

**MORGANITE ELECTRICAL CARBON
PPC PERMIT VP3339PD**

ANNUAL GROUNDWATER REPORT

MAY 2008

Prepared for:

MORGANITE ELECTRICAL CARBON

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MORGANITE ELECTRICAL CARBON

ANNUAL GROUNDWATER REPORTING

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1.0 INTRODUCTION

ExCAL Limited has been commissioned to undertake groundwater monitoring on behalf of Morganite Electrical Carbon in accordance with their Site Protection and Monitoring Program.

The groundwater monitoring commenced in October 2006 and this report provides the sampling methodology, record forms and results of monitoring to date. Sampling was undertaken in April 2008.

All laboratory analysis was undertaken by the UKAS accredited STL Laboratories, Bridgend.

2.0 GROUNDWATER MONITORING PROGRAMME

2.1 Introduction

This procedure provides guidance that is followed by all ExCAL staff when monitoring groundwater and taking samples.

2.2 Staff Responsibility

The project manager will ensure all personnel are proficient in groundwater sampling and are familiar with these procedures.

2.3 Site Equipment

The following site equipment is required to undertake groundwater monitoring: -

- Log Book
- Well Construction Details
- Site/monitoring well location Plan
- Dip Meter
- Bailers
- Decontamination Equipment
- Sampling Equipment (Bottles, Fixing Agents (if necessary) labels, chain of custody forms, icepacks).

2.4 Well Purging

Monitoring wells are always to be purged prior to sampling on each and every occasion. Purging involves the removal of 'stagnant' water that has been in contact with atmospheric gases and the well casing and screen materials. This contact can affect the water chemistry and oxygen can diffuse into the water and dissolved gases can volatilise or oxidise.

Organics may be sorbed by the well casing and trace elements may be leached from the well casing. Purging ensures a representative sample is obtained from the aquifer.

2.4.1 Purging Procedure

1. Dip water Level and Well Depth and Measure Internal Well Diameter.
2. Calculate Well Volume (50mm well: 0.5m = 1L and 35mm well : 1m = 1L)
3. Remove 3 x well volume using either dedicated bailer or submersible pump positioned at the TOP of the water column ^{*1}.

(*¹If the water level is above the screened area and the pump intake is within the screened area, it is possible for a section of stagnant water to remain within the well. It is good practice, in such cases, to commence pumping at the top of the water table and slowly lower the pump during the purging process until the pump is within the screened section, when purging will be complete).

4. If the well purges dry, the water should be allowed to recover 90% of the pre-purge water level (or for two hours, whichever occurs first) prior to sampling.
5. In the case of sampling from domestic, industrial or public supply wells where a pump is permanently fixed within the well, the well should be pumped long enough to flush any pipework. If well construction details are available, the well should be purged of three well volumes. If this information is not available, the well should be pumped for approx. 15 minutes prior to sampling or until pH, temperature and specific conductivity stabilise. Care should be taken to adjust the pumping rate if necessary to avoid pumping the well dry^{*2}.

(*²Pumping a well dry would lead to aeration of the well, resulting in volatile loss or change in the chemical characteristics of the aquifer nearest to the well. This will prevent a representative sample being collected).

2.5 Sample Collection

Groundwater samples should be collected immediately on completion of purging, unless significant drawdown has occurred in which case the well should be allowed to recover. Sampling must be undertaken within 2 hours of purging to ensure a representative sample is obtained.

All samples are collected using a dedicated bailer, which can be either Teflon or polyethylene (or stainless steel).

2.5.1 Sampling Procedure

The following procedure should be followed during sample collection (following purging): -

1. Lower bailer into well using nylon cord. Nylon cord should be knotted or marked in meter lengths and the bailer should be lowered to the mid point of the screened well section. Care should be taken to minimise agitation and exposure to the atmosphere.
2. Dispose of water from the first two bailers.
3. When sampling for volatiles take from the third bailer (ensure volatiles are placed in 60ml water vials with Teflon lid).

4. Sample for other determinants thereafter (ensure use of appropriate sample containers).
5. Record date and time of sample collection, the collection method, parameters to be analysed, the number and type of sample containers and any other information that may be relevant to interpretation.
6. Ensure all sample bottles are correctly labelled with the site reference number and borehole location.
7. All samples submitted to the laboratory must be accompanied by the laboratories chain of custody form.

3.0 RECORD FORMS

Sample Collection Form		Sheet ...1... of2	
Site Name Morrison	EA Permit Number VP3339PD	Survey Reference Groundwater Survey – April 2008	
Site Operator Morganite Electrical Carbon	Weather Conditions Heavy Showers	Survey Personnel Terrence Roberts	
		Monitoring Point or Sample Reference No.	
		BH5CH2M	BHD
		BHA	BH7CH2M
		WS11	

Strategy and Equipment Used						
Sample type	GW/L/S/O	GW	GW	GW	GW	GW
Sample objective	(Use Code)	PC	PC	PC	PC	PC
Sample equipment	(State type)	BALER	BALER	BALER	BALER	BALER
Dedicated pump?	(Y/N)	N	N	N	N	N
Purge record?	(Y/N)	Y	Y	Y	Y	Y

Sample Collection Information						
Date of sample	dd/mm/yy	24/04/2008	24/04/2008	24/04/2008	24/04/2008	24/04/2008
Time of sample	hh:min	-	-	-	-	-
Time since purge	min	1	1	1	1	1
Depth to water:	(mbd)	3.10	3.00	3.20	1.50	3.00
Pumping rate	(l/min)	Manual	Manual	Manual	Manual	Manual
Odour	-					
Colour/appearance	-					
Sediment	-					
Comments	-					

Sample Containers and Field Treatment							
Ref	Type	Vol	Filt	Prsv	Label Ref No or Sample Taken (Tick Box)		
1	TPH/PAH	0.25l	No	No	✓	✓	✓
2	Plastic	1l	No	No	✓	✓	✓
3	VOC Vial	0.1l	No	No	✓	✓	✓
4	VOC Vial	0.1l	No	No	✓	✓	✓

QC Sample Information						
Tick if QC sample						
QC sample type						
Main samples referred to						
QC sample referring to main sample						

Water Quality Measurements (if applicable)						
Use flow through cell	(Y/N)					
Temp	(deg C)					
pH	-					
EC	(S/cm)					
DO	(mg/l or %)					
Eh	mV					

Quality Assurance				Data Processing Trail		
	Name	Date	Initials		Date	Initials
Survey:	R Lewis	25/04/2008	RL	Schedule Completed:	25/04/2008	RL
QC Manager:	M Izzard	25/04/2008	MI	Data Validated:	25/04/2008	MI
Manager:	S Burley	25/04/2008	SB	Computer Updated:	25/04/2008	SB

Sample Collection Form		Sheet ...2... of2
Site Name Morrison	EA Permit Number VP3339PD	Survey Reference Groundwater Survey – April 2008
Site Operator Morganite Electrical Carbon	Weather Conditions Heavy Showers	Survey Personnel Terrence Roberts
Monitoring Point or Sample Reference No.		
BH6CH2M		

Strategy and Equipment Used					
Sample type	GW/L/S/O	GW			
Sample objective	(Use Code)	PC			
Sample equipment	(State type)	BALER			
Dedicated pump?	(Y/N)	N			
Purge record?	(Y/N)	Y			

Sample Collection Information					
Date of sample	dd/mm/yy	24/04/2008			
Time of sample	hh:min	-			
Time since purge	min	1			
Depth to water:	(mbd)	4.60			
Pumping rate	(l/min)	Manual			
Odour	-				
Colour/appearance	-				
Sediment	-				
Comments	-				

Sample Containers and Field Treatment					
Ref	Type	Vol	Filt	Prsv	Label Ref No or Sample Taken (Tick Box)
1	TPH/PAH	0.25l	No	No	✓
2	Plastic	1l	No	No	✓
3	VOC Vial	0.1l	No	No	✓
4	VOC Vial	0.1l	No	No	✓

QC Sample Information					
Tick if QC sample					
QC sample type					
Main samples referred to					
QC sample referring to main sample					

Water Quality Measurements (if applicable)					
Use flow through cell	(Y/N)				
Temp	(deg C)				
pH	-				
EC	(S/cm)				
DO	(mg/l or %)				
Eh	mV				

Quality Assurance				Data Processing Trail		
	Name	Date	Initials		Date	Initials
Survey:	R Lewis	25/04/2008	RL	Schedule Completed:	25/04/2008	RL
QC Manager:	M Izzard	25/04/2008	MI	Data Validated:	25/04/2008	MI
Manager:	S Burley	25/04/2008	SB	Computer Updated:	25/04/2008	SB

Borehole Purging Record Form				Sheet ...1... of2		
Site Name Morrison		EA Permit Number VP3339PD		Survey Reference Groundwater Survey – April 2008		
Site Operator Morganite Electrical Carbon		Weather Conditions Heavy Showers		Survey Personnel Terrence Roberts		
		Monitoring Point or Sample Reference No.				
		BH5CH2M	BHD	BHA	BH7CH2M	WS11

Strategy and Equipment Used						
Purge Strategy	(Use code)	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL
Purge equipment	(State type)	BALER	BALER	BALER	BALER	BALER
Dedicated pump?	(Y/N)	N	N	N	N	N
Flow measurement	(Method)	VOLUME	VOLUME	VOLUME	VOLUME	VOLUME

Monitoring Point Measurements and Well Volume Estimate						
Date of measurement	dd/mm/yy	24/04/2008	24/04/2008	24/04/2008	24/04/2008	24/04/2008
Liner ID	(mm)	50	50	50	50	50
Datum point	-	GL	GL	GL	GL	GL
Depth of water:	(mbd)	1.80	1.90	1.30	1.5	1.90
Depth to base:	(mbd)	4.90	4.90	4.50	4.5	4.90
Depth to water:	(metres)	3.10	3.00	3.20	3.0	3.00
Well volume	(litres)	3.50	3.75	2.60	3.0	3.75
3 x well volume	(litres)	10.50	11.25	7.80	9.0	11.25

Purging Record						
Start time of purging	hh:min	-	-	-	-	-
End time of purging	(hh:min)	-	-	-	-	-
Purge duration	(min)	-	-	-	-	-
Purging rate	(l/min)	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL
Volume purged	Litres	14	15	8	11	15
No of well volume	No.	4	4	3	3	4
Depth to water after purge	(mbd)	-	-	-	-	-
Pumped dry?	(Y/N)	N	N	N	N	N

Water Quality Measurements (if applicable)						
Use flow through cell	(Y/N)					
Temp	(deg C)					
pH	-					
EC	(S/cm)					
DO	(mg/l or %)					
Eh	mV					

Quality Assurance				Data Processing Trail		
	Name	Date	Initials		Date	Initials
Survey:	R Lewis	25/04/2008	RL	Schedule Completed:	25/04/2008	RL
QC Manager:	Mark Izzard	25/04/2008	MI	Data Validated:	25/04/2008	MI
Manager:	Sarah Burley	25/04/2008	SB	Computer Updated:	25/04/2008	SB

Borehole Purging Record Form		Sheet ...2... of2	
Site Name Morrison		EA Permit Number VP3339PD	Survey Reference Groundwater Survey – April 2008
Site Operator Morganite Electrical Carbon		Weather Conditions Heavy Showers	Survey Personnel Terrence Roberts
		Monitoring Point or Sample Reference No.	
		BH6CH2M	

Strategy and Equipment Used			
Purge Strategy	(Use code)	MANUAL	
Purge equipment	(State type)	BALER	
Dedicated pump?	(Y/N)	N	
Flow measurement	(Method)	VOLUME	

Monitoring Point Measurements and Well Volume Estimate			
Date of measurement	dd/mm/yy	24/04/2008	
Liner ID:	(mm)	50	
Datum point	-	GL	
Depth of water:	(mbd)	1.60	
Depth to base:	(mbd)	6.20	
Depth to water:	(metres)	4.60	
Well volume	(litres)	3.20	
3 x well volume	(litres)	9.60	

Purging Record			
Start time of purging	hh:min	-	
End time of purging	(hh:min)	-	
Purge duration	(min)	-	
Purging rate	(l/min)	-	
Volume purged	Litres	14	
No of well volume	No.	4	
Depth to water after purge	(mbd)	-	
Pumped dry?	(Y/N)	N	

Water Quality Measurements (if applicable)			
Use flow through cell	(Y/N)		
Temp	(deg C)		
pH	-		
EC	(S/cm)		
DO	(mg/l or %)		
Eh	mV		

Quality Assurance				Data Processing Trail		
	Name	Date	Initials		Date	Initials
Survey:	R Lewis	25/04/2008	RL	Schedule Completed:	25/04/2008	RL
QC Manager:	M Izzard	25/04/2008	MI	Data Validated:	25/04/2008	MI
Manager:	S Burley	25/04/2008	SB	Computer Updated:	25/04/2008	SB

4.0 RESULTS OF LABORATORY ANALYSIS

The results for April 2008 are shown in Table 1 below.

Table 1

Test Description	Units	BH5 CH2M	BHD	BHA	BH7CH2M	WS11	BH6CH2M
pH	pH units	7.1	<1.0	8.0	8.1	8.0	8.2
Chloride	mg/l	18	11	13	14	22	12
Alkalinity as CaCO ₃	mg/l	235	419	267	332	306	417
Ammoniacal Nitrogen as N	mg/l	NT	NT	NT	NT	NT	NT
Nitrate	mg/l	<0.3	<0.3	<0.3	<0.3	2.0	0.7
Iron	mg/l	14.48	0.74	0.23	0.34	1.36	0.11
Calcium	mg/l	270	65	98	71	84	214
Magnesium	mg/l	19	8.7	10	11	10	15
Sodium	mg/l	15	15	8.3	18	12	12
Potassium	mg/l	14	11	6.1	9.2	9.1	18
Total Organic Carbon	mg/l	12.4	9.1	8.5	8.2	5.7	4.6
TPH	ug/l	372	NR	110	210	NR	22
PAH, Total	ug/l	NR	NR	0.02	0.16	1.30	<0.01
Acenaphthene	ug/l	NR	NR	<0.01	0.03	<0.01	<0.01
Anthracene	ug/l	NR	NR	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	ug/l	NR	NR	<0.01	<0.01	<0.01	<0.01
Benzo-a-anthracene	ug/l	NR	NR	<0.01	<0.01	0.08	<0.01
Dibenz-a-h-anthracene	ug/l	NR	NR	<0.01	<0.01	0.04	<0.01
Benzo-k-fluoranthene	ug/l	NR	NR	<0.01	<0.01	0.06	<0.01
Benzo-a-pyrene	ug/l	NR	NR	<0.01	<0.01	0.15	<0.01
Benzo-g,h,i perylene	ug/l	NR	NR	<0.01	<0.01	0.20	<0.01
Chrysene	ug/l	NR	NR	<0.01	<0.01	0.11	<0.01
Fluorene	ug/l	NR	NR	<0.01	<0.01	<0.01	<0.01
Fluoranthene	ug/l	NR	NR	<0.01	0.05	0.12	<0.01
Indeno 1,2,3-cd pyrene	ug/l	NR	NR	<0.01	<0.01	0.15	<0.01
Benzo-b-fluoranthene	ug/l	NR	NR	<0.01	<0.01	0.25	<0.01
Naphthalene	ug/l	NR	NR	<0.01	0.05	<0.01	<0.01
Phenanthrene	ug/l	NR	NR	<0.01	<0.01	0.04	<0.01
Pyrene	ug/l	NR	NR	0.02	0.04	0.11	<0.01
Dibromofluoromethane	% Recovery	104.0	NR	104.8	104.3	NR	101.1
Toluene-d8	% Recovery	100.6	NR	101.4	101.7	NR	100.2
4-bromofluorobenzene	% Recovery	91.2	NR	90.7	89.0	NR	91.4
Dichlorodifluoromethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Chloromethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Chloroethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Bromomethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Vinyl Chloride	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Trichlorofluoromethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,1-Dichloroethene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Dichloromethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Trans-1,2-dichloroethene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,1-Dichloroethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Cis-1,2-dichloroethene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0

Test Description	Units	BH5 CH2M	BHD	BHA	BH7CH2M	WS11	BH6CH2M
2,2-Dichloropropane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Chloroform	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Bromochloromethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,1,1-Trichloroethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,1-Dichloropropene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,2-Dichloroethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Benzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Carbon Tetrachloride	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,2-Dichloropropane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Trichloroethene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Bromodichloromethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Dibromomethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Cis-1,3-dichloropropene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Toluene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Trans-1,3-dichloropropene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,1,2-trichloroethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,3-dichloropropane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Tetrachloroethene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Dibromochloromethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,2-dibromoethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Chlorobenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,1,1,2-tetrachloroethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Ethyl Benzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
m,p-xylene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
o-xylene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Styrene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Bromoform	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Isopropylbenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,1,2,2-tetrachloroethane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,2,3-trichloropropane	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
n-propylbenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Bromobenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
2-chlorotoluene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,3,5-trimethylbenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
4-chlorotoluene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
tert-butylbenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,2,4-trimethylbenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
sec-butylbenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
p-isopropyltoluene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,3-dichlorobenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,4-dichlorobenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
n-butylbenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,2-dichlorobenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,2-dibromo-3-chloropropane	ug/l	<2.0	NR	<2.0	<2.0	NR	<2.0
1,2,4-trichlorobenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Hexachlorobutadiene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
Naphthalene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
1,2,3-trichlorobenzene	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
MTBE	ug/l	<1.0	NR	<1.0	<1.0	NR	<1.0
NR = Sample analysis not required NT = Not Tested							

5.0 DISCUSSION

The results for April 2008 have been compared with previous results from August 2003, October 2006, April and September 2007 to see whether or not groundwater conditions within the site have improved or declined over time. The initial sampling results from October 2006 can be used as the baseline conditions for the groundwater on site and the results thereafter compared to these.

The chemical analysis of all groundwater samples recovered on site since October 2006 followed the analytical protocol table represented in Table 4.3.2 of the ENVIRON UK Limited Site Protection Monitoring Programme report, June 2005.

The results for each borehole were tabulated and are shown in Tables 3-8 on the following pages. These tables were then used to produce graphs showing trends within borehole results (Graph 1-6); these can also be seen on the following pages. The chlorinated hydrocarbon results have been excluded from the graphs as all results were either not required or recorded as being <1ug/l or <2ug/l.

5.0.1 Dutch IS

Current UK guidelines provide no threshold value for acceptable amounts of Total Petroleum Hydrocarbons (TPH) and Polycyclic Aromatic Hydrocarbons (PAH) in groundwater. However, Dutch Intervention Standards are environmental pollutant reference values used in environmental investigation and remediation. These reference values for groundwater depend on the depth of the sample. The groundwater reference values shown in Table 2 are for 'shallow' groundwater, between 0-10m depth.

The Dutch IS threshold value for TPH is 600ug/l. This value is breached in BH5CH2M (September 2007) and BHA (April 2007), with results of 1610ug/l and 786ug/l respectively.

The Dutch IS threshold values for the speciated PAH's are shown in Table 2 (Anthracene to Phenanthrene). The findings of the PAH results in comparison to these threshold values is explained in each borehole subsection.

Table 2 – Dutch Groundwater Intervention Values

Test Description	Units	Dutch Groundwater Intervention Values
pH	pH units	>5 or <9
TPH	ug/l	600
Anthracene	ug/l	5
Benzo-a-anthracene	ug/l	0.5
Benzo-k-fluoranthene	ug/l	0.05
Benzo-a-pyrene	ug/l	0.05
Benzo-g,h,i perylene	ug/l	0.05
Chrysene	ug/l	0.2
Fluoranthene	ug/l	1
Indeno 1,2,3-cd pyrene	ug/l	0.05
Naphthalene	ug/l	70
Phenanthrene	ug/l	5
Vinyl Chloride	ug/l	5
Dichloromethane	ug/l	1000
1,1-Dichloroethane	ug/l	900
1,1,1-Trichloroethane	ug/l	300
1,2-Dichloroethane	ug/l	400
Benzene ug/l	ug/l	30
Carbon Tetrachloride	ug/l	10
Toluene	ug/l	1000
1,1,2-trichloroethane	ug/l	130
Ethyl Benzene	ug/l	150
Styrene	ug/l	300
Naphthalene	ug/l	70
MTBE	ug/l	9200

5.1 BH5CH2M

Table 3 – BH5CH2M

		Aug '03	Oct '06	Apr '07	Sep '07	Apr '08
Test Description	Units	BH5CH2M	BH5CH2M	BH5CH2M	BH5CH2M	BH5CH2M
pH	pH units	-	6.3	6.8	6.3	7.1
Chloride	mg/l	-	16	25	18	18
Alkalinity as CaCO ₃	mg/l	-	300	255	211	235
Ammoniacal Nitrogen as N	mg/l	-	1.1	<0.3	2.9	NT
Nitrate	mg/l	-	<0.3	<0.3	<0.3	<0.3
Iron	mg/l	-	71.77	29.59	129	14.48
Calcium	mg/l	-	529	209	311	270
Magnesium	mg/l	-	35	18	27	19
Sodium	mg/l	-	33	28	19	15
Potassium	mg/l	-	24	15	21	14
Total Organic Carbon	mg/l	-	20.6	9.9	17.2	12.4
TPH	ug/l	-	330	470	1610	372
PAH, Total	ug/l	NR	NR	NR	NR	NR
Acenaphthene	ug/l	NR	NR	NR	NR	NR
Anthracene	ug/l	NR	NR	NR	NR	NR
Acenaphthylene	ug/l	NR	NR	NR	NR	NR
Benzo-a-anthracene	ug/l	NR	NR	NR	NR	NR
Dibenz-a-h-anthracene	ug/l	NR	NR	NR	NR	NR
Benzo-k-fluoranthene	ug/l	NR	NR	NR	NR	NR
Benzo-a-pyrene	ug/l	NR	NR	NR	NR	NR
Benzo-g,h,i perylene	ug/l	NR	NR	NR	NR	NR
Chrysene	ug/l	NR	NR	NR	NR	NR
Fluorene	ug/l	NR	NR	NR	NR	NR
Fluoranthene	ug/l	NR	NR	NR	NR	NR
Indeno 1,2,3-cd pyrene	ug/l	NR	NR	NR	NR	NR
Benzo-b-fluoranthene	ug/l	NR	NR	NR	NR	NR
Naphthalene	ug/l	NR	NR	NR	NR	NR
Phenanthrene	ug/l	NR	NR	NR	NR	NR
Pyrene	ug/l	NR	NR	NR	NR	NR
Dibromofluoromethane	% Recovery	-	98.1	96.9	101.1	104.0
Toluene-d8	% Recovery	-	94.5	98.4	61.0	100.6
4-bromofluorobenzene	% Recovery	-	90.3	101.5	96.8	91.2
Dichlorodifluoromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dichloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trans-1,2-dichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,2-dichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloropropene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

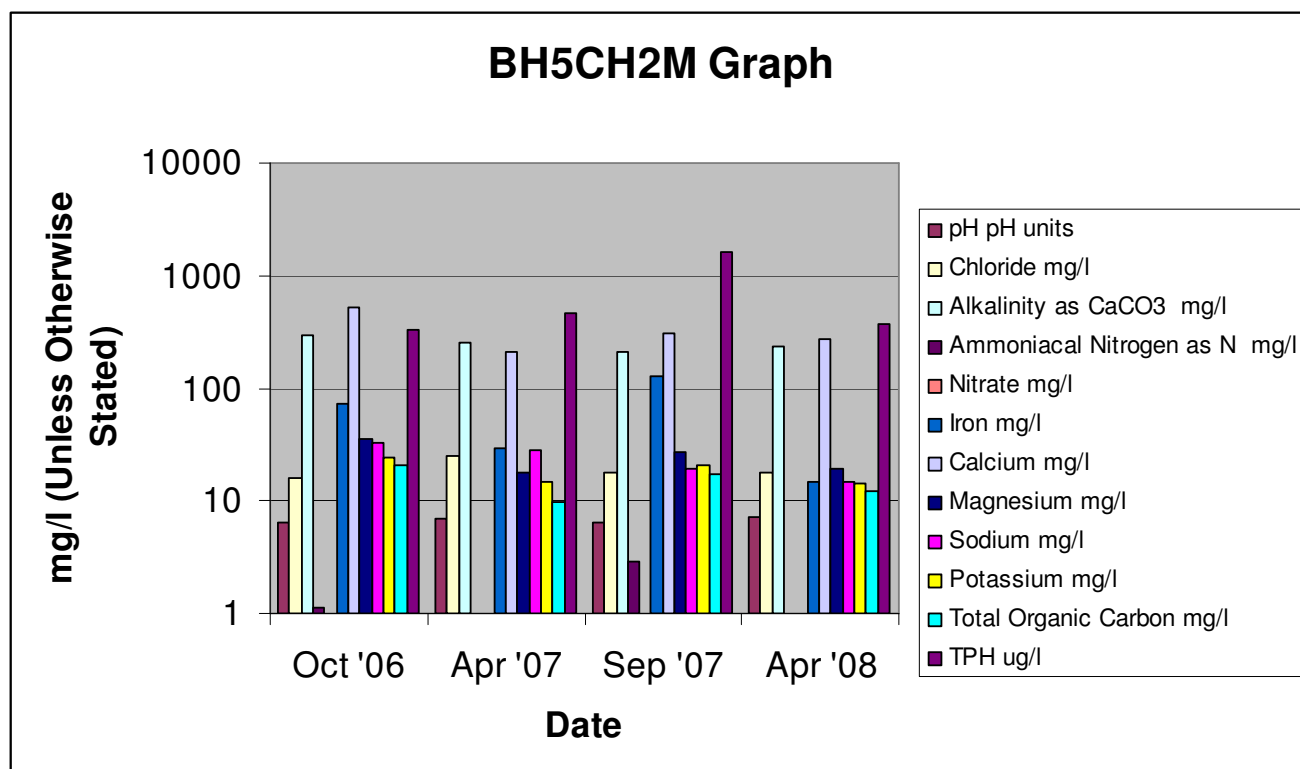
		Aug '03	Oct'06	Apr '07	Sep '07	Apr '08
Test Description	Units	BH5CH2M	BH5CH2M	BH5CH2M	BH5CH2M	BH5CH2M
1,2-Dichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene ug/l	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane ug/l	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trans-1,3-dichloropropene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromoethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-tetrachloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-xylene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
o-xylene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-tetrachloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2-chlorotoluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-trimethylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
4-chlorotoluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
tert-butylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-trimethylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
sec-butylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
p-isopropyltoluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-dichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
n-butylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromo-3-chloropropane	ug/l	<1.0	<1.0	<2.0	<2.0	<2.0
1,2,4-trichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
MTBE	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

NT = Sample Not Tested

NR = Samples analysis not required

NS = Not Sampled

Graph 1 – BH5CH2M



The majority of results shown in Table 3 and Graph 1 above have either remained fairly consistent or have decreased in value over time since October 2006. There is one result however for TPH of 1610ug/l recorded in September 2007 which is >5x greater than recorded in October 2006 (330ug/l). This result also exceeds the Dutch Intervention TPH value of 600ug/l.

5.2 BHD

Table 4 – BHD

		Oct '06	Apr '07	Sep '07	Apr '08
Test Description	Units	BHD	BHD	BHD	BHD
pH	pH units	6.9	NS	NS	<1.0
Chloride	mg/l	7	NS	NS	11
Alkalinity as CaCO ₃	mg/l	158	NS	NS	419
Ammoniacal Nitrogen as N	mg/l	<0.3	NS	NS	NT
Nitrate	mg/l	<0.3	NS	NS	<0.3
Iron	mg/l	49.22	NS	NS	0.74
Calcium	mg/l	65	NS	NS	65
Magnesium	mg/l	8	NS	NS	8.7
Sodium	mg/l	13	NS	NS	15
Potassium	mg/l	9.7	NS	NS	11
Total Organic Carbon	mg/l	11.7	NS	NS	9.1
TPH	ug/l	NR	NS	NS	NR
PAH, Total	ug/l	NR	NS	NS	NR
Acenaphthene	ug/l	NR	NS	NS	NR
Anthracene	ug/l	NR	NS	NS	NR
Acenaphthylene	ug/l	NR	NS	NS	NR
Benzo-a-anthracene	ug/l	NR	NS	NS	NR
Dibenz-a-h-anthracene	ug/l	NR	NS	NS	NR
Benzo-k-fluoranthene	ug/l	NR	NS	NS	NR
Benzo-a-pyrene	ug/l	NR	NS	NS	NR
Benzo-g,h,i perylene	ug/l	NR	NS	NS	NR
Chrysene	ug/l	NR	NS	NS	NR
Fluorene	ug/l	NR	NS	NS	NR
Fluoranthene	ug/l	NR	NS	NS	NR
Indeno 1,2,3-cd pyrene	ug/l	NR	NS	NS	NR
Benzo-b-fluoranthene	ug/l	NR	NS	NS	NR
Naphthalene	ug/l	NR	NS	NS	NR
Phenanthrene	ug/l	NR	NS	NS	NR
Pyrene	ug/l	NR	NS	NS	NR
Dibromofluoromethane	% Recovery	NR	NS	NS	NR
Toluene-d8	% Recovery	NR	NS	NS	NR
4-bromofluorobenzene	% Recovery	NR	NS	NS	NR
Dichlorodifluoromethane	ug/l	NR	NS	NS	NR
Chloromethane	ug/l	NR	NS	NS	NR
Chloroethane	ug/l	NR	NS	NS	NR
Bromomethane	ug/l	NR	NS	NS	NR
Vinyl Chloride	ug/l	NR	NS	NS	NR
Trichlorofluoromethane	ug/l	NR	NS	NS	NR
1,1-Dichloroethene	ug/l	NR	NS	NS	NR
Dichloromethane	ug/l	NR	NS	NS	NR
Trans-1,2-dichloroethene	ug/l	NR	NS	NS	NR
1,1-Dichloroethane	ug/l	NR	NS	NS	NR
Cis-1,2-dichloroethene	ug/l	NR	NS	NS	NR
2,2-Dichloropropane	ug/l	NR	NS	NS	NR
Chloroform	ug/l	NR	NS	NS	NR
Bromochloromethane	ug/l	NR	NS	NS	NR
1,1,1-Trichloroethane	ug/l	NR	NS	NS	NR
1,1-Dichloropropene	ug/l	NR	NS	NS	NR

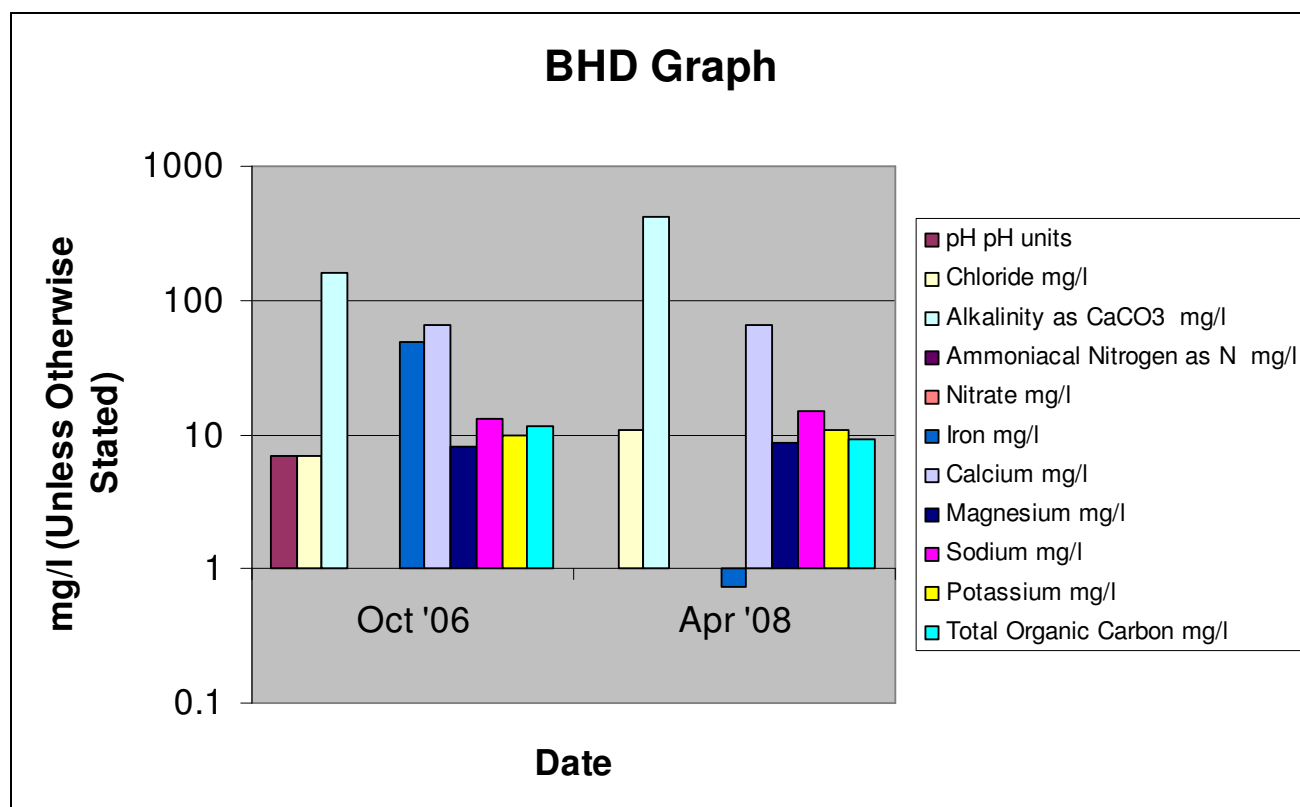
		Oct '06	Apr '07	Sep '07	Apr '08
Test Description	Units	BHD	BHD	BHD	BHD
1,2-Dichloroethane	ug/l	NR	NS	NS	NR
Benzene ug/l	ug/l	NR	NS	NS	NR
Carbon Tetrachloride	ug/l	NR	NS	NS	NR
1,2-Dichloropropane	ug/l	NR	NS	NS	NR
Trichloroethene	ug/l	NR	NS	NS	NR
Bromodichloromethane	ug/l	NR	NS	NS	NR
Dibromomethane ug/l	ug/l	NR	NS	NS	NR
Cis-1,3-dichloropropene	ug/l	NR	NS	NS	NR
Toluene	ug/l	NR	NS	NS	NR
Trans-1,3-dichloropropene	ug/l	NR	NS	NS	NR
1,1,2-trichloroethane	ug/l	NR	NS	NS	NR
1,3-dichloropropane	ug/l	NR	NS	NS	NR
Tetrachloroethene	ug/l	NR	NS	NS	NR
Dibromochloromethane	ug/l	NR	NS	NS	NR
1,2-dibromoethane	ug/l	NR	NS	NS	NR
Chlorobenzene	ug/l	NR	NS	NS	NR
1,1,1,2-tetrachloroethane	ug/l	NR	NS	NS	NR
Ethyl Benzene	ug/l	NR	NS	NS	NR
m,p-xylene	ug/l	NR	NS	NS	NR
o-xylene	ug/l	NR	NS	NS	NR
Styrene	ug/l	NR	NS	NS	NR
Bromoform	ug/l	NR	NS	NS	NR
Isopropylbenzene	ug/l	NR	NS	NS	NR
1,1,2,2-tetrachloroethane	ug/l	NR	NS	NS	NR
1,2,3-trichloropropane	ug/l	NR	NS	NS	NR
n-propylbenzene	ug/l	NR	NS	NS	NR
Bromobenzene	ug/l	NR	NS	NS	NR
2-chlorotoluene	ug/l	NR	NS	NS	NR
1,3,5-trimethylbenzene	ug/l	NR	NS	NS	NR
4-chlorotoluene	ug/l	NR	NS	NS	NR
tert-butylbenzene	ug/l	NR	NS	NS	NR
1,2,4-trimethylbenzene	ug/l	NR	NS	NS	NR
sec-butylbenzene	ug/l	NR	NS	NS	NR
p-isopropyltoluene	ug/l	NR	NS	NS	NR
1,3-dichlorobenzene	ug/l	NR	NS	NS	NR
1,4-dichlorobenzene	ug/l	NR	NS	NS	NR
n-butylbenzene	ug/l	NR	NS	NS	NR
1,2-dichlorobenzene	ug/l	NR	NS	NS	NR
1,2-dibromo-3-chloropropane	ug/l	NR	NS	NS	NR
1,2,4-trichlorobenzene	ug/l	NR	NS	NS	NR
Hexachlorobutadiene	ug/l	NR	NS	NS	NR
Naphthalene	ug/l	NR	NS	NS	NR
1,2,3-trichlorobenzene	ug/l	NR	NS	NS	NR
MTBE	ug/l	NR	NS	NS	NR

NT = Sample Not Tested

NR = Sample analysis not required

NS = Not Sampled

Graph 2 – BHD



Due to BHD not being sampled in April and September 2007 there is only one set of results (April 2008) to compare with the October 2006 results. However the two sets of results are fairly similar and in some determinand results they've actually decreased in concentration. The only significant result that appears is a pH of <1.0 in April 2008 (Dutch IV of >5 to <9), which would describe the sample as being very acidic. As there is only two months worth of data to compare this result with it makes it very difficult to make assumptions or conclusions.

5.3 BHA

Table 5 – BHA

		Oct '06	Apr '07	Sep '07	Apr '08
Test Description	Units	BHA	BHA	BHA	BHA
pH	pH units	6.9	7.0	NS	8.0
Chloride	mg/l	8	24	NS	13
Alkalinity as CaCO ₃	mg/l	303	627	NS	267
Ammoniacal Nitrogen as N	mg/l	<0.3	<0.3	NS	NT
Nitrate	mg/l	<0.3	<0.3	NS	<0.3
Iron	mg/l	27.99	7.67	NS	0.23
Calcium	mg/l	174	138	NS	98
Magnesium	mg/l	20	15	NS	10
Sodium	mg/l	17	12	NS	8.3
Potassium	mg/l	11	9.1	NS	6.1
Total Organic Carbon	mg/l	12.9	12.8	NS	8.5
TPH	ug/l	70	786	NS	110
PAH, Total	ug/l	<0.01	1.64	NS	0.02
Acenaphthene	ug/l	<0.01	0.52	NS	<0.01
Anthracene	ug/l	<0.01	0.02	NS	<0.01
Acenaphthylene	ug/l	<0.01	0.15	NS	<0.01
Benzo-a-anthracene	ug/l	<0.01	0.01	NS	<0.01
Dibenz-a-h-anthracene	ug/l	<0.01	<0.01	NS	<0.01
Benzo-k-fluoranthene	ug/l	<0.01	<0.01	NS	<0.01
Benzo-a-pyrene	ug/l	<0.01	<0.01	NS	<0.01
Benzo-g,h,i perylene	ug/l	<0.01	<0.01	NS	<0.01
Chrysene	ug/l	<0.01	0.02	NS	<0.01
Fluorene	ug/l	<0.01	0.53	NS	<0.01
Fluoranthene	ug/l	<0.01	0.03	NS	<0.01
Indeno 1,2,3-cd pyrene	ug/l	<0.01	<0.01	NS	<0.01
Benzo-b-fluoranthene	ug/l	<0.01	0.01	NS	<0.01
Naphthalene	ug/l	<0.01	0.2	NS	<0.01
Phenanthrene	ug/l	<0.01	0.06	NS	<0.01
Pyrene	ug/l	<0.01	0.08	NS	0.02
Dibromofluoromethane	% Recovery	97.9	99.4	NS	104.8
Toluene-d8	% Recovery	94.1	99.3	NS	101.4
4-bromofluorobenzene	% Recovery	92.2	107.4	NS	90.7
Dichlorodifluoromethane	ug/l	<1.0	<1.0	NS	<1.0
Chloromethane	ug/l	<1.0	<1.0	NS	<1.0
Chloroethane	ug/l	<1.0	<1.0	NS	<1.0
Bromomethane	ug/l	<1.0	<1.0	NS	<1.0
Vinyl Chloride	ug/l	<1.0	<1.0	NS	<1.0
Trichlorofluoromethane	ug/l	<1.0	<1.0	NS	<1.0
1,1-Dichloroethene	ug/l	<1.0	<1.0	NS	<1.0
Dichloromethane	ug/l	<1.0	<1.0	NS	<1.0
Trans-1,2-dichloroethene	ug/l	<1.0	<1.0	NS	<1.0
1,1-Dichloroethane	ug/l	<1.0	<1.0	NS	<1.0
Cis-1,2-dichloroethene	ug/l	<1.0	<1.0	NS	<1.0
2,2-Dichloropropane	ug/l	<1.0	<1.0	NS	<1.0
Chloroform	ug/l	<1.0	<1.0	NS	<1.0
Bromochloromethane	ug/l	<1.0	<1.0	NS	<1.0
1,1,1-Trichloroethane	ug/l	<1.0	<1.0	NS	<1.0
1,1-Dichloropropene	ug/l	<1.0	<1.0	NS	<1.0

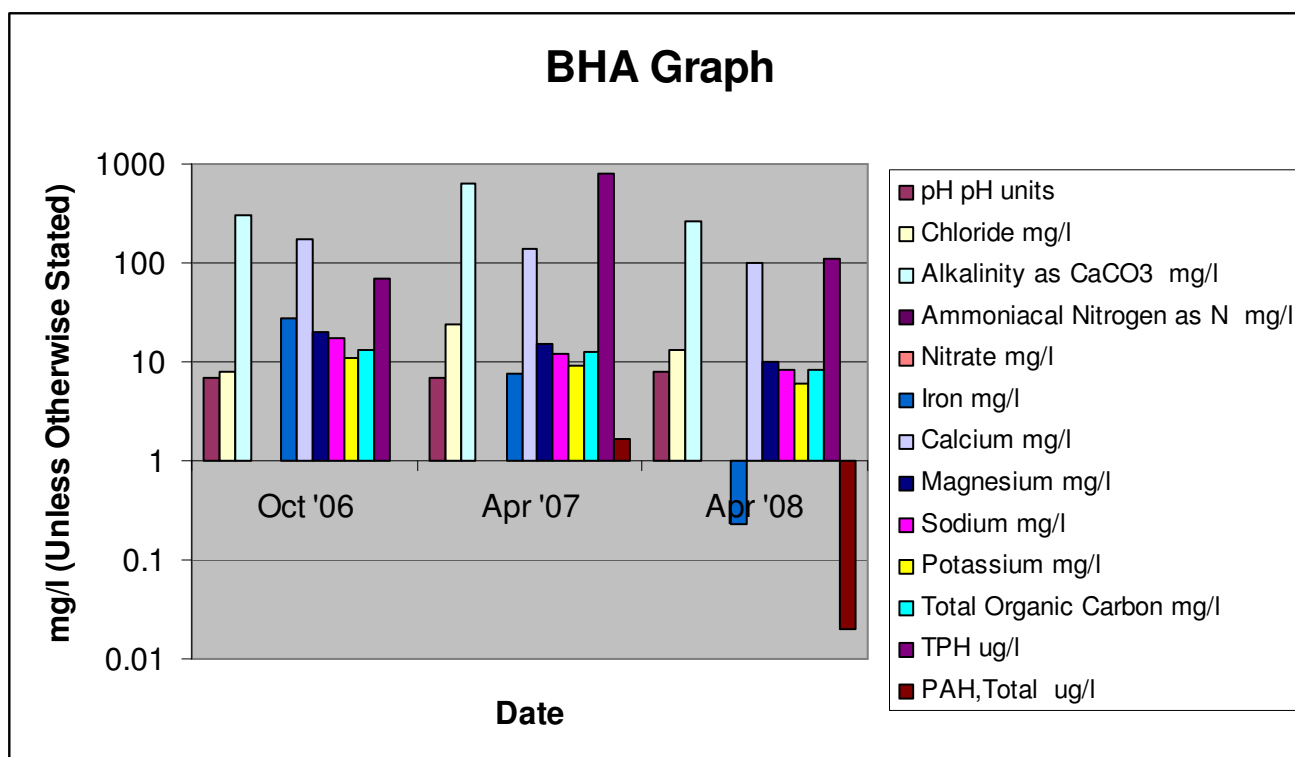
		Oct '06	Apr '07	Sep '07	Apr '08
Test Description	Units	BHA	BHA	BHA	BHA
1,2-Dichloroethane	ug/l	<1.0	<1.0	NS	<1.0
Benzene ug/l	ug/l	<1.0	<1.0	NS	<1.0
Carbon Tetrachloride	ug/l	<1.0	<1.0	NS	<1.0
1,2-Dichloropropane	ug/l	<1.0	<1.0	NS	<1.0
Trichloroethene	ug/l	<1.0	<1.0	NS	<1.0
Bromodichloromethane	ug/l	<1.0	<1.0	NS	<1.0
Dibromomethane ug/l	ug/l	<1.0	<1.0	NS	<1.0
Cis-1,3-dichloropropene	ug/l	<1.0	<1.0	NS	<1.0
Toluene	ug/l	<1.0	<1.0	NS	<1.0
Trans-1,3-dichloropropene	ug/l	<1.0	<1.0	NS	<1.0
1,1,2-trichloroethane	ug/l	<1.0	<1.0	NS	<1.0
1,3-dichloropropane	ug/l	<1.0	<1.0	NS	<1.0
Tetrachloroethene	ug/l	<1.0	<1.0	NS	<1.0
Dibromochloromethane	ug/l	<1.0	<1.0	NS	<1.0
1,2-dibromoethane	ug/l	<1.0	<1.0	NS	<1.0
Chlorobenzene	ug/l	<1.0	<1.0	NS	<1.0
1,1,1,2-tetrachloroethane	ug/l	<1.0	<1.0	NS	<1.0
Ethyl Benzene	ug/l	<1.0	<1.0	NS	<1.0
m,p-xylene	ug/l	<1.0	<1.0	NS	<1.0
o-xylene	ug/l	<1.0	<1.0	NS	<1.0
Styrene	ug/l	<1.0	<1.0	NS	<1.0
Bromoform	ug/l	<1.0	<1.0	NS	<1.0
Isopropylbenzene	ug/l	<1.0	<1.0	NS	<1.0
1,1,2,2-tetrachloroethane	ug/l	<1.0	<1.0	NS	<1.0
1,2,3-trichloropropane	ug/l	<1.0	<1.0	NS	<1.0
n-propylbenzene	ug/l	<1.0	<1.0	NS	<1.0
Bromobenzene	ug/l	<1.0	<1.0	NS	<1.0
2-chlorotoluene	ug/l	<1.0	<1.0	NS	<1.0
1,3,5-trimethylbenzene	ug/l	<1.0	<1.0	NS	<1.0
4-chlorotoluene	ug/l	<1.0	<1.0	NS	<1.0
tert-butylbenzene	ug/l	<1.0	<1.0	NS	<1.0
1,2,4-trimethylbenzene	ug/l	<1.0	<1.0	NS	<1.0
sec-butylbenzene	ug/l	<1.0	<1.0	NS	<1.0
p-isopropyltoluene	ug/l	<1.0	<1.0	NS	<1.0
1,3-dichlorobenzene	ug/l	<1.0	<1.0	NS	<1.0
1,4-dichlorobenzene	ug/l	<1.0	<1.0	NS	<1.0
n-butylbenzene	ug/l	<1.0	<1.0	NS	<1.0
1,2-dichlorobenzene	ug/l	<1.0	<1.0	NS	<1.0
1,2-dibromo-3-chloropropane	ug/l	<2.0	<2.0	NS	<2.0
1,2,4-trichlorobenzene	ug/l	<1.0	<1.0	NS	<1.0
Hexachlorobutadiene	ug/l	<1.0	<1.0	NS	<1.0
Naphthalene	ug/l	<1.0	<1.0	NS	<1.0
1,2,3-trichlorobenzene	ug/l	<1.0	<1.0	NS	<1.0
MTBE	ug/l	<1.0	<1.0	NS	<1.0

NT = Sample Not Tested

NR = Sample analysis not required

NS = Not Sampled

Graph 3 – BHA



The majority of results shown in Table 5 and Graph 3 above have either remained fairly consistent or have decreased in value over time since October 2006. There is one result however for TPH of 786ug/l recorded in April 2007 which is approximately 10x greater than recorded in October 2006 (70ug/l).

5.4 BH7CH2M

Table 6 – BH7CH2M

		Aug '03	Oct '06	Apr '07	Sep '07	Apr '08
Test Description	Units	BH7CH2M	BH7CH2M	BH7CH2M	BH7CH2M	BH7CH2M
pH	pH units	-	7.0	7.4	7.4	8.1
Chloride	mg/l	-	10	14	12	14
Alkalinity as CaCO ₃	mg/l	-	276	455	434	332
Ammoniacal Nitrogen as N	mg/l	-	3.3	2	2.1	NT
Nitrate	mg/l	-	<0.3	<0.3	0.4	<0.3
Iron	mg/l	-	27.93	10.71	24	0.34
Calcium	mg/l	-	344	155	86	71
Magnesium	mg/l	-	45	21	13	11
Sodium	mg/l	-	22	21	13	18
Potassium	mg/l	-	20	13	13	9.2
Total Organic Carbon	mg/l	-	10.1	9	9.4	8.2
TPH	ug/l	-	122	241	320	210
PAH, Total	ug/l	1.520	<0.01	0.25	0.35	0.16
Acenaphthene	ug/l	0.185	<0.01	0.1	0.11	0.03
Anthracene	ug/l	0.049	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	ug/l	0.036	<0.01	0.02	0.02	<0.01
Benzo-a-anthracene	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenz-a-h-anthracene	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo-k-fluoranthene	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo-a-pyrene	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo-g,h,i perylene	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	ug/l	0.190	<0.01	<0.01	0.01	<0.01
Fluoranthene	ug/l	0.043	<0.01	0.02	0.02	0.05
Indeno 1,2,3-cd pyrene	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo-b-fluoranthene	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01
Naphthalene	ug/l	0.899	<0.01	0.08	0.16	0.05
Phenanthrene	ug/l	0.069	<0.01	<0.01	0.01	<0.01
Pyrene	ug/l	0.051	<0.01	0.02	0.02	0.04
Dibromofluoromethane	% Recovery	-	98.5	98.2	101.0	104.3
Toluene-d8	% Recovery	-	93.3	98.4	62.5	101.7
4-bromofluorobenzene	% Recovery	-	91.9	105.7	96.6	89.0
Dichlorodifluoromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dichloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trans-1,2-dichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,2-dichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloropropene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

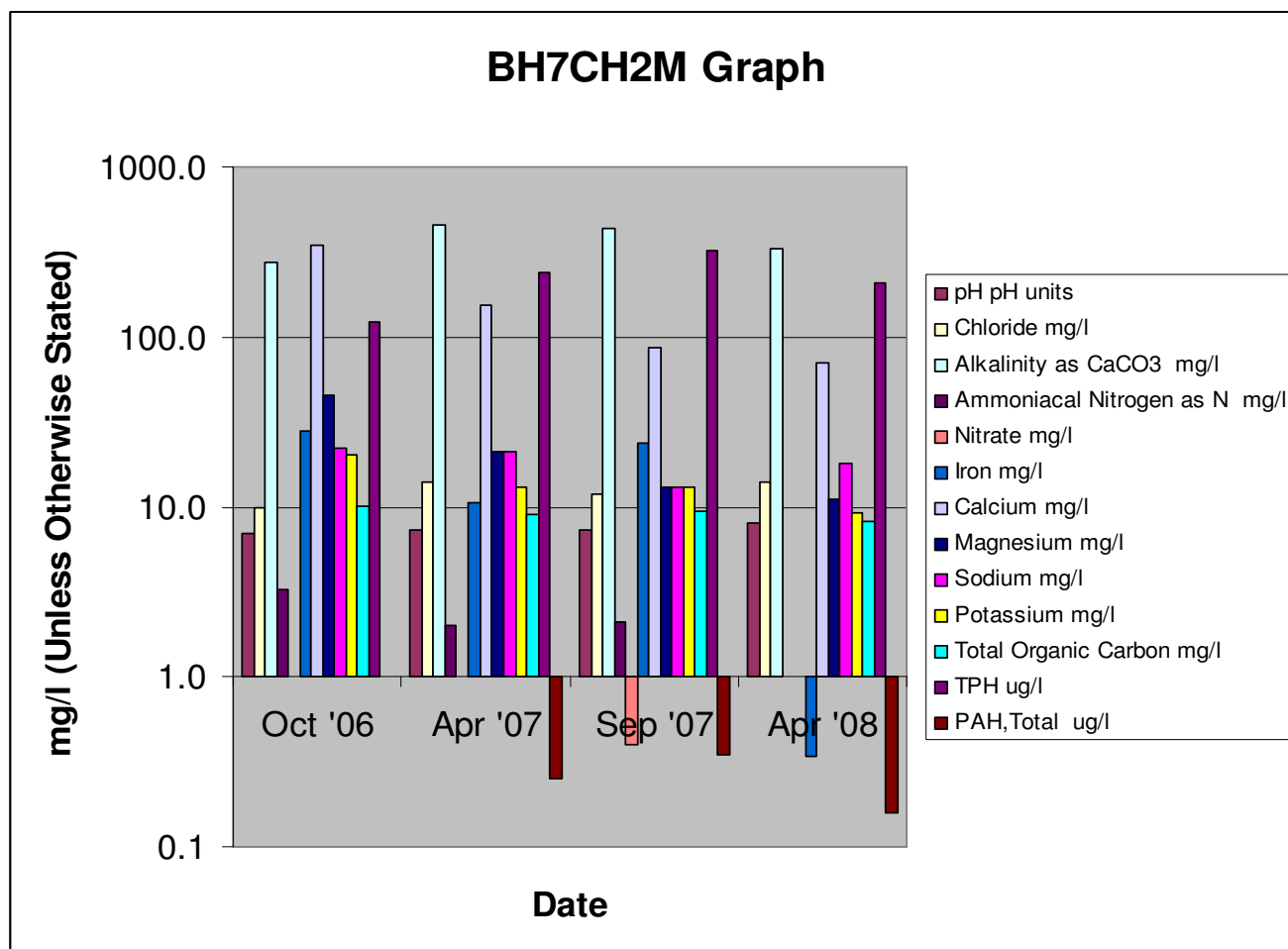
Test Description	Units	Aug '03	Oct '06	Apr '07	Sep '07	Apr '08
		BH7CH2M	BH7CH2M	BH7CH2M	BH7CH2M	BH7CH2M
1,2-Dichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene ug/l	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane ug/l	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trans-1,3-dichloropropene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromoethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-tetrachloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-xylene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
o-xylene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-tetrachloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2-chlorotoluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-trimethylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
4-chlorotoluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
tert-butylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-trimethylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
sec-butylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
p-isopropyltoluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-dichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
n-butylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromo-3-chloropropane	ug/l	<1.0	<2.0	<2.0	<2.0	<2.0
1,2,4-trichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
MTBE	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

NT = Sample Not Tested

NR = Sample analysis not required

NS = Not Sampled

Graph 4 – BH7CH2M



The majority of results shown in Table 6 and Graph 4 above have remained fairly consistent, if not improved, in value over time since August 2003. The results also comply with their respective Dutch Intervention Values.

5.5 WS11

Table 7 – WS11

		Oct '06	Apr '07	Sep '07	Apr '08
Test Description	Units	WS11	WS11	WS11	WS11
pH	pH units	6.8	NS	NS	8.0
Chloride	mg/l	16	NS	NS	22
Alkalinity as CaCO ₃	mg/l	119	NS	NS	306
Ammoniacal Nitrogen as N	mg/l	<0.3	NS	NS	NT
Nitrate	mg/l	4.5	NS	NS	2.0
Iron	mg/l	28.36	NS	NS	1.36
Calcium	mg/l	69	NS	NS	84
Magnesium	mg/l	8.2	NS	NS	10
Sodium	mg/l	19	NS	NS	12
Potassium	mg/l	8.3	NS	NS	9.1
Total Organic Carbon	mg/l	3	NS	NS	5.7
TPH	ug/l	NR	NS	NS	NR
PAH, Total	ug/l	216	NS	NS	1.3
Acenaphthene	ug/l	1.32	NS	NS	<0.01
Anthracene	ug/l	2.55	NS	NS	<0.01
Acenaphthylene	ug/l	<0.01	NS	NS	<0.01
Benzo-a-anthracene	ug/l	15.8	NS	NS	0.08
Dibenz-a-h-anthracene	ug/l	1.43	NS	NS	0.04
Benzo-k-fluoranthene	ug/l	6.08	NS	NS	0.06
Benzo-a-pyrene	ug/l	12	NS	NS	0.15
Benzo-g,h,i perylene	ug/l	9.56	NS	NS	0.2
Chrysene	ug/l	23.1	NS	NS	0.11
Fluorene	ug/l	2.31	NS	NS	<0.01
Fluoranthene	ug/l	44.1	NS	NS	0.12
Indeno 1,2,3-cd pyrene	ug/l	6.53	NS	NS	0.15
Benzo-b-fluoranthene	ug/l	24.4	NS	NS	0.25
Naphthalene	ug/l	0.24	NS	NS	<0.01
Phenanthrene	ug/l	29.5	NS	NS	0.04
Pyrene	ug/l	36.8	NS	NS	0.11
Dibromofluoromethane	% Recovery	NR	NS	NS	NR
Toluene-d8	% Recovery	NR	NS	NS	NR
4-bromofluorobenzene	% Recovery	NR	NS	NS	NR
Dichlorodifluoromethane	ug/l	NR	NS	NS	NR
Chloromethane	ug/l	NR	NS	NS	NR
Chloroethane	ug/l	NR	NS	NS	NR
Bromomethane	ug/l	NR	NS	NS	NR
Vinyl Chloride	ug/l	NR	NS	NS	NR
Trichlorofluoromethane	ug/l	NR	NS	NS	NR
1,1-Dichloroethene	ug/l	NR	NS	NS	NR
Dichloromethane	ug/l	NR	NS	NS	NR
Trans-1,2-dichloroethene	ug/l	NR	NS	NS	NR
1,1-Dichloroethane	ug/l	NR	NS	NS	NR
Cis-1,2-dichloroethene	ug/l	NR	NS	NS	NR
2,2-Dichloropropane	ug/l	NR	NS	NS	NR
Chloroform	ug/l	NR	NS	NS	NR
Bromochloromethane	ug/l	NR	NS	NS	NR
1,1,1-Trichloroethane	ug/l	NR	NS	NS	NR
1,1-Dichloropropene	ug/l	NR	NS	NS	NR

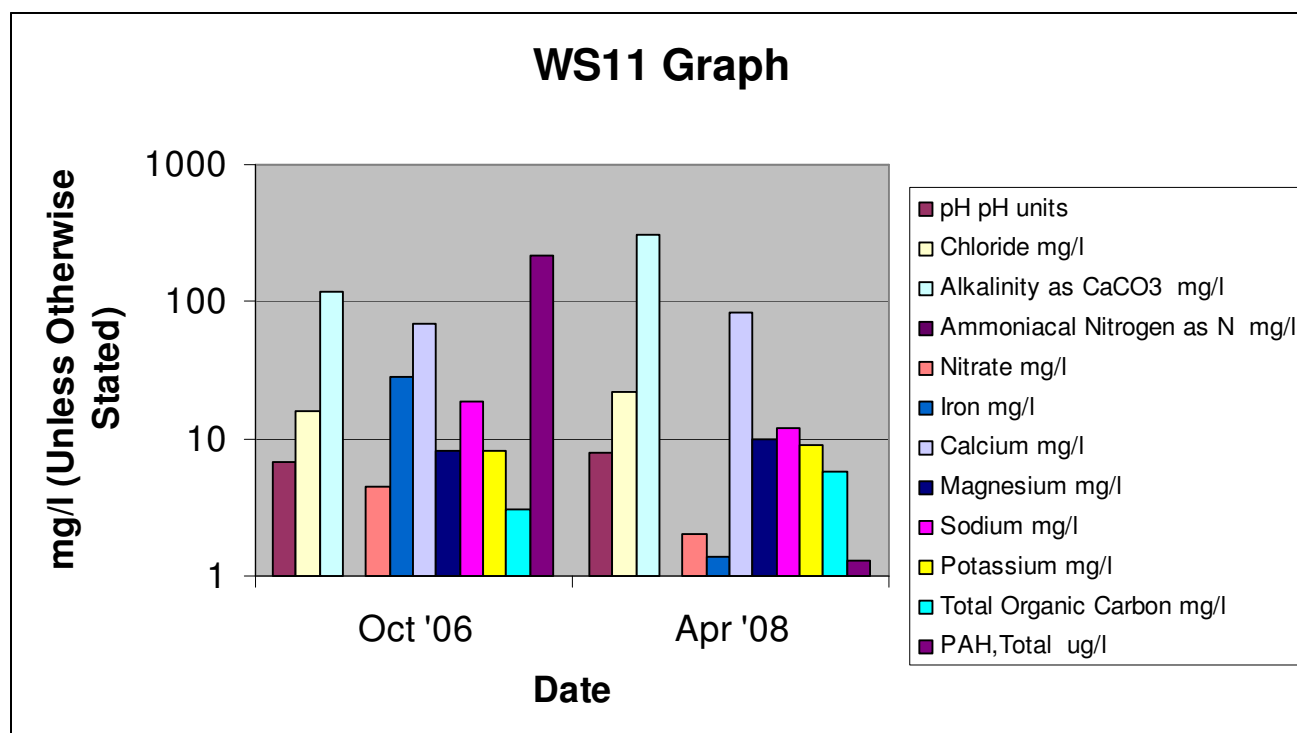
		Oct '06	Apr '07	Sep '07	Apr '08
Test Description	Units	WS11	WS11	WS11	WS11
1,2-Dichloroethane	ug/l	NR	NS	NS	NR
Benzene ug/l	ug/l	NR	NS	NS	NR
Carbon Tetrachloride	ug/l	NR	NS	NS	NR
1,2-Dichloropropane	ug/l	NR	NS	NS	NR
Trichloroethene	ug/l	NR	NS	NS	NR
Bromodichloromethane	ug/l	NR	NS	NS	NR
Dibromomethane ug/l	ug/l	NR	NS	NS	NR
Cis-1,3-dichloropropene	ug/l	NR	NS	NS	NR
Toluene	ug/l	NR	NS	NS	NR
Trans-1,3-dichloropropene	ug/l	NR	NS	NS	NR
1,1,2-trichloroethane	ug/l	NR	NS	NS	NR
1,3-dichloropropane	ug/l	NR	NS	NS	NR
Tetrachloroethene	ug/l	NR	NS	NS	NR
Dibromochloromethane	ug/l	NR	NS	NS	NR
1,2-dibromoethane	ug/l	NR	NS	NS	NR
Chlorobenzene	ug/l	NR	NS	NS	NR
1,1,1,2-tetrachloroethane	ug/l	NR	NS	NS	NR
Ethyl Benzene	ug/l	NR	NS	NS	NR
m,p-xylene	ug/l	NR	NS	NS	NR
o-xylene	ug/l	NR	NS	NS	NR
Styrene	ug/l	NR	NS	NS	NR
Bromoform	ug/l	NR	NS	NS	NR
Isopropylbenzene	ug/l	NR	NS	NS	NR
1,1,2,2-tetrachloroethane	ug/l	NR	NS	NS	NR
1,2,3-trichloropropane	ug/l	NR	NS	NS	NR
n-propylbenzene	ug/l	NR	NS	NS	NR
Bromobenzene	ug/l	NR	NS	NS	NR
2-chlorotoluene	ug/l	NR	NS	NS	NR
1,3,5-trimethylbenzene	ug/l	NR	NS	NS	NR
4-chlorotoluene	ug/l	NR	NS	NS	NR
tert-butylbenzene	ug/l	NR	NS	NS	NR
1,2,4-trimethylbenzene	ug/l	NR	NS	NS	NR
sec-butylbenzene	ug/l	NR	NS	NS	NR
p-isopropyltoluene	ug/l	NR	NS	NS	NR
1,3-dichlorobenzene	ug/l	NR	NS	NS	NR
1,4-dichlorobenzene	ug/l	NR	NS	NS	NR
n-butylbenzene	ug/l	NR	NS	NS	NR
1,2-dichlorobenzene	ug/l	NR	NS	NS	NR
1,2-dibromo-3-chloropropane	ug/l	NR	NS	NS	NR
1,2,4-trichlorobenzene	ug/l	NR	NS	NS	NR
Hexachlorobutadiene	ug/l	NR	NS	NS	NR
Naphthalene	ug/l	NR	NS	NS	NR
1,2,3-trichlorobenzene	ug/l	NR	NS	NS	NR
MTBE	ug/l	NR	NS	NS	NR

NT = Sample Not Tested

NR = Sample analysis not required

NS = Not Sampled

Graph 5 – WS11



Again due to WS11 not being sampled in April and September 2007 there is only one set of results (April 2008) to compare with the October 2006 results. However the Dutch Intervention Values for the speciated PAH's are breached in October 2006 and April 2008.

In October 2006, the Benzo-a-anthracene result returned was 15.8ug/l. This result is greater than 30x the Dutch Intervention Value of 0.5ug/l. The Chrysene result of 23.1ug/l also breaches the Dutch IV of 0.2ug/l by approximately 100x. The Fluoranthene result of 44.1ug/l breached its respective Dutch IV's of 1ug/l. The Dutch IV for Phenanthrene is 5ug/l, this is breached in October 2006 with a result of 29.5ug/l.

Benzo-k-fluoranthene breached the Dutch IV of 0.05ug/l in both October 2006 and April 2008, with results 6.08ug/l and 0.06ug/l respectively. Benzo-a-pyrene also breached the Dutch IV of 0.05ug/l in both of these months with results of 12ug/l and 0.15ug/l respectively.

In October 2006 and April 2008 the results for Benzo-g,h,i perylene were 9.56ug/l and 0.2ug/l respectively. Both of which exceed its respective Dutch IV of 0.05ug/l. Indeno 1,2,3-cd pyrene also breached its respective Dutch IV of 0.05ug/l in both months, with results of 6.53ug/l and 0.15ug/l respectively.

5.6 BH6CH2M

Table 8 – BH6CH2M

		Aug '03	Oct '06	Apr '07	Sep '07	Apr '08
Test Description	Units	BH6CH2M	BH6CH2M	BH6CH2M	BH6CH2M	BH6CH2M
pH	pH units	-	7.0	7.2	7.2	8.2
Chloride	mg/l	-	14	14	13	12
Alkalinity as CaCO ₃	mg/l	-	449	535	373	417
Ammoniacal Nitrogen as N	mg/l	-	0.6	0.6	0.9	NT
Nitrate	mg/l	-	<0.3	<0.3	0.6	0.7
Iron	mg/l	-	69.01	8.48	0.81	0.11
Calcium	mg/l	-	242	279	144	214
Magnesium	mg/l	-	18	17	105	15
Sodium	mg/l	-	22	24	721	12
Potassium	mg/l	-	21	22	216	18
Total Organic Carbon	mg/l	-	3.8	5.2	3.5	4.6
TPH	ug/l	-	<50	<50	396	22
PAH, Total	ug/l	1.527	0.05	0.03	36.9	<0.01
Acenaphthene	ug/l	0.607	<0.01	<0.01	0.23	<0.01
Anthracene	ug/l	0.029	<0.01	<0.01	1.08	<0.01
Acenaphthylene	ug/l	0.019	<0.01	<0.01	0.55	<0.01
Benzo-a-anthracene	ug/l	0.034	<0.01	<0.01	4.46	<0.01
Dibenz-a-h-anthracene	ug/l	<0.01	<0.01	<0.01	0.20	<0.01
Benzo-k-fluoranthene	ug/l	<0.01	<0.01	<0.01	1.80	<0.01
Benzo-a-pyrene	ug/l	<0.01	<0.01	<0.01	3.59	<0.01
Benzo-g,h,i perylene	ug/l	<0.01	<0.01	<0.01	1.12	<0.01
Chrysene	ug/l	0.018	0.03	<0.01	5.24	<0.01
Fluorene	ug/l	0.074	<0.01	<0.01	0.27	<0.01
Fluoranthene	ug/l	0.221	0.01	0.01	6.10	<0.01
Indeno 1,2,3-cd pyrene	ug/l	<0.01	<0.01	<0.01	1.54	<0.01
Benzo-b-fluoranthene	ug/l	<0.01	<0.01	<0.01	3.96	<0.01
Naphthalene	ug/l	0.277	<0.01	<0.01	0.05	<0.01
Phenanthrene	ug/l	0.035	<0.01	<0.01	0.64	<0.01
Pyrene	ug/l	0.212	0.01	0.02	6.07	<0.01
Dibromofluoromethane	% Recovery	-	99.6	97.8	99.7	101.1
Toluene-d8	% Recovery	-	98.3	98.8	93.1	100.2
4-bromofluorobenzene	% Recovery	-	91.0	104.3	94.0	91.4
Dichlorodifluoromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dichloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trans-1,2-dichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,2-dichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloropropene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

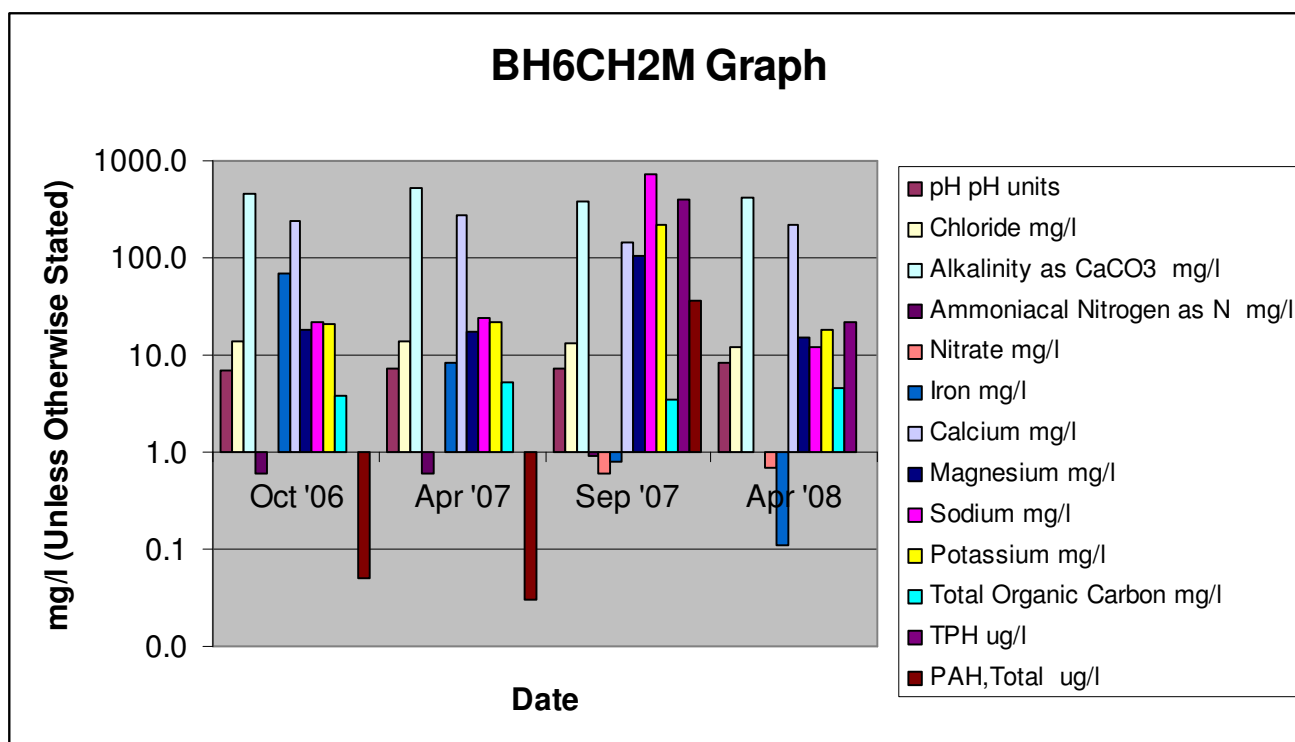
Test Description	Units	Aug '03	Oct '06	Apr '07	Sep '07	Apr '08
		BH6CH2M	BH6CH2M	BH6CH2M	BH6CH2M	BH6CH2M
1,2-Dichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene ug/l	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane ug/l	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trans-1,3-dichloropropene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromoethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-tetrachloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-xylene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
o-xylene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-tetrachloroethane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichloropropane	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2-chlorotoluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-trimethylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
4-chlorotoluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
tert-butylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-trimethylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
sec-butylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
p-isopropyltoluene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-dichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
n-butylbenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromo-3-chloropropane	ug/l	<1.0	<2.0	<2.0	<2.0	<2.0
1,2,4-trichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichlorobenzene	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
MTBE	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

NT = Sample Not Tested

NR = Sample analysis not required

NS = Not Sampled

Graph 6 – BH6CH2M



The majority of results shown in Table 8 and Graph 6 above have either remained fairly consistent or have decreased in value over time since October 2006. The highest TPH result returned is 396ug/l which is significantly lower than the threshold value of 600ug/l.

In September 2007 the results for Benzo-a-anthracene 4.46ug/l (Standard 0.5ug/l), Benzo-k-fluoranthene 1.80ug/l (Standard 0.05ug/l), Benzo-a-pyrene 3.59ug/l (Standard 0.05ug/l), Benzo-g,h,i perylene 1.12ug/l (Standard 0.05ug/l), Chrysene 5.24ug/l (Standard 0.2ug/l), Fluoranthene 6.10ug/l (Standard 1ug/l) and Indeno 1,2,3-cd pyrene 1.54ug/l (Standard 0.05ug/l) all breached their respective Dutch IV standards.