



Page : 12 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

				S6	S7	S8	S9	S10
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Client sampling date / time				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Compound	CAS Number	LOR	Unit	ES1419212-006	ES1419212-007	ES1419212-008	ES1419212-009	ES1419212-010
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
EP074S: VOC Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	80.6	86.0	89.8	89.1	89.9
Toluene-D8	2037-26-5	0.1	%	90.0	91.9	98.6	94.9	102
4-Bromofluorobenzene	460-00-4	0.1	%	86.5	90.0	96.1	93.8	97.1
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	104	102	104	106	110
2-Chlorophenol-D4	93951-73-6	0.1	%	106	108	99.4	112	99.3
2,4,6-Tribromophenol	118-79-6	0.1	%	59.4	61.1	59.4	66.5	57.9
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	84.3	89.5	83.7	93.0	84.4
Anthracene-d10	1719-06-8	0.1	%	101	99.5	96.0	104	100
4-Terphenyl-d14	1718-51-0	0.1	%	95.3	97.0	94.3	103	96.0
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	76.3	81.4	85.1	84.4	85.1
Toluene-D8	2037-26-5	0.1	%	76.2	77.8	83.4	93.0	99.8
4-Bromofluorobenzene	460-00-4	0.1	%	81.0	84.5	90.4	91.0	93.7



Page : 13 of 41
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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				S11	S12	S13	S14	S15
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Compound	CAS Number	LOR	Unit	ES1419212-011	ES1419212-012	ES1419212-013	ES1419212-014	ES1419212-015
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	---	1.0	%	13.1	12.1	21.5	19.8	20.5
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	9	6	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	26	14	36	38	22
Copper	7440-50-8	5	mg/kg	5	<5	11	8	<5
Lead	7439-92-1	5	mg/kg	42	13	16	19	10
Nickel	7440-02-0	2	mg/kg	8	7	11	9	10
Zinc	7440-66-6	5	mg/kg	29	47	18	30	24
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons								
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	<0.5	1.3	<0.5
tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	<5	<5	<5
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	<5	<5	<5
2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	<5	<5	<5
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074D: Fumigants								
2,2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 14 of 41
 Work Order : ES1419212
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 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

				S11	S12	S13	S14	S15
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
				ES1419212-011	ES1419212-012	ES1419212-013	ES1419212-014	ES1419212-015
Compound	CAS Number	LOR	Unit	ES1419212-011	ES1419212-012	ES1419212-013	ES1419212-014	ES1419212-015
EP074D: Fumigants - Continued								
1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	<5	<5	<5
Chloromethane	74-87-3	5	mg/kg	<5	<5	<5	<5	<5
Vinyl chloride	75-01-4	5	mg/kg	<5	<5	<5	<5	<5
Bromomethane	74-83-9	5	mg/kg	<5	<5	<5	<5	<5
Chloroethane	75-00-3	5	mg/kg	<5	<5	<5	<5	<5
Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	<5	<5	<5
1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	<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	<0.5	<0.5
cis-1,4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2,2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 15 of 41
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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID				
				S11	S12	S13	S14	S15
Client sampling date / time				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Compound	CAS Number	LOR	Unit	ES1419212-011	ES1419212-012	ES1419212-013	ES1419212-014	ES1419212-015
EP074F: Halogenated Aromatic Compounds - Continued								
4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074G: Trihalomethanes								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	0.6	<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	0.8	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 16 of 41
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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

				S11	S12	S13	S14	S15
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Client sampling date / time				ES1419212-011	ES1419212-012	ES1419212-013	ES1419212-014	ES1419212-015
Compound	CAS Number	LOR	Unit	ES1419212-011	ES1419212-012	ES1419212-013	ES1419212-014	ES1419212-015
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
Benzo(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+j)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	0.8	<0.5	0.6	<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	11	<10
C10 - C14 Fraction	---	50	mg/kg	<50	70	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg	<100	300	<100	<100	<100
C29 - C36 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg	<50	370	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	16	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	13	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	180	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg	<100	190	<100	<100	<100
>C34 - C40 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	370	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg	<50	180	<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	0.8	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 17 of 41
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Client sampling date / time				ES1419212-011	ES1419212-012	ES1419212-013	ES1419212-014	ES1419212-015
Compound	CAS Number	LOR	Unit					
EP080: BTEXN - Continued								
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	1.6	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	0.6	<0.5
^ Sum of BTEX	---	0.2	mg/kg	<0.2	<0.2	<0.2	3.0	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	2.2	<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	%	89.8	103	100	93.1	86.1
Toluene-D8	2037-26-5	0.1	%	91.0	107	112	102	95.2
4-Bromofluorobenzene	460-00-4	0.1	%	93.0	103	104	96.4	87.4
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	104	115	110	115	115
2-Chlorophenol-D4	93951-73-6	0.1	%	97.2	101	112	99.3	98.0
2,4,6-Tribromophenol	118-79-6	0.1	%	75.7	65.9	67.3	57.6	57.4
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	89.8	86.6	97.1	85.4	89.9
Anthracene-d10	1719-06-8	0.1	%	100	97.7	112	99.2	102
4-Terphenyl-d14	1718-51-0	0.1	%	92.0	98.2	108	94.6	95.4
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	85.0	102	94.8	88.1	81.6
Toluene-D8	2037-26-5	0.1	%	89.5	103	110	99.6	93.4
4-Bromofluorobenzene	460-00-4	0.1	%	91.7	103	101	94.6	84.9



Page : 18 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID				
				S16	S17	S18	QC1	SP1
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Compound	CAS Number	LOR	Unit	ES1419212-016	ES1419212-017	ES1419212-018	ES1419212-019	ES1419212-021
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	---	1.0	%	12.7	10.5	19.9	7.9	14.4
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	19	18	23	11	18
Copper	7440-50-8	5	mg/kg	<5	6	5	<5	7
Lead	7439-92-1	5	mg/kg	14	18	10	10	41
Nickel	7440-02-0	2	mg/kg	10	12	8	6	6
Zinc	7440-66-6	5	mg/kg	48	44	19	22	96
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons								
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	<5	<5	<5
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	<5	<5	<5
2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	<5	<5	<5
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074D: Fumigants								
2,2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 19 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID				
				S16	S17	S18	QC1	SP1
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Compound	CAS Number	LOR	Unit	ES1419212-016	ES1419212-017	ES1419212-018	ES1419212-019	ES1419212-021
EP074D: Fumigants - Continued								
1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	<5	<5	<5
Chloromethane	74-87-3	5	mg/kg	<5	<5	<5	<5	<5
Vinyl chloride	75-01-4	5	mg/kg	<5	<5	<5	<5	<5
Bromomethane	74-83-9	5	mg/kg	<5	<5	<5	<5	<5
Chloroethane	75-00-3	5	mg/kg	<5	<5	<5	<5	<5
Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	<5	<5	<5
1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	<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	<0.5	<0.5
cis-1,4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 20 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Compound	CAS Number	LOR	Unit	S16	S17	S18	QC1	SP1
				Client sampling date / time	Client sampling date / time	Client sampling date / time	Client sampling date / time	Client sampling date / time
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
				ES1419212-016	ES1419212-017	ES1419212-018	ES1419212-019	ES1419212-021
EP074F: Halogenated Aromatic Compounds - Continued								
4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074G: Trihalomethanes								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<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



Page : 21 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

				S16	S17	S18	QC1	SP1
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Client sampling date / time				ES1419212-016	ES1419212-017	ES1419212-018	ES1419212-019	ES1419212-021
Compound	CAS Number	LOR	Unit					
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+j)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



Page : 22 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

				S16	S17	S18	QC1	SP1
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Client sampling date / time				ES1419212-016	ES1419212-017	ES1419212-018	ES1419212-019	ES1419212-021
Compound	CAS Number	LOR	Unit					
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
EP074S: VOC Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	84.9	93.8	92.7	84.7	90.0
Toluene-D8	2037-26-5	0.1	%	87.0	95.6	96.3	85.3	95.5
4-Bromofluorobenzene	460-00-4	0.1	%	84.7	95.3	95.2	85.5	91.3
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	96.1	102	103	94.2	93.3
2-Chlorophenol-D4	93951-73-6	0.1	%	96.9	101	93.2	85.7	82.6
2,4,6-Tribromophenol	118-79-6	0.1	%	59.6	61.6	62.7	58.8	60.2
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	85.8	89.4	92.4	83.4	83.2
Anthracene-d10	1719-06-8	0.1	%	99.0	104	107	95.2	94.5
4-Terphenyl-d14	1718-51-0	0.1	%	93.7	98.3	104	94.4	92.9
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	80.5	88.8	87.8	80.2	85.3
Toluene-D8	2037-26-5	0.1	%	85.3	93.5	94.2	83.5	93.9
4-Bromofluorobenzene	460-00-4	0.1	%	82.6	92.9	92.4	83.6	89.3



Page : 23 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP2	SP3	SP4	SP5	SP6
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Compound	CAS Number	LOR	Unit	ES1419212-022	ES1419212-023	ES1419212-024	ES1419212-025	ES1419212-026
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	—	1.0	%	12.6	7.8	9.3	7.7	9.8
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	15	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	25	23	5	6	5
Copper	7440-50-8	5	mg/kg	8	10	<5	<5	<5
Lead	7439-92-1	5	mg/kg	16	13	31	14	7
Nickel	7440-02-0	2	mg/kg	9	13	3	3	2
Zinc	7440-66-6	5	mg/kg	26	27	36	48	26
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons								
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.5	0.7	<0.5
sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	1.7	2.4	0.8
tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	<5	<5	<5
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	<5	<5	<5
2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	<5	<5	<5
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074D: Fumigants								
2,2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 24 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

Compound	CAS Number	LOR	Unit	SP2	SP3	SP4	SP5	SP6
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
				ES1419212-022	ES1419212-023	ES1419212-024	ES1419212-025	ES1419212-026
EP074D: Fumigants - Continued								
1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	<5	<5	<5
Chloromethane	74-87-3	5	mg/kg	<5	<5	<5	<5	<5
Vinyl chloride	75-01-4	5	mg/kg	<5	<5	<5	<5	<5
Bromomethane	74-83-9	5	mg/kg	<5	<5	<5	<5	<5
Chloroethane	75-00-3	5	mg/kg	<5	<5	<5	<5	<5
Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	<5	<5	<5
1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	<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	<0.5	<0.5
cis-1,4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 25 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID				
				SP2	SP3	SP4	SP5	SP6
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Client sampling date / time				ES1419212-022	ES1419212-023	ES1419212-024	ES1419212-025	ES1419212-026
Compound	CAS Number	LOR	Unit					
EP074F: Halogenated Aromatic Compounds - Continued								
4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074G: Trihalomethanes								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	1	<1
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<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



Page : 26 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Compound	CAS Number	LOR	Unit	SP2	SP3	SP4	SP5	SP6
				ES1419212-022	ES1419212-023	ES1419212-024	ES1419212-025	ES1419212-026
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Client sampling date / time								
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
Benzo(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+j)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	12	14	<10
C10 - C14 Fraction	---	50	mg/kg	70	<50	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg	260	<100	<100	<100	<100
C29 - C36 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg	330	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	16	21	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	11	15	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg	170	<50	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg	170	<100	<100	<100	<100
>C34 - C40 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg	340	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg	170	<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	1.4	1.2	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	0.5	<0.5



Page : 27 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP2	SP3	SP4	SP5	SP6
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Compound	CAS Number	LOR	Unit	ES1419212-022	ES1419212-023	ES1419212-024	ES1419212-025	ES1419212-026
EP080: BTEXN - Continued								
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	2.5	2.9	0.9
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	1.0	1.2	<0.5
^ Sum of BTEX	---	0.2	mg/kg	<0.2	<0.2	4.9	5.8	0.9
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	3.5	4.1	0.9
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP074S: VOC Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	87.7	91.5	93.8	82.0	81.1
Toluene-D8	2037-26-5	0.1	%	103	106	107	94.3	92.0
4-Bromofluorobenzene	460-00-4	0.1	%	88.8	97.8	95.9	82.8	83.8
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	88.2	85.2	85.1	83.2	90.2
2-Chlorophenol-D4	93951-73-6	0.1	%	89.8	86.3	83.4	85.0	91.7
2,4,6-Tribromophenol	118-79-6	0.1	%	82.6	76.3	75.7	75.8	78.5
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	89.3	84.7	87.4	87.2	90.6
Anthracene-d10	1719-06-8	0.1	%	94.1	92.5	92.1	95.9	101
4-Terphenyl-d14	1718-51-0	0.1	%	86.8	84.8	84.2	87.8	93.4
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	81.8	84.9	87.9	75.6	74.8
Toluene-D8	2037-26-5	0.1	%	95.8	100	100	88.7	85.7
4-Bromofluorobenzene	460-00-4	0.1	%	93.5	105	105	88.9	89.1



Page : 28 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

				SP7	SP8	SP9	SP10	SP11
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Client sampling date / time				ES1419212-027	ES1419212-028	ES1419212-029	ES1419212-030	ES1419212-031
Compound	CAS Number	LOR	Unit					
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	---	1.0	%	7.4	7.0	15.0	15.8	19.5
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	6	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	10	8	37	21	30
Copper	7440-50-8	5	mg/kg	<5	<5	8	8	7
Lead	7439-92-1	5	mg/kg	12	6	34	37	25
Nickel	7440-02-0	2	mg/kg	5	4	8	8	8
Zinc	7440-66-6	5	mg/kg	69	61	84	81	57
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons								
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	3.5	4.4	1.1
sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.5	0.7	<0.5
1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	8.4	10.6	2.8
tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.6	0.8	<0.5
n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.7	0.8	<0.5
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	<5	<5	<5
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	<5	<5	<5
2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	<5	<5	<5
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074D: Fumigants								
2,2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 29 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

Compound	CAS Number	LOR	Unit	SP7	SP8	SP9	SP10	SP11
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
				ES1419212-027	ES1419212-028	ES1419212-029	ES1419212-030	ES1419212-031
EP074D: Fumigants - Continued								
1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	<5	<5	<5
Chloromethane	74-87-3	5	mg/kg	<5	<5	<5	<5	<5
Vinyl chloride	75-01-4	5	mg/kg	<5	<5	<5	<5	<5
Bromomethane	74-83-9	5	mg/kg	<5	<5	<5	<5	<5
Chloroethane	75-00-3	5	mg/kg	<5	<5	<5	<5	<5
Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	<5	<5	<5
1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	<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	<0.5	<0.5
cis-1,4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 30 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

				SP7	SP8	SP9	SP10	SP11
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Client sampling date / time				ES1419212-027	ES1419212-028	ES1419212-029	ES1419212-030	ES1419212-031
Compound	CAS Number	LOR	Unit					
EP074F: Halogenated Aromatic Compounds - Continued								
4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074G: Trihalomethanes								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.7	1.0	<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	5.7	8.3	3.1
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	10.3	15.3	5.7
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 31 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP7	SP8	SP9	SP10	SP11
				27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Compound	CAS Number	LOR	Unit	ES1419212-027	ES1419212-028	ES1419212-029	ES1419212-030	ES1419212-031
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	0.6	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	1.9	2.8	1.0
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+j)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	18.6	28.0	9.8
^ 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	45	58	23
C10 - C14 Fraction	---	50	mg/kg	<50	<50	1300	1870	690
C15 - C28 Fraction	---	100	mg/kg	<100	<100	4280	6260	2370
C29 - C36 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg	<50	<50	5580	8130	3060
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	72	92	43
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	63	80	40
>C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	<50	3140	4570	1590
>C16 - C34 Fraction	---	100	mg/kg	<100	<100	2460	3620	1480
>C34 - C40 Fraction	---	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	<50	5600	8190	3070
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg	<50	<50	3140	4570	1590
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	0.8	1.1	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Page : 32 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP7	SP8	SP9	SP10	SP11
Client sampling date / time					27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00	27-AUG-2014 15:00
Compound	CAS Number	LOR	Unit	ES1419212-027	ES1419212-028	ES1419212-029	ES1419212-030	ES1419212-031	
EP080: BTEXN - Continued									
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	6.1	8.0	2.1	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	2.3	3.2	0.8	
^ Sum of BTEX	---	0.2	mg/kg	<0.2	<0.2	9.2	12.3	2.9	
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	8.4	11.2	2.9	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	85.7	80.7	94.3	96.6	85.0	
Toluene-D8	2037-26-5	0.1	%	94.2	89.6	89.8	102	97.9	
4-Bromofluorobenzene	460-00-4	0.1	%	88.2	80.9	88.9	97.6	88.3	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%	89.3	85.3	79.9	80.3	79.4	
2-Chlorophenol-D4	93951-73-6	0.1	%	90.3	86.9	83.5	82.2	83.1	
2,4,6-Tribromophenol	118-79-6	0.1	%	78.2	72.8	78.7	80.5	79.1	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%	91.6	85.2	89.5	90.4	87.9	
Anthracene-d10	1719-06-8	0.1	%	99.8	96.2	92.0	93.3	91.7	
4-Terphenyl-d14	1718-51-0	0.1	%	92.6	88.4	86.3	86.1	85.6	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	79.8	74.0	84.5	86.5	79.2	
Toluene-D8	2037-26-5	0.1	%	88.8	83.4	87.6	99.6	92.9	
4-Bromofluorobenzene	460-00-4	0.1	%	94.6	86.5	83.1	99.7	99.3	



Page : 33 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				QC3	QC4	---	---	---
				27-AUG-2014 15:00	27-AUG-2014 15:00	---	---	---
Compound	CAS Number	LOR	Unit	ES1419212-032	ES1419212-033	---	---	---
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	---	1.0	%	15.6	10.8	---	---	---
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	---	---	---
Cadmium	7440-43-9	1	mg/kg	<1	<1	---	---	---
Chromium	7440-47-3	2	mg/kg	27	7	---	---	---
Copper	7440-50-8	5	mg/kg	7	<5	---	---	---
Lead	7439-92-1	5	mg/kg	30	46	---	---	---
Nickel	7440-02-0	2	mg/kg	10	4	---	---	---
Zinc	7440-66-6	5	mg/kg	57	39	---	---	---
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	---	---	---
EP074A: Monocyclic Aromatic Hydrocarbons								
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	---	---	---
Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	---	---	---
n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	2.0	---	---	---
1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	5.1	---	---	---
sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	---	---	---
1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	20.0	---	---	---
tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	---	---	---
p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	---	---	---
n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	0.8	---	---	---
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	---	---	---
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	---	---	---
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	---	---	---
2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	---	---	---
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	---	---	---
EP074D: Fumigants								
2,2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	---	---	---
1,2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	---	---	---
cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	---	---	---
trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	---	---	---



Page : 34 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID		QC3	QC4	---	---	---
Client sampling date / time				27-AUG-2014 15:00	27-AUG-2014 15:00	---	---	---	---	---
Compound	CAS Number	LOR	Unit	ES1419212-032	ES1419212-033	---	---	---	---	---
EP074D: Fumigants - Continued										
1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
EP074E: Halogenated Aliphatic Compounds										
Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	---	---	---	---	---
Chloromethane	74-87-3	5	mg/kg	<5	<5	---	---	---	---	---
Vinyl chloride	75-01-4	5	mg/kg	<5	<5	---	---	---	---	---
Bromomethane	74-83-9	5	mg/kg	<5	<5	---	---	---	---	---
Chloroethane	75-00-3	5	mg/kg	<5	<5	---	---	---	---	---
Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	---	---	---	---	---
1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,1,2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,1,1,2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
trans-1,4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
cis-1,4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,1,2,2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,2,3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
1,2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
EP074F: Halogenated Aromatic Compounds										
Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---
2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	---	---	---	---	---



Page : 35 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

QC3

QC4

Client sampling date / time

27-AUG-2014 15:00

27-AUG-2014 15:00

Compound	CAS Number	LOR	Unit	ES1419212-032	ES1419212-033	---	---	---
EP074F: Halogenated Aromatic Compounds - Continued								
4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	---	---	---
1,3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	---	---	---
1,4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	---	---	---
1,2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	---	---	---
1,2,4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	---	---	---
1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	---	---	---
EP074G: Trihalomethanes								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	---	---	---
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	---	---	---
Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	---	---	---
Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	---	---	---
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	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	1.6	---	---	---
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	0.7	---	---	---
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	---	---	---



Page : 36 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID		QC3	QC4	---	---	---
Client sampling date / time				27-AUG-2014 15:00	27-AUG-2014 15:00	---	---	---	---	---
Compound	CAS Number	LOR	Unit	ES1419212-032	ES1419212-033	---	---	---	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued										
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	0.8	---	---	---	---	---
Pyrene	129-00-0	0.5	mg/kg	<0.5	0.7	---	---	---	---	---
Benzo(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+j)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	3.8	---	---	---	---	---
^ 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	134	---	---	---	---	---
C10 - C14 Fraction	---	50	mg/kg	<50	<50	---	---	---	---	---
C15 - C28 Fraction	---	100	mg/kg	<100	<100	---	---	---	---	---
C29 - C36 Fraction	---	100	mg/kg	<100	<100	---	---	---	---	---
^ C10 - C36 Fraction (sum)	---	50	mg/kg	<50	<50	---	---	---	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013										
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	192	---	---	---	---	---
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	149	---	---	---	---	---
>C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	<50	---	---	---	---	---
>C16 - C34 Fraction	---	100	mg/kg	<100	<100	---	---	---	---	---
>C34 - C40 Fraction	---	100	mg/kg	<100	<100	---	---	---	---	---
^ >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	<50	---	---	---	---	---
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg	<50	<50	---	---	---	---	---
EP080: BTEXN										
Benzene	71-43-2	0.2	mg/kg	<0.2	0.3	---	---	---	---	---
Toluene	108-88-3	0.5	mg/kg	<0.5	8.7	---	---	---	---	---
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	4.4	---	---	---	---	---



Page : 37 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Compound	CAS Number	LOR	Unit	QC3	QC4	---	---	---
				27-AUG-2014 15:00	27-AUG-2014 15:00	---	---	---
				ES1419212-032	ES1419212-033	---	---	---
Client sampling date / time								
EP080: BTEXN - Continued								
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	21.2	---	---	---
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	8.6	---	---	---
^ Sum of BTEX	---	0.2	mg/kg	<0.2	43.2	---	---	---
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	29.8	---	---	---
Naphthalene	91-20-3	1	mg/kg	<1	4	---	---	---
EP074S: VOC Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	80.5	84.4	---	---	---
Toluene-D8	2037-26-5	0.1	%	94.5	98.6	---	---	---
4-Bromofluorobenzene	460-00-4	0.1	%	93.7	92.5	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	81.4	84.2	---	---	---
2-Chlorophenol-D4	93951-73-6	0.1	%	79.4	83.2	---	---	---
2,4,6-Tribromophenol	118-79-6	0.1	%	73.4	74.2	---	---	---
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	83.6	85.1	---	---	---
Anthracene-d10	1719-06-8	0.1	%	92.5	94.1	---	---	---
4-Terphenyl-d14	1718-51-0	0.1	%	84.7	86.0	---	---	---
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	75.7	77.9	---	---	---
Toluene-D8	2037-26-5	0.1	%	80.1	92.8	---	---	---
4-Bromofluorobenzene	460-00-4	0.1	%	84.5	101	---	---	---



Page : 38 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)

Client sample ID

PW

Client sampling date / time

27-AUG-2014 15:00

Compound	CAS Number	LOR	Unit	ES1419212-034	---	---	---	---
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	0.008	---	---	---	---
Cadmium	7440-43-9	0.0001	mg/L	0.0034	---	---	---	---
Chromium	7440-47-3	0.001	mg/L	0.062	---	---	---	---
Copper	7440-50-8	0.001	mg/L	0.119	---	---	---	---
Lead	7439-92-1	0.001	mg/L	0.304	---	---	---	---
Nickel	7440-02-0	0.001	mg/L	0.027	---	---	---	---
Zinc	7440-66-6	0.005	mg/L	0.924	---	---	---	---
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	---	---	---	---
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	1.0	µg/L	<1.0	---	---	---	---
2-Chlorophenol	95-57-8	1.0	µg/L	<1.0	---	---	---	---
2-Methylphenol	95-48-7	1.0	µg/L	<1.0	---	---	---	---
3- & 4-Methylphenol	1319-77-3	2.0	µg/L	<2.0	---	---	---	---
2-Nitrophenol	88-75-5	1.0	µg/L	<1.0	---	---	---	---
2,4-Dimethylphenol	105-67-9	1.0	µg/L	<1.0	---	---	---	---
2,4-Dichlorophenol	120-83-2	1.0	µg/L	<1.0	---	---	---	---
2,6-Dichlorophenol	87-65-0	1.0	µg/L	<1.0	---	---	---	---
4-Chloro-3-methylphenol	59-50-7	1.0	µg/L	<1.0	---	---	---	---
2,4,6-Trichlorophenol	88-06-2	1.0	µg/L	<1.0	---	---	---	---
2,4,5-Trichlorophenol	95-95-4	1.0	µg/L	<1.0	---	---	---	---
Pentachlorophenol	87-86-5	2.0	µg/L	<2.0	---	---	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	1.0	µg/L	2.5	---	---	---	---
Acenaphthylene	208-96-8	1.0	µg/L	<1.0	---	---	---	---
Acenaphthene	83-32-9	1.0	µg/L	<1.0	---	---	---	---
Fluorene	86-73-7	1.0	µg/L	3.2	---	---	---	---
Phenanthrene	85-01-8	1.0	µg/L	13.1	---	---	---	---
Anthracene	120-12-7	1.0	µg/L	<1.0	---	---	---	---
Fluoranthene	206-44-0	1.0	µg/L	<1.0	---	---	---	---
Pyrene	129-00-0	1.0	µg/L	2.1	---	---	---	---
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	---	---	---	---
Chrysene	218-01-9	1.0	µg/L	<1.0	---	---	---	---



Page : 39 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)

Client sample ID

PW

Client sampling date / time

27-AUG-2014 15:00

Compound	CAS Number	LOR	Unit	ES1419212-034	---	---	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b+)fluoranthene	205-99-2	1.0	µg/L	<1.0	---	---	---	---
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	---	---	---	---
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	---	---	---	---
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	---	---	---	---
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	---	---	---	---
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	---	---	---	---
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	µg/L	20.9	---	---	---	---
^ Benzo(a)pyrene TEQ (zero)	---	0.5	µg/L	<0.5	---	---	---	---
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	---	20	µg/L	140	---	---	---	---
C10 - C14 Fraction	---	50	µg/L	330	---	---	---	---
C15 - C28 Fraction	---	100	µg/L	2670	---	---	---	---
C29 - C36 Fraction	---	50	µg/L	<50	---	---	---	---
^ C10 - C36 Fraction (sum)	---	50	µg/L	3000	---	---	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								
C6 - C10 Fraction	C6_C10	20	µg/L	180	---	---	---	---
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	70	---	---	---	---
>C10 - C16 Fraction	>C10_C16	100	µg/L	930	---	---	---	---
>C16 - C34 Fraction	---	100	µg/L	1910	---	---	---	---
>C34 - C40 Fraction	---	100	µg/L	<100	---	---	---	---
^ >C10 - C40 Fraction (sum)	---	100	µg/L	2840	---	---	---	---
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	100	µg/L	920	---	---	---	---
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	5	---	---	---	---
Toluene	108-88-3	2	µg/L	45	---	---	---	---
Ethylbenzene	100-41-4	2	µg/L	8	---	---	---	---
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	38	---	---	---	---
ortho-Xylene	95-47-6	2	µg/L	15	---	---	---	---
^ Total Xylenes	1330-20-7	2	µg/L	53	---	---	---	---
^ Sum of BTEX	---	1	µg/L	111	---	---	---	---
Naphthalene	91-20-3	5	µg/L	7	---	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates								



Page : 40 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	PW	---	---	---	---
				Client sampling date / time	27-AUG-2014 15:00	---	---	---	---
Compound	CAS Number	LOR	Unit	ES1419212-034	---	---	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates - Continued									
Phenol-d6	13127-88-3	0.1	%	18.9	---	---	---	---	---
2-Chlorophenol-D4	93951-73-6	0.1	%	40.9	---	---	---	---	---
2,4,6-Tribromophenol	118-79-6	0.1	%	54.0	---	---	---	---	---
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%	52.0	---	---	---	---	---
Anthracene-d10	1719-06-8	0.1	%	83.4	---	---	---	---	---
4-Terphenyl-d14	1718-51-0	0.1	%	70.4	---	---	---	---	---
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	88.8	---	---	---	---	---
Toluene-D8	2037-26-5	0.1	%	105	---	---	---	---	---
4-Bromofluorobenzene	460-00-4	0.1	%	86.3	---	---	---	---	---



Page : 41 of 41
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
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

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10.0	44
2-Chlorophenol-D4	93951-73-6	14	94
2,4,6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27.4	113
4-Terphenyl-d14	1718-51-0	32	112
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128



QUALITY CONTROL REPORT

Work Order	: ES1419212	Page	: 1 of 32
Client	: AECOM Australia Pty Ltd	Laboratory	: Environmental Division Sydney
Contact	: [REDACTED]	Contact	: Client Services
Address	: LEVEL 2 60 MARCUS CLARKE ST CANBERRA ACT, AUSTRALIA 2600	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [REDACTED]@aecom.com	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 6201 3017	Telephone	: +61-2-8784 8555
Facsimile	: ---	Facsimile	: +61-2-8784 8500
Project	: 60316172 TASK No 1 1 ESA CHARNWOOD	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Site	: ---	Date Samples Received	: 29-AUG-2014
C-O-C number	: ---	Issue Date	: 02-SEP-2014
Sampler	: ---	No. of samples received	: 33
Order number	: 60316172	No. of samples analysed	: 33
Quote number	: EN/004/14		

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



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
[REDACTED]	[REDACTED]	Sydney Inorganics
[REDACTED]	[REDACTED]	Sydney Inorganics
[REDACTED]	[REDACTED]	Sydney Organics
[REDACTED]	[REDACTED]	Sydney Inorganics



Page : 2 of 32
Work Order : ES1419212
Client : AECOM Australia Pty Ltd
Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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



Page : 3 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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: 3611385)									
ES1419164-019	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	---	1.0	%	5.9	5.9	0.0	No Limit
ES1419212-010	S10	EA055-103: Moisture Content (dried @ 103°C)	---	1.0	%	11.4	12.2	6.2	0% - 50%
EA055: Moisture Content (QC Lot: 3611386)									
ES1419212-019	QC1	EA055-103: Moisture Content (dried @ 103°C)	---	1.0	%	7.9	8.8	10.8	No Limit
ES1419212-031	SP11	EA055-103: Moisture Content (dried @ 103°C)	---	1.0	%	19.5	22.6	14.7	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 3611583)									
ES1418834-002	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	6540	6670	1.9	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	1480	1450	2.0	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	382	384	0.4	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	18	17	5.7	No Limit
ES1419212-003	S3	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	15	17	9.3	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	5	6	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	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	10	10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	26	17	40.9	No Limit
EG005T: Total Metals by ICP-AES (QC Lot: 3611585)									
ES1419212-013	S13	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	36	34	4.4	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	11	11	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	<5	24.7	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	11	10	11.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	16	21	23.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	18	28	45.2	No Limit
ES1419212-024	SP4	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	5	8	38.6	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	3	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	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	31	27	15.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	36	33	10.5	No Limit



Page : 4 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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 (%)
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3611584)									
ES1418834-002	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1419212-003	S3	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: 3611586)									
ES1419212-013	S13	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1419212-024	SP4	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 3611088)									
ES1419212-001	S1	EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1419212-011	S11	EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1419212-022	SP2	EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1419212-031	SP11	EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	1.1	1.3	19.8	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	2.8	3.5	20.2	No Limit
		EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 3611177)							



Page : 5 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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 (%)
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 3611177) - continued									
ES1419212-031	SP11	EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074B: Oxygenated Compounds (QC Lot: 3611088)									
ES1419212-001	S1	EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	0.0	No Limit
ES1419212-011	S11	EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	0.0	No Limit
EP074B: Oxygenated Compounds (QC Lot: 3611177)									
ES1419212-022	SP2	EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	0.0	No Limit
ES1419212-031	SP11	EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	0.0	No Limit
EP074C: Sulfonated Compounds (QC Lot: 3611088)									
ES1419212-001	S1	EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1419212-011	S11	EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074C: Sulfonated Compounds (QC Lot: 3611177)									
ES1419212-022	SP2	EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1419212-031	SP11	EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074D: Fumigants (QC Lot: 3611088)									
ES1419212-001	S1	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
ES1419212-011	S11	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
EP074D: Fumigants (QC Lot: 3611177)									



Page : 6 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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 (%)
EP074D: Fumigants (QC Lot: 3611177) - continued									
ES1419212-022	SP2	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
ES1419212-031	SP11	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: 3611088)									
ES1419212-001	S1	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
		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		
ES1419212-011	S11	EP074: 1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Page : 7 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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: 3611088) - continued									
ES1419212-011	S11	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
		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
EP074E: Halogenated Aliphatic Compounds (QC Lot: 3611177)									
ES1419212-022	SP2	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



Page : 8 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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: 3611177) - continued									
ES1419212-022	SP2	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
		ES1419212-031	SP11	EP074: 1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5
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
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



Page : 9 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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: 3611177) - continued									
ES1419212-031	SP11	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: 3611088)									
ES1419212-001	S1	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
ES1419212-011	S11	EP074: 1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
EP074F: Halogenated Aromatic Compounds (QC Lot: 3611177)									
ES1419212-022	SP2	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
		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
ES1419212-031	SP11	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: 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
EP074F: Halogenated Aromatic Compounds (QC Lot: 3611177)									
ES1419212-031	SP11	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: 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



Page : 10 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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 (%)
EP074F: Halogenated Aromatic Compounds (QC Lot: 3611177) - continued									
ES1419212-031	SP11	EP074: 1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074G: Trihalomethanes (QC Lot: 3611088)									
ES1419212-001	S1	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
ES1419212-011	S11	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
EP074G: Trihalomethanes (QC Lot: 3611177)									
ES1419212-022	SP2	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
ES1419212-031	SP11	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
EP074H: Naphthalene (QC Lot: 3611088)									
ES1419212-001	S1	EP074: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES1419212-011	S11	EP074: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP074H: Naphthalene (QC Lot: 3611177)									
ES1419212-022	SP2	EP074: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES1419212-031	SP11	EP074: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 3611097)									
ES1419212-001	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
		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
		ES1419212-011	S11	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5



Page : 11 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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)A: Phenolic Compounds (QC Lot: 3611097) - continued									
ES1419212-011	S11	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: 3611099)									
ES1419212-022	SP2	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		
ES1419212-031	SP11	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)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3611097)									
ES1419212-001	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



Page : 12 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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: 3611097) - continued									
ES1419212-001	S1	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+j)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
ES1419212-011	S11	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+j)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		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3611099)									
ES1419212-022	SP2	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



Page : 13 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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: 3611099) - continued									
ES1419212-022	SP2	EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	0.6	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+j)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	0.6	18.2	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1419212-031	SP11	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	3.1	2.4	26.4	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	5.7	4.4	27.4	0% - 50%
		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	1.0	0.8	26.3	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+j)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	9.8	7.6	25.3	0% - 50%
EP075(SIM): Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3611087)									
ES1419212-001	S1	EP080: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.0	No Limit
ES1419212-011	S11	EP080: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3611096)									
ES1419212-001	S1	EP071: C15 - C28 Fraction	---	100	mg/kg	120	100	12.7	No Limit
		EP071: C29 - C36 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit



Page : 14 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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 (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3611096) - continued									
ES1419212-001	S1	EP071: C10 - C14 Fraction	---	50	mg/kg	<50	<50	0.0	No Limit
ES1419212-011	S11	EP071: C15 - C28 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	---	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3611098)									
ES1419212-022	SP2	EP071: C15 - C28 Fraction	---	100	mg/kg	260	220	19.1	No Limit
		EP071: C29 - C36 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	---	50	mg/kg	70	50	30.0	No Limit
ES1419212-031	SP11	EP071: C15 - C28 Fraction	---	100	mg/kg	2370	2380	0.5	0% - 20%
		EP071: C29 - C36 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	---	50	mg/kg	690	740	6.1	0% - 50%
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3611176)									
ES1419212-022	SP2	EP080: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.0	No Limit
ES1419212-031	SP11	EP080: C6 - C9 Fraction	---	10	mg/kg	23	29	24.8	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3611087)									
ES1419212-001	S1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES1419212-011	S11	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3611096)									
ES1419212-001	S1	EP071: >C16 - C34 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	>C10_C16	50	mg/kg	70	50	35.0	No Limit
ES1419212-011	S11	EP071: >C16 - C34 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3611098)									
ES1419212-022	SP2	EP071: >C16 - C34 Fraction	---	100	mg/kg	170	140	21.2	No Limit
		EP071: >C34 - C40 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	>C10_C16	50	mg/kg	170	130	25.0	No Limit
ES1419212-031	SP11	EP071: >C16 - C34 Fraction	---	100	mg/kg	1480	1470	0.0	0% - 50%
		EP071: >C34 - C40 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	>C10_C16	50	mg/kg	1590	1650	3.9	0% - 20%
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3611176)									
ES1419212-022	SP2	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES1419212-031	SP11	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	43	54	23.3	No Limit
EP080: BTEXN (QC Lot: 3611087)									
ES1419212-001	S1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Page : 15 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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 (%)
EP080: BTEXN (QC Lot: 3611087) - continued									
ES1419212-001	S1	EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1419212-011	S11	EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
		EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
	EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
EP080: BTEXN (QC Lot: 3611176)									
ES1419212-022	SP2	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1419212-031	SP11	EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
		EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	2.1	2.7	23.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	0.8	1.0	21.5	No Limit
	EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020T: Total Metals by ICP-MS (QC Lot: 3612199)									
ES1419186-002	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.019	0.020	5.4	0% - 50%
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.003	0.003	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.054	0.057	6.1	0% - 50%
ES1419187-003	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.001	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	0.005	0.005	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.008	0.008	0.0	No Limit



Page : 16 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020T: Total Metals by ICP-MS (QC Lot: 3612199) - continued									
ES1419187-003	Anonymous	EG020A-T: Lead	7439-92-1	0.001	mg/L	0.005	0.005	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.025	0.028	10.2	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3612768)									
ES1419018-001	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
ES1419018-011	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3611072)									
ES1419191-001	Anonymous	EP080: C6 - C9 Fraction	---	20	µg/L	40	40	0.0	No Limit
ES1419193-002	Anonymous	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3611072)									
ES1419191-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	50	40	0.0	No Limit
ES1419193-002	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP080: BTEXN (QC Lot: 3611072)									
ES1419191-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit
ES1419193-002	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit



Page : 17 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
EG005T: Total Metals by ICP-AES (QCLot: 3611583)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	113	92	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	107	87	121
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	119	80	136
EG005T: Copper	7440-50-8	5	mg/kg	<5	32.0 mg/kg	117	93	127
EG005T: Lead	7439-92-1	5	mg/kg	<5	40.0 mg/kg	112	86	124
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.0 mg/kg	119	93	131
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	114	81	133
EG005T: Total Metals by ICP-AES (QCLot: 3611585)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	106	92	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	104	87	121
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	118	80	136
EG005T: Copper	7440-50-8	5	mg/kg	<5	32.0 mg/kg	111	93	127
EG005T: Lead	7439-92-1	5	mg/kg	<5	40.0 mg/kg	102	86	124
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.0 mg/kg	115	93	131
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	111	81	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3611584)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	85.4	70	105
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3611586)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	81.7	70	105
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 3611088)								
EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	1 mg/kg	88.4	64	126
EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	1 mg/kg	89.9	66	128
EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	1 mg/kg	90.2	63	129
EP074: 1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	1 mg/kg	88.6	63	129
EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	1 mg/kg	89.4	64	130
EP074: 1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	1 mg/kg	89.4	63	129
EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	1 mg/kg	90.8	63	129
EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	1 mg/kg	87.3	62	130
EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	1 mg/kg	89.6	61	131
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 3611177)								
EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	1 mg/kg	108	64	126
EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	1 mg/kg	107	66	128
EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	1 mg/kg	94.7	63	129
EP074: 1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	1 mg/kg	97.6	63	129



Page : 18 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
Method: Compound	CAS Number	LOR	Unit		Result	Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 3611177) - continued									
EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	1 mg/kg	99.1	64	130	
EP074: 1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	1 mg/kg	97.1	63	129	
EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	1 mg/kg	100	63	129	
EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	1 mg/kg	99.5	62	130	
EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	1 mg/kg	93.9	61	131	
EP074B: Oxygenated Compounds (QCLot: 3611088)									
EP074: Vinyl Acetate	108-05-4	1	mg/kg	<5	10 mg/kg	92.7	29.6	156	
EP074: 2-Butanone (MEK)	78-93-3	1	mg/kg	<5	10 mg/kg	78.8	58	136	
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	1	mg/kg	<5	10 mg/kg	84.9	54	138	
EP074: 2-Hexanone (MBK)	591-78-6	1	mg/kg	<5	10 mg/kg	84.1	54	136	
EP074B: Oxygenated Compounds (QCLot: 3611177)									
EP074: Vinyl Acetate	108-05-4	1	mg/kg	<5	10 mg/kg	90.8	29.6	156	
EP074: 2-Butanone (MEK)	78-93-3	1	mg/kg	<5	10 mg/kg	97.3	58	136	
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	1	mg/kg	<5	10 mg/kg	86.2	54	138	
EP074: 2-Hexanone (MBK)	591-78-6	1	mg/kg	<5	10 mg/kg	83.2	54	136	
EP074C: Sulfonated Compounds (QCLot: 3611088)									
EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	1 mg/kg	112	54	126	
EP074C: Sulfonated Compounds (QCLot: 3611177)									
EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	1 mg/kg	70.0	54	126	
EP074D: Fumigants (QCLot: 3611088)									
EP074: 2,2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	1 mg/kg	99.2	55	133	
EP074: 1,2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	1 mg/kg	89.2	69	127	
EP074: cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	1 mg/kg	94.6	54	124	
EP074: trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	1 mg/kg	89.0	51	125	
EP074: 1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	1 mg/kg	85.7	66	126	
EP074D: Fumigants (QCLot: 3611177)									
EP074: 2,2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	1 mg/kg	107	55	133	
EP074: 1,2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	1 mg/kg	89.1	69	127	
EP074: cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	1 mg/kg	87.4	54	124	
EP074: trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	1 mg/kg	82.5	51	125	
EP074: 1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	1 mg/kg	107	66	126	
EP074E: Halogenated Aliphatic Compounds (QCLot: 3611088)									
EP074: Dichlorodifluoromethane	75-71-8	1	mg/kg	<5	10 mg/kg	140	30	148	
EP074: Chloromethane	74-87-3	1	mg/kg	<5	10 mg/kg	134	41	141	
EP074: Vinyl chloride	75-01-4	1	mg/kg	<5	10 mg/kg	134	43	147	
EP074: Bromomethane	74-83-9	1	mg/kg	<5	10 mg/kg	122	47	141	
EP074: Chloroethane	75-00-3	1	mg/kg	<5	10 mg/kg	125	49	143	
EP074: Trichlorofluoromethane	75-69-4	1	mg/kg	<5	10 mg/kg	117	49	135	



Page : 19 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit		Result	Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High
EP074E: Halogenated Aliphatic Compounds (QCLot: 3611088) - continued								
EP074: 1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	1 mg/kg	116	54 126	
EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	1 mg/kg	129	43 129	
EP074: trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	1 mg/kg	104	62 130	
EP074: 1,1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	1 mg/kg	96.7	66 132	
EP074: cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	1 mg/kg	95.3	66 132	
EP074: 1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	1 mg/kg	102	62 126	
EP074: 1,1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	1 mg/kg	93.5	64 128	
EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	1 mg/kg	108	59 125	
EP074: 1,2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	1 mg/kg	94.4	65 123	
EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	1 mg/kg	89.8	64 120	
EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	1 mg/kg	90.5	65 127	
EP074: 1,1,2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	1 mg/kg	93.3	70 130	
EP074: 1,3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	1 mg/kg	86.5	72 128	
EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	1 mg/kg	87.2	67 143	
EP074: 1,1,1,2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	1 mg/kg	97.6	62 122	
EP074: trans-1,4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	1 mg/kg	78.1	54 128	
EP074: cis-1,4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	1 mg/kg	87.1	55 129	
EP074: 1,1,2,2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	1 mg/kg	86.7	56 132	
EP074: 1,2,3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	1 mg/kg	85.6	65 135	
EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	1 mg/kg	97.6	19.8 134	
EP074: 1,2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	1 mg/kg	119	53 129	
EP074: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	1 mg/kg	84.1	48 136	
EP074E: Halogenated Aliphatic Compounds (QCLot: 3611177)								
EP074: Dichlorodifluoromethane	75-71-8	1	mg/kg	<5	10 mg/kg	73.7	30 148	
EP074: Chloromethane	74-87-3	1	mg/kg	<5	10 mg/kg	82.9	41 141	
EP074: Vinyl chloride	75-01-4	1	mg/kg	<5	10 mg/kg	88.6	43 147	
EP074: Bromomethane	74-83-9	1	mg/kg	<5	10 mg/kg	139	47 141	
EP074: Chloroethane	75-00-3	1	mg/kg	<5	10 mg/kg	132	49 143	
EP074: Trichlorofluoromethane	75-69-4	1	mg/kg	<5	10 mg/kg	95.9	49 135	
EP074: 1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	1 mg/kg	85.7	54 126	
EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	1 mg/kg	97.7	43 129	
EP074: trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	1 mg/kg	102	62 130	
EP074: 1,1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	1 mg/kg	99.0	66 132	
EP074: cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	1 mg/kg	102	66 132	
EP074: 1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	1 mg/kg	102	62 126	
EP074: 1,1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	1 mg/kg	94.1	64 128	
EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	1 mg/kg	104	59 125	
EP074: 1,2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	1 mg/kg	89.0	65 123	
EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	1 mg/kg	92.1	64 120	



Page : 20 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
Method: Compound	CAS Number	LOR	Unit		Result	Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
EP074E: Halogenated Aliphatic Compounds (QCLot: 3611177) - continued									
EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	1 mg/kg	90.9	65	127	
EP074: 1,1,2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	1 mg/kg	102	70	130	
EP074: 1,3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	1 mg/kg	101	72	128	
EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	1 mg/kg	115	67	143	
EP074: 1,1,1,2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	1 mg/kg	98.6	62	122	
EP074: trans-1,4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	1 mg/kg	85.9	54	128	
EP074: cis-1,4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	1 mg/kg	85.3	55	129	
EP074: 1,1,1,2,2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	1 mg/kg	101	56	132	
EP074: 1,2,3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	1 mg/kg	100	65	135	
EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	1 mg/kg	100	19.8	134	
EP074: 1,2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	1 mg/kg	73.8	53	129	
EP074: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	1 mg/kg	111	48	136	
EP074F: Halogenated Aromatic Compounds (QCLot: 3611088)									
EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	1 mg/kg	86.7	70	128	
EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	1 mg/kg	84.3	67	127	
EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	1 mg/kg	86.9	64	130	
EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	1 mg/kg	86.3	62	130	
EP074: 1,3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	1 mg/kg	84.5	63	129	
EP074: 1,4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	1 mg/kg	84.2	63	129	
EP074: 1,2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	1 mg/kg	83.6	66	128	
EP074: 1,2,4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	1 mg/kg	84.8	54	134	
EP074: 1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	1 mg/kg	80.4	60	132	
EP074F: Halogenated Aromatic Compounds (QCLot: 3611177)									
EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	1 mg/kg	108	70	128	
EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	1 mg/kg	104	67	127	
EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	1 mg/kg	90.4	64	130	
EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	1 mg/kg	95.2	62	130	
EP074: 1,3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	1 mg/kg	103	63	129	
EP074: 1,4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	1 mg/kg	104	63	129	
EP074: 1,2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	1 mg/kg	102	66	128	
EP074: 1,2,4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	1 mg/kg	106	54	134	
EP074: 1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	1 mg/kg	105	60	132	
EP074G: Trihalomethanes (QCLot: 3611088)									
EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	1 mg/kg	90.3	62	120	
EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	1 mg/kg	102	61	121	
EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	1 mg/kg	104	63	121	
EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	1 mg/kg	96.6	60	126	
EP074G: Trihalomethanes (QCLot: 3611177)									



Page : 21 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
Method: Compound	CAS Number	LOR	Unit		Result	Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
EP074G: Trihalomethanes (QCLot: 3611177) - continued									
EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	1 mg/kg	96.8	62	120	
EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	1 mg/kg	85.4	61	121	
EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	1 mg/kg	93.1	63	121	
EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	1 mg/kg	95.7	60	126	
EP074H: Naphthalene (QCLot: 3611088)									
EP074: Naphthalene	91-20-3	0.5	mg/kg	<5	1 mg/kg	80.7	63	133	
EP074H: Naphthalene (QCLot: 3611177)									
EP074: Naphthalene	91-20-3	0.5	mg/kg	<5	1 mg/kg	102	63	133	
EP075(SIM)A: Phenolic Compounds (QCLot: 3611097)									
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	4 mg/kg	107	74	116	
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	4 mg/kg	103	74	116	
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	4 mg/kg	96.3	72	116	
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1	8 mg/kg	104	69	123	
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	4 mg/kg	86.4	60.3	117	
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	4 mg/kg	107	69	117	
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	4 mg/kg	92.7	68	112	
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	4 mg/kg	96.6	73	117	
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	4 mg/kg	93.3	76.4	114	
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	4 mg/kg	91.8	57	111	
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	4 mg/kg	91.5	68.9	112	
EP075(SIM): Pentachlorophenol	87-86-5	1.0	mg/kg	<1	8 mg/kg	36.4	10	57	
EP075(SIM)A: Phenolic Compounds (QCLot: 3611099)									
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	4 mg/kg	99.7	74	116	
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	4 mg/kg	99.7	74	116	
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	4 mg/kg	96.7	72	116	
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1	8 mg/kg	97.4	69	123	
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	4 mg/kg	73.4	60.3	117	
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	4 mg/kg	101	69	117	
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	4 mg/kg	93.6	68	112	
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	4 mg/kg	98.2	73	117	
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	4 mg/kg	92.0	76.4	114	
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	4 mg/kg	84.7	57	111	
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	4 mg/kg	89.3	68.9	112	
EP075(SIM): Pentachlorophenol	87-86-5	1.0	mg/kg	<1	8 mg/kg	18.9	10	57	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3611097)									
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	111	80	124	
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	97.3	77	123	
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	111	79	123	



Page : 22 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL				Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit		Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3611097) - continued								
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	102	77	123
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	105	79	123
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	106	79	123
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	106	79	123
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	107	79	125
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	83.8	73	121
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	99.2	81	123
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	86.7	70	118
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	97.5	77	123
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	107	76	122
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	80.6	71	113
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	85.1	71.7	113
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	95.8	72.4	114
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3611099)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	103	80	124
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	105	77	123
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	107	79	123
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	106	77	123
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	104	79	123
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	106	79	123
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	111	79	123
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	110	79	125
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	98.2	73	121
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	106	81	123
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	98.8	70	118
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	109	77	123
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	106	76	122
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	93.7	71	113
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	90.1	71.7	113
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	91.2	72.4	114
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611087)								
EP080: C6 - C9 Fraction	---	10	mg/kg	<10	26 mg/kg	114	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611096)								
EP071: C10 - C14 Fraction	---	50	mg/kg	<50	200 mg/kg	111	71	131
EP071: C15 - C28 Fraction	---	100	mg/kg	<100	300 mg/kg	112	74	138
EP071: C29 - C36 Fraction	---	100	mg/kg	<100	200 mg/kg	119	64	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611098)								
EP071: C10 - C14 Fraction	---	50	mg/kg	<50	200 mg/kg	102	71	131



Page : 23 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL					Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit	Result		Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611098) - continued									
EP071: C15 - C28 Fraction	---	100	mg/kg	<100	300 mg/kg	96.3	74	138	
EP071: C29 - C36 Fraction	---	100	mg/kg	<100	200 mg/kg	87.6	64	128	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611176)									
EP080: C6 - C9 Fraction	---	10	mg/kg	<10	26 mg/kg	107	68.4	128	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611087)									
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	114	68.4	128	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611096)									
EP071: >C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	250 mg/kg	115	70	130	
EP071: >C16 - C34 Fraction	---	100	mg/kg	<100	350 mg/kg	114	74	138	
EP071: >C34 - C40 Fraction	---	50	mg/kg	<100	150 mg/kg	116	63	131	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611098)									
EP071: >C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	250 mg/kg	96.9	70	130	
EP071: >C16 - C34 Fraction	---	100	mg/kg	<100	350 mg/kg	94.0	74	138	
EP071: >C34 - C40 Fraction	---	50	mg/kg	<100	150 mg/kg	78.9	63	131	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611176)									
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	101	68.4	128	
EP080: BTEXN (QCLot: 3611087)									
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	109	62	116	
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	103	62	128	
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	101	58	118	
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	104	60	120	
	106-42-3								
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	104	60	120	
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	99.1	62	138	
EP080: BTEXN (QCLot: 3611176)									
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	106	62	116	
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	101	62	128	
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	91.6	58	118	
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	94.8	60	120	
	106-42-3								
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	93.8	60	120	
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	86.9	62	138	
Sub-Matrix: WATER					Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit	Result		Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
EG020T: Total Metals by ICP-MS (QCLot: 3612199)									
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	104	79	121	
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	101	83	113	



Page : 24 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Recovery Limits (%)	
					Concentration	LCS	Low	High	
EG020T: Total Metals by ICP-MS (QCLot: 3612199) - continued									
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	98.4	84	116	
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	113	83	117	
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	107	84	116	
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	92.8	84	116	
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	111	77	117	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3612768)									
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.010 mg/L	90.1	77	115	
EP075(SIM)A: Phenolic Compounds (QCLot: 3611227)									
EP075(SIM): Phenol	108-95-2	0.2	µg/L	<1.0	5 µg/L	29.3	24.5	61.9	
EP075(SIM): 2-Chlorophenol	95-57-8	0.2	µg/L	<1.0	5 µg/L	68.6	63.8	110	
EP075(SIM): 2-Methylphenol	95-48-7	0.2	µg/L	<1.0	5 µg/L	63.7	55.9	112	
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	0.4	µg/L	<2.0	10 µg/L	48.4	42.5	114	
EP075(SIM): 2-Nitrophenol	88-75-5	0.2	µg/L	<1.0	5 µg/L	80.4	62.7	117	
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.2	µg/L	<1.0	5 µg/L	83.5	59.9	112	
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.2	µg/L	<1.0	5 µg/L	66.2	59.3	122	
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.2	µg/L	<1.0	5 µg/L	66.5	64.3	118	
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.2	µg/L	<1.0	5 µg/L	68.1	63	119	
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.2	µg/L	<1.0	5 µg/L	63.6	58.7	118	
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.2	µg/L	<1.0	5 µg/L	73.8	50	108	
EP075(SIM): Pentachlorophenol	87-86-5	0.4	µg/L	<2.0	10 µg/L	85.2	10	95	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3611227)									
EP075(SIM): Naphthalene	91-20-3	0.2	µg/L	<1.0	5 µg/L	66.5	58.6	119	
EP075(SIM): Acenaphthylene	208-96-8	0.2	µg/L	<1.0	5 µg/L	69.6	63.6	114	
EP075(SIM): Acenaphthene	83-32-9	0.2	µg/L	<1.0	5 µg/L	65.3	62.2	113	
EP075(SIM): Fluorene	86-73-7	0.2	µg/L	<1.0	5 µg/L	68.0	63.9	115	
EP075(SIM): Phenanthrene	85-01-8	0.2	µg/L	<1.0	5 µg/L	64.6	62.6	116	
EP075(SIM): Anthracene	120-12-7	0.2	µg/L	<1.0	5 µg/L	72.2	64.3	116	
EP075(SIM): Fluoranthene	206-44-0	0.2	µg/L	<1.0	5 µg/L	71.0	63.6	118	
EP075(SIM): Pyrene	129-00-0	0.2	µg/L	<1.0	5 µg/L	70.4	63.1	118	
EP075(SIM): Benz(a)anthracene	56-55-3	0.2	µg/L	<1.0	5 µg/L	68.2	64.1	117	
EP075(SIM): Chrysene	218-01-9	0.2	µg/L	<1.0	5 µg/L	68.1	62.5	116	
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.2	µg/L	<1.0	5 µg/L	75.8	61.7	119	
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.2	µg/L	<1.0	5 µg/L	71.1	61.7	117	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.2	µg/L	<0.5	5 µg/L	94.9	63.3	117	
EP075(SIM): Indeno(1,2,3.cd)pyrene	193-39-5	0.2	µg/L	<1.0	5 µg/L	71.4	59.9	118	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.2	µg/L	<1.0	5 µg/L	73.1	61.2	117	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.2	µg/L	<1.0	5 µg/L	71.7	59.1	118	
EP075(SIM): Sum of polycyclic aromatic hydrocarbons	---	1	µg/L	<1.0	---	---	---	---	



Page : 25 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit		Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611072)								
EP080: C6 - C9 Fraction	---	20	µg/L	<20	260 µg/L	94.3	75	127
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611228)								
EP071: C10 - C14 Fraction	---	50	µg/L	<50	2000 µg/L	88.4	59	129
EP071: C15 - C28 Fraction	---	100	µg/L	<100	3000 µg/L	94.1	71	131
EP071: C29 - C36 Fraction	---	50	µg/L	<50	2000 µg/L	95.1	62	120
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611072)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	97.5	75	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611228)								
EP071: >C10 - C16 Fraction	>C10_C16	100	µg/L	<100	2500 µg/L	93.6	58.9	131
EP071: >C16 - C34 Fraction	---	100	µg/L	<100	3500 µg/L	94.4	73.9	138
EP071: >C34 - C40 Fraction	---	50	µg/L	<100	1500 µg/L	99.4	67	127
EP080: BTEXN (QCLot: 3611072)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	88.9	70	124
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	97.4	65	129
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	93.6	70	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	93.1	69	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	92.9	72	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	100	70	124

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%) MS	Recovery Limits (%) Low High	
EG005T: Total Metals by ICP-AES (QCLot: 3611583)							
ES1418834-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	106	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	99.9	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	# Not Determined	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	104	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	99.9	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	# Not Determined	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	99.0	70	130
		EG005T: Total Metals by ICP-AES (QCLot: 3611585)					



Page : 26 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 3611585) - continued							
ES1419212-013	S13	EG005T: Arsenic	7440-38-2	50 mg/kg	89.7	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	101	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	89.2	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	110	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	99.7	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	101	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	100	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3611584)							
ES1418834-002	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	96.8	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3611586)							
ES1419212-013	S13	EG035T: Mercury	7439-97-6	5 mg/kg	90.5	70	130
EP074E: Halogenated Aliphatic Compounds (QCLot: 3611088)							
ES1419212-001	S1	EP074: 1,1-Dichloroethene	75-35-4	2.5 mg/kg	129	70	130
		EP074: Trichloroethene	79-01-6	2.5 mg/kg	96.5	70	130
EP074E: Halogenated Aliphatic Compounds (QCLot: 3611177)							
ES1419212-022	SP2	EP074: 1,1-Dichloroethene	75-35-4	2.5 mg/kg	116	70	130
		EP074: Trichloroethene	79-01-6	2.5 mg/kg	92.2	70	130
EP074F: Halogenated Aromatic Compounds (QCLot: 3611088)							
ES1419212-001	S1	EP074: Chlorobenzene	108-90-7	2.5 mg/kg	92.5	70	130
EP074F: Halogenated Aromatic Compounds (QCLot: 3611177)							
ES1419212-022	SP2	EP074: Chlorobenzene	108-90-7	2.5 mg/kg	106	70	130
EP075(SIM)A: Phenolic Compounds (QCLot: 3611097)							
ES1419212-001	S1	EP075(SIM): Phenol	108-95-2	10 mg/kg	111	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	102	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	78.5	60	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	85.9	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	48.5	20	130
EP075(SIM)A: Phenolic Compounds (QCLot: 3611099)							
ES1419212-022	SP2	EP075(SIM): Phenol	108-95-2	10 mg/kg	97.7	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	98.0	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	83.5	60	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	91.6	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	65.7	20	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3611097)							
ES1419212-001	S1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	97.9	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	103	70	130



Page : 27 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike	Spike Recovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3611099)							
ES1419212-022	SP2	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	95.2	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	105	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611087)							
ES1419212-001	S1	EP080: C6 - C9 Fraction	---	32.5 mg/kg	118	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611096)							
ES1419212-001	S1	EP071: C10 - C14 Fraction	---	560 mg/kg	82.5	73	137
		EP071: C15 - C28 Fraction	---	2370 mg/kg	94.3	53	131
		EP071: C29 - C36 Fraction	---	1695 mg/kg	103	52	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611098)							
ES1419212-022	SP2	EP071: C10 - C14 Fraction	---	560 mg/kg	76.2	73	137
		EP071: C15 - C28 Fraction	---	2370 mg/kg	92.7	53	131
		EP071: C29 - C36 Fraction	---	1695 mg/kg	107	52	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611176)							
ES1419212-022	SP2	EP080: C6 - C9 Fraction	---	32.5 mg/kg	94.0	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611087)							
ES1419212-001	S1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	113	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611096)							
ES1419212-001	S1	EP071: >C10 - C16 Fraction	>C10_C16	902 mg/kg	84.9	73	137
		EP071: >C16 - C34 Fraction	---	3190 mg/kg	102	53	131
		EP071: >C34 - C40 Fraction	---	1087 mg/kg	91.9	52	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611098)							
ES1419212-022	SP2	EP071: >C10 - C16 Fraction	>C10_C16	902 mg/kg	83.2	73	137
		EP071: >C16 - C34 Fraction	---	3190 mg/kg	98.0	53	131
		EP071: >C34 - C40 Fraction	---	1087 mg/kg	115	52	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611176)							
ES1419212-022	SP2	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	85.2	70	130
EP080: BTEXN (QCLot: 3611087)							
ES1419212-001	S1	EP080: Benzene	71-43-2	2.5 mg/kg	99.0	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	96.4	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	97.5	70	130
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	99.4	70	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	98.6	70	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	89.4	70	130
EP080: BTEXN (QCLot: 3611176)							
ES1419212-022	SP2	P080: Benzene	71-	2.5 mg/kg	84.0	70	130



Page : 28 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL

				Matrix Spike (MS) Report				
				Spike	SpikeRecovery(%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High	
EP080: BTEXN (QCLot: 3611176) - continued								
ES1419212-022	SP2	EP080: Toluene	108-88-3	2.5 mg/kg	91.4	70	130	
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	90.1	70	130	
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	92.1	70	130	
			106-42-3					
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	92.9	70	130	
		EP080: Naphthalene	91-20-3	2.5 mg/kg	71.3	70	130	

Sub-Matrix: WATER

				Matrix Spike (MS) Report				
				Spike	SpikeRecovery(%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High	
EG020T: Total Metals by ICP-MS (QCLot: 3612199)								
ES1419186-003	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	112	70	130	
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	109	70	130	
		EG020A-T: Chromium	7440-47-3	1 mg/L	110	70	130	
		EG020A-T: Copper	7440-50-8	1 mg/L	128	70	130	
		EG020A-T: Lead	7439-92-1	1 mg/L	98.0	70	130	
		EG020A-T: Nickel	7440-02-0	1 mg/L	108	70	130	
		EG020A-T: Zinc	7440-66-6	1 mg/L	121	70	130	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3612768)								
ES1419018-004	Anonymous	EG035T: Mercury	7439-97-6	0.010 mg/L	84.2	70	130	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611072)								
ES1419191-001	Anonymous	EP080: C6 - C9 Fraction	---	325 µg/L	122	70	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611072)								
ES1419191-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	117	70	130	
EP080: BTEXN (QCLot: 3611072)								
ES1419191-001	Anonymous	EP080: Benzene	71-43-2	25 µg/L	93.0	70	130	
		EP080: Toluene	108-88-3	25 µg/L	96.3	70	130	
		EP080: Ethylbenzene	100-41-4	25 µg/L	99.9	70	130	
		EP080: meta- & para-Xylene	108-38-3	25 µg/L	100	70	130	
			106-42-3					
		EP080: ortho-Xylene	95-47-6	25 µg/L	97.3	70	130	
EP080: Naphthalene	91-20-3	25 µg/L	90.6	70	130			

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

The quality control term Matrix Spike (MS) and Matrix Spike Duplicate (MSD) refers to intralaboratory split samples spiked with a representative set of target analytes. The purpose of these QC parameters are to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: SOIL

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report



Page : 29 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL

					Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)		
					MS	MSD	Low	High	Value	Control Limit	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611087)											
ES1419212-001	S1	EP080: C6 - C9 Fraction	---	32.5 mg/kg	118	---	70	130	---	---	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611087)											
ES1419212-001	S1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	113	---	70	130	---	---	
EP080: BTEXN (QCLot: 3611087)											
ES1419212-001	S1	EP080: Benzene	71-43-2	2.5 mg/kg	99.0	---	70	130	---	---	
		EP080: Toluene	108-88-3	2.5 mg/kg	96.4	---	70	130	---	---	
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	97.5	---	70	130	---	---	
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	99.4	---	70	130	---	---	
			106-42-3								
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	98.6	---	70	130	---	---	
		EP080: Naphthalene	91-20-3	2.5 mg/kg	89.4	---	70	130	---	---	
EP074E: Halogenated Aliphatic Compounds (QCLot: 3611088)											
ES1419212-001	S1	EP074: 1,1-Dichloroethene	75-35-4	2.5 mg/kg	129	---	70	130	---	---	
		EP074: Trichloroethene	79-01-6	2.5 mg/kg	96.5	---	70	130	---	---	
EP074F: Halogenated Aromatic Compounds (QCLot: 3611088)											
ES1419212-001	S1	EP074: Chlorobenzene	108-90-7	2.5 mg/kg	92.5	---	70	130	---	---	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611096)											
ES1419212-001	S1	EP071: C10 - C14 Fraction	---	560 mg/kg	82.5	---	73	137	---	---	
		EP071: C15 - C28 Fraction	---	2370 mg/kg	94.3	---	53	131	---	---	
		EP071: C29 - C36 Fraction	---	1695 mg/kg	103	---	52	132	---	---	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611096)											
ES1419212-001	S1	EP071: >C10 - C16 Fraction	>C10_C16	902 mg/kg	84.9	---	73	137	---	---	
		EP071: >C16 - C34 Fraction	---	3190 mg/kg	102	---	53	131	---	---	
		EP071: >C34 - C40 Fraction	---	1087 mg/kg	91.9	---	52	132	---	---	
EP075(SIM)A: Phenolic Compounds (QCLot: 3611097)											
ES1419212-001	S1	EP075(SIM): Phenol	108-95-2	10 mg/kg	111	---	70	130	---	---	
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	102	---	70	130	---	---	
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	78.5	---	60	130	---	---	
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	85.9	---	70	130	---	---	
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	48.5	---	20	130	---	---	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3611097)											
ES1419212-001	S1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	97.9	---	70	130	---	---	
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	103	---	70	130	---	---	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611098)											
ES1419212-022	SP2	EP071: C10 - C14 Fraction	---	560 mg/kg	76.2	---	73	137	---	---	
		EP071: C15 - C28 Fraction	---	2370 mg/kg	92.7	---	53	131	---	---	
		EP071: C29 - C36 Fraction	---	1695 mg/kg	107	---	52	132	---	---	



Page : 30 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL

					Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611098)										
ES1419212-022	SP2	EP071: >C10 - C16 Fraction	>C10_C16	902 mg/kg	83.2	---	73	137	---	---
		EP071: >C16 - C34 Fraction	---	3190 mg/kg	98.0	---	53	131	---	---
		EP071: >C34 - C40 Fraction	---	1087 mg/kg	115	---	52	132	---	---
EP075(SIM)A: Phenolic Compounds (QCLot: 3611099)										
ES1419212-022	SP2	EP075(SIM): Phenol	108-95-2	10 mg/kg	97.7	---	70	130	---	---
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	98.0	---	70	130	---	---
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	83.5	---	60	130	---	---
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	91.6	---	70	130	---	---
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	65.7	---	20	130	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3611099)										
ES1419212-022	SP2	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	95.2	---	70	130	---	---
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	105	---	70	130	---	---
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611176)										
ES1419212-022	SP2	EP080: C6 - C9 Fraction	---	32.5 mg/kg	94.0	---	70	130	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611176)										
ES1419212-022	SP2	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	85.2	---	70	130	---	---
EP080: BTEXN (QCLot: 3611176)										
ES1419212-022	SP2	EP080: Benzene	71-43-2	2.5 mg/kg	84.0	---	70	130	---	---
		EP080: Toluene	108-88-3	2.5 mg/kg	91.4	---	70	130	---	---
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	90.1	---	70	130	---	---
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	92.1	---	70	130	---	---
			106-42-3							
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	92.9	---	70	130	---	---
		EP080: Naphthalene	91-20-3	2.5 mg/kg	71.3	---	70	130	---	---
EP074E: Halogenated Aliphatic Compounds (QCLot: 3611177)										
ES1419212-022	SP2	EP074: 1,1-Dichloroethene	75-35-4	2.5 mg/kg	116	---	70	130	---	---
		EP074: Trichloroethene	79-01-6	2.5 mg/kg	92.2	---	70	130	---	---
EP074F: Halogenated Aromatic Compounds (QCLot: 3611177)										
ES1419212-022	SP2	EP074: Chlorobenzene	108-90-7	2.5 mg/kg	106	---	70	130	---	---
EG005T: Total Metals by ICP-AES (QCLot: 3611583)										
ES1418834-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	106	---	70	130	---	---
		EG005T: Cadmium	7440-43-9	50 mg/kg	99.9	---	70	130	---	---
		EG005T: Chromium	7440-47-3	50 mg/kg	# Not Determined	---	70	130	---	---
		EG005T: Copper	7440-50-8	250 mg/kg	104	---	70	130	---	---
		EG005T: Lead	7439-92-1	250 mg/kg	99.9	---	70	130	---	---
		EG005T: Nickel	7440-02-0	50 mg/kg	# Not Determined	---	70	130	---	---



Page : 31 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: SOIL

Laboratory sample ID					Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						MS	MSD	Low	High	Value	Control Limit
EG005T: Total Metals by ICP-AES (QCLot: 3611583) - continued											
ES1418834-002	Anonymous	EG005T: Zinc	7440-66-6	250 mg/kg	99.0	---	70	130	---	---	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3611584)											
ES1418834-002	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	96.8	---	70	130	---	---	
EG005T: Total Metals by ICP-AES (QCLot: 3611585)											
ES1419212-013	S13	EG005T: Arsenic	7440-38-2	50 mg/kg	89.7	---	70	130	---	---	
		EG005T: Cadmium	7440-43-9	50 mg/kg	101	---	70	130	---	---	
		EG005T: Chromium	7440-47-3	50 mg/kg	89.2	---	70	130	---	---	
		EG005T: Copper	7440-50-8	250 mg/kg	110	---	70	130	---	---	
		EG005T: Lead	7439-92-1	250 mg/kg	99.7	---	70	130	---	---	
		EG005T: Nickel	7440-02-0	50 mg/kg	101	---	70	130	---	---	
		EG005T: Zinc	7440-66-6	250 mg/kg	100	---	70	130	---	---	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3611586)											
ES1419212-013	S13	EG035T: Mercury	7439-97-6	5 mg/kg	90.5	---	70	130	---	---	

Sub-Matrix: WATER

Laboratory sample ID					Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						MS	MSD	Low	High	Value	Control Limit
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3611072)											
ES1419191-001	Anonymous	EP080: C6 - C9 Fraction	---	325 µg/L	122	---	70	130	---	---	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3611072)											
ES1419191-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	117	---	70	130	---	---	
EP080: BTEXN (QCLot: 3611072)											
ES1419191-001	Anonymous	EP080: Benzene	71-43-2	25 µg/L	93.0	---	70	130	---	---	
		EP080: Toluene	108-88-3	25 µg/L	96.3	---	70	130	---	---	
		EP080: Ethylbenzene	100-41-4	25 µg/L	99.9	---	70	130	---	---	
		EP080: meta- & para-Xylene	108-38-3	25 µg/L	100	---	70	130	---	---	
			106-42-3								
		EP080: ortho-Xylene	95-47-6	25 µg/L	97.3	---	70	130	---	---	
		EP080: Naphthalene	91-20-3	25 µg/L	90.6	---	70	130	---	---	
EG020T: Total Metals by ICP-MS (QCLot: 3612199)											
ES1419186-003	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	112	---	70	130	---	---	
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	109	---	70	130	---	---	
		EG020A-T: Chromium	7440-47-3	1 mg/L	110	---	70	130	---	---	
		EG020A-T: Copper	7440-50-8	1 mg/L	128	---	70	130	---	---	
		EG020A-T: Lead	7439-92-1	1 mg/L	98.0	---	70	130	---	---	
		EG020A-T: Nickel	7440-02-0	1 mg/L	108	---	70	130	---	---	
		EG020A-T: Zinc	7440-66-6	1 mg/L	121	---	70	130	---	---	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3612768)											



Page : 32 of 32
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Sub-Matrix: WATER

					Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
				Concentration	MS	MSD	Low	High	Value	Control Limit
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3612768) - continued										
ES1419018-004	Anonymous	EG035T: Mercury	7439-97-6	0.010 mg/L	84.2	---	70	130	---	---



INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: ES1419212	Page	: 1 of 16
Client	: AECOM Australia Pty Ltd	Laboratory	: Environmental Division Sydney
Contact	: [REDACTED]	Contact	: Client Services
Address	: LEVEL 2 60 MARCUS CLARKE ST CANBERRA ACT, AUSTRALIA 2600	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [REDACTED]@aecom.com	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 6201 3017	Telephone	: +61-2-8784 8555
Facsimile	: ---	Facsimile	: +61-2-8784 8500
Project	: 60316172 TASK No 1 1 ESA CHARNWOOD	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Site	: ---	Date Samples Received	: 29-AUG-2014
C-O-C number	: ---	Issue Date	: 02-SEP-2014
Sampler	: ---	No. of samples received	: 33
Order number	: 60316172	No. of samples analysed	: 33
Quote number	: EN/004/14		

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



Page : 2 of 16
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

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.

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	
EA055: Moisture Content								
Soil Glass Jar - Unpreserved (EA055-103)								
S1,	S2,	27-AUG-2014	---	---	---	29-AUG-2014	10-SEP-2014	✓
S3,	S4,							
S5,	S6,							
S7,	S8,							
S9,	S10,							
S11,	S12,							
S13,	S14,							
S15,	S16,							
S17,	S18,							
QC1,	SP1,							
SP2,	SP3,							
SP4,	SP5,							
SP6,	SP7,							
SP8,	SP9,							
SP10,	SP11,							
QC3,	QC4							



Page : 3 of 16
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
S1,	S2,	27-AUG-2014	30-AUG-2014	23-FEB-2015	✓	01-SEP-2014	23-FEB-2015	✓
S3,	S4,							
S5,	S6,							
S7,	S8,							
S9,	S10,							
S11,	S12,							
S13,	S14,							
S15,	S16,							
S17,	S18,							
QC1,	SP1,							
SP2,	SP3,							
SP4,	SP5,							
SP6,	SP7,							
SP8,	SP9,							
SP10,	SP11,							
QC3,	QC4							
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T)								
S1,	S2,	27-AUG-2014	30-AUG-2014	24-SEP-2014	✓	02-SEP-2014	24-SEP-2014	✓
S3,	S4,							
S5,	S6,							
S7,	S8,							
S9,	S10,							
S11,	S12,							
S13,	S14,							
S15,	S16,							
S17,	S18,							
QC1,	SP1,							
SP2,	SP3,							
SP4,	SP5,							
SP6,	SP7,							
SP8,	SP9,							
SP10,	SP11,							
QC3,	QC4							



Page : 4 of 16
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP071)								
SP2, SP4, SP6, SP8, SP10, QC3,	SP3, SP5, SP7, SP9, SP11, QC4	27-AUG-2014	01-SEP-2014	10-SEP-2014	✓	01-SEP-2014	11-OCT-2014	✓
Soil Glass Jar - Unpreserved (EP071)								
S1, S3, S5, S7, S9, S11, S13, S15, S17, QC1,	S2, S4, S6, S8, S10, S12, S14, S16, S18, SP1	27-AUG-2014	29-AUG-2014	10-SEP-2014	✓	01-SEP-2014	08-OCT-2014	✓
EP074D: Fumigants								
Soil Glass Jar - Unpreserved (EP074)								
S1, S3, S5, S7, S9, S11, S13, S15, S17, QC1,	S2, S4, S6, S8, S10, S12, S14, S16, S18, SP1	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	29-AUG-2014	03-SEP-2014	✓
Soil Glass Jar - Unpreserved (EP074)								
SP2, SP4, SP6, SP8, SP10, QC3,	SP3, SP5, SP7, SP9, SP11, QC4	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	30-AUG-2014	03-SEP-2014	✓

Evaluation: * = Holding time breach ; ✓ = Within holding time.



Page : 5 of 16
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074E: Halogenated Aliphatic Compounds								
Soil Glass Jar - Unpreserved (EP074)								
S1,	S2,	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	29-AUG-2014	03-SEP-2014	✓
S3,	S4,							
S5,	S6,							
S7,	S8,							
S9,	S10,							
S11,	S12,							
S13,	S14,							
S15,	S16,							
S17,	S18,							
QC1,	SP1							
Soil Glass Jar - Unpreserved (EP074)								
SP2,	SP3,	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	30-AUG-2014	03-SEP-2014	✓
SP4,	SP5,							
SP6,	SP7,							
SP8,	SP9,							
SP10,	SP11,							
QC3,	QC4							
EP074F: Halogenated Aromatic Compounds								
Soil Glass Jar - Unpreserved (EP074)								
S1,	S2,	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	29-AUG-2014	03-SEP-2014	✓
S3,	S4,							
S5,	S6,							
S7,	S8,							
S9,	S10,							
S11,	S12,							
S13,	S14,							
S15,	S16,							
S17,	S18,							
QC1,	SP1							
Soil Glass Jar - Unpreserved (EP074)								
SP2,	SP3,	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	30-AUG-2014	03-SEP-2014	✓
SP4,	SP5,							
SP6,	SP7,							
SP8,	SP9,							
SP10,	SP11,							
QC3,	QC4							



Page : 6 of 16
 Work Order : ES1419212
 Client : AECOM Australia Pty Ltd
 Project : 60316172 TASK No 1 1 ESA CHARNWOOD

Method Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074)								
S1,	S2,	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	29-AUG-2014	03-SEP-2014	✓
S3,	S4,							
S5,	S6,							
S7,	S8,							
S9,	S10,							
S11,	S12,							
S13,	S14,							
S15,	S16,							
S17,	S18,							
QC1,	SP1							
Soil Glass Jar - Unpreserved (EP074)								
SP2,	SP3,	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	30-AUG-2014	03-SEP-2014	✓
SP4,	SP5,							
SP6,	SP7,							
SP8,	SP9,							
SP10,	SP11,							
QC3,	QC4							
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074)								
S1,	S2,	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	29-AUG-2014	03-SEP-2014	✓
S3,	S4,							
S5,	S6,							
S7,	S8,							
S9,	S10,							
S11,	S12,							
S13,	S14,							
S15,	S16,							
S17,	S18,							
QC1,	SP1							
Soil Glass Jar - Unpreserved (EP074)								
SP2,	SP3,	27-AUG-2014	29-AUG-2014	03-SEP-2014	✓	30-AUG-2014	03-SEP-2014	✓
SP4,	SP5,							
SP6,	SP7,							
SP8,	SP9,							
SP10,	SP11,							
QC3,	QC4							

Evaluation: ✘ = Holding time breach ; ✓ = Within holding time.