QC Lot: 3128457) - continued									
ES1323205-047	S51	EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3128447)									
ES1323205-001	S1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1323205-020	S21	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)A: Phenolic Compounds (QC Lot: 3128447) - continued									
ES1323205-001	S1	EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES1323205-020	S21	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 3128457)									
ES1323205-035	S38	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES1323205-047	S51	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074E: Halogenated Aliphatic Compounds (QC Lot: 3128056) - continued									
ES1323101-004	Anonymous	EP074: Chloromethane	74-87-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Bromomethane	74-83-9	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Chloroethane	75-00-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	0.0	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 3128056)									
ES1323100-001	Anonymous	EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1323101-004	Anonymous	EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074G: Trihalomethanes (QC Lot: 3128056)									
ES1323100-001	Anonymous	EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1323101-004	Anonymous	EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 3128447)									
ES1323205-001	S1	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP074E: Halogenated Aliphatic Compounds (QC Lot: 3128056) - continued									
ES1323100-001	Anonymous	EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Chloromethane	74-87-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Bromomethane	74-83-9	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Chloroethane	75-00-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	0.0	No Limit
ES1323101-004	Anonymous	EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 3128274) - continued									
ES1323205-048	S52	EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP074D: Fumigants (QC Lot: 3128056)									
ES1323100-001	Anonymous	EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1323101-004	Anonymous	EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 3128056)									
ES1323100-001	Anonymous	EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 3128274) - continued									
ES1323205-048	S52	EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 3128274)									
ES1323205-002	S2	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES1323205-048	S52	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG005T: Total Metals by ICP-AES (QC Lot: 3130767) - continued									
ES1323205-042	S46	EG005T: Copper	7440-50-8	5	mg/kg	14	<5	93.8	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	8	72.1	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	33	16	70.2	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3130766)									
ES1323038-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1323205-007	S7	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3130768)									
ES1323205-037	S40	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 3129515)									
ES1323017-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EP035G: Total Phenol by Discrete Analyser (QC Lot: 3132350)									
ES1323205-034	S37	EP035G: Phenols (Total)	---	1	mg/kg	<1	<1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 3128275)									
ES1323205-002	S2	EP066: Total Polychlorinated biphenyls	---	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1323205-048	S52	EP066: Total Polychlorinated biphenyls	---	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 3128274)									
ES1323205-002	S2	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES1323205-048	S52	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EA055: Moisture Content (QC Lot: 3131279)									
ES1323167-001	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	12.6	12.5	0.0	0% - 50%
ES1323205-007	S7	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	13.2	12.5	6.1	0% - 50%
EA055: Moisture Content (QC Lot: 3131280)									
ES1323205-022	S24	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	10.0	10.7	7.1	0% - 50%
ES1323205-038	S41	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	11.0	10.2	7.7	0% - 50%
EA055: Moisture Content (QC Lot: 3131281)									
ES1323206-004	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	8.7	9.6	10.5	No Limit
ES1323215-015	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	12.5	14.2	12.6	0% - 50%
EG005T: Total Metals by ICP-AES (QC Lot: 3130765)									
ES1323038-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	4	4	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	2	2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	8	8	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	9	10	10.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	12	15	21.6	No Limit
ES1323205-007	S7	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	9	10	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	17	23	27.4	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	8	8	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	53	54	0.0	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	25	24	4.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	68	75	10.4	0% - 50%
EG005T: Total Metals by ICP-AES (QC Lot: 3130767)									
ES1323205-037	S40	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	11	10	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	9	6	33.6	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	29	22	26.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	21	17	22.3	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	41	26	45.5	No Limit
ES1323205-042	S46	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	8	3	79.3	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	<2	106	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit

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 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.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
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
RPD = Relative Percentage Difference
# = Indicates failed QC

NATA Accredited Laboratory 825

Accredited for compliance with ISO/IEC 17025.

Signatories

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
Ashesh Patel	Inorganic Chemist	Sydney Inorganics
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics
Pabi Subba	Senior Organic Chemist	Sydney Organics
Phalak Inthaksone	Laboratory Manager - Organics	Sydney Organics
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES1323205**	Page	: 1 of 27
Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: DAVID YONGE	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: dyonge@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 9756 2166	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9756 1137	Facsimile	: +61-2-8784 8500
Project	: 19399 3606C	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: P19399-COC1	Date Samples Received	: 25-OCT-2013
Sampler	: ----	Issue Date	: 01-NOV-2013
Order number	: 10490	No. of samples received	: 49
Quote number	: EN/025/13	No. of samples analysed	: 33

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 Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Sample No. 6. ASET35777 / 38957 / 6. ES1323205 - 047 - S51.
Approx dimensions 3.8 cm x 3.3 cm x 1.5 cm
The sample consisted of a mixture of soil, stones and plant matter.
No asbestos detected.

Sample No. 7. ASET35777 / 38957 / 7. ES1323205 - 048 - S52.
Approx dimensions 4.0 cm x 3.1 cm x 1.2 cm
The sample consisted of a mixture of soil, stones and plant matter.
No asbestos detected.

Sample No. 8. ASET35777 / 38957 / 8. ES1323205 - 049 - S53.
Approx dimensions 3.4 cm x 3.1 cm x 1.3 cm
The sample consisted of a mixture of clayish soil, stones and plant matter.
No asbestos detected.

Analysed and reported by,

Nisansala Maddage. BSc(Hons)
Environmental Scientist/Approved Identifier
Approved Signatory

WORLD RECOGNISED ACCREDITATION

This document is issued in accordance with NATA's Accreditation requirements. Accredited for compliance with ISO/IEC 17025.

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref: ASET35777/ 38957 / 1 - 8
Your ref: ES1323205
NATA Accreditation No: 14484

29 October 2013

Australian Laboratory Services Pty Ltd
277 – 284 Woodpark Road
Smithfield NSW 2164

Attn: Ms Nanthini Coilparampil

Dear Nanthini

Asbestos Identification
This report presents the results of eight samples, forwarded by Australian Laboratory Services Pty Ltd on 28 October 2013, for analysis for asbestos.

1.Introduction: Eight samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Safer Environment Method 1.)**

3. Results :

Sample No. 1. ASET35777 / 38957 / 1. ES1323205 - 004 - S4.
Approx dimensions 3.0 cm x 3.0 cm x 1.3 cm
The sample consisted of a mixture of clayish soil, stones and plant matter.
No asbestos detected.

Sample No. 2. ASET35777 / 38957 / 2. ES1323205 - 016 - S17.
Approx dimensions 3.5 cm x 3.4 cm x 1.3 cm
The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster and glass.
No asbestos detected.

Sample No. 3. ASET35777 / 38957 / 3. ES1323205 - 026 - S28.
Approx dimensions 3.5 cm x 3.0 cm x 1.6 cm
The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster, cement like material and glass.
No asbestos detected.

Sample No. 4. ASET35777 / 38957 / 4. ES1323205 - 044 - S48.
Approx dimensions 3.3 cm x 3.2 cm x 1.5 cm
The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of plaster.
No asbestos detected.

Sample No. 5. ASET35777 / 38957 / 5. ES1323205 - 046 - S50.
Approx dimensions 3.5 cm x 3.4 cm x 1.7 cm
The sample consisted of a mixture of sandy soil and stones.
No asbestos detected.

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%) Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	17060-07-0	64	130
Toluene-D8	2037-26-5	66	136
4-Bromofluorobenzene	460-00-4	60	122
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
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	71.6	130.0

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	S51	S52	S53	----	----
				Client sampling date / time	24-OCT-2013 15:00	[25-OCT-2013]	[25-OCT-2013]	----	----
Compound	CAS Number	LOR	Unit		ES1323205-047	ES1323205-048	ES1323205-049	----	----
EP080S: TPH(V)/BTEX Surrogates - Continued									
Toluene-D8	2037-26-5	0.1	%		90.7	99.4	81.3	----	----
4-Bromofluorobenzene	460-00-4	0.1	%		97.7	103	88.7	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	S51	S52	S53	---	---
				Client sampling date / time	24-OCT-2013 15:00	[25-OCT-2013]	[25-OCT-2013]	---	---
Compound	CAS Number	LOR	Unit		ES1323205-047	ES1323205-048	ES1323205-049	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 - Continued									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	---	---
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	---	---
>C10 - C16 Fraction	>C10_C16	50	mg/kg		<50	<50	<50	---	---
>C16 - C34 Fraction	---	100	mg/kg		160	<100	<100	---	---
>C34 - C40 Fraction	---	100	mg/kg		<100	<100	<100	---	---
^ >C10 - C40 Fraction (sum)	---	50	mg/kg		160	<50	<50	---	---
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg		<50	<50	<50	---	---
EP080: BTEXN									
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	---	---
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	---	---
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		85.1	81.1	---	---	---
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		99.4	103	106	---	---
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		85.5	67.4	67.5	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		90.3	93.9	98.8	---	---
2-Chlorophenol-D4	93951-73-6	0.1	%		102	102	105	---	---
2.4.6-Tribromophenol	118-79-6	0.1	%		93.6	92.0	91.5	---	---
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		100	99.4	101	---	---
Anthracene-d10	1719-06-8	0.1	%		91.8	92.4	94.3	---	---
4-Terphenyl-d14	1718-51-0	0.1	%		87.0	85.5	88.8	---	---
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		87.0	94.8	84.8	---	---

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	S51	S52	S53	---	---
				Client sampling date / time	24-OCT-2013 15:00	[25-OCT-2013]	[25-OCT-2013]	---	---
Compound	CAS Number	LOR	Unit		ES1323205-047	ES1323205-048	ES1323205-049	---	---
EP075(SIM)A: Phenolic Compounds - Continued									
2.6-Dichlorophenol	87-65-0	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	88-06-2	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		<2	<2	---	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
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	---	---
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	---	---
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		<0.5	1.3	0.9	---	---
Pyrene	129-00-0	0.5	mg/kg		<0.5	1.6	0.9	---	---
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	0.9	0.6	---	---
Chrysene	218-01-9	0.5	mg/kg		<0.5	0.9	0.6	---	---
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	1.3	0.8	---	---
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	1.2	0.8	---	---
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<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	0.6	<0.5	---	---
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg		<0.5	8.8	4.6	---	---
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg		<0.5	1.5	0.9	---	---
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg		0.6	1.8	1.2	---	---
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg		1.2	2.0	1.6	---	---
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	10	mg/kg		<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	mg/kg		<100	<100	<100	---	---
^ C10 - C36 Fraction (sum)	---	50	mg/kg		100	<50	<50	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013									

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S51	S52	S53	----	----
				Client sampling date / time: 24-OCT-2013 15:00	[25-OCT-2013]	[25-OCT-2013]	----	----
				ES1323205-047	ES1323205-048	ES1323205-049	----	----
EP068A: Organochlorine Pesticides (OC) - Continued								
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	----	----
Methoxychlor	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	----	----
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<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	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	mg/kg	<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	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	0.2	mg/kg	<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	mg/kg	<0.05	<0.05	<0.05	----	----
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Carbophenothion	786-19-6	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(SIM)A: Phenolic Compounds								
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	<1	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S51	S52	S53	---	---
				Client sampling date / time	24-OCT-2013 15:00	[25-OCT-2013]	[25-OCT-2013]	---	---
					ES1323205-047	ES1323205-048	ES1323205-049	---	---
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	---	1.0	%		23.7	10.5	15.8	---	---
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		10	8	10	---	---
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	---	---
Chromium	7440-47-3	2	mg/kg		28	20	13	---	---
Copper	7440-50-8	5	mg/kg		63	25	27	---	---
Lead	7439-92-1	5	mg/kg		284	135	110	---	---
Nickel	7440-02-0	2	mg/kg		13	6	6	---	---
Zinc	7440-66-6	5	mg/kg		383	133	437	---	---
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		0.2	<0.1	<0.1	---	---
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	---	0.1	mg/kg		<0.1	<0.1	---	---	---
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	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	---	---
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	---	---
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	---	---
Heptachlor epoxide	1024-57-3	0.05	mg/kg		0.25	<0.05	<0.05	---	---
^ Total Chlordane (sum)	---	0.05	mg/kg		0.41	<0.05	<0.05	---	---
trans-Chlordane	5103-74-2	0.05	mg/kg		0.36	<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	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	<0.05	<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	mg/kg		<0.05	<0.05	<0.05	---	---
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	---	---

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S44	S46	S48	S49	S50
				Client sampling date / time	23-OCT-2013 15:00	23-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00
					ES1323205-040	ES1323205-042	ES1323205-044	ES1323205-045	ES1323205-046
EP080: BTEXN - Continued									
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		78.1	----	80.2	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		107	----	116	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		83.4	----	90.9	----	----
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		101	----	----	101	104
Toluene-D8	2037-26-5	0.1	%		117	----	----	114	113
4-Bromofluorobenzene	460-00-4	0.1	%		110	----	----	104	104
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		100	103	94.1	102	98.4
2-Chlorophenol-D4	93951-73-6	0.1	%		107	107	105	106	105
2.4.6-Tribromophenol	118-79-6	0.1	%		83.8	84.2	84.8	83.1	77.8
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		102	103	102	103	102
Anthracene-d10	1719-06-8	0.1	%		93.8	95.0	93.8	96.4	93.6
4-Terphenyl-d14	1718-51-0	0.1	%		90.0	92.2	90.0	93.0	91.8
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		99.7	85.6	87.0	99.8	103
Toluene-D8	2037-26-5	0.1	%		118	90.7	89.2	116	114
4-Bromofluorobenzene	460-00-4	0.1	%		105	94.3	96.5	101	102

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S44	S46	S48	S49	S50
				Client sampling date / time	23-OCT-2013 15:00	23-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00
					ES1323205-040	ES1323205-042	ES1323205-044	ES1323205-045	ES1323205-046
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<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	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg		0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg		1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	---	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	---	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	---	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg		<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S44	S46	S48	S49	S50
				Client sampling date / time: 23-OCT-2013 15:00	23-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00
				ES1323205-040	ES1323205-042	ES1323205-044	ES1323205-045	ES1323205-046
EP074F: Halogenated Aromatic Compounds - Continued								
Bromobenzene	108-86-1	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
EP074G: Trihalomethanes								
Chloroform	67-66-3	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
Bromoform	75-25-2	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
EP075(SIM)A: Phenolic Compounds								
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	---	<1	---	---
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	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	88-06-2	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	<2	---	<2	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S44	S46	S48	S49	S50
				Client sampling date / time	23-OCT-2013 15:00	23-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00
					ES1323205-040	ES1323205-042	ES1323205-044	ES1323205-045	ES1323205-046
EP074D: Fumigants - Continued									
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		<5	---	---	<5	<5
Chloromethane	74-87-3	5	mg/kg		<5	---	---	<5	<5
Vinyl chloride	75-01-4	5	mg/kg		<5	---	---	<5	<5
Bromomethane	74-83-9	5	mg/kg		<5	---	---	<5	<5
Chloroethane	75-00-3	5	mg/kg		<5	---	---	<5	<5
Trichlorofluoromethane	75-69-4	5	mg/kg		<5	---	---	<5	<5
1.1-Dichloroethene	75-35-4	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Iodomethane	74-88-4	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.1-Dichloroethane	75-34-3	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.2-Dichloroethane	107-06-2	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Trichloroethene	79-01-6	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Dibromomethane	74-95-3	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.3-Dichloropropane	142-28-9	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		<0.5	---	---	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S44	S46	S48	S49	S50
				Client sampling date / time: 23-OCT-2013 15:00	23-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00
				ES1323205-040	ES1323205-042	ES1323205-044	ES1323205-045	ES1323205-046
EP068A: Organochlorine Pesticides (OC) - Continued								
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	mg/kg	<0.05	---	<0.05	---	---
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	---	<0.05	---	---
4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	---	<0.2	---	---
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	---	<0.05	---	---
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	---	<0.2	---	---
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	---	<0.05	---	---
^ Sum of DDD + DDE + DDT	---	0.05	mg/kg	<0.05	---	<0.05	---	---
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	---	<0.05	---	---
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	---	<0.05	---	---
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	---	<0.2	---	---
Dimethoate	60-51-5	0.05	mg/kg	<0.05	---	<0.05	---	---
Diazinon	333-41-5	0.05	mg/kg	<0.05	---	<0.05	---	---
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	---	<0.05	---	---
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	---	<0.2	---	---
Malathion	121-75-5	0.05	mg/kg	<0.05	---	<0.05	---	---
Fenthion	55-38-9	0.05	mg/kg	<0.05	---	<0.05	---	---
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	---	<0.05	---	---
Parathion	56-38-2	0.2	mg/kg	<0.2	---	<0.2	---	---
Pirimphos-ethyl	23505-41-1	0.05	mg/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	<0.05	---	<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	786-19-6	0.05	mg/kg	<0.05	---	<0.05	---	---
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	---	<0.05	---	---
EP074D: Fumigants								
2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	---	---	<0.5	<0.5
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	---	---	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	S44	S46	S48	S49	S50
				Client sampling date / time	23-OCT-2013 15:00	23-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00	24-OCT-2013 15:00
					ES1323205-040	ES1323205-042	ES1323205-044	ES1323205-045	ES1323205-046
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	---	1.0	%		11.4	15.1	15.6	6.4	7.1
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		7	<5	5	<5	<5
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		16	8	19	2	3
Copper	7440-50-8	5	mg/kg		56	14	42	<5	14
Lead	7439-92-1	5	mg/kg		25	17	44	<5	8
Nickel	7440-02-0	2	mg/kg		25	6	28	<2	<2
Zinc	7440-66-6	5	mg/kg		85	33	70	7	16
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg		<1	---	---	---	---
EP035G: Total Phenol by Discrete Analyser									
Phenols (Total)	---	1	mg/kg		---	---	---	<1	<1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	---	0.1	mg/kg		<0.1	---	<0.1	---	---
EP068A: Organochlorine Pesticides (OC)									
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	---	---
gamma-BHC	58-89-9	0.05	mg/kg		<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	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	---	---

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S37	S38	S39	S40	S41
				Client sampling date / time: 23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00
				ES1323205-034	ES1323205-035	ES1323205-036	ES1323205-037	ES1323205-038
EP080: BTEXN - Continued								
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	---	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	---	---	74.1	---	---
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	---	---	97.9	---	---
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	---	---	82.6	---	---
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	%	102	---	---	---	---
Toluene-D8	2037-26-5	0.1	%	113	---	---	---	---
4-Bromofluorobenzene	460-00-4	0.1	%	105	---	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	82.9	93.0	99.9	100	104
2-Chlorophenol-D4	93951-73-6	0.1	%	96.4	102	107	106	110
2.4.6-Tribromophenol	118-79-6	0.1	%	83.9	93.1	88.2	85.6	89.8
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	102	98.6	102	102	106
Anthracene-d10	1719-06-8	0.1	%	95.7	92.1	95.1	94.5	98.3
4-Terphenyl-d14	1718-51-0	0.1	%	92.3	88.2	92.9	91.5	94.8
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	%	100	106	104	90.2	106
Toluene-D8	2037-26-5	0.1	%	114	103	93.2	104	104
4-Bromofluorobenzene	460-00-4	0.1	%	104	111	103	100	107

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S37	S38	S39	S40	S41
				Client sampling date / time	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00
					ES1323205-034	ES1323205-035	ES1323205-036	ES1323205-037	ES1323205-038
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<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	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg		0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg		1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	---	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg		<100	270	<100	<100	<100
C29 - C36 Fraction	---	100	mg/kg		<100	340	<100	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg		<50	610	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg		<100	530	<100	<100	<100
>C34 - C40 Fraction	---	100	mg/kg		<100	160	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg		<50	690	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S37	S38	S39	S40	S41
				Client sampling date / time: 23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00
				ES1323205-034	ES1323205-035	ES1323205-036	ES1323205-037	ES1323205-038
EP074F: Halogenated Aromatic Compounds - Continued								
Bromobenzene	108-86-1	0.5	mg/kg	<0.5	—	—	—	—
2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	—	—	—	—
4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	—	—	—	—
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	—	—	—	—
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	—	—	—	—
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	—	—	—	—
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	—	—	—	—
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	—	—	—	—
EP074G: Trihalomethanes								
Chloroform	67-66-3	0.5	mg/kg	<0.5	—	—	—	—
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	—	—	—	—
Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	—	—	—	—
Bromoform	75-25-2	0.5	mg/kg	<0.5	—	—	—	—
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	—	—	<0.5	—	—
2-Chlorophenol	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	—	—
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	—	—
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	—	—	<0.5	—	—
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	—	—	<0.5	—	—
Pentachlorophenol	87-86-5	2	mg/kg	—	—	<2	—	—
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	S37	S38	S39	S40	S41
				Client sampling date / time	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00
					ES1323205-034	ES1323205-035	ES1323205-036	ES1323205-037	ES1323205-038
EP074D: Fumigants - Continued									
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		<0.5	—	—	—	—
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		<0.5	—	—	—	—
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		<5	—	—	—	—
Chloromethane	74-87-3	5	mg/kg		<5	—	—	—	—
Vinyl chloride	75-01-4	5	mg/kg		<5	—	—	—	—
Bromomethane	74-83-9	5	mg/kg		<5	—	—	—	—
Chloroethane	75-00-3	5	mg/kg		<5	—	—	—	—
Trichlorofluoromethane	75-69-4	5	mg/kg		<5	—	—	—	—
1.1-Dichloroethene	75-35-4	0.5	mg/kg		<0.5	—	—	—	—
Iodomethane	74-88-4	0.5	mg/kg		<0.5	—	—	—	—
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		<0.5	—	—	—	—
1.1-Dichloroethane	75-34-3	0.5	mg/kg		<0.5	—	—	—	—
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		<0.5	—	—	—	—
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		<0.5	—	—	—	—
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		<0.5	—	—	—	—
Carbon Tetrachloride	56-23-5	0.5	mg/kg		<0.5	—	—	—	—
1.2-Dichloroethane	107-06-2	0.5	mg/kg		<0.5	—	—	—	—
Trichloroethene	79-01-6	0.5	mg/kg		<0.5	—	—	—	—
Dibromomethane	74-95-3	0.5	mg/kg		<0.5	—	—	—	—
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		<0.5	—	—	—	—
1.3-Dichloropropane	142-28-9	0.5	mg/kg		<0.5	—	—	—	—
Tetrachloroethene	127-18-4	0.5	mg/kg		<0.5	—	—	—	—
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		<0.5	—	—	—	—
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		<0.5	—	—	—	—
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		<0.5	—	—	—	—
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		<0.5	—	—	—	—
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		<0.5	—	—	—	—
Pentachloroethane	76-01-7	0.5	mg/kg		<0.5	—	—	—	—
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		<0.5	—	—	—	—
Hexachlorobutadiene	87-68-3	0.5	mg/kg		<0.5	—	—	—	—
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		<0.5	—	—	—	—

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S37	S38	S39	S40	S41
				Client sampling date / time	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00
					ES1323205-034	ES1323205-035	ES1323205-036	ES1323205-037	ES1323205-038
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		---	---	<0.05	---	---
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		---	---	<0.05	---	---
4.4`-DDD	72-54-8	0.05	mg/kg		---	---	<0.05	---	---
Endrin aldehyde	7421-93-4	0.05	mg/kg		---	---	<0.05	---	---
Endosulfan sulfate	1031-07-8	0.05	mg/kg		---	---	<0.05	---	---
4.4`-DDT	50-29-3	0.2	mg/kg		---	---	<0.2	---	---
Endrin ketone	53494-70-5	0.05	mg/kg		---	---	<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 DDD + DDE + DDT	---	0.05	mg/kg		---	---	<0.05	---	---
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		---	---	<0.05	---	---
Demeton-S-methyl	919-86-8	0.05	mg/kg		---	---	<0.05	---	---
Monocrotophos	6923-22-4	0.2	mg/kg		---	---	<0.2	---	---
Dimethoate	60-51-5	0.05	mg/kg		---	---	<0.05	---	---
Diazinon	333-41-5	0.05	mg/kg		---	---	<0.05	---	---
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		---	---	<0.05	---	---
Parathion-methyl	298-00-0	0.2	mg/kg		---	---	<0.2	---	---
Malathion	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	mg/kg		---	---	<0.05	---	---
Parathion	56-38-2	0.2	mg/kg		---	---	<0.2	---	---
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		---	---	<0.05	---	---
Chlorfenvinphos	470-90-6	0.05	mg/kg		---	---	<0.05	---	---
Bromophos-ethyl	4824-78-6	0.05	mg/kg		---	---	<0.05	---	---
Fenamiphos	22224-92-6	0.05	mg/kg		---	---	<0.05	---	---
Prothiofos	34643-46-4	0.05	mg/kg		---	---	<0.05	---	---
Ethion	563-12-2	0.05	mg/kg		---	---	<0.05	---	---
Carbophenothion	786-19-6	0.05	mg/kg		---	---	<0.05	---	---
Azinphos Methyl	86-50-0	0.05	mg/kg		---	---	<0.05	---	---
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		<0.5	---	---	---	---
1.2-Dichloropropane	78-87-5	0.5	mg/kg		<0.5	---	---	---	---
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		<0.5	---	---	---	---

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	S37	S38	S39	S40	S41
				Client sampling date / time	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00	23-OCT-2013 15:00
					ES1323205-034	ES1323205-035	ES1323205-036	ES1323205-037	ES1323205-038
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	---	1.0	%		6.0	6.4	8.3	10.4	11.0
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		---	7	14	<5	<5
Cadmium	7440-43-9	1	mg/kg		---	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		---	14	36	11	8
Copper	7440-50-8	5	mg/kg		---	54	42	29	18
Lead	7439-92-1	5	mg/kg		---	27	21	21	14
Nickel	7440-02-0	2	mg/kg		---	14	25	9	5
Zinc	7440-66-6	5	mg/kg		---	63	132	41	20
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		---	<0.1	<0.1	<0.1	<0.1
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg		<1	---	---	---	---
EP035G: Total Phenol by Discrete Analyser									
Phenols (Total)	---	1	mg/kg		<1	<1	<1	---	---
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	---	0.1	mg/kg		---	---	<0.1	---	---
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/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	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	---	---
trans-Chlordane	5103-74-2	0.05	mg/kg		---	---	<0.05	---	---
alpha-Endosulfan	959-98-8	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	---	---

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S27	S28	S30	S34	S35
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	23-OCT-2013 15:00
					ES1323205-025	ES1323205-026	ES1323205-028	ES1323205-031	ES1323205-032
EP080: BTEXN - Continued									
^ Sum of BTEX	---	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		---	73.6	---	74.8	---
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		---	97.5	---	96.9	---
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		---	74.3	---	104	---
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		---	103	---	---	---
Toluene-D8	2037-26-5	0.1	%		---	116	---	---	---
4-Bromofluorobenzene	460-00-4	0.1	%		---	105	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		---	87.2	---	97.1	85.4
2-Chlorophenol-D4	93951-73-6	0.1	%		---	85.7	---	102	82.1
2.4.6-Tribromophenol	118-79-6	0.1	%		---	87.0	---	98.4	88.1
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		---	93.2	---	93.5	94.6
Anthracene-d10	1719-06-8	0.1	%		---	84.5	---	86.2	87.1
4-Terphenyl-d14	1718-51-0	0.1	%		---	81.8	---	82.6	84.0
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		94.4	102	98.1	83.2	100
Toluene-D8	2037-26-5	0.1	%		88.7	117	88.9	79.2	91.9
4-Bromofluorobenzene	460-00-4	0.1	%		102	103	104	95.8	104

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S27	S28	S30	S34	S35
				Client sampling date / time: 22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	23-OCT-2013 15:00
				ES1323205-025	ES1323205-026	ES1323205-028	ES1323205-031	ES1323205-032
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
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)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	mg/kg	---	<0.5	---	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg	---	<0.5	---	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg	---	0.6	---	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg	---	1.2	---	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	---	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	---	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<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	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S27	S28	S30	S34	S35
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	23-OCT-2013 15:00
					ES1323205-025	ES1323205-026	ES1323205-028	ES1323205-031	ES1323205-032
EP074F: Halogenated Aromatic Compounds - Continued									
4-Chlorotoluene	106-43-4	0.5	mg/kg		---	<0.5	---	---	---
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		---	<0.5	---	---	---
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		---	<0.5	---	---	---
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		---	<0.5	---	---	---
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		---	<0.5	---	---	---
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		---	<0.5	---	---	---
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		---	<0.5	---	---	---
Bromodichloromethane	75-27-4	0.5	mg/kg		---	<0.5	---	---	---
Dibromochloromethane	124-48-1	0.5	mg/kg		---	<0.5	---	---	---
Bromoform	75-25-2	0.5	mg/kg		---	<0.5	---	---	---
EP075(SIM)A: Phenolic Compounds									
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	---	<1	---
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	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	88-06-2	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		---	<2	---	<2	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
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
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
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		---	<0.5	---	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		---	<0.5	---	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S27	S28	S30	S34	S35
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	23-OCT-2013 15:00
					ES1323205-025	ES1323205-026	ES1323205-028	ES1323205-031	ES1323205-032
EP074D: Fumigants - Continued									
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		---	<5	---	---	---
Chloromethane	74-87-3	5	mg/kg		---	<5	---	---	---
Vinyl chloride	75-01-4	5	mg/kg		---	<5	---	---	---
Bromomethane	74-83-9	5	mg/kg		---	<5	---	---	---
Chloroethane	75-00-3	5	mg/kg		---	<5	---	---	---
Trichlorofluoromethane	75-69-4	5	mg/kg		---	<5	---	---	---
1.1-Dichloroethene	75-35-4	0.5	mg/kg		---	<0.5	---	---	---
Iodomethane	74-88-4	0.5	mg/kg		---	<0.5	---	---	---
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		---	<0.5	---	---	---
1.1-Dichloroethane	75-34-3	0.5	mg/kg		---	<0.5	---	---	---
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		---	<0.5	---	---	---
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		---	<0.5	---	---	---
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		---	<0.5	---	---	---
Carbon Tetrachloride	56-23-5	0.5	mg/kg		---	<0.5	---	---	---
1.2-Dichloroethane	107-06-2	0.5	mg/kg		---	<0.5	---	---	---
Trichloroethene	79-01-6	0.5	mg/kg		---	<0.5	---	---	---
Dibromomethane	74-95-3	0.5	mg/kg		---	<0.5	---	---	---
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		---	<0.5	---	---	---
1.3-Dichloropropane	142-28-9	0.5	mg/kg		---	<0.5	---	---	---
Tetrachloroethene	127-18-4	0.5	mg/kg		---	<0.5	---	---	---
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		---	<0.5	---	---	---
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		---	<0.5	---	---	---
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		---	<0.5	---	---	---
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		---	<0.5	---	---	---
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		---	<0.5	---	---	---
Pentachloroethane	76-01-7	0.5	mg/kg		---	<0.5	---	---	---
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		---	<0.5	---	---	---
Hexachlorobutadiene	87-68-3	0.5	mg/kg		---	<0.5	---	---	---
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		---	<0.5	---	---	---
Bromobenzene	108-86-1	0.5	mg/kg		---	<0.5	---	---	---
2-Chlorotoluene	95-49-8	0.5	mg/kg		---	<0.5	---	---	---

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S27	S28	S30	S34	S35
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	23-OCT-2013 15:00
					ES1323205-025	ES1323205-026	ES1323205-028	ES1323205-031	ES1323205-032
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDD	72-54-8	0.05	mg/kg		---	<0.05	---	<0.05	---
Endrin aldehyde	7421-93-4	0.05	mg/kg		---	<0.05	---	<0.05	---
Endosulfan sulfate	1031-07-8	0.05	mg/kg		---	<0.05	---	<0.05	---
4.4`-DDT	50-29-3	0.2	mg/kg		---	<0.2	---	<0.2	---
Endrin ketone	53494-70-5	0.05	mg/kg		---	<0.05	---	<0.05	---
Methoxychlor	72-43-5	0.2	mg/kg		---	<0.2	---	<0.2	---
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		---	<0.05	---	0.43	---
^ Sum of DDD + DDE + DDT	---	0.05	mg/kg		---	<0.05	---	<0.05	---
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		---	<0.05	---	<0.05	---
Demeton-S-methyl	919-86-8	0.05	mg/kg		---	<0.05	---	<0.05	---
Monocrotophos	6923-22-4	0.2	mg/kg		---	<0.2	---	<0.2	---
Dimethoate	60-51-5	0.05	mg/kg		---	<0.05	---	<0.05	---
Diazinon	333-41-5	0.05	mg/kg		---	<0.05	---	<0.05	---
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		---	<0.05	---	<0.05	---
Parathion-methyl	298-00-0	0.2	mg/kg		---	<0.2	---	<0.2	---
Malathion	121-75-5	0.05	mg/kg		---	<0.05	---	<0.05	---
Fenthion	55-38-9	0.05	mg/kg		---	<0.05	---	<0.05	---
Chlorpyrifos	2921-88-2	0.05	mg/kg		---	<0.05	---	<0.05	---
Parathion	56-38-2	0.2	mg/kg		---	<0.2	---	<0.2	---
Pirimphos-ethyl	23505-41-1	0.05	mg/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		---	<0.05	---	<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	786-19-6	0.05	mg/kg		---	<0.05	---	<0.05	---
Azinphos Methyl	86-50-0	0.05	mg/kg		---	<0.05	---	<0.05	---
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		---	<0.5	---	---	---
1.2-Dichloropropane	78-87-5	0.5	mg/kg		---	<0.5	---	---	---
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		---	<0.5	---	---	---
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		---	<0.5	---	---	---
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		---	<0.5	---	---	---

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	S27	S28	S30	S34	S35
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	23-OCT-2013 15:00
Compound	CAS Number	LOR	Unit		ES1323205-025	ES1323205-026	ES1323205-028	ES1323205-031	ES1323205-032
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	---	1.0	%		17.4	14.3	14.3	24.5	8.9
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		---	<5	---	10	<5
Cadmium	7440-43-9	1	mg/kg		---	<1	---	4	<1
Chromium	7440-47-3	2	mg/kg		---	6	---	17	11
Copper	7440-50-8	5	mg/kg		---	12	---	40	18
Lead	7439-92-1	5	mg/kg		108	10	37	125	9
Nickel	7440-02-0	2	mg/kg		---	5	---	10	14
Zinc	7440-66-6	5	mg/kg		---	33	---	360	33
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		---	<0.1	---	0.3	<0.1
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg		---	<1	---	---	<1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	---	0.1	mg/kg		---	<0.1	---	<0.1	---
EP068A: Organochlorine Pesticides (OC)									
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	---
gamma-BHC	58-89-9	0.05	mg/kg		---	<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	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	---	0.43	---
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	---

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S19	S20	S21	S24	S25
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
					ES1323205-018	ES1323205-019	ES1323205-020	ES1323205-022	ES1323205-023
EP080: BTEXN - Continued									
^ Total Xylenes	1330-20-7	0.5	mg/kg		0.8	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		3	<1	<1	<1	<1
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		---	---	---	---	102
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		---	---	---	---	91.1
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		---	---	89.5	---	---
2-Chlorophenol-D4	93951-73-6	0.1	%		---	---	87.4	---	---
2.4.6-Tribromophenol	118-79-6	0.1	%		---	---	93.2	---	---
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		---	---	102	---	---
Anthracene-d10	1719-06-8	0.1	%		---	---	93.6	---	---
4-Terphenyl-d14	1718-51-0	0.1	%		---	---	91.8	---	---
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		99.3	99.3	93.8	92.9	128
Toluene-D8	2037-26-5	0.1	%		91.9	90.0	84.5	83.9	124
4-Bromofluorobenzene	460-00-4	0.1	%		107	105	96.0	96.1	132

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID: S19	S20	S21	S24	S25
				Client sampling date / time: 22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
				ES1323205-018	ES1323205-019	ES1323205-020	ES1323205-022	ES1323205-023
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	0.5	mg/kg	---	---	<0.5	---	---
Benzo(b)fluoranthene	205-99-2	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	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 Hydrocarbons								
C6 - C9 Fraction	---	10	mg/kg	482	<10	<10	<10	<10
C10 - C14 Fraction	---	50	mg/kg	300	<50	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg	<100	<100	<100	<100	730
C29 - C36 Fraction	---	100	mg/kg	<100	<100	<100	<100	500
^ C10 - C36 Fraction (sum)	---	50	mg/kg	300	<50	<50	<50	1230
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								
C6 - C10 Fraction	C6_C10	10	mg/kg	752	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	750	<10	<10	<10	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg	240	<50	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg	<100	<100	<100	<100	1160
>C34 - C40 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg	240	<50	<50	<50	1160
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg	240	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	0.8	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	0.8	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	---	0.2	mg/kg	1.6	<0.2	<0.2	<0.2	<0.2

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S19	S20	S21	S24	S25
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
					ES1323205-018	ES1323205-019	ES1323205-020	ES1323205-022	ES1323205-023
EP068A: Organochlorine Pesticides (OC) - Continued									
Endrin ketone	53494-70-5	0.05	mg/kg		---	---	---	---	<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 DDD + DDE + DDT	---	0.05	mg/kg		---	---	---	---	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		---	---	---	---	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		---	---	---	---	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		---	---	---	---	<0.2
Dimethoate	60-51-5	0.05	mg/kg		---	---	---	---	<0.05
Diazinon	333-41-5	0.05	mg/kg		---	---	---	---	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		---	---	---	---	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		---	---	---	---	<0.2
Malathion	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	mg/kg		---	---	---	---	<0.05
Parathion	56-38-2	0.2	mg/kg		---	---	---	---	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		---	---	---	---	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		---	---	---	---	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		---	---	---	---	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		---	---	---	---	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		---	---	---	---	<0.05
Ethion	563-12-2	0.05	mg/kg		---	---	---	---	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		---	---	---	---	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		---	---	---	---	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		---	---	<0.5	---	---
Acenaphthylene	208-96-8	0.5	mg/kg		---	---	<0.5	---	---
Acenaphthene	83-32-9	0.5	mg/kg		---	---	<0.5	---	---
Fluorene	86-73-7	0.5	mg/kg		---	---	<0.5	---	---
Phenanthrene	85-01-8	0.5	mg/kg		---	---	<0.5	---	---
Anthracene	120-12-7	0.5	mg/kg		---	---	<0.5	---	---
Fluoranthene	206-44-0	0.5	mg/kg		---	---	<0.5	---	---
Pyrene	129-00-0	0.5	mg/kg		---	---	<0.5	---	---
Benz(a)anthracene	56-55-3	0.5	mg/kg		---	---	<0.5	---	---

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	S19	S20	S21	S24	S25
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
					ES1323205-018	ES1323205-019	ES1323205-020	ES1323205-022	ES1323205-023
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	---	1.0	%		21.2	19.2	9.4	10.0	10.1
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		15	---	<5	---	8
Cadmium	7440-43-9	1	mg/kg		<1	---	<1	---	<1
Chromium	7440-47-3	2	mg/kg		17	---	6	---	44
Copper	7440-50-8	5	mg/kg		26	---	37	---	26
Lead	7439-92-1	5	mg/kg		39	31	209	34	18
Nickel	7440-02-0	2	mg/kg		9	---	4	---	50
Zinc	7440-66-6	5	mg/kg		76	---	102	---	83
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	---	<0.1	---	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/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	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
trans-Chlordane	5103-74-2	0.05	mg/kg		---	---	---	---	<0.05
alpha-Endosulfan	959-98-8	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
beta-Endosulfan	33213-65-9	0.05	mg/kg		---	---	---	---	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		---	---	---	---	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		---	---	---	---	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		---	---	---	---	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		---	---	---	---	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		---	---	---	---	<0.2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	S8	S10	S14	S16	S17
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
Compound	CAS Number	LOR	Unit		ES1323205-008	ES1323205-010	ES1323205-013	ES1323205-015	ES1323205-016
EP080S: TPH(V)/BTEX Surrogates - Continued									
Toluene-D8	2037-26-5	0.1	%		71.3	90.2	86.8	81.0	78.7
4-Bromofluorobenzene	460-00-4	0.1	%		77.0	111	107	100	89.3

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID: S8	S10	S14	S16	S17
				Client sampling date / time: 22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
				ES1323205-008	ES1323205-010	ES1323205-013	ES1323205-015	ES1323205-016
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 - Continued								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<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	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	---	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	69.8	---	---	---	---
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	112	---	---	---	---
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	93.1	---	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	86.8	---	---	---	88.2
2-Chlorophenol-D4	93951-73-6	0.1	%	95.5	---	---	---	93.2
2.4.6-Tribromophenol	118-79-6	0.1	%	91.7	---	---	---	80.6
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	95.1	---	---	---	97.6
Anthracene-d10	1719-06-8	0.1	%	85.9	---	---	---	83.8
4-Terphenyl-d14	1718-51-0	0.1	%	83.5	---	---	---	84.7
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	%	75.3	103	96.6	90.7	90.0

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S8	S10	S14	S16	S17
				Client sampling date / time: 22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
				ES1323205-008	ES1323205-010	ES1323205-013	ES1323205-015	ES1323205-016
EP075(SIM)A: Phenolic Compounds - Continued								
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	---	---	---	---
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	---	---	---	---
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	---	---	---	---
Pentachlorophenol	87-86-5	2	mg/kg	<2	---	---	---	---
EP075(SIM)B: Polynuclear Aromatic 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	mg/kg	<0.5	---	---	---	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	---	---	---	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	---	---	---	0.8
Anthracene	120-12-7	0.5	mg/kg	<0.5	---	---	---	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	---	---	---	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	---	---	---	<0.5
Benz(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	---	---	---	0.8
^ 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 Hydrocarbons								
C6 - C9 Fraction	---	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	---	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID: S8	S10	S14	S16	S17
				Client sampling date / time: 22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
				ES1323205-008	ES1323205-010	ES1323205-013	ES1323205-015	ES1323205-016
EP068A: Organochlorine Pesticides (OC) - Continued								
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	—	—	—	—
4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	—	—	—	—
Endrin ketone	53494-70-5	0.05	mg/kg	<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 DDD + DDE + DDT	—	0.05	mg/kg	<0.05	—	—	—	—
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	—	—	—	—
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	—	—	—	—
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	—	—	—	—
Dimethoate	60-51-5	0.05	mg/kg	<0.05	—	—	—	—
Diazinon	333-41-5	0.05	mg/kg	<0.05	—	—	—	—
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	—	—	—	—
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	—	—	—	—
Malathion	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	mg/kg	<0.05	—	—	—	—
Parathion	56-38-2	0.2	mg/kg	<0.2	—	—	—	—
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	—	—	—	—
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	—	—	—	—
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	—	—	—	—
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	—	—	—	—
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	—	—	—	—
Ethion	563-12-2	0.05	mg/kg	<0.05	—	—	—	—
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	—	—	—	—
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	—	—	—	—
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	—	—	—	—
2-Chlorophenol	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	—	—	—	—

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S8	S10	S14	S16	S17
				Client sampling date / time: 22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
				ES1323205-008	ES1323205-010	ES1323205-013	ES1323205-015	ES1323205-016
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	---	1.0	%	12.4	9.2	16.7	20.2	21.7
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	9	---	---	---	---
Cadmium	7440-43-9	1	mg/kg	<1	---	---	---	---
Chromium	7440-47-3	2	mg/kg	17	---	---	---	---
Copper	7440-50-8	5	mg/kg	57	---	---	---	---
Lead	7439-92-1	5	mg/kg	36	9	45	197	---
Nickel	7440-02-0	2	mg/kg	31	---	---	---	---
Zinc	7440-66-6	5	mg/kg	83	---	---	---	---
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	---	---	---	---
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	---	0.1	mg/kg	<0.1	---	---	---	---
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/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	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	---	---	---	---
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	---	---	---	---
alpha-Endosulfan	959-98-8	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	---	---	---	---
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	---	---	---	---
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	---	---	---	---
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	---	---	---	---
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	---	---	---	---

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	S1	S2	S4	S5	S7
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
					ES1323205-001	ES1323205-002	ES1323205-004	ES1323205-005	ES1323205-007
EP080: BTEXN - Continued									
^ Sum of BTEX	---	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		---	67.9	---	65.6	64.7
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		---	118	105	123	102
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		---	88.8	80.7	95.4	80.3
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		---	---	97.8	---	---
Toluene-D8	2037-26-5	0.1	%		---	---	109	---	---
4-Bromofluorobenzene	460-00-4	0.1	%		---	---	101	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		92.8	88.5	96.0	99.1	91.8
2-Chlorophenol-D4	93951-73-6	0.1	%		97.4	98.3	99.0	92.7	90.5
2.4.6-Tribromophenol	118-79-6	0.1	%		93.5	92.4	91.5	92.5	85.7
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		98.1	94.7	97.5	96.6	91.5
Anthracene-d10	1719-06-8	0.1	%		90.0	86.6	88.5	88.7	84.0
4-Terphenyl-d14	1718-51-0	0.1	%		88.1	84.9	88.8	87.5	82.3
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		89.0	100	96.1	94.2	91.8
Toluene-D8	2037-26-5	0.1	%		79.8	92.4	110	85.2	83.9
4-Bromofluorobenzene	460-00-4	0.1	%		95.8	112	98.2	105	100

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S1	S2	S4	S5	S7
				Client sampling date / time: 22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
				ES1323205-001	ES1323205-002	ES1323205-004	ES1323205-005	ES1323205-007
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<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	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	---	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	---	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<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	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S1	S2	S4	S5	S7
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
					ES1323205-001	ES1323205-002	ES1323205-004	ES1323205-005	ES1323205-007
EP074F: Halogenated Aromatic Compounds - Continued									
4-Chlorotoluene	106-43-4	0.5	mg/kg		---	---	<0.5	---	---
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		---	---	<0.5	---	---
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		---	---	<0.5	---	---
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		---	---	<0.5	---	---
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		---	---	<0.5	---	---
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		---	---	<0.5	---	---
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		---	---	<0.5	---	---
Bromodichloromethane	75-27-4	0.5	mg/kg		---	---	<0.5	---	---
Dibromochloromethane	124-48-1	0.5	mg/kg		---	---	<0.5	---	---
Bromoform	75-25-2	0.5	mg/kg		---	---	<0.5	---	---
EP075(SIM)A: Phenolic Compounds									
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
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	105-67-9	0.5	mg/kg		---	<0.5	---	<0.5	<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	59-50-7	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	95-95-4	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									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S1	S2	S4	S5	S7
				Client sampling date / time: 22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
				ES1323205-001	ES1323205-002	ES1323205-004	ES1323205-005	ES1323205-007
EP074D: Fumigants - Continued								
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	5	mg/kg	---	---	<5	---	---
Chloromethane	74-87-3	5	mg/kg	---	---	<5	---	---
Vinyl chloride	75-01-4	5	mg/kg	---	---	<5	---	---
Bromomethane	74-83-9	5	mg/kg	---	---	<5	---	---
Chloroethane	75-00-3	5	mg/kg	---	---	<5	---	---
Trichlorofluoromethane	75-69-4	5	mg/kg	---	---	<5	---	---
1.1-Dichloroethene	75-35-4	0.5	mg/kg	---	---	<0.5	---	---
Iodomethane	74-88-4	0.5	mg/kg	---	---	<0.5	---	---
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	---	---	<0.5	---	---
1.1-Dichloroethane	75-34-3	0.5	mg/kg	---	---	<0.5	---	---
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	---	---	<0.5	---	---
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	---	---	<0.5	---	---
1.1-Dichloropropylene	563-58-6	0.5	mg/kg	---	---	<0.5	---	---
Carbon Tetrachloride	56-23-5	0.5	mg/kg	---	---	<0.5	---	---
1.2-Dichloroethane	107-06-2	0.5	mg/kg	---	---	<0.5	---	---
Trichloroethene	79-01-6	0.5	mg/kg	---	---	<0.5	---	---
Dibromomethane	74-95-3	0.5	mg/kg	---	---	<0.5	---	---
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	---	---	<0.5	---	---
1.3-Dichloropropane	142-28-9	0.5	mg/kg	---	---	<0.5	---	---
Tetrachloroethene	127-18-4	0.5	mg/kg	---	---	<0.5	---	---
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	---	---	<0.5	---	---
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	---	---	<0.5	---	---
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	---	---	<0.5	---	---
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	---	---	<0.5	---	---
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	---	---	<0.5	---	---
Pentachloroethane	76-01-7	0.5	mg/kg	---	---	<0.5	---	---
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	---	---	<0.5	---	---
Hexachlorobutadiene	87-68-3	0.5	mg/kg	---	---	<0.5	---	---
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90-7	0.5	mg/kg	---	---	<0.5	---	---
Bromobenzene	108-86-1	0.5	mg/kg	---	---	<0.5	---	---
2-Chlorotoluene	95-49-8	0.5	mg/kg	---	---	<0.5	---	---

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID: S1	S2	S4	S5	S7
				Client sampling date / time: 22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
				ES1323205-001	ES1323205-002	ES1323205-004	ES1323205-005	ES1323205-007
EP068A: Organochlorine Pesticides (OC) - Continued								
4.4`-DDD	72-54-8	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg	---	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Methoxychlor	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	mg/kg	---	<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 Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg	---	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg	---	<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	mg/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
Chlorpyrifos	2921-88-2	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg	---	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg	---	<0.05	<0.05	<0.05	<0.05
EP074D: Fumigants								
2.2-Dichloropropane	594-20-7	0.5	mg/kg	---	---	<0.5	---	---
1.2-Dichloropropane	78-87-5	0.5	mg/kg	---	---	<0.5	---	---
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	---	---	<0.5	---	---
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	---	---	<0.5	---	---
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	---	---	<0.5	---	---

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S1	S2	S4	S5	S7
				Client sampling date / time	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00	22-OCT-2013 15:00
					ES1323205-001	ES1323205-002	ES1323205-004	ES1323205-005	ES1323205-007
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		13.2	18.7	21.7	13.4	13.2
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		----	9	9	17	8
Cadmium	7440-43-9	1	mg/kg		----	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		----	21	23	13	9
Copper	7440-50-8	5	mg/kg		----	34	43	51	53
Lead	7439-92-1	5	mg/kg		----	99	34	35	25
Nickel	7440-02-0	2	mg/kg		----	19	6	6	17
Zinc	7440-66-6	5	mg/kg		----	67	47	39	68
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		----	<0.1	<0.1	<0.1	<0.1
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg		----	----	<1	----	----
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	<0.1	----	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/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	319-86-8	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	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
4,4'-DDE	72-55-9	0.05	mg/kg		----	<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	33213-65-9	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05

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 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 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

- **EA200 Legend**
- **EA200 'Am' Amosite (brown asbestos)**
- **EA200 'Ch' Chrysotile (white asbestos)**
- **EA200 'Cr' Crocidolite (blue asbestos)**
- **EA200 'Trace' - Asbestos fibres detected by trace analysis per AS4964. 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 alternative 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.**
- **EP068: Positive results on samples S34 and S51 have been confirmed by re-extraction and re-analysis.**

Signatories

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
Ashesh Patel	Inorganic Chemist	Sydney Inorganics
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics
Pabi Subba	Senior Organic Chemist	Sydney Organics
Phalak Inthaksone	Laboratory Manager - Organics	Sydney Organics
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES1323205**	Page	: 1 of 41
Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: DAVID YONGE	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: dyonge@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 9756 2166	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9756 1137	Facsimile	: +61-2-8784 8500
Project	: 19399 3606C	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Order number	: 10490		
C-O-C number	: P19399-COC1	Date Samples Received	: 25-OCT-2013
Sampler	: ---	Issue Date	: 01-NOV-2013
Site	: ---		
		No. of samples received	: 49
Quote number	: EN/025/13	No. of samples analysed	: 33

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

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref: ASET35795/ 38975 / 1 - 1
Your ref: ES1323293
NATA Accreditation No: 14484

30 October 2013

Australian Laboratory Services Pty Ltd
277 - 284 Woodpark Road
Smithfield NSW 2164

Attn: Ms Nanthini Coilparampil

Dear Nanthini

Asbestos Identification
This report presents the results of one sample, forwarded by Australian Laboratory Services Pty Ltd on 29 October 2013, for analysis for asbestos.

1.Introduction: One sample forwarded was examined and analysed for the presence of asbestos.

2. Methods : The sample was examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Safer Environment Method 1.)**

3. Results : **Sample No. 1. ASET35795 / 38975 / 1. ES1323293 - 006 - S59.**
Approx dimensions 4.0 cm x 3.2 cm x 1.4 cm
The sample consisted of a mixture of soil and stones.
No asbestos detected.

Analysed and reported by,

Nisansala Maddage. BSc(Hons)
Environmental Scientist/Approved Identifier
Approved Signatory

NATA
WORLD RECOGNISED
ACCREDITATION

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Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	17060-07-0	64	130
Toluene-D8	2037-26-5	66	136
4-Bromofluorobenzene	460-00-4	60	122
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
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	71.6	130.0

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	S59	---	---	---	---
				Client sampling date / time	[28-OCT-2013]	---	---	---	---
Compound	CAS Number	LOR	Unit	ES1323293-006	---	---	---	---	---
EP080S: TPH(V)/BTEX Surrogates - Continued									
Toluene-D8	2037-26-5	0.1	%	93.6	---	---	---	---	---
4-Bromofluorobenzene	460-00-4	0.1	%	95.3	---	---	---	---	---

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	S59	---	---	---	---
				Client sampling date / time	[28-OCT-2013]	---	---	---	---
Compound	CAS Number	LOR	Unit	ES1323293-006	---	---	---	---	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 - Continued									
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 Naphthalene (F2)	---	50	mg/kg	<50	---	---	---	---	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	---	---	---	---	
Toluene	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	mg/kg	<0.2	---	---	---	---	
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	---	---	---	---	
Naphthalene	91-20-3	1	mg/kg	<1	---	---	---	---	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	64.7	---	---	---	---	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%	111	---	---	---	---	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%	73.5	---	---	---	---	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%	85.7	---	---	---	---	
2-Chlorophenol-D4	93951-73-6	0.1	%	84.2	---	---	---	---	
2.4.6-Tribromophenol	118-79-6	0.1	%	134	---	---	---	---	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%	98.1	---	---	---	---	
Anthracene-d10	1719-06-8	0.1	%	82.1	---	---	---	---	
4-Terphenyl-d14	1718-51-0	0.1	%	100	---	---	---	---	
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%	96.7	---	---	---	---	

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S59	—	—	—	—
				Client sampling date / time: [28-OCT-2013]	—	—	—	—
				ES1323293-006	—	—	—	—
EP075(SIM)A: Phenolic Compounds - Continued								
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	—	—	—	—
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	—	—	—	—
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	—	—	—	—
Pentachlorophenol	87-86-5	2	mg/kg	<2	—	—	—	—
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	—	—	—	—
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	—	—	—	—
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	—	—	—	—
Fluorene	86-73-7	0.5	mg/kg	<0.5	—	—	—	—
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	—	—	—	—
Anthracene	120-12-7	0.5	mg/kg	<0.5	—	—	—	—
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	—	—	—	—
Pyrene	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	205-99-2	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	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 Hydrocarbons								
C6 - C9 Fraction	—	10	mg/kg	<10	—	—	—	—
C10 - C14 Fraction	—	50	mg/kg	<50	—	—	—	—
C15 - C28 Fraction	—	100	mg/kg	<100	—	—	—	—
C29 - C36 Fraction	—	100	mg/kg	<100	—	—	—	—
^ C10 - C36 Fraction (sum)	—	50	mg/kg	<50	—	—	—	—
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	S59	---	---	---	---
				Client sampling date / time	[28-OCT-2013]	---	---	---	---
Compound	CAS Number	LOR	Unit	ES1323293-006	---	---	---	---	
EP068A: Organochlorine Pesticides (OC) - Continued									
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	---	---	---	---	
4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	---	---	---	---	
Endrin ketone	53494-70-5	0.05	mg/kg	<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 DDD + DDE + DDT	---	0.05	mg/kg	<0.05	---	---	---	---	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	---	---	---	---	
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	---	---	---	---	
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	---	---	---	---	
Dimethoate	60-51-5	0.05	mg/kg	<0.05	---	---	---	---	
Diazinon	333-41-5	0.05	mg/kg	<0.05	---	---	---	---	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	---	---	---	---	
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	---	---	---	---	
Malathion	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	mg/kg	<0.05	---	---	---	---	
Parathion	56-38-2	0.2	mg/kg	<0.2	---	---	---	---	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	---	---	---	---	
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	---	---	---	---	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	---	---	---	---	
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	---	---	---	---	
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	---	---	---	---	
Ethion	563-12-2	0.05	mg/kg	<0.05	---	---	---	---	
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	---	---	---	---	
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	---	---	---	---	
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg	<0.5	---	---	---	---	
2-Chlorophenol	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	---	---	---	---	

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S59	---	---	---	---
				Client sampling date / time	[28-OCT-2013]	---	---	---	---
					ES1323293-006	---	---	---	---
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	---	1.0	%		13.4	---	---	---	---
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	---	---	---	---
Cadmium	7440-43-9	1	mg/kg		<1	---	---	---	---
Chromium	7440-47-3	2	mg/kg		8	---	---	---	---
Copper	7440-50-8	5	mg/kg		18	---	---	---	---
Lead	7439-92-1	5	mg/kg		8	---	---	---	---
Nickel	7440-02-0	2	mg/kg		15	---	---	---	---
Zinc	7440-66-6	5	mg/kg		51	---	---	---	---
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	---	---	---	---
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	---	0.1	mg/kg		<0.1	---	---	---	---
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/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	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	---	---	---	---
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	---	---	---	---
alpha-Endosulfan	959-98-8	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	---	---	---	---
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	---	---	---	---
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	---	---	---	---
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	---	---	---	---
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	---	---	---	---

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S54	S55	S56	S57	S58
				Client sampling date / time: [28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]
				ES1323293-001	ES1323293-002	ES1323293-003	ES1323293-004	ES1323293-005
EP080: BTEXN - Continued								
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<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	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	---	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	1	<1
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	%	---	102	---	---	---
Toluene-D8	2037-26-5	0.1	%	---	105	---	---	---
4-Bromofluorobenzene	460-00-4	0.1	%	---	105	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	97.1	83.7	83.8	90.7	---
2-Chlorophenol-D4	93951-73-6	0.1	%	99.5	83.6	85.0	92.2	---
2.4.6-Tribromophenol	118-79-6	0.1	%	113	93.9	111	94.2	---
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	97.5	104	95.9	93.7	---
Anthracene-d10	1719-06-8	0.1	%	86.6	87.5	80.7	83.1	---
4-Terphenyl-d14	1718-51-0	0.1	%	106	98.3	102	103	---
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	%	92.2	112	118	105	98.4
Toluene-D8	2037-26-5	0.1	%	101	108	107	97.5	94.2
4-Bromofluorobenzene	460-00-4	0.1	%	96.0	106	104	92.2	95.4

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	S54	S55	S56	S57	S58
				Client sampling date / time	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]
					ES1323293-001	ES1323293-002	ES1323293-003	ES1323293-004	ES1323293-005
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
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	<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	—
Benz(a)anthracene	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	mg/kg		<0.5	<0.5	<0.5	<0.5	—
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<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	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	—
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	—
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	—
^ Sum of polycyclic aromatic hydrocarbons	—	0.5	mg/kg		<0.5	0.5	<0.5	1.0	—
^ Benzo(a)pyrene TEQ (zero)	—	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	—
^ Benzo(a)pyrene TEQ (half LOR)	—	0.5	mg/kg		0.6	0.6	0.6	0.6	—
^ Benzo(a)pyrene TEQ (LOR)	—	0.5	mg/kg		1.2	1.2	1.2	1.2	—
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	—	10	mg/kg		<10	18	13	116	<10
C10 - C14 Fraction	—	50	mg/kg		<50	370	170	1100	<50
C15 - C28 Fraction	—	100	mg/kg		<100	<100	<100	130	<100
C29 - C36 Fraction	—	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	—	50	mg/kg		<50	370	170	1230	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	34	25	218	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	34	25	218	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg		<50	350	170	1080	<50
>C16 - C34 Fraction	—	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	—	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	—	50	mg/kg		<50	350	170	1080	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	—	50	mg/kg		<50	350	170	1080	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID: S54	S55	S56	S57	S58
				Client sampling date / time: [28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]
				ES1323293-001	ES1323293-002	ES1323293-003	ES1323293-004	ES1323293-005
EP074E: Halogenated Aliphatic Compounds - Continued								
Trichloroethene	79-01-6	0.5	mg/kg	---	<0.5	---	---	---
Dibromomethane	74-95-3	0.5	mg/kg	---	<0.5	---	---	---
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	---	<0.5	---	---	---
1.3-Dichloropropane	142-28-9	0.5	mg/kg	---	<0.5	---	---	---
Tetrachloroethene	127-18-4	0.5	mg/kg	---	<0.5	---	---	---
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	---	<0.5	---	---	---
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	---	<0.5	---	---	---
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	---	<0.5	---	---	---
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	---	<0.5	---	---	---
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	---	<0.5	---	---	---
Pentachloroethane	76-01-7	0.5	mg/kg	---	<0.5	---	---	---
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	---	<0.5	---	---	---
Hexachlorobutadiene	87-68-3	0.5	mg/kg	---	<0.5	---	---	---
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90-7	0.5	mg/kg	---	<0.5	---	---	---
Bromobenzene	108-86-1	0.5	mg/kg	---	<0.5	---	---	---
2-Chlorotoluene	95-49-8	0.5	mg/kg	---	<0.5	---	---	---
4-Chlorotoluene	106-43-4	0.5	mg/kg	---	<0.5	---	---	---
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	---	<0.5	---	---	---
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	---	<0.5	---	---	---
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	---	<0.5	---	---	---
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	---	<0.5	---	---	---
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	---	<0.5	---	---	---
EP074G: Trihalomethanes								
Chloroform	67-66-3	0.5	mg/kg	---	<0.5	---	---	---
Bromodichloromethane	75-27-4	0.5	mg/kg	---	<0.5	---	---	---
Dibromochloromethane	124-48-1	0.5	mg/kg	---	<0.5	---	---	---
Bromoform	75-25-2	0.5	mg/kg	---	<0.5	---	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	0.5	<0.5	1.0	---
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	---

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	S54	S55	S56	S57	S58
				Client sampling date / time	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]	[28-OCT-2013]
					ES1323293-001	ES1323293-002	ES1323293-003	ES1323293-004	ES1323293-005
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		18.3	16.1	13.8	14.9	19.1
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		----	10	----	----	----
Cadmium	7440-43-9	1	mg/kg		----	<1	----	----	----
Chromium	7440-47-3	2	mg/kg		----	12	----	----	----
Copper	7440-50-8	5	mg/kg		----	28	----	----	----
Lead	7439-92-1	5	mg/kg		----	66	----	----	----
Nickel	7440-02-0	2	mg/kg		----	9	----	----	----
Zinc	7440-66-6	5	mg/kg		----	113	----	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		----	0.1	----	----	----
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		----	<0.5	----	----	----
1.2-Dichloropropane	78-87-5	0.5	mg/kg		----	<0.5	----	----	----
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		----	<0.5	----	----	----
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		----	<0.5	----	----	----
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		----	<0.5	----	----	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		----	<5	----	----	----
Chloromethane	74-87-3	5	mg/kg		----	<5	----	----	----
Vinyl chloride	75-01-4	5	mg/kg		----	<5	----	----	----
Bromomethane	74-83-9	5	mg/kg		----	<5	----	----	----
Chloroethane	75-00-3	5	mg/kg		----	<5	----	----	----
Trichlorofluoromethane	75-69-4	5	mg/kg		----	<5	----	----	----
1.1-Dichloroethene	75-35-4	0.5	mg/kg		----	<0.5	----	----	----
Iodomethane	74-88-4	0.5	mg/kg		----	<0.5	----	----	----
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		----	<0.5	----	----	----
1.1-Dichloroethane	75-34-3	0.5	mg/kg		----	<0.5	----	----	----
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		----	<0.5	----	----	----
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		----	<0.5	----	----	----
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		----	<0.5	----	----	----
Carbon Tetrachloride	56-23-5	0.5	mg/kg		----	<0.5	----	----	----
1.2-Dichloroethane	107-06-2	0.5	mg/kg		----	<0.5	----	----	----

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 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 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**

Signatories

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
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics
Pabi Subba	Senior Organic Chemist	Sydney Organics
Phalak Inthaksone	Laboratory Manager - Organics	Sydney Organics
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES1323293**	Page	: 1 of 12
Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: ALL REPORTS	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: enquiries@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: ---	Telephone	: +61-2-8784 8555
Facsimile	: ---	Facsimile	: +61-2-8784 8500
Project	: GORDON 19399	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Order number	: 10574		
C-O-C number	: 210997	Date Samples Received	: 28-OCT-2013
Sampler	: JK	Issue Date	: 04-NOV-2013
Site	: ---		
		No. of samples received	: 7
Quote number	: EN/025/13	No. of samples analysed	: 6

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

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	3730756-007	---	**Acenaphthene**	83-32-9	75.0 %	79-123%	**Recovery less than lower control limit**

- **For all matrices, no Method Blank value outliers occur.**
- **For all matrices, no Duplicate outliers occur.**
- **For all matrices, no Matrix Spike outliers occur.**

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP080S: TPH(V)/BTEX Surrogates	ES1323205-008	S8	**Toluene-D8**	2037-26-5	71.3 %	73.9-132.1 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1323205-023	S25	**4-Bromofluorobenzene**	460-00-4	132 %	71.6-130.0 %	**Recovery greater than upper data quality objective**

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- **No Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- **No Quality Control Sample Frequency Outliers exist.**

Analytical Methods	Method	Matrix	Method Descriptions
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 501)

Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In-house, APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
Phenols After Microdistillation	EP035D	SOIL	APHA 21st ed., 5530 A, B&D pH adjusted Steam distillable Phenolic compounds. The resultant colour intensity is measured by Discrete Analyser.
Methanolic Extraction of Soils for Purge and Trap	* ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In-house, Mechanical agitation (tumbler). 20g of sample, Na2SO4 and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Tumbler Extraction of Solids (Option B - Non-concentrating)	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (2013) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (2013) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
Total Cyanide by Segmented Flow Analyser	EK026SF	SOIL	APHA 4500-CN-O. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM (2013) Schedule B(3) (Appdx. 2)
Total Phenol By Discrete Analyser	EP035G	SOIL	APHA 21st ed., 5530 B&D Steam distillable Phenols are reacted with 4-aminoantipyrine. The resultant colour intensity is measured by Seal
Polychlorinated Biphenyls (PCB)	EP066	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 504)
Pesticides by GCMS	EP068	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (2013) Schedule B(3) (Method 504,505)
TPH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (2013) Schedule B(3) (Method 506.1)
Volatile Organic Compounds	EP074	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 501)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 502 and 507)

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Matrix Spikes (MS) - Continued							
Polychlorinated Biphenyls (PCB)	EP066	1	11	9.1	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Cyanide by Segmented Flow Analyser	EK026SF	1	6	16.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	30	6.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	35	5.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Phenol By Discrete Analyser	EP035G	1	6	16.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	38	5.3	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	3	59	5.1	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	20	5.0	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055-103	6	57	10.5	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	4	24	16.7	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	2	14	14.3	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	2	11	18.2	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Cyanide by Segmented Flow Analyser	EK026SF	1	6	16.7	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	3	30	10.0	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	4	35	11.4	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Phenol By Discrete Analyser	EP035G	1	6	16.7	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	4	38	10.5	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	6	59	10.2	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	2	20	10.0	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	2	24	8.3	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	14	7.1	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	11	9.1	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Cyanide by Segmented Flow Analyser	EK026SF	2	6	33.3	10.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	30	6.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	35	5.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Phenol By Discrete Analyser	EP035G	1	6	16.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	38	5.3	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	3	59	5.1	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	20	5.0	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	2	24	8.3	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	14	7.1	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	11	9.1	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Cyanide by Segmented Flow Analyser	EK026SF	1	6	16.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	30	6.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	35	5.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Phenol By Discrete Analyser	EP035G	1	6	16.7	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	38	5.3	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	3	59	5.1	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	20	5.0	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	2	24	8.3	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	14	7.1	5.0	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Matrix: **SOIL**

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013							
Soil Glass Jar - Unpreserved (EP080) S4, S28	22-OCT-2013	28-OCT-2013	05-NOV-2013	✓	28-OCT-2013	05-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080) S1, S2, S5, S7, S8, S10, S14, S16, S17, S19, S20, S21, S24, S25, S27, S30, S34	22-OCT-2013	29-OCT-2013	05-NOV-2013	✓	30-OCT-2013	05-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080) S37, S44	23-OCT-2013	28-OCT-2013	06-NOV-2013	✓	28-OCT-2013	06-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080) S35, S38, S39, S40, S41, S46	23-OCT-2013	29-OCT-2013	06-NOV-2013	✓	30-OCT-2013	06-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080) S49, S50	24-OCT-2013	28-OCT-2013	07-NOV-2013	✓	28-OCT-2013	07-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080) S48, S51	24-OCT-2013	29-OCT-2013	07-NOV-2013	✓	30-OCT-2013	07-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080) S52, S53	25-OCT-2013	29-OCT-2013	08-NOV-2013	✓	30-OCT-2013	08-NOV-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080)								
S4,	S28	22-OCT-2013	28-OCT-2013	05-NOV-2013	✓	28-OCT-2013	05-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080)								
S1,	S2,	22-OCT-2013	29-OCT-2013	05-NOV-2013	✓	30-OCT-2013	05-NOV-2013	✓
S5,	S7,							
S8,	S10,							
S14,	S16,							
S17,	S19,							
S20,	S21,							
S24,	S25,							
S27,	S30,							
S34								
Soil Glass Jar - Unpreserved (EP080)								
S37,	S44	23-OCT-2013	28-OCT-2013	06-NOV-2013	✓	28-OCT-2013	06-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080)								
S35,	S38,	23-OCT-2013	29-OCT-2013	06-NOV-2013	✓	30-OCT-2013	06-NOV-2013	✓
S39,	S40,							
S41,	S46							
Soil Glass Jar - Unpreserved (EP080)								
S49,	S50	24-OCT-2013	28-OCT-2013	07-NOV-2013	✓	28-OCT-2013	07-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080)								
S48,	S51	24-OCT-2013	29-OCT-2013	07-NOV-2013	✓	30-OCT-2013	07-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP080)								
S52,	S53	25-OCT-2013	29-OCT-2013	08-NOV-2013	✓	30-OCT-2013	08-NOV-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074G: Trihalomethanes							
Soil Glass Jar - Unpreserved (EP074) S4, S28	22-OCT-2013	28-OCT-2013	29-OCT-2013	✓	28-OCT-2013	29-OCT-2013	✓
Soil Glass Jar - Unpreserved (EP074) S37, S44	23-OCT-2013	28-OCT-2013	30-OCT-2013	✓	28-OCT-2013	30-OCT-2013	✓
Soil Glass Jar - Unpreserved (EP074) S49, S50	24-OCT-2013	28-OCT-2013	31-OCT-2013	✓	28-OCT-2013	31-OCT-2013	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM)) S2, S5, S7, S8, S28, S34	22-OCT-2013	29-OCT-2013	05-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) S39, S44	23-OCT-2013	29-OCT-2013	06-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) S48, S51	24-OCT-2013	29-OCT-2013	07-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) S52	25-OCT-2013	29-OCT-2013	08-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM)) S1, S2, S4, S5, S7, S8, S17, S21, S28, S34	22-OCT-2013	29-OCT-2013	05-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) S35, S37, S38, S39, S40, S41, S44, S46	23-OCT-2013	29-OCT-2013	06-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) S48, S49, S50, S51	24-OCT-2013	29-OCT-2013	07-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) S52, S53	25-OCT-2013	29-OCT-2013	08-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP071)							
S1, S2, S4, S5, S7, S8, S10, S14, S16, S17, S19, S20, S21, S24, S25, S27, S28, S30, S34	22-OCT-2013	29-OCT-2013	05-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP071)							
S35, S37, S38, S39, S40, S41, S44, S46	23-OCT-2013	29-OCT-2013	06-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP071)							
S48, S49, S50, S51	24-OCT-2013	29-OCT-2013	07-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP071)							
S52, S53	25-OCT-2013	29-OCT-2013	08-NOV-2013	✓	30-OCT-2013	08-DEC-2013	✓
EP074D: Fumigants							
Soil Glass Jar - Unpreserved (EP074)							
S4, S28	22-OCT-2013	28-OCT-2013	29-OCT-2013	✓	28-OCT-2013	29-OCT-2013	✓
Soil Glass Jar - Unpreserved (EP074)							
S37, S44	23-OCT-2013	28-OCT-2013	30-OCT-2013	✓	28-OCT-2013	30-OCT-2013	✓
Soil Glass Jar - Unpreserved (EP074)							
S49, S50	24-OCT-2013	28-OCT-2013	31-OCT-2013	✓	28-OCT-2013	31-OCT-2013	✓
EP074E: Halogenated Aliphatic Compounds							
Soil Glass Jar - Unpreserved (EP074)							
S4, S28	22-OCT-2013	28-OCT-2013	29-OCT-2013	✓	28-OCT-2013	29-OCT-2013	✓
Soil Glass Jar - Unpreserved (EP074)							
S37, S44	23-OCT-2013	28-OCT-2013	30-OCT-2013	✓	28-OCT-2013	30-OCT-2013	✓
Soil Glass Jar - Unpreserved (EP074)							
S49, S50	24-OCT-2013	28-OCT-2013	31-OCT-2013	✓	28-OCT-2013	31-OCT-2013	✓
EP074F: Halogenated Aromatic Compounds							
Soil Glass Jar - Unpreserved (EP074)							
S4, S28	22-OCT-2013	28-OCT-2013	29-OCT-2013	✓	28-OCT-2013	29-OCT-2013	✓
Soil Glass Jar - Unpreserved (EP074)							
S37, S44	23-OCT-2013	28-OCT-2013	30-OCT-2013	✓	28-OCT-2013	30-OCT-2013	✓
Soil Glass Jar - Unpreserved (EP074)							
S49, S50	24-OCT-2013	28-OCT-2013	31-OCT-2013	✓	28-OCT-2013	31-OCT-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP035G: Total Phenol by Discrete Analyser								
Soil Glass Jar - Unpreserved (EP035G)								
S37, S39	S38,	23-OCT-2013	30-OCT-2013	06-NOV-2013	✓	30-OCT-2013	06-NOV-2013	✓
Soil Glass Jar - Unpreserved (EP035G)								
S49,	S50	24-OCT-2013	30-OCT-2013	07-NOV-2013	✓	30-OCT-2013	07-NOV-2013	✓
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066)								
S2, S7, S28,	S5, S8, S34	22-OCT-2013	28-OCT-2013	05-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP066)								
S39,	S44	23-OCT-2013	28-OCT-2013	06-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP066)								
S48,	S51	24-OCT-2013	28-OCT-2013	07-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP066)								
S52		25-OCT-2013	28-OCT-2013	08-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
EP068A: Organochlorine Pesticides (OC)								
Soil Glass Jar - Unpreserved (EP068)								
S2, S5, S8, S28,	S4, S7, S25, S34	22-OCT-2013	28-OCT-2013	05-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP068)								
S39,	S44	23-OCT-2013	28-OCT-2013	06-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP068)								
S48,	S51	24-OCT-2013	28-OCT-2013	07-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP068)								
S52,	S53	25-OCT-2013	28-OCT-2013	08-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
EP068B: Organophosphorus Pesticides (OP)								
Soil Glass Jar - Unpreserved (EP068)								
S2, S5, S8, S28,	S4, S7, S25, S34	22-OCT-2013	28-OCT-2013	05-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP068)								
S39,	S44	23-OCT-2013	28-OCT-2013	06-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP068)								
S48,	S51	24-OCT-2013	28-OCT-2013	07-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓
Soil Glass Jar - Unpreserved (EP068)								
S52,	S53	25-OCT-2013	28-OCT-2013	08-NOV-2013	✓	29-OCT-2013	07-DEC-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
S2, S4, S5, S7, S8, S10, S14, S16, S19, S20, S21, S24, S25, S27, S28, S30, S34	22-OCT-2013	29-OCT-2013	20-APR-2014	✓	30-OCT-2013	20-APR-2014	✓
Soil Glass Jar - Unpreserved (EG005T)							
S35, S38, S39, S40, S41, S44, S46	23-OCT-2013	29-OCT-2013	21-APR-2014	✓	30-OCT-2013	21-APR-2014	✓
Soil Glass Jar - Unpreserved (EG005T)							
S48, S49, S50, S51	24-OCT-2013	29-OCT-2013	22-APR-2014	✓	30-OCT-2013	22-APR-2014	✓
Soil Glass Jar - Unpreserved (EG005T)							
S52, S53	25-OCT-2013	29-OCT-2013	23-APR-2014	✓	30-OCT-2013	23-APR-2014	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
S2, S4, S5, S7, S8, S19, S21, S25, S28, S34	22-OCT-2013	29-OCT-2013	19-NOV-2013	✓	31-OCT-2013	19-NOV-2013	✓
Soil Glass Jar - Unpreserved (EG035T)							
S35, S38, S39, S40, S41, S44, S46	23-OCT-2013	29-OCT-2013	20-NOV-2013	✓	31-OCT-2013	20-NOV-2013	✓
Soil Glass Jar - Unpreserved (EG035T)							
S48, S49, S50, S51	24-OCT-2013	29-OCT-2013	21-NOV-2013	✓	31-OCT-2013	21-NOV-2013	✓
Soil Glass Jar - Unpreserved (EG035T)							
S52, S53	25-OCT-2013	29-OCT-2013	22-NOV-2013	✓	31-OCT-2013	22-NOV-2013	✓
EK026SF: Total CN by Segmented Flow Analyser							
Soil Glass Jar - Unpreserved (EK026SF)							
S4, S28	22-OCT-2013	29-OCT-2013	05-NOV-2013	✓	30-OCT-2013	12-NOV-2013	✓
Soil Glass Jar - Unpreserved (EK026SF)							
S35, S37, S44	23-OCT-2013	29-OCT-2013	06-NOV-2013	✓	30-OCT-2013	12-NOV-2013	✓

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with recommended holding times (USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Matrix: **SOIL**

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content							
Soil Glass Jar - Unpreserved (EA055-103) S1, S2, S4, S5, S7, S8, S10, S14, S16, S17, S19, S20, S21, S24, S25, S27, S28, S30, S34	22-OCT-2013	---	---	---	29-OCT-2013	05-NOV-2013	✓
Soil Glass Jar - Unpreserved (EA055-103) S35, S37, S38, S39, S40, S41, S44, S46	23-OCT-2013	---	---	---	29-OCT-2013	06-NOV-2013	✓
Soil Glass Jar - Unpreserved (EA055-103) S48, S49, S50, S51	24-OCT-2013	---	---	---	29-OCT-2013	07-NOV-2013	✓
Soil Glass Jar - Unpreserved (EA055-103) S52, S53	25-OCT-2013	---	---	---	29-OCT-2013	08-NOV-2013	✓

ALS Environmental

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: **ES1323205**	Page	: 1 of 13
Client	: SMEC TESTING SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: DAVID YONGE	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: dyonge@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 9756 2166	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9756 1137	Facsimile	: +61-2-8784 8500
Project	: 19399 3606C	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: P19399-COC1	Date Samples Received	: 25-OCT-2013
Sampler	: ----	Issue Date	: 01-NOV-2013
Order number	: 10490		
		No. of samples received	: 49
Quote number	: EN/025/13	No. of samples analysed	: 33

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 Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Sub-Matrix: **SOIL**

				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	MSD	Low	High	Value	Control Limit
EP080: BTEXN (QCLot: 3129675)										
ES1323147-020	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	110	---	70	130	---	---
		EP080: Toluene	108-88-3	2.5 mg/kg	118	---	70	130	---	---
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	117	---	70	130	---	---
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	120	---	70	130	---	---
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	115	---	70	130	---	---
		EP080: Naphthalene	91-20-3	2.5 mg/kg	86.8	---	70	130	---	---
EG005T: Total Metals by ICP-AES (QCLot: 3130765)										
ES1323038-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	105	---	70	130	---	---
		EG005T: Cadmium	7440-43-9	50 mg/kg	106	---	70	130	---	---
		EG005T: Chromium	7440-47-3	50 mg/kg	106	---	70	130	---	---
		EG005T: Copper	7440-50-8	125 mg/kg	113	---	70	130	---	---
		EG005T: Lead	7439-92-1	125 mg/kg	109	---	70	130	---	---
		EG005T: Nickel	7440-02-0	50 mg/kg	110	---	70	130	---	---
		EG005T: Zinc	7440-66-6	125 mg/kg	107	---	70	130	---	---
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3130766)										
ES1323038-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	102	---	70	130	---	---
EG005T: Total Metals by ICP-AES (QCLot: 3130767)										
ES1323205-037	S40	EG005T: Arsenic	7440-38-2	50 mg/kg	107	---	70	130	---	---
		EG005T: Cadmium	7440-43-9	50 mg/kg	108	---	70	130	---	---
		EG005T: Chromium	7440-47-3	50 mg/kg	100	---	70	130	---	---
		EG005T: Copper	7440-50-8	125 mg/kg	106	---	70	130	---	---
		EG005T: Lead	7439-92-1	125 mg/kg	108	---	70	130	---	---
		EG005T: Nickel	7440-02-0	50 mg/kg	102	---	70	130	---	---
		EG005T: Zinc	7440-66-6	125 mg/kg	91.8	---	70	130	---	---
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3130768)										
ES1323205-037	S40	EG035T: Mercury	7439-97-6	5 mg/kg	96.7	---	70	130	---	---
EP035G: Total Phenol by Discrete Analyser (QCLot: 3132350)										
ES1323205-034	S37	EP035G: Phenols (Total)	---	4.2 mg/kg	86.1	---	70	130	---	---

Sub-Matrix: **SOIL**

				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	MSD	Low	High	Value	Control Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3128447)										
ES1323205-001	S1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	106	---	70	130	---	---
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	112	---	70	130	---	---
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3128456)										
ES1323205-035	S38	EP071: C10 - C14 Fraction	---	640 mg/kg	78.4	---	73	137	---	---
		EP071: C15 - C28 Fraction	---	3140 mg/kg	87.6	---	53	131	---	---
		EP071: C29 - C36 Fraction	---	2860 mg/kg	86.6	---	52	132	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 (QCLot: 3128456)										
ES1323205-035	S38	EP071: >C10 - C16 Fraction	>C10_C16	850 mg/kg	101	---	73	137	---	---
		EP071: >C16 - C34 Fraction	---	4800 mg/kg	85.0	---	53	131	---	---
		EP071: >C34 - C40 Fraction	---	2400 mg/kg	66.4	---	52	132	---	---
EP075(SIM)A: Phenolic Compounds (QCLot: 3128457)										
ES1323205-035	S38	EP075(SIM): Phenol	108-95-2	10 mg/kg	111	---	70	130	---	---
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	103	---	70	130	---	---
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	103	---	60	130	---	---
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	111	---	70	130	---	---
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	113	---	20	130	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3128457)										
ES1323205-035	S38	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	114	---	70	130	---	---
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	124	---	70	130	---	---
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 3129515)										
ES1323017-001	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	95.9	---	70	130	---	---
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3129674)										
ES1323205-001	S1	EP080: C6 - C9 Fraction	---	32.5 mg/kg	102	---	70	130	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 (QCLot: 3129674)										
ES1323205-001	S1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	98.9	---	70	130	---	---
EP080: BTEXN (QCLot: 3129674)										
ES1323205-001	S1	EP080: Benzene	71-43-2	2.5 mg/kg	80.6	---	70	130	---	---
		EP080: Toluene	108-88-3	2.5 mg/kg	83.4	---	70	130	---	---
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	88.4	---	70	130	---	---
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	90.4	---	70	130	---	---
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	93.2	---	70	130	---	---
		EP080: Naphthalene	91-20-3	2.5 mg/kg	89.1	---	70	130	---	---
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3129675)										
ES1323147-020	Anonymous	EP080: C6 - C9 Fraction	---	32.5 mg/kg	121	---	70	130	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 (QCLot: 3129675)										
ES1323147-020	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	119	---	70	130	---	---

Sub-Matrix: **SOIL**

				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	MSD	Low	High	Value	Control Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 (QCLot: 3128057) - continued										
ES1323100-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	91.1	---	70	130	---	---
EP080: BTEXN (QCLot: 3128057)										
ES1323100-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	85.9	---	70	130	---	---
		EP080: Toluene	108-88-3	2.5 mg/kg	89.8	---	70	130	---	---
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	88.2	---	70	130	---	---
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	88.5	---	70	130	---	---
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	91.8	---	70	130	---	---
		EP080: Naphthalene	91-20-3	2.5 mg/kg	89.6	---	70	130	---	---
EP068A: Organochlorine Pesticides (OC) (QCLot: 3128274)										
ES1323205-002	S2	EP068: gamma-BHC	58-89-9	0.5 mg/kg	81.9	---	70	130	---	---
		EP068: Heptachlor	76-44-8	0.5 mg/kg	89.4	---	70	130	---	---
		EP068: Aldrin	309-00-2	0.5 mg/kg	79.9	---	70	130	---	---
		EP068: Dieldrin	60-57-1	0.5 mg/kg	86.3	---	70	130	---	---
		EP068: Endrin	72-20-8	2 mg/kg	86.0	---	70	130	---	---
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	102	---	70	130	---	---
EP068B: Organophosphorus Pesticides (OP) (QCLot: 3128274)										
ES1323205-002	S2	EP068: Diazinon	333-41-5	0.5 mg/kg	90.4	---	70	130	---	---
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	87.9	---	70	130	---	---
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	89.6	---	70	130	---	---
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	84.5	---	70	130	---	---
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	88.4	---	70	130	---	---
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 3128275)										
ES1323205-002	S2	EP066: Total Polychlorinated biphenyls	---	1 mg/kg	111	---	70	130	---	---
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3128446)										
ES1323205-001	S1	EP071: C10 - C14 Fraction	---	640 mg/kg	83.4	---	73	137	---	---
		EP071: C15 - C28 Fraction	---	3140 mg/kg	78.4	---	53	131	---	---
		EP071: C29 - C36 Fraction	---	2860 mg/kg	65.6	---	52	132	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 (QCLot: 3128446)										
ES1323205-001	S1	EP071: >C10 - C16 Fraction	>C10_C16	850 mg/kg	103	---	73	137	---	---
		EP071: >C16 - C34 Fraction	---	4800 mg/kg	71.0	---	53	131	---	---
		EP071: >C34 - C40 Fraction	---	2400 mg/kg	52.8	---	52	132	---	---
EP075(SIM)A: Phenolic Compounds (QCLot: 3128447)										
ES1323205-001	S1	EP075(SIM): Phenol	108-95-2	10 mg/kg	90.9	---	70	130	---	---
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	94.0	---	70	130	---	---
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	75.8	---	60	130	---	---
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	98.8	---	70	130	---	---
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	77.3	---	20	130	---	---