

Table 1
Groundwater Well Installation and Elevation Data

Well No.	Completion Date	OS Eastings	OS Northings	Screen Interval (Including filter pack)		Geological Unit well installed within	Top of Casing	Groundwater Level (20/05/2013)		Groundwater Level (28/05/2013)	
				top	bottom			depth	elevation	depth	elevation
				mbgl	mbgl			mbtoc	mAOD	mbtoc	mAOD
BH1	03/05/2013	535238.41	191149.52	5.70	7.80	RTD	10.51	--	--	--	--
BH2	10/05/2013	535273.34	191148.76	5.80	6.50	RTD	10.59	--	--	--	--
BH3A	07/05/2013	535289.82	191131.55	5.30	6.40	RTD	10.58	4.27	6.31	4.20	6.38
BH5	02/05/2013	535328.59	191110.55	3.60	6.70	RTD	10.06	3.63	6.43	3.60	6.46
BH6	02/05/2013	535379.19	191151.32	4.90	7.80	RTD	10.41	4.27	6.14	4.14	6.27
BH7	30/04/2013	535465.29	191424.89	4.70	6.50	RTD	10.65	3.62	7.03	3.59	7.06
BH8	10/05/2013	535443.52	191448.74	2.90	6.30	RTD	9.72	2.92	6.80	2.85	6.87
BH9	14/05/2013	535454.83	191485.65	3.00	5.90	RTD	9.88	2.84	7.04	2.80	7.08
BH10	17/04/2013	535421.71	191498.68	3.00	7.30	RTD	10.03	3.00	7.03	2.97	7.06
BH11	19/04/2013	535375.44	191422.20	4.10	6.50	RTD	10.36	2.24	7.13	2.21	7.16
BH12	23/04/2013	535368.78	191395.78	4.60	6.50	RTD	10.39	3.36	7.03	3.28	7.11

mAOD - metres above ordnance datum

mbtoc - metres below top of casing

Groundwater Well - Monitoring Pro Forma

COMPLETE ALL FIELDS

Well No. _____ of _____

Job No.: 51603-00

Site ID: Tottenham Marshes

Samplers ID: EW

Date & Time: 28/05/2013, 10:00

Well ID: MW13-11

Well Ø: 50 mm

Secure: yes

Valves Closed: no

URGENT OBSERVATIONS (significant changes - new receptors/vegetation scorching/die back etc.)

Report all urgent observations to project manager as soon as possible

Sock test - 40cm of DNAPL at the base of the well

YSI not used

GROUNDWATER LEVEL MONITORING

Appropriate PPE to include overalls, nitrile gloves, LEP, and respirator must be worn at all times during dipping operations.

Dipmeter ID: _____

GW level: / m btoc*

Total Depth: / m btoc*

Datum Level: m agl[#]

*metres below top of casing measured from the most northerly point.

#metres above ground level. Measured from same point as *.

SAMPLING

Appropriate PPE to include overalls, nitrile gloves, LEP, and respirator must be worn at all times during sampling operations.

Sample Req?: yes / no*

Sample ID: MW13-11

Suite No.: 2 / 3 / 4 / 5

Lab Name: _____

Tel. No.: _____

Contact Name: _____

Lab Address: _____

Cool Box ID: _____

COC ID: _____

Lab Notes: _____

Lab ID Number

Lab ID Number

Lab ID Number

Bottle 1: _____

Bottle 4: _____

Bottle 7: _____

Bottle 2: _____

Bottle 5: _____

Bottle 8: _____

Bottle 3: _____

Bottle 6: _____

Bottle 9: _____

*If answer is no - leave this section blank.

EQUIPMENT AND PURGING DETAILS TO BE RECORDED ON THE REAR OF THIS FORM

ADDITIONAL NOTES

Photograph Data File ID: (photo must include time & date stamp)

Water Quality Meter

Make/Model: plus

Serial No.: 13A10505

Last Cal Date¹: Start of the day

Make/Model: 12V Peristaltic

Serial No.: 1866

Flow Rate²:

[illegible]

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1 If no field calibration is undertaken record response of water quality meter using deionised water at start and finish of purging event.
2 Estimate the pump flow rate by timing how long it takes to fill a 1 L bottle (NOT A SAMPLE BOTTLE)
Record sample No. in notes section.
Record at least three sets of post monitoring measurements.

Table 3 - Soil Analytical Data

Report:	Sample ID	BH1	BH1	BH2	BH2	BH2	BH2	BH3A	BH3A	BH3A	BH5	BH5	BH6	BH6 DUP	BH6	BH6	BH7	BH8	BH8 DUP	BH8	BH8	BH9	BH9	BH9	BH10	BH10	BH10	BH10	BH11	BH11	BH11	BH11	BH12	BH12	BH12	BH12 DUP	BH12	TR5	TR6	TR7	TR8				
JE Job No:	Depth	4.2-4.3	2.0-2.1	6.4-6.5	19.4-19.5	1.9-2.0	2.0-2.1	3.8-3.9	6.4-6.5	1.9-2.0	4.6-4.8	1.9-2.0	3.8-4.0	3.8-4.0	7.4-7.8	1.9-2.0	1.9-2.0	2.5-2.7	2.5-2.7	3.5-3.7	1.9-2.0	2.5-2.7	3.2-3.4	1.9-2.0	3.4-3.6	1.9-2.0	3.4-3.6	5.3-5.5	6.8-6.9	1.9-2.0	0.4-0.6	BH12	4.3-4.4	6.3-6.4	8.0-8.2	8.0-8.2	0.8-1.0	0.8-1.0	0.8-1.0	0.2-0.4					
Client:	Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Client ref:	Sample Received Date	30/04/2013	29/04/2013	08/05/2013	09/05/2013	11/05/2013	08/05/2013	01/05/2013	02/05/2013	01/05/2013	29/04/2013	01/05/2013	01/05/2013	01/05/2013	01/05/2013	01/05/2013	09/05/2013	09/05/2013	01/05/2013	09/05/2013	10/05/2013	10/05/2013	10/05/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013	18/04/2013	18/04/2013	18/04/2013	23/04/2013	23/04/2013	24/04/2013	24/04/2013	25/04/2013	25/04/2013	27/04/2013	27/04/2013	27/04/2013	27/04/2013					
Location:	J E Sample No	16-18	23-25	7-9	1-3	4-6	1-3	28-30	31-33	25-27	26-28	17-22	7-9	13-15	10-12	1-6	13-16	13-15	25-27	22-24	16-21	1-3	10-15	4-9	1-5	9-11	12-15	6-8	16-18	25-27	28-30	19-24	1-3	10-12	13-15	16-18	19-21	22-24	4-9	31-32	29-30	25-26	27-28		
Contact	Batch Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Worley Parsons																																													
305008-00012 51603-00																																													
TOTTENHAM MARSH																																													
Philip Harrison																																													
Test	Method	Units	LOD																																										
Arsenic*	TM30/PM15	mg/kg	<0.5	16.7	-	8	24.8	17.3	-	16.3	10	-	3.9	-	7.5	9.6	14.3	21.9	-	9.0	68	8.4	7.5	67.7	7.9	-	85.3	13.1	9.8	-	19.8	13.3	9.6	-	20	6.1	11.9	4.7	9.6	7.7	-	31	39.3	29.2	22.6
Cadmium*	TM30/PM15	mg/kg	<0.1	0.4	-	0.3	0.1	0.2	-	1.5	0.5	-	<0.1	-	0.2	0.2	0.2	0.3	-	0.9	0.7	<0.1	0.5	0.9	0.1	-	0.2	<0.1	<0.1	-	0.2	<0.1	0.2	-	0.4	0.2	0.4	<0.1	<0.1	-	0.5	0.9	<0.1	0.5	
Chromium*	TM30/PM15	mg/kg	<0.5	38.6	-	39.5	38.2	17.8	-	57.9	41.5	-	8.1	-	43.6	17.4	22	6.2	-	29.5	28.8	6.4	61.8	33	9.2	-	27.6	10.8	8	-	72	11.6	48.7	-	19.9	12.9	32.2	11	36.3	38.7	-	45.3	43.8	20.9	37.4
Copper*	TM30/PM15	mg/kg	<1	15	-	28.8	<1	42	-	45	16	-	5	-	32	50	<1	36	-	8	10	4	17	25	8	-	94	8	12	-	54	22	28	-	92	16	23	14	25	25	-	391	471	232	127
Lead*	TM30/PM15	mg/kg	<5	124	-	16	8	466	-	6	11	-	8	-	20	50	15	22	-	8	8	<5	17	11	11	-	287	7	6	-	27	123	10	-	226	57	38	10	9	10	-	1523	647	100	817
Mercury*	TM30/PM15	mg/kg	<0.1	0.4	-	<0.1	<0.1	0.6	-	0.1	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	0.3	<0.1	<0.1	-	0.4	<0.1	<0.1	-	0.3	<0.1	<0.1	-	0.6	0.8	1.2	<0.1	<0.1	0.1	-	0.5	<0.1	0.4	0.9	
Nickel*	TM30/PM15	mg/kg	<0.7	33.5	-	38.1	17.3	21.2	-	41.9	37.2	-	12.3	-	21.3	23.4	34.7	13.7	-	46.7	38.8	9.2	50.7	64.2	12.4	-	33.1	15.1	11.7	-	68.8	22.2	47	-	36.6	16.3	23.6	15	33.6	29	-	49.3	83.8	64.4	39.8
Selenium*	TM30/PM15	mg/kg	<1	<1	-	<1	<1	<1	-	16	2	-	<1	-	<1	<1	<1	1	-	10	9	<1	2	8	<1	-	3	<1	<1	-	6	<1	3	-	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	
Total Sulphate*	TM50/PM15	mg/kg	<50	-	383	-	-	-	649	-	-	1592	-	-	4579	9196	-	-	-	1130	-	-	-	-	956	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Water Soluble Boron*	TM74/PM32	mg/kg	<0.1	4.7	-	5.5	1.3	2	-	91.7	8.5	-	1.9	-	3.3	3.8	0.6	3.8	-	15.3	13.5	0.2	4.1	12.8	0.7	-	1.3	0.3	0.4	-	30.7	0.4	3.5	-	3.1	0.4	1.5	0.8	0.4	1.3	-	2.6	5.2	1	0.8
Zinc*	TM30/PM15	mg/kg	<5	124	-	86	69	143	-	169	95	-	15	-	79	144	36	107	-	57	60	11	148	57	14	-	198	20	8	-	144	72	93	-	163	41	94	28	64	62	-	2051	8748	139	326
PAH MS																																													
Naphthalene*	TM4/PM8	mg/kg	<0.04	2	-	2.25	<0.04	0.32	-	<0.04	0.15	-	<0.04	-	<0.04	<0.04	<0.04	2.15	-	0.07	<0.04	0.14	<0.04	<0.04	<0.04	-	3.96	3.85	0.06	-	<0.04	<0.04	0.07	-	0.97	56.22	2.75	7.12	0.89	0.63	-	0.26	1.38	0.06	0.07
Acenaphthylene	TM4/PM8	mg/kg	<0.03	0.24	-	0.1	<0.03	0.15	-	<0.03	<0.03	-	<0.03	-	0.05	<0.03	<0.03	6.11	-	0.04	1.49	2.15	0.04	0.64	4.05	-	2	1.96	<0.03	<0.03	<0.03	-	8.42	8.77	<0.03	7.11	0.04	0.08	-	0.87	1.68	0.04	0.18		
Acenaphthene*	TM4/PM8	mg/kg	<0.05	0.16	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	-	0.05	<0.05	<0.05	1.87	-	2.1	4.44	10.91	<0.05	3.93	15.07	-	0.76	5.69	0.08	-	<0.05	<0.05	<0.05	-	1.54	3.93	<0.05	1.31	<0.05	<0.05	-	0.21	6.55	<0.05	<0.05
Fluorene*	TM4/PM8	mg/kg	<0.04	0.29	-	0.05	<0.04	0.09	-	<0.04	0.04	-	<0.04	-	0.06	<0.04	<0.04	3.11	-	1.08	2.43	7.42	<0.04	0.16	2.34	-	1.79	0.48	<0.04	-	<0.04	<0.04	<0.04	-	2.43	6.47	<0.04	5.37	<0.04	0.04	-	0.68	6.19	<0.04	<0.04
Phenanthrene*	TM4/PM8	mg/kg	<0.03	0.88	-	0.12	<0.03	0.67	-	<0.03	<0.03	-	<0.03	-	0.53	0.2	<0.03	16.5	-	0.99	2.95	20.02	0.14	0.45	2.39	-	3.84	3.23	<0.03	-	<0.03	0.03	0.07	-	22.28	19.62	<0.03	12.91	0.06	0.14	-	3.28	64.12	0.15	0.38
Anthracene*	TM4/PM8	mg/kg	<0.04	0.32	-	<0.04	<0.04	0.19	-	<0.04	<0.04	-	<0.04	-	0.56	1.6	7.02	0.64	6.67	-	0.56	1.6	7.02	0.64	6.67	-	2.17	2.5	<0.04	-	<0.04	0.06	0.04	-	11.81	8.36	<0.04	5.52	<0.04	<0.04	-	1.55	20.22	0.09	0.15
Fluoranthene*	TM4/PM8	mg/kg	<0.03	0.84	-	0.05	<0.03	1.75	-	<0.03	<0.03	-	<0.03	-	0.94	0.99	0.05	15	-	1.15	3.45	9.78	0.1	2.31	14.73	-	11.9	6.9	<0.03	-	<0.03	0.03	0.11	-	55.66	14.06	0.03	4	<0.03	0.05	-	5.34	95.34	0.28	1.15
Pyrene*	TM4/PM8	mg/kg	<0.03	0.94	-	0.05	<0.03	1.41	-	<0.03	<0.03	-	<0.03	-	0.77	0.3	0.03	27.38	-	1.41	4.32	12.43	0.1	3.27	20.64	-	11.03	8.03	<0.03	-	<0.03	0.03	0.04	-	49.2	13.7	0.03	0.04	0.06	-	6.16	72.45	0.22	1.04	
Benzo[a]anthracene*	TM4/PM8	mg/kg	<0.06	0.51	-	0.07	<0.06	0.89	-	<0.06	<0.06	-	<0.06	-	0.41	0.24	<0.06	9.33	-	0.55	1.53	3.93	<0.06	1.17	7.35	-	4.82	2.68	<0.06	-	<0.06	<0.06	<0.06	-	26.25	5.63	<0.06	2.36	<0.06	<0.06	-	2.63	41.96	0.19	0.78
Chrysene*	TM4/PM8	mg/kg	<0.02	0.73	-	0.04	<0.02	0.93	-	<0.02	<0.02	-	<0.02	-	0.43	0.19	<0.02	9.8	-	0.46	1.47	3.66	0.07	0.9	6.18	-	4.63	2.54	<0.02	-	<0.02	<0.02	<0.02	-	24.84	5.24	<0.02	2.03	<0.02	0.04	-	2.67	36.39	0.2	0.8
Benzofluoranthene*	TM4/PM8	mg/kg	<0.07	0.87	-	<0.07	<0.07	1.41	-	<0.07	<0.07	-	<0.07	-	0.56	0.26	<0.07	6.78	-	0.46	1.74	3.86	<0.07	0.93	6.14	-	8.43	3.17	<0.07	-	<0.07	<0.07	<0.07	-	41.55	7.5	<0.07	1.54	<0.07	<0.07	-	3.22	54.54	0.25	1.35
Benzofluoranthene*	TM4/PM8	mg/kg	<0.04	0.57	-	<0.04	<0.04	0.85	-	<0.04	<0.04	-	<0.04	-	0.33	0.15	<0.04	5.61	-	0.39	1.3	2.94	<0.04	0.64	5.48	-	5.19	2.16	<0.04	-															

Table 3 - Soil Analytical Data

[illegible]

Table 3 - Leachate Analytical Data

Report:	NRA Leachate	Borehole ID		BH2	BH3A	BH6	BH8	BH9	BH9	BH10	BH10	BH10	BH11	BH11	BH11	BH12	BH12	BH12	BH12
		Depth		2.0-2.1	1.9-2.0	1.9-2.0	1.9-2.0	1.9-2.0	3.2-3.4	1.9-2.0	3.8-4.1	6.9-7.2	1.9-2.0	3.4-3.6	5.3-5.5	3.0-3.2	0.4-0.6	1.9-2.0	4.3-4.4
		Sample Type		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		Sampled Date		08/05/2013	01/05/2013	01/05/2013	09/05/2013	10/05/2013	10/05/2013	16/04/2013	16/04/2013	16/04/2013	18/04/2013	18/04/2013	18/04/2013	23/04/2013	23/04/2013	23/04/2013	24/04/2013
		Sample Received Date		11/05/2013	04/05/2013	04/05/2013	11/05/2013	17/05/2013	17/05/2013	20/04/2013	20/04/2013	20/04/2013	20/04/2013	20/04/2013	20/04/2013	27/04/2013	27/04/2013	27/04/2013	27/04/2013
Client:	Worley Parsons	J E Sample No		4-6	25-27	1-6	16-21	4-9	10-15	6-8	9-11	12-15	19-24	16-18	25-27	10-12	1-3	4-9	13-15
Client ref:	305008-00018 51603-00	Batch Number		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Location:	TOTTENHAM MARSH																		
Contact	Philip Harrison																		

Test	Method	Units	LOD																
Dissolved Arsenic	TM30/PM14	mg/l	<0.0009	-	-	<0.0009	<0.0009	-	0.0046	-	0.0021	0.0077	-	0.0041	0.0025	0.002	0.0172	-	0.0054
Dissolved Cadmium	TM30/PM14	mg/l	<0.00003	-	-	<0.00003	<0.00003	-	<0.00003	-	<0.00003	0.00005	-	<0.00003	<0.00003	<0.00003	<0.00003	-	<0.00003
Dissolved Chromium	TM30/PM14	mg/l	<0.0002	-	-	0.001	<0.0002	-	0.0025	-	<0.0002	<0.0002	-	0.0012	<0.0002	0.0011	0.0013	-	0.0024
Dissolved Copper	TM30/PM14	mg/l	<0.003	-	-	<0.003	<0.003	-	<0.003	-	<0.003	<0.003	-	<0.003	0.004	<0.003	0.005	-	<0.003
Dissolved Iron	TM30/PM14	mg/l	<0.0047	-	-	0.0055	0.0397	-	0.1478	-	0.1722	0.1951	-	0.5894	0.1113	1.161	0.1327	-	0.3688
Dissolved Lead	TM30/PM14	mg/l	<0.0004	-	-	0.0008	<0.0004	-	0.0009	-	<0.0004	0.0007	-	0.0017	<0.0004	<0.0004	0.004	-	<0.0004
Dissolved Nickel	TM30/PM14	mg/l	<0.0002	-	-	0.0263	<0.0002	-	<0.0002	-	0.0057	0.0157	-	0.0058	<0.0002	0.0036	0.0079	-	0.0013
Dissolved Selenium	TM30/PM14	mg/l	<0.0012	-	-	<0.0012	<0.0012	-	<0.0012	-	<0.0012	<0.0012	-	<0.0012	<0.0012	<0.0012	0.0013	-	<0.0012
Dissolved Zinc	TM30/PM14	mg/l	<0.0015	-	-	0.1848	0.002	-	0.0047	-	0.0059	0.0123	-	0.0061	0.0038	<0.0015	0.0029	-	0.0021
Mercury Dissolved by CVAF	TM61/PM38	mg/l	<0.00001	-	-	0.00012	<0.00001	-	0.00031	-	0.00006	<0.00001	-	0.00027	0.00024	0.00002	0.00102	-	0.00002
Total Dissolved Sulphur	TM30/PM14	mg/l	<0.01	-	-	125	29.95	-	9.28	-	13.79	6.72	-	9.14	2.08	21.35	6.94	-	3.97

PAH MS

Naphthalene	TM4/PM30	mg/l	<0.000014	-	-	<0.000014	<0.000014	-	0.00716	-	0.0003	0.00139	-	<0.000014	<0.000014	0.36984	0.0002	-	0.0041
Acenaphthylene	TM4/PM30	mg/l	<0.000013	-	-	0.00013	<0.000013	-	0.0238	-	0.00984	0.00002	-	0.00011	0.00003	0.00393	0.00017	-	<0.000013
Acenaphthene	TM4/PM30	mg/l	<0.000013	-	-	<0.000013	<0.000013	-	0.13681	-	0.04015	0.00034	-	0.00057	0.00009	0.001	0.0002	-	0.00004
Fluorene	TM4/PM30	mg/l	<0.000014	-	-	0.00003	<0.000014	-	0.02108	-	0.00246	0.00006	-	0.00024	0.00021	0.00136	0.00007	-	<0.000014
Phenanthrene	TM4/PM30	mg/l	<0.000011	-	-	0.00009	<0.000011	-	0.02398	-	0.01559	0.00009	-	0.00013	0.00021	0.00119	0.00032	-	<0.000011
Anthracene	TM4/PM30	mg/l	<0.000013	-	-	0.00004	<0.000013	-	0.05507	-	0.01311	0.00002	-	0.00018	0.00055	0.00032	0.00029	-	<0.000013
Fluoranthene	TM4/PM30	mg/l	<0.000012	-	-	0.00011	<0.000012	-	0.13246	-	0.04731	0.00002	-	0.00025	0.00035	0.00019	0.00261	-	<0.000012
Pyrene	TM4/PM30	mg/l	<0.000013	-	-	0.00025	<0.000013	-	0.16911	-	0.05088	0.00002	-	0.00026	0.00033	0.00017	0.00243	-	<0.000013
Benzo(a)anthracene	TM4/PM30	mg/l	<0.000015	-	-	0.00018	<0.000015	-	0.06705	-	0.02094	<0.000015	-	0.0001	0.00014	0.00006	0.00147	-	<0.000015
Chrysene	TM4/PM30	mg/l	<0.000011	-	-	0.00022	<0.000011	-	0.05951	-	0.01699	<0.000011	-	0.00008	0.00014	0.00005	0.00131	-	<0.000011
Benzo(bk)fluoranthene	TM4/PM30	mg/l	<0.000018	-	-	0.0002	<0.000018	-	0.0461	-	0.02056	<0.000018	-	0.00009	0.00022	0.00007	0.00305	-	<0.000018
Benzo(a)pyrene	TM4/PM30	mg/l	<0.000016	-	-	0.00017	<0.000016	-	0.03948	-	0.01463	<0.000016	-	0.00009	0.00013	0.00005	0.00217	-	<0.000016
Indeno(123cd)pyrene	TM4/PM30	mg/l	<0.000011	-	-	0.00008	<0.000011	-	0.02224	-	0.00863	<0.000011	-	0.00005	0.00009	0.00004	0.00142	-	<0.000011
Dibenzo(ah)anthracene	TM4/PM30	mg/l	<0.00001	-	-	0.00002	<0.00001	-	0.00302	-	0.00204	<0.00001	-	0.00001	0.00002	0.00001	0.00012	-	<0.00001
Benzo(ghi)perylene	TM4/PM30	mg/l	<0.000011	-	-	0.00008	<0.000011	-	0.01574	-	0.00667	<0.000011	-	0.00003	0.00007	0.00002	0.00078	-	<0.000011
PAH 16 Total	TM4/PM30	mg/l	<0.000195	-	-	0.0016	<0.000195	-	0.82261	-	0.2701	0.00196	-	0.00219	0.00258	0.3783	0.01661	-	0.00414
Benzo(b)fluoranthene	TM4/PM30	mg/l	<0.00001	-	-	0.00014	<0.00001	-	0.03319	-	0.0148	<0.00001	-	0.00006	0.00016	0.00005	0.0022	-	<0.00001
Benzo(k)fluoranthene	TM4/PM30	mg/l	<0.00001	-	-	0.00006	<0.00001	-	0.01291	-	0.00576	<0.00001	-	0.00003	0.00006	0.00002	0.00085	-	<0.00001
PAH Surrogate % Recovery	TM4/PM30	%	<0	-	-	89	102	-	104	-	101	88	-	92	91	73	71	-	62

Methyl Tertiary Butyl Ether	TM15/PM10	mg/l	<0.001	-	-	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	-	<0.001
Benzene	TM15/PM10	mg/l	<0.001	-	-	<0.001	<0.001	-	<0.001	-	<0.001	2.431	-	0.012	<0.001	6.095	<0.001	-	4.955
Toluene	TM15/PM10	mg/l	<0.002	-	-	<0.002	<0.002	-	<0.002	-	<0.002	0.06	-	0.002	<0.002	1.658	<0.002	-	0.038
Ethylbenzene	TM15/PM10	mg/l	<0.002	-	-	<0.002	<0.002	-	<0.002	-	<0.002	0.003	-	<0.002	<0.002	0.195	<0.002	-	0.074
p/m-Xylene	TM15/PM10	mg/l	<0.003	-	-	<0.003	<0.003	-	<0.003	-	<0.003	0.012	-	<0.003	<0.003	1.064	<0.003	-	0.021
o-Xylene	TM15/PM10	mg/l	<0.002	-	-	<0.002	<0.002	-	<0.002	-	0.03	0.004	-	<0.002	<0.002	0.525	<0.002	-	0.038
Surrogate Recovery Toluene D8	TM15/PM10	%	<0	-	-	104	78	-	100	-	136	123	-	144	126	128	140	-	128
Surrogate Recovery 4-Bromofluorobenzene	TM15/PM10	%	<0	-	-	108	66	-	109	-	125	115	-	121	117	127	128	-	123

EPH (C8-C40)	TM5/PM30	mg/l	<0.01	-	-	<0.01	<0.01	-	135.32	-	94.79	0.34	-	1	<0.01	2.02	<0.01	-	0.69
Resorcinol	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	<0.0005	-	<0.0005	<0.0005	<0.0050	<0.0005	-	<0.0005
Catechol	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	<0.0005	-	<0.0005	<0.0005	<0.0050	<0.0005	-	<0.0005
Phenol	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	0.0394	-	<0.0005	<0.0005	0.3964	<0.0005	-	0.0532
m/p-cresol	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	0.0044	-	<0.0005	<0.0005	<0.0050	<0.0005	-	<0.0005
o-cresol	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	0.0023	-	<0.0005	<0.0005	<0.0050	<0.0005	-	<0.0005
Total cresols	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	0.0067	-	<0.0005	<0.0005	<0.0050	<0.0005	-	<0.0005
Xylenols	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	<0.0005	-	<0.0005	<0.0005	<0.0050	<0.0005	-	<0.0005
1-naphthol	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	<0.0005	-	<0.0005	<0.0005	<0.0050	<0.0005	-	<0.0005
2,3,5-trimethyl phenol	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	<0.0005	-	<0.0005	<0.0005	<0.0050	<0.0005	-	<0.0005
2-isopropylphenol	TM26/PM0	mg/l	<0.0005	-	-	<0.0005	<0.0005	-	<0.0005	-	<0.0005	<0.0005	-	<0.0005	<0.0005	<0.0050	<0.0005	-	<0.0005
Total Speciated Phenols HPLC	TM26/PM0	mg/l	<0.005	-	-	<0.005	<0.005	-	<0.005	-	<0.005	0.046	-	<0.005	<0.005	0.396	<0.005	-	0.053

Chloride	TM27/PM0	mg/l	<0.3	-	-	<0.3	0.7	-	0.3	-	0.8	0.9	-	12.6	0.3	4.6	4.7	-	12.7
Sulphate	TM27/PM0	mg/l	<0.05	27.27	-	312.05	93.96	44.09	25.68	124.05	13.16	13.93	17.5	19.06	2.37	42.25	16.36	16.26	2.8

Sulphate	TM38/PM0	mg/l	<0.05	-	119.36	293.68	-</
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Table 4 - Groundwater Analytical Data

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PAH MS																							
Naphthalene ^a	TM4/PM30	mg/l	<0.00014	6.5758	3.92217	0.00114	0.00015	<0.00014	0.00059	0.00015	0.00025	<0.00014	0.00018	0.00206	0.00004	0.38107	0.10087	11.01729	1.04926	0.90838	0.94813	0.3805	0.00083
Acenaphthylene ^a	TM4/PM30	mg/l	<0.00013	0.12749	0.10863	0.00017	0.00012	0.00133	0.00158	0.00089	0.00066	0.00002	0.00115	0.00215	0.00469	0.00236	0.00113	0.6081	0.00455	0.08711	0.09316	0.04757	0.00004
Acenaphthene ^a	TM4/PM30	mg/l	<0.00013	0.442	0.4756	0.0003	0.00025	0.02032	0.02919	0.00069	0.00038	0.0001	0.00946	0.01321	0.01066	0.01116	0.00332	0.0812	0.01458	0.01923	0.02068	0.01186	0.00007
Fluorene ^a	TM4/PM30	mg/l	<0.00014	0.12852	0.1235	0.00006	0.00003	0.00006	0.0001	0.00007	0.00008	<0.00014	0.00011	0.00041	0.00259	0.00385	0.00176	0.00274	0.0076	0.0126	0.01454	0.00503	0.00003
Phenanthrene ^a	TM4/PM30	mg/l	<0.00011	0.09493	0.09756	0.00012	0.00009	0.00004	0.0001	0.00008	0.00038	<0.00011	0.00015	0.00081	0.00032	0.00835	0.00248	0.50951	0.01709	0.01731	0.02147	0.00453	0.00004
Anthracene ^a	TM4/PM30	mg/l	<0.00013	0.01453	0.00891	0.00002	0.00002	0.00002	0.00003	0.00002	0.00006	<0.00013	0.00004	0.00139	0.0012	0.00201	0.00045	0.14432	0.00289	0.00145	0.01719	0.00046	<0.00013
Fluoranthene ^a	TM4/PM30	mg/l	<0.00012	<0.00000	0.00136	<0.00012	<0.00012	<0.00012	0.00003	<0.00012	0.00003	0.00015	0.00005	0.00101	0.00119	0.00235	0.0005	0.1278	0.00301	0.00042	0.00058	0.00005	<0.00012
Pyrene ^a	TM4/PM30	mg/l	<0.00013	<0.00000	0.00158	0.00002	<0.00013	0.00002	0.00004	<0.00013	0.00003	0.00025	0.00005	0.00143	0.00176	0.00238	0.00052	0.17551	0.00332	0.00044	0.00058	0.00007	<0.00013
Benz(a)anthracene ^a	TM4/PM30	mg/l	<0.00015	<0.00750	0.00003	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	0.00003	<0.00015	0.00043	0.00081	0.00092	0.00015	0.10309	0.00116	0.00003	0.00002	<0.00015	<0.00015
Chrysene ^a	TM4/PM30	mg/l	<0.00011	<0.00050	0.00003	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	0.00004	<0.00011	0.0004	0.00079	0.00068	0.00014	0.08699	0.001	0.00002	0.00002	<0.00011	<0.00011
Benz(b)fluoranthene ^a	TM4/PM30	mg/l	<0.00018	<0.00900	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	0.00003	<0.00018	0.00026	0.00068	0.00082	0.00013	0.06869	0.00103	<0.00018	<0.00018	<0.00018	<0.00018
Benz(a)pyrene ^a	TM4/PM30	mg/l	<0.00016	<0.00800	<0.00016	<0.00016	<0.00016	<0.00016	<0.00016	<0.00016	<0.00016	0.00002	<0.00016	0.00021	0.00058	0.00054	0.00008	0.06516	0.00071	<0.00016	<0.00016	<0.00016	<0.00016
Indeno(1,2,3-cd)pyrene ^a	TM4/PM30	mg/l	<0.00011	<0.00500	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	0.00001	0.0003	0.00038	0.00004	0.03136	0.0005	<0.00011	<0.00011	<0.00011	<0.00011
Dibenz(ah)anthracene ^a	TM4/PM30	mg/l	<0.00001	<0.00500	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00002	0.00005	0.00009	0.00001	0.00768	0.00011	<0.00001	<0.00001	<0.00001
Benz(g)hijperylene ^a	TM4/PM30	mg/l	<0.00011	<0.00500	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	0.00007	0.00026	0.00027	0.00005	0.02051	0.00034	<0.00011	<0.00011	<0.00011
PAH 16 Total ^a	TM4/PM30	mg/l	<0.000195	7.38327	4.69127	0.00183	0.00066	0.02179	0.03166	0.0019	0.00187	0.00064	0.01119	0.02765	0.02592	0.041723	0.11163	13.26995	1.10715	1.04999	1.10097	0.45007	0.00101
Benz(b)fluoranthene	TM4/PM30	mg/l	<0.00001	<0.00500	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00002	<0.00001	0.00019	0.00049	0.00059	0.00009	0.04946	0.00074	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benz(o)kfluoranthene	TM4/PM30	mg/l	<0.00001	<0.00500	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00007	0.00019	0.00023	0.00004	0.01923	0.00029	<0.00001	<0.00001	<0.00001
PAH Surrogate % Recovery	TM4/PM30	%	<0	129	119	95	83	85	99	99	97	104	112	102	81	102	109	128	125	120	116	106	88

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TPH CWS																								
Aliphatics																								
>C5-C8 ^a	TM36/PM12	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	0.038	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.143	0.295	0.084	0.362	0.837	0.923	0.778	<0.005	
>C9-C8 ^a	TM36/PM12	mg/l	<0.005	0.009	0.025	<0.005	<0.005	0.057	0.071	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
>C8-C10 ^b	TM36/PM12	mg/l	<0.005	0.351	0.262	<0.005	<0.005	0.14	0.087	<0.005	<0.005	<0.005	<0.005	<0.005	0.06	0.692	2.163	0.392	1.564	1.772	1.6	1.104	<0.005	
>C10-C12 ^c	TM5/PM30	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.015	0.02	<0.005	0.008	0.09	<0.005	<0.005	<0.005	<0.005	
>C12-C16 ^d	TM5/PM30	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.16	0.6	0.22	<0.01	0.12	0.55	<0.01	<0.01	<0.01	
>C16-C22 ^e	TM5/PM30	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	0.48	0.08	<0.01	0.03	0.22	<0.01	<0.01	<0.01	
>C21-C33 ^f	TM5/PM30	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Total aliphatics C5-C8 ^a	TM5/PM30/PM30	mg/l	<0.01	0.36	0.29	<0.01	<0.01	0.24	0.21	<0.01	<0.01	<0.01	<0.01	<0.01	0.24	1.16	1.16	2.46	0.63	2.79	2.61	2.52	1.88	<0.01
Total aliphatics C5-C12 ^b	TM5/PM30/PM30	mg/l	<0.01	0.36	0.29	<0.01	<0.01	0.24	0.21	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	0.86	2.46	0.48	2.02	2.61	2.52	1.88	<0.01
Total aliphatics >C12-C33 ^f	TM5/PM30/PM30	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.24	1.08	0.3	<0.01	0.15	0.77	<0.01	<0.01	<0.01	<0.01

Aromatics																								
>C5-EC7 [†]	TM36/PM12	mg/l	<0.01	0.048	0.039	<0.005	<0.005	<0.005	0.008	0.018	<0.005	<0.005	<0.005	<0.005	0.006	7.311	67.992	5.843	10.021	11.108	10.622	7.561	<0.005	
>EC7-EC8 [†]	TM36/PM12	mg/l	<0.005	0.027	0.012	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	1.771	13.498	0.775	2.616	0.798	0.685	0.339	<0.005	
>EC8-EC10 [†]	TM36/PM12	mg/l	<0.005	0.557	0.197	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	4.566	6.176	2.3	6.171	1.309	1.195	0.491	<0.005	
>EC10-EC12 [†]	TM5/PM30	mg/l	<0.005	3.259	2.319	<0.005	<0.005	0.026	0.016	<0.005	<0.005	<0.005	<0.005	0.037	0.028	0.374	0.532	6.764	1.374	1.205	1.234	0.586	<0.005	
>EC12-EC16 [†]	TM5/PM30	mg/l	<0.01	2.6	2.15	<0.01	<0.01	0.14	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	0.3	0.4	0.37	0.28	4.82	1.05	0.79	0.85	0.44	<0.01
>EC16-EC21 [†]	TM5/PM30	mg/l	<0.01	0.14	0.16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	0.33	0.05	<0.01	1.94	0.34	0.04	0.05	<0.01	<0.01
>EC21-EC35 [†]	TM5/PM30	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.14	<0.01	<0.01	<0.01	<0.01	<0.01
Total aromatics C5-35 [†]	TM5/PM30	mg/l	<0.01	0.88	0.63	<0.01	<0.01	0.17	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.14	0.57	0.18	4.44	23.17	14.62	9.42	1.42	<0.01	<0.01
Total aromatics GC-12	TM5/PM36/PM30	mg/l	<0.01	3.89	2.57	<0.01	<0.01	0.03	0.04	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	14.02	88.2	15.9	20.18	14.42	13.74	8.98	<0.01
Total aromatics >EC12-EC35 [†]	TM5/PM36/PM30	mg/l	<0.01	2.74	2.31	<0.01	<0.01	0.14	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	0.36	0.73	0.42	0.28	7.9	1.39	0.83	0.9	<0.01	<0.01
Total aliphatics and aromatics (C5-35) [†]	TM5/PM36/PM30	mg/l	<0.01	6.99	5.17	<0.01	<0.01	0.41	0.4	0.02	<0.01	<0.01	<0.01	<0.01	0.64	1.93	15.6	90.94	24.43	24.36	17.86	17.16	11.4	<0.01

Arsenicolint	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Catechol	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Phenol	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	0.0023	0.0034	<0.0005	0.0039	<0.0005	0.0039	<0.0005	0.0029	0.155	0.2522	0.0757	0.2501	0.1311
m/p-cresol	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0119	0.1411	0.0058	0.0172	0.0194
o-cresol	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0444	0.0081	0.0007	0.0084	0.0251
Total cresols	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0163	0.0222	0.0015	0.0256	0.0445
Xylenes	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.012	0.0591	0.0015	0.0114	0.0298
1-naphthol	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0118	<0.0005	<0.0005
2,3,5-trimethyl phenol	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-isopropylphenol	TM26/PMO	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Total Speciated Phenols HPLC	TM26/PMO	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.029	<0.005	<0.005	<0.005	<0.005	0.016	0.228	0.274	0.199	0.276

Sulphate*	TM38/PM0	mg/l	<0.05	212.12	198.19	505.53	470.87	691.1	691.07	163.91	149.02	160.85	155.4	115.48	116.23	338.62	336.12	319.15	321.26	371.26	370.11	27.24	2.79
Chloride*	TM38/PM0	mg/l	<0.3	46.7	45.2	68.5	65.8	75.1	72.7	80.5	77.4	101	93.2	70.5	69.5	168.8	163.1	348.7	302.3	273.6	263.6	25.1	<0.3
Free Cyanide*	TM89/PM0	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	<0.005	0.006	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Total Cyanide	TM89/PM0	mg/l	<0.005	<0.005	<0.005	0.028	0.024	0.023	0.024	0.169	0.181	0.167	0.152	0.154	0.145	0.143	0.155	0.096	0.186	0.283	0.308	0.01	<0.005
Complex Cyanide	TM89/PM0	mg/l	<0.01	<0.01	<0.01	0.03	0.02	0.02	0.02	0.16	0.18	0.16	0.15	0.15	0.15	0.14	0.16	0.1	0.19	0.28	0.31	0.01	<0.01

Ammoniacal Nitrogen as NH ₄ ^a	TM38/PM0	mg/l	<0.03	152.08	151.48	6.18	7.1	33.51	33.32	26.24	26.1	17.17	17.79	21.19	22.63	11.36	11.12	38.03	53.99	31.94	31.52	0.68	<0.03
Sulphide	TM106/PM0	mg/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Thiocyanate	TM107/PM0	mg/l	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	0.03	<0.02	<0.02	0.09	0.08	0.06	0.12	0.45	0.48	<0.02	<0.02

Dissolved Organic Carbon ^a	TM60/PM0	mg/l	<2	84	52	14	8	16	20	17	17	14	15	20	17	38	40	52	41	82	44	24	<2
Electrical Conductivity @25°C ^a	TM76/PM0	uS/cm	<2	3529	3484	1993	1957	2471	2535	1524	1551	1702	1709	1409	1438	2067	2091	2921	2790	2905	2849	388	17
pH ^a	TM73/PM0	pH units	<0.01	7.4	7.46	7.16	7.2	7.14	7.17	7.38	7.39	7.33	7.44	7.45	7.42	7.49	7.13	7.33	7.26	6.93	6.98	7.17	6.94
Total Suspended Solids ^a	TM37/PM0	mg/l	<10	24	17	928	1121	30	23	362	337	<10	13	10	12	114	133	46	50	38	45	111	<10

Table 4 - Groundwater Analytical Data

Report:	Liquid	Sample ID	Depth	BH3A	BH3A	BH5	BH5	BH6	BH6	BH7	BH7	BH8	BH8	BH9	BH9	BH10	BH10	BH11	BH11	BH12	BH12 DUP	BH12	TRIP BLANK
JE Job No:	134761	Sample Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Trip Blank	
Client:	Worley Parsons	Sample Date	20/05/2013	28/05/2013	20/05/2013	28/05/2013	20/05/2013	28/05/2013	20/05/2013	28/05/2013	22/05/2013	28/05/2013	20/05/2013	28/05/2013	20/05/2013	28/05/2013	20/05/2013	28/05/2013	20/05/2013	28/05/2013	20/05/2013	20/05/2013	
Client ref:	51603.00	Sample Received Date	22/05/2013	30/05/2013	22/05/2013	30/05/2013	22/05/2013	30/05/2013	22/05/2013	30/05/2013	22/05/2013	30/05/2013	22/05/2013	30/05/2013	22/05/2013	30/05/2013	22/05/2013	30/05/2013	22/05/2013	30/05/2013	22/05/2013	22/05/2013	
Location:	TOTTENHAM MARSHES	J E Sample No	43-49	8-14	10-18	46-54	50-56	15-21	1-9	55-63	57-63	22-28	19-27	37-45	35-42	64-71	28-34	1	1	64-70	71-77	1-7	78-79
Contact	Philip Harrison	Batch Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Test	Method	Units	LOD																				
Dissolved Arsenic ^o	TM30/PM14	mg/l	<0.0009	<0.0009	<0.0009	0.0077	<0.0009	0.0132	<0.0009	<0.0009	<0.0009	0.0046	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	0.0144	<0.0009	0.0181	0.017	<0.0009	<0.0009
Dissolved Cadmium ^o	TM30/PM14	mg/l	<0.00003	<0.00003	0.0003	<0.0003	0.00031	<0.00003	0.00028	<0.00003	0.00028	0.00013	0.00036	0.00019	0.0005	0.00026	0.00023	0.00004	0.00023	<0.00003	<0.00003	0.00058	<0.00003
Total Dissolved Chromium ^o	TM30/PM14	mg/l	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.001	0.0002	0.0008	0.0002	0.0049	0.0005	0.0005	0.0005	0.0014	<0.0002
Dissolved Copper ^o	TM30/PM14	mg/l	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.013	<0.003
Total Dissolved Iron ^o	TM30/PM14	mg/l	<0.0047	0.0388	0.0348	0.3857	0.0343	0.0318	0.0386	0.0757	0.0775	0.0749	0.0764	0.954	0.1033	1.879	0.0749	0.1696	0.1758	0.3146	0.2404	0.6821	<0.0047
Dissolved Lead ^o	TM30/PM14	mg/l	<0.0004	0.0014	0.0071	0.013	0.0072	0.0196	0.0112	0.0115	0.007	0.0124	0.0076	0.0111	0.0081	0.0138	0.0072	0.0103	0.0079	0.022	0.0217	0.0045	<0.0004
Dissolved Nickel ^o	TM30/PM14	mg/l	<0.0002	0.0003	0.0003	0.0053	0.0061	0.0031	0.003	0.0015	0.0023	0.0014	0.0005	0.0042	0.0018	0.001	0.0012	0.0038	0.0254	0.0193	0.0202	0.0094	<0.0002
Dissolved Selenium ^o	TM30/PM14	mg/l	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
Dissolved Zinc ^o	TM30/PM14	mg/l	<0.0015	<0.0015	0.002	<0.0015	0.0021	0.0031	0.0035	<0.0015	0.0029	0.0022	<0.0015	0.0032	0.0034	<0.0015	0.0031	0.0048	0.0013	0.0078	0.0073	0.0121	<0.0015
Mercury Dissolved by CVAF ^o	TM61/PM38	mg/l	<0.00001	<0.00001	0.00001	<0.00001	0.00001	<0.00001	<0.00001	<0.00001	0.00001	0.00007	<0.00001	<0.00001	<0.00001	0.00009	0.00019	0.00001	0.00012	0.00003	0.00002	0.00006	<0.00001
Total Dissolved Sulphur	TM30/PM14	mg/l	<0.01	46.52	49.55	186	121.4	245.8	162.8	47.39	47.14	45.86	51.05	34.44	37.75	125.6	91.29	116.9	82.39	138.8	135.9	8.04	0.02
PAH MS																							
Naphthalene ^o	TM4/PM30	mg/l	<0.000014	6.5758	3.92217	0.00114	0.00015	<0.000014	0.00059	0.00015	0.00025	<0.000014	0.00018	0.00206	0.00004	0.38107	0.10087	11.01729	1.04926	0.90838	0.94813	0.3805	0.00083
Acenaphthylene ^o	TM4/PM30	mg/l	<0.000013	0.12749	0.10863	0.00017	0.00012	0.00133	0.00158	0.00089	0.00066	0.00002	0.00115	0.00215	0.00469	0.00236	0.00113	0.6081	0.00455	0.08711	0.09316	0.04757	0.00004
Acenaphthene ^o	TM4/PM30	mg/l	<0.000013	0.442	0.4275	0.0003	0.00025	0.02032	0.02919	0.00069	0.00038	0.0001	0.00946	0.01321	0.01066	0.01116	0.00332	0.0812	0.01458	0.01923	0.02068	0.01186	0.00007
Fluorene ^o	TM4/PM30	mg/l	<0.000014	0.12852	0.1235	0.00006	0.00003	0.00006	0.00001	0.00007	0.00008	<0.000014	0.00011	0.0041	0.00259	0.00385	0.00176	0.22274	0.0076	0.0126	0.01454	0.00503	0.00003
Phenanthrene ^o	TM4/PM30	mg/l	<0.000011	0.09493	0.09756	0.00012	0.00009	0.00004	0.0001	0.00008	0.00038	<0.000011	0.00015	0.00081	0.00032	0.00835	0.00248	0.50951	0.01709	0.01731	0.02147	0.00453	0.00004
Anthracene ^o	TM4/PM30	mg/l	<0.000013	0.01453	0.00891	0.00002	0.00002	0.00002	0.00003	0.00002	0.00006	<0.000013	0.00004	0.00139	0.0012	0.00201	0.00045	0.14432	0.00289	0.00145	0.00179	0.00046	<0.000013
Fluoranthene ^o	TM4/PM30	mg/l	<0.000012	<0.006000	0.00136	<0.000012	<0.000012	<0.000012	0.00003	<0.000012	0.00003	0.00015	0.00005	0.00101	0.00119	0.00235	0.0005	0.1278	0.00301	0.00042	0.00058	0.00005	<0.000012
Pyrene ^o	TM4/PM30	mg/l	<0.000013	<0.006500	0.00158	0.00002	<0.000013	0.00002	0.00004	<0.000013	0.00003	0.00025	0.00005	0.00143	0.00176	0.00238	0.00052	0.17551	0.00332	0.00044	0.00058	0.00007	<0.000013
Benzo(a)anthracene ^o	TM4/PM30	mg/l	<0.000015	<0.007500	0.00103	<0.000015	<0.000015	<0.000015	<0.000015	<0.000015	<0.000015	0.00003	<0.000015	0.00041	0.00081	0.00092	0.00015	0.10309	0.00116	0.00003	0.00002	<0.000015	<0.000015
Chrysene ^o	TM4/PM30	mg/l	<0.000011	<0.006500	0.00003	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	0.00004	<0.000011	0.00004	0.00079	0.00068	0.00014	0.08699	0.001	0.00002	0.00002	<0.000011	<0.000011
Benzo(k)fluoranthene ^o	TM4/PM30	mg/l	<0.000018	<0.009000	<0.000018	<0.000018	<0.000018	<0.000018	<0.000018	<0.000018	<0.000018	0.00003	<0.000018	0.00026	0.00068	0.00082	0.00013	0.08689	0.00103	<0.000018	<0.000018	<0.000018	<0.000018
Benzo(a)pyrene ^o	TM4/PM30	mg/l	<0.000016	<0.008000	<0.000016	<0.000016	<0.000016	<0.000016	<0.000016	<0.000016	<0.000016	0.00002	<0.000016	0.00021	0.00058	0.00054	0.00008	0.06516	0.00071	<0.000016	<0.000016	<0.000016	<0.000016
Indeno(1,2,3-cd)pyrene ^o	TM4/PM30	mg/l	<0.000011	<0.006500	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	0.0001	0.0003	0.00038	0.00004	0.03136	0.0005	<0.000011	<0.000011	<0.000011	<0.000011
Dibenz(ah)anthracene ^o	TM4/PM30	mg/l	<0.00001	<0.00500	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00002	0.00005	0.00009	0.00001	0.00768	0.00011	<0.00001	<0.00001	<0.00001
Benzo(ghi)perylene ^o	TM4/PM30	mg/l	<0.000011	<0.006500	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	0.00007	0.00026	0.00027	0.00005	0.02051	0.00034	<0.000011	<0.000011	<0.000011	<0.000011
PAH 16 Total ^o	TM4/PM30	mg/l	<0.000195	7.38327	4.69127	0.00183	0.00066	0.02179	0.03166	0.0019	0.00187	0.00064	0.01119	0.02765	0.02592	0.41723	0.11163	13.26995	1.10715	1.04699	1.10097	0.45007	0.00101
Benzo(k)fluoranthene	TM4/PM30	mg/l	<0.00001	<0.00500	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00019	0.00049	0.00059	0.00009	0.04946	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo(k)fluoranthene	TM4/PM30	mg/l	<0.00001	<0.00500	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00007	0.00019	0.00023	0.00004	0.01923	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PAH Surrogate % Recovery	TM4/PM30	%	<0	129	119	95	83	85	99	99	97	104	112	102	81	1002	1009	128	125	120	116	106	88
VOC MS																							
Dichlorodifluoromethane	TM15/PM10	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Methyl Tertiary Butyl Ether ^o	TM15/PM10	mg/l	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chloromethane ^o	TM15/PM10	mg/l	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Vinyl Chloride	TM15/PM10	mg/l	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bromomethane	TM15/PM10	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane ^o	TM15/PM10	mg/l	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Trichlorofluoromethane ^o	TM15/PM10	mg/l	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003</											

Table 5 - Thermal resistivity Values

Location name	Resistivity Value	Resistivity Value	Resistivity Value	Comments
	Repeat 1	Repeat 2	Repeat 3	
TR1	1.692	2.572	2.418	Repeat hand pit within 2m of TR1 Repeat hand pit within 2m of TR1 Repeat hand pit within 2m of TR1
TR101	3.936	2.126	3.631	
TR102	3.523	3.184	5.401	
TR103	1.847	2.486	2.005	
TR2	1.122	1.201	1.19	
TR3	1.824	1.436	1.433	Repeat hand pit within 2m of TR3 Repeat hand pit within 2m of TR3 Repeat hand pit within 2m of TR3
TR301	0.987	1.19	1.076	
TR302	2.722	1.88	22	
TR303	1.62	1.402	4.866	
TR4	2.282	1.592	2.4984	Repeat hand pit within 2m of TR4 Repeat hand pit within 2m of TR4 Repeat hand pit within 2m of TR4
TR401	0.987	1.303	2.994	
TR402	2.034	2.155	2.104	
TR403	1.792	0.965	1.789	
TR5	0.773	1	1.18	
TR6	11.6	2.7	1.817	Repeat hand pit within 2m of TR6 Repeat hand pit within 2m of TR6 Repeat hand pit within 2m of TR6
TR601	1.671	1.984	2.091	
TR602	0.566	0.566	0.588	
TR603	0.697	0.724	0.728	
TR7	2.282	1.85	1.93	Repeat hand pit within 2m of TR7 Repeat hand pit within 2m of TR7 Repeat hand pit within 2m of TR7
TR701	1.066	1.196	1.194	
TR702	1.558	1.819	1.844	
TR703	1.71	2.061	1.986	
TR8	0.651	0.659	0.658	
TR9	2.258	2.254	1.518	Repeat hand pit within 2m of TR9 Repeat hand pit within 2m of TR9 Repeat hand pit within 2m of TR9
TR901	1.528	1.325	1.411	
TR902	2.792	1.48	1.468	
TR903	1.714	1.415	1.488	
TR10	0.966	0.93	0.918	

All resistivity values are in $\text{m}^2 \cdot \text{K} \cdot \text{W}^{-1}$