



EP-01/097/2001/C

**Provision of EM&A Services at
Water Recreation Centre**

**Monthly EM&A Report No.13
(16 August to 15 September 2006)**

September 2006

	Name	Signature
Reviewed & Checked:	Y T Tang	
Approved:	Alan Kwok	

Version:	Revision 0	Date:	27 September 2006
<p>The information contained in this report is, to the best of our knowledge, correct at the time of printing. The interpretation and recommendations in the report are based on our experience, using reasonable professional skill and judgment, and based upon the information that was available to us. These interpretations and recommendations are not necessarily relevant to any aspect outside the restricted requirements of our brief. This report has been prepared for the sole and specific use of our client and MEMCL accepts no responsibility for its use by others.</p> <p>This report is copyright and may not be reproduced in whole or in part without prior written permission.</p>			

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**Hong Kong Disneyland Theme Park
Water Recreation Centre (Monthly EM&A Report No.13)**

**Submitted by Maunsell Environmental Management
Consultant Ltd on 26 September 2006**

This is to verify that:

The Water Recreation Centre Monthly EM&A Report No. 13

**Submitted by: Maunsell Environmental Management
Consultant Ltd**

On: 26 September 2006

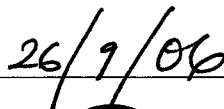
Has been verified by the undersigned.

Signed



Ir Dr Anne Watker-Zeris
Independent Environmental Checker (IECK)
Retained by Hong Kong International Theme Parks Ltd
pursuant to FEP No. EP-138/2002/A

Date



Company Chop



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EXECUTIVE SUMMARY

This is the thirteenth monthly Environmental Monitoring and Audit (EM&A) report prepared by Maunsell Environmental Management Consultant Ltd. (MEMCL), the designated Environmental Team (ET), for the project "Provision of EM&A Services at Water Recreation Centre". The Water Recreation Centre (WRC) commenced operation on 16 August 2005.

This report presents the results of EM&A works conducted between 16 August and 15 September 2006.

Environmental Monitoring Works

Water Quality

For water quality monitoring, no exceedance was recorded for all parameters during the reporting period.

Environmental Licensing and Permitting

Environmental permit no. EP-01/097/2001/C was issued to the Hongkong International Theme Parks Limited (HKITP) for the operation of WRC. HKITP has been registered as chemical waste producer (Waste Producer No. 9499-973-H3095-01). Information on these permits is provided in Table 3.1.

Implementation Status of Environmental Mitigation Measures

Monthly environmental site inspection was carried out on 29 August 2006. Environmental mitigation measures as recommended in the EIA report, Operational EM&A Plan and EP-01/097/2001/C were properly implemented.

Environmental Complaints and Prosecution

No complaint, summon or prosecution related to environmental issues was made against the Project in the reporting period.

Future Key Issues

The operator of WRC is reminded to continue to implement measures as recommended in the EIA report, Operational EM&A Plan and EP-01/097/2001/C.

1. INTRODUCTION

Background

- 1.1 Maunsell Environmental Management Consultants Ltd. (MEMCL) (hereinafter referred as the “ET”) was appointed by Hongkong International Theme Park Ltd. (HKITP) (hereinafter referred as the “Operator”) to carry out operational Environmental Monitoring and Audit at the Water Recreation Centre since its operation on 16 August 2005. Under the requirements of Section 4 of the Environmental Permit EP-01/097/2001/C, EM&A programme is required to be implemented in accordance with the Operational EM&A Plan approved by the Environmental Protection Department (EPD) on 31 August 2005.
- 1.2 The WRC is a portion of the Contract for “Theme Park and Associated Infrastructures at Penny’s Bay”, which encompasses an area of approximately 12 ha and contains a multi-function artificial lake, water-based and land-based recreational facilities and ancillary facilities. Apart from recreation purpose, the lake water is a source of irrigation water for the entire Penny’s Bay. The location of the WRC is given in Figure 1.1.
- 1.3 Following approval of the EIA, an Environmental Permit (EP) was issued to the Civil Engineering Department (CED) (now Civil and Engineering Development Department (CEDD) and the subsequent variation of the permit no. EP-097/2001/B and EP-138/2002/C contain the requirements and obligations on the Environmental Monitoring and Audit (EM&A) during the operation of the WRC. Under the Contract for “Theme Park and Associated Infrastructures at Penny’s Bay”, the WRC and ancillary facilities were designed and constructed under the supervision of CEDD and the WRC would be turned over from CEDD to HKITP for operation upon completion of construction. Environmental permit no. EP-01/097/2001/C was issued to the HKITP for the operation of WRC.
- 1.4 This report summarises the environmental monitoring and audit works for the Project between 16 August and 15 September 2006.

Project Organisation

- 1.5 The structure of the environmental management team is shown in Figure 1.2. Contacts of key environmental staff of the Project are shown in Appendix A.

Summary of the EM&A Requirements

- 1.6 The EM&A programme requires environmental monitoring for water quality within the WRC. The EM&A requirements for each item are described in subsequent sections, including:
 - Monitoring parameters;
 - Action and Limit Levels;
 - Event-Action Plans;
 - Environmental mitigation measures, as recommended in the EIA report, Operational EM&A Plan and EP-01/097/2001/C.
- 1.7 Site audits and the status of environmental licensing and permits are described in Section 3.
- 1.8 Summary of the advise on the implementation status of environmental protection and pollution control/mitigation measures is summarised in Section 3 of the Report.

2. WATER QUALITY

Monitoring Requirements

- 2.1 Water quality monitoring was conducted at five monitoring stations. Appendix B shows the established Action and Limit Levels (AL Levels) for water quality parameters.

Monitoring Equipment

- 2.2 Water samples were collected at three depths at all sampling locations: (1) 1m below the water surface, (2) mid depth, and (3) 1m above the bottom of the lake. The parameters of water depth, dissolved oxygen (as % saturation), turbidity, temperature, and pH were measured in-situ. Water samples were collected for analysis by a HOKLAS accredited laboratory. The water quality monitoring equipment deployed is described in Table 2.1.

Table 2.1 Water Quality Monitoring Equipment

Equipment	Model and Make
Dissolved Oxygen Measuring Meter	YSI 85D
Turbidimeter	HACH 2100P
pH Meter	Hanna HI9023
Water Sampler	Wildco Alpha Water Bottle (Vertical)
Differential Global Positioning System (DGPS)	MLR FX412
Water depth echo sounder	Cuda 168

Monitoring Parameters, Frequency and Duration

- 2.3 Table 2.2 summarised the monitoring parameters, frequencies and duration of the water quality monitoring.

Table 2.2 Water Quality Monitoring Parameters, Period and Frequency

Monitoring Station	Parameters, unit	Frequency	No. of Depths
WM1-WM5	¹ Dissolved Oxygen Saturation, % ¹ Water depth, m ¹ pH value ¹ Temperature, °C ¹ Turbidity, NTU Dissolved Oxygen, mg/L Conductivity, µS/cm Salinity, g/L Copper (Cu), µg/L Chromium (Cr), µg/L Lead (Pb), µg/L Zinc (Zn), µg/L Tributyl Tin (TBT), ng Sn/L Suspended Solids, mg/L Total Nitrogen, mg/L Total Phosphorous, mg/L Total Silica, mg/L 5-day BOD, mg/L COD, mg/L Ammonia, mg/L Chlorophyll a, mg/L	Once per week	3 (Surface, Mid-Depth, Bottom)

Monitoring Station	Parameters, unit	Frequency	No. of Depths
	<i>E. Coli</i> , cfu/100mL		

Note:

- Parameters to be measured *in-situ*.

Monitoring Locations

- Five stations were designated for water quality monitoring. The locations of these monitoring stations are summarized in Table 2.3 and depicted in Figure 2.1.

Table 2.3 Water Quality Monitoring Locations

Location	HK Metric Grid E	HK Metric Grid N
WM1	821 821.66	820 493.99
WM2	822 034.44	820 369.10
WM3	821 839.52	820 377.60
WM4	821 932.82	820 278.32
WM5	821 915.76	820 184.51

Monitoring Methodology

- Dissolved Oxygen saturation, water depth, pH value, temperature and turbidity were measured *in-situ* at the designated water quality monitoring stations. General observation, weather conditions, with the sampling time, date and location were marked on a field record sheet.
- Water samples were taken from each monitoring station with a water sampler for laboratory analysis. The sample was then poured into a pre-labelled bottle. The label contained the sample identification number, sample location, date, time, project name and analyses required.
- The samples were placed in a cooler with ice (to 4°C without being frozen) and kept away from sunlight. Samples were submitted to a Hong Kong Accreditation Scheme (HOKLAS) laboratory for analysis within 24 hours of sampling.

Operating/Analytical Procedures

- A Differential Global Positioning System (DGPS) was used to ensure that the correct location was selected prior to sample collection.
- A portable, battery-operated echo sounder was used for the determination of water depth at each designated monitoring station.
- All *in-situ* measurements and samples for analysis were taken at three water depths, namely 1m below water surface, mid-depth and 1m above lake bottom.
- At each measurement/sampling depth, two consecutive measurements for each *in-situ* parameters were taken. Where the difference in the value between the first and second readings of each set was more than 25% of the value of the first reading, the reading was discarded and further readings were taken.
- Water samples were collected using the water sampler and the samples were stored in pre-labelled bottles. Water samples collected were well-mixed in the water sampler prior to transferring to sample bottles. The sample bottles were then packed in cool-boxes (cooled at 4°C without being frozen), and delivered to ALS Technichem (HK) Pty Ltd. for the laboratory analysis.

Maintenance and Calibration

- The dissolved oxygen meter, which also measures temperature, was calibrated by the wet bulb method before each monitoring day. Before the routine calibration, the sensor for dissolved oxygen was thermally equilibrated in water-saturated air. The calibration cup served as a calibration chamber and it was loosened from airtight condition before it was used for the calibration. Calibration was also carried out in a

water sample with a known concentration of dissolved oxygen at 3-month intervals. The sensor was immersed in the water and after thermal equilibration, the known mg/L value was keyed in and the calibration was carried out automatically.

- 2.14 The turbidimeter has already been calibrated at 3-month intervals. Before the measurement, a zero check in distilled water was performed with the turbidimeter. The turbidimeter was calibrated with a solution of known NTU.
- 2.15 The pH meter was calibrated at 3-month intervals. Before the measurement, a zero check in distilled water was performed with the meter. The probe was calibrated with a solution of known salinity. A similar procedure was carried out for pH value calibration.
- 2.16 Calibration records are presented in Appendix C.

Laboratory Analysis

- 2.17 All laboratory work was carried out by ALS Technichem Pty. Ltd. The determination work started within 24 hours after collection of the water samples. The analyses followed the standard methods according to Table 2.4 and as described in APHA Standard Methods for the Examination of Water and Wastewater.

Table 2.4 Analytical Methods to be applied to Water Quality Samples

Determinant, unit	Reference Method Used ¹ (APHA 20 th ed)	Reporting Limits
Dissolved Oxygen, mg/L	4500O: G	0.1 mg/L
Conductivity, μ S/cm	2510B	1 μ S/cm
Salinity, g/L	2520B	0.1 g/L
Copper, μ g/L	3125 / ICPMS	1 μ g/L
Chromium, μ g/L		1 μ g/L
Lead, μ g/L		1 μ g/L
Zinc, μ g/L		10 μ g/L
Tributyl Tin, ng Sn/L		UNEP/ICO/IAEA
Suspended Solids, mg/L	2540D	2 mg/L
Total Nitrogen, mg/L	4500Norg: B 4500NO ₃ : F	0.1 mg/L
Total Phosphorus, mg/L	4500P: B4, F	0.1 mg/L
Total Silica, mg/L	4500Si: F	0.01 mg/L
5-day BOD, mg/L	5210B	2 mg/L
COD, mg/L	5220B	2 mg/L
Ammonia Nitrogen, mg/L	4500NH ₃ : G	0.01 mg/L
Chlorophyll-a, mg/L	10200H2	5 mg/L
<i>E. Coli.</i> cfu/100mL	DoE Section 7.9.4.2 & 4	1 cfu/100mL

Note:

1. All testing conducted by the laboratory are In-House methods based on the method stated in the "Standard Methods for the Testing of Water and Wastewater, 19th & 20th ed" (APHA) or the USEPA SW846.

QA/QC Procedure

- 2.18 ALS Technichem has comprehensive quality assurance and quality control programmes. The QA/QC procedures for each analytical batch:
- At least 1 reagent blank solution was prepared and analyzed;
 - At least 1 duplicate sample analysis was performed in every 10 samples;
 - At least 1 in every 10 samples was spiked with a known concentration of the analyte to determine the matrix effect of the sample.

Results and Observations

- 2.19 Monitoring of water quality was carried out at the 5 designated monitoring stations on 5 occasions during the reporting period (16 August, 22 August, 28 August, 8 September and 14 September 2006). The monitoring schedule is presented in Appendix D. All monitoring data and graphical presentation of the monitoring results are provided in Appendix E and summarised in Table 2.5.

Table 2.5 Summary of Water Quality Monitoring Results

Parameters	Monitoring Data (Depth Averaged Data)				
	WM1	WM2	WM3	WM4	WM5
Temperature, °C	26.7 – 31.8 (26.9 – 31.7)	26.3 – 31.7 (26.5 – 31.6)	26.5 – 31.6 (26.8 – 31.5)	26.5 – 31.7 (26.9 – 31.6)	26.9 – 31.6 (27.0 – 31.5)
Daily Temperature Difference ¹ , °C	0.2 – 0.7				
Turbidity, NTU	1.3 – 2.2	1.2 – 2.0	1.1 – 2.1	1.2 – 2.4	1.4 – 3.1
pH	7.1 – 7.9 (7.1 – 7.9)	7.2 – 7.8 (7.2 – 7.8)	7.0 – 7.9 (7.1 – 7.7)	7.3 – 7.6 (7.3 – 7.6)	7.2 – 7.6 (7.2 – 7.6)
Dissolved Oxygen, mg/L	7.0 – 11.1 (7.5 – 8.8)	6.3 – 10.4 (7.6 – 10.1)	6.4 – 10.1 (7.1 – 9.0)	6.6 – 11.0 (7.5 – 8.2)	7.2 – 11.6 (7.6 – 9.5)
Conductivity, µS/cm	76 – 80	24 – 87	24 – 78	24 – 80	23 – 80
Salinity, g/L	all <0.1	all <0.1	all <0.1	all <0.1	all <0.1
Copper, µg/L	all <1	all <1	<1 – 1.0	all <1	all <1
Chromium, µg/L	all <1	all <1	all <1	all <1	all <1
Lead, µg/L	all <1	all <1	all <1	all <1	all <1
Zinc, µg/L	all <10	all <10	all <10	all <10	all <10
Tributyl Tin, ng Sn/L	all <5	all <5	all <5	all <5	all <5
Suspended Solids ² , mg/L	all <2	all <2	all <2	all <2	all <2
Total Nitrogen, mg/L	<0.1 – 0.3 (<0.2 – 0.3)	0.1 – 0.4 (0.1 – 0.3)	0.1 – 0.4 (0.2 – 0.3)	0.1 – 0.4 (0.1 – 0.4)	<0.1 – 0.3 (<0.1 – 0.3)
Total Phosphorous ¹ , mg/L	all <0.02	all <0.02	all <0.02	all <0.02	all <0.02
Silicate, mg/L	3.6 – 5.4 (3.6 – 5.3)	3.7 – 5.2 (3.7 – 5.1)	3.5 – 5.2 (3.6 – 5.2)	3.4 – 5.1 (3.5 – 5.1)	3.5 – 5.2 (3.5 – 5.1)
Ammonia Nitrogen, mg/L	<0.01 – 0.20	<0.01 – 0.20	<0.01 – 0.20	<0.01 – 0.20	<0.01 – 0.20
Unionised Ammonia ³ , mg/L	<0.00072 – <0.00074	<0.00076 – <0.00079	<0.00070 – <0.00072	<0.00091 – <0.00098	<0.00069 – <0.00072
BOD ₅ , mg/L	all <2	all <2	all <2	all <2	all <2
COD, mg/L	3 – 6 (3 – 5)	2 – 5 (3 – 5)	3 – 6 (4 – 5)	3 – 6 (3 – 5)	3 – 6 (3 – 6)
Chlorophyll-a, mg/L	1.9 – 10.8	1.7 – 13.5	1.8 – 12.1	1.8 – 12.7	1.8 – 12.8
<i>E. Coli</i> ⁴ , cfu/100mL	<1 – <5	<2 – <4	<1 – <4	<2 – <4	<2 – <4

Note: 1. Present as depth average 2. Present as annual median
3. Present as annual median 4. Present as geometric mean for last 5 measurements

- 2.20 The QA/QC results for laboratory testing in the reporting period were acceptable. The QA/QC results are summarised in Appendix F.
- 2.21 All recorded levels during the reporting period were below the AL Levels. Table 2.6 summarises water quality exceedances in the reporting period.

Table 2.6 Summary of Water Quality Exceedances

Parameters	WM1		WM2		WM3		WM4		WM5		Total	
	Action	Limit	Action	Limit	Action	Limit	Action	Limit	Action	Limit	Action	Limit
Dissolved Oxygen	0	0	0	0	0	0	0	0	0	0	0	0
pH	0	0	0	0	0	0	0	0	0	0	0	0
Temperature	-	0	-	0	-	0	-	0	-	0	-	0
Suspended Solids	0	0	0	0	0	0	0	0	0	0	0	0
Ammonia Nitrogen	0	0	0	0	0	0	0	0	0	0	0	0
<i>E. Coli</i>	0	0	0	0	0	0	0	0	0	0	0	0
BOD ₅	0	0	0	0	0	0	0	0	0	0	0	0
COD	0	0	0	0	0	0	0	0	0	0	0	0

Note: Assessment criteria applied to depth averaged results at each location.

- 2.22 Water temperatures measured ranged from 26.3 – 31.8 °C. The maximum daily variation between each station was 0.7 °C on 8 September 2006. The variation was within the AL Levels. Salinity measurements at all stations were below detection limit, indicating no intrusion of saline water was present in WRC. DO level at all stations were above the *Theme Park EIA* proposed standard of 4.2 mg/L.
- 2.23 BOD₅ levels at all stations were below detection limit while COD levels measured from 2 – 6 mg/L. Depth averaged results of both parameters complied with the standards proposed in the *Theme Park EIA* (5 and 30 mg/L respectively). The medians of SS measurements during the same period also observed to comply with the proposed standards (25 mg/L). Low levels of SS measurements (annual median all <2 mg/L) correlate with the low in-situ turbidity measurements (1.1 – 3.1 NTU).
- 2.24 Conductivity measured ranged from 24 to 87 µ S/cm, while minor variations in silicate concentration ranged from 3.4 to 5.4 was measured. The relatively constant range of conductivity indicated that a discharge or some other source of pollution was not present.
- 2.25 The unionised ammonia levels, derived from Ammonia Nitrogen, temperature, pH and salinity levels, were substantially lower than the proposed standard of 0.021 mg/L. Together with other measurements in terms of Total Nitrogen and Total Phosphorus, nutrient levels within the WRC were relatively low.
- 2.26 For heavy metals (Cu, Cr, Pb, Zn), all readings were below the detection limit. All TBT readings were below the detection limit and AL Levels.
- 2.27 Chlorophyll-a measured ranged from 1.7 to 13.5 mg/L which were slightly higher than those recorded in the previous months. Higher chlorophyll-a concentration would be recorded when direct sunlight was shined to the lake or temperature and humidity were changed within the reporting period. High chlorophyll-a recorded is thus considered a natural phenomenon.
- 2.28 For *E.Coli*, the geometric mean of the last five readings at all monitoring locations were below the AL Levels.

3. ENVIRONMENTAL AUDIT

Implementation Status of Environmental Mitigation Measures

- 3.1 Site audit was carried out on a monthly basis to monitor environmental issues to ensure that all mitigation measures were implemented timely and properly.
- 3.2 Monthly site inspection was carried out on 29 August 2006. Environmental mitigation measures for water quality, waste management, landscape and visual, as recommended in the EIA report, Operational EM&A Plan and EP-01/097/2001/C were properly implemented. The findings of the site audit include:
- No floating refuse was observed.
 - No uncontrolled surface runoff into the lake was observed.
 - Environmental Permit was posted at vehicle site entrance.
- 3.3 A summary of the Environmental Mitigation Implementation Schedule (EMIS) is presented in Appendix G.

Status of Environmental Licensing and permitting

- 3.4 All permits/licences/notifications obtained as of the reporting period are summarised in Table 3.1

Table 3.1 Summary of Environmental Notification, Licensing and Permit Status

Permit No.	Valid Period		Description	Status
	From	To		
Environmental Permit				
EP-01/097/2001/C	19 Oct. 05	-	Operation of an approximately 32 ha water recreation centre with a 12 ha multi-function artificial lake, water-based and land-based recreational facilities and ancillary facilities	Valid
Chemical Waste Registration				
9499-973-H3095-01	29 Jul. 05	-	Theme Park at Penny's Bay	Valid

Implementation Status of Event and Action Plans

- 3.5 The Event and Action Plans for water quality are presented in Appendix H.
- 3.6 No exceedance of AL Levels for water quality was recorded.

Waste Management

- 3.7 Waste management of WRC was implemented as stipulated in the Waste Management Plan.
- 3.8 As Waste Management of WRC was undertaken as part of the overall Theme Park Resort waste management scheme, records of waste handling and disposal would be reported in the Theme Park EM&A report.

Implementation Status of Environmental Complaint Handling Procedures

- 3.9 Appendix I presents the environmental complaint flow diagram of the Project.
- 3.10 No complaint, summons or prosecution related to environmental issues was received or made against the Project in the reporting period.

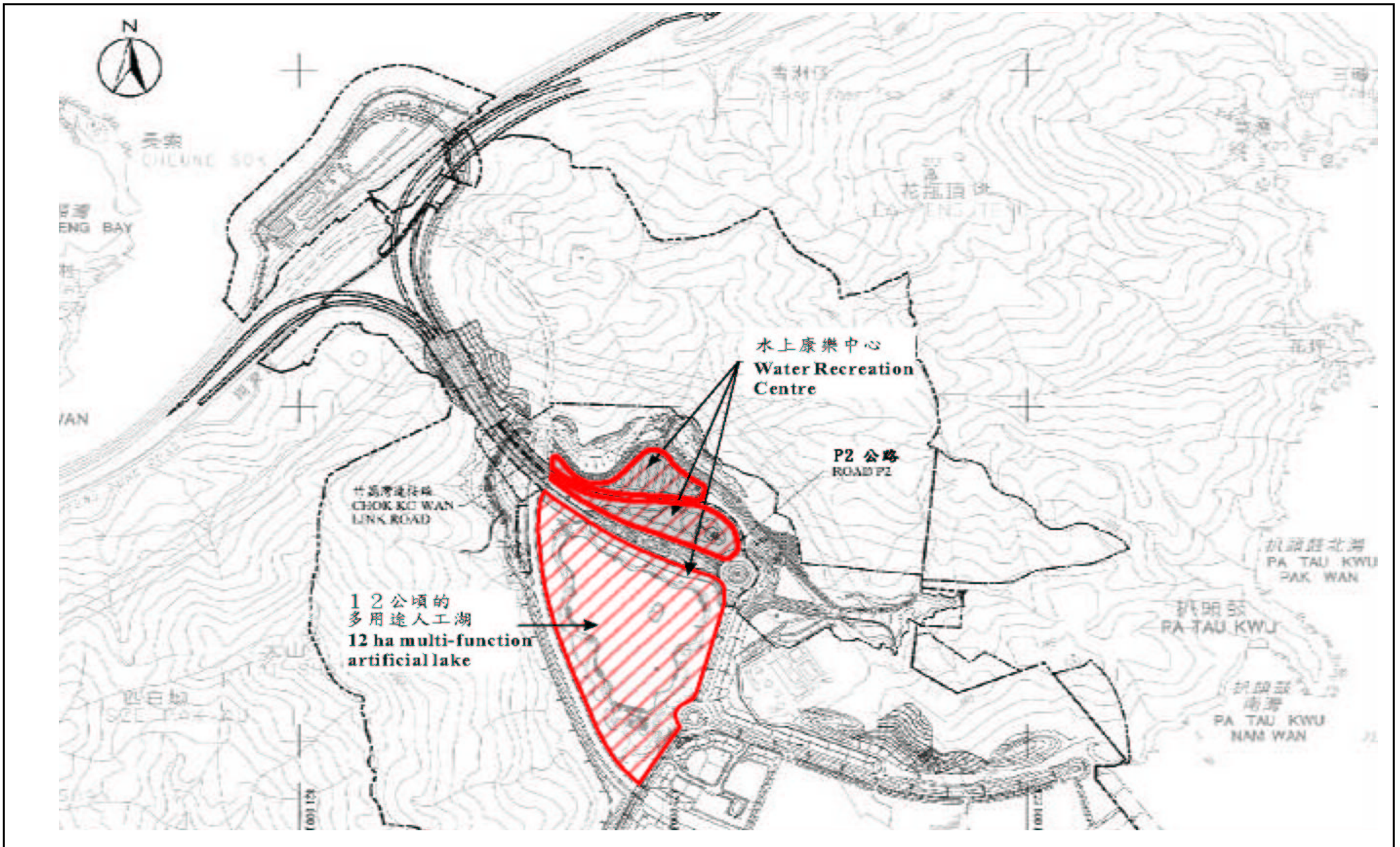
4. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

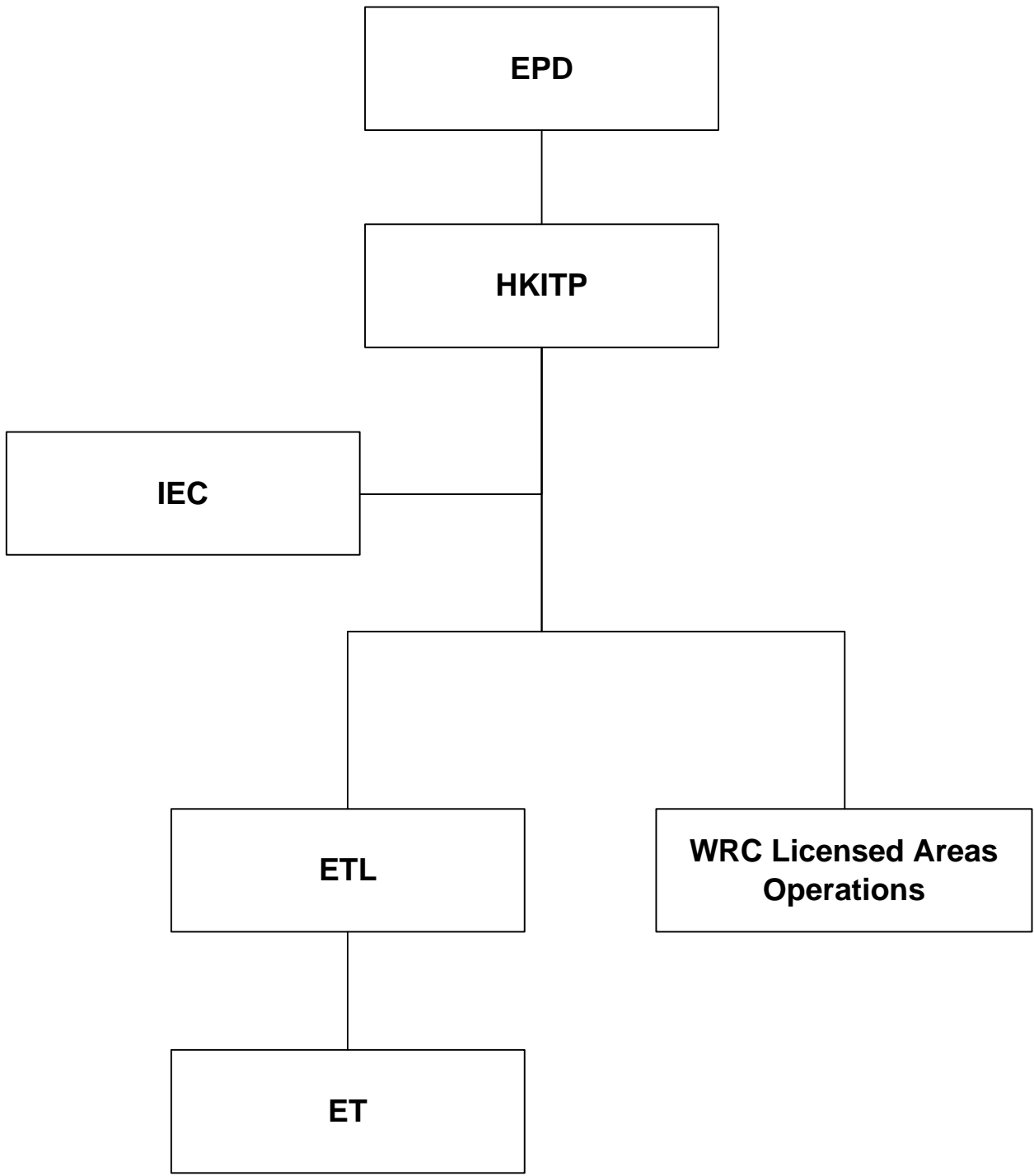
- 4.1 Environmental monitoring was performed between 16 August and 15 September 2006. All monitoring results in the reporting period were checked and reviewed.
- 4.2 All water quality measurements in the reporting period were below the Action and Limit (AL) Levels.
- 4.3 Environmental mitigation measures as recommended in the EIA report, Operational EM&A Plan and EP-01/097/2001/C were properly implemented.
- 4.4 No complaint, summon or prosecution related to environmental issues was made against the Project in the reporting period.

Recommendations

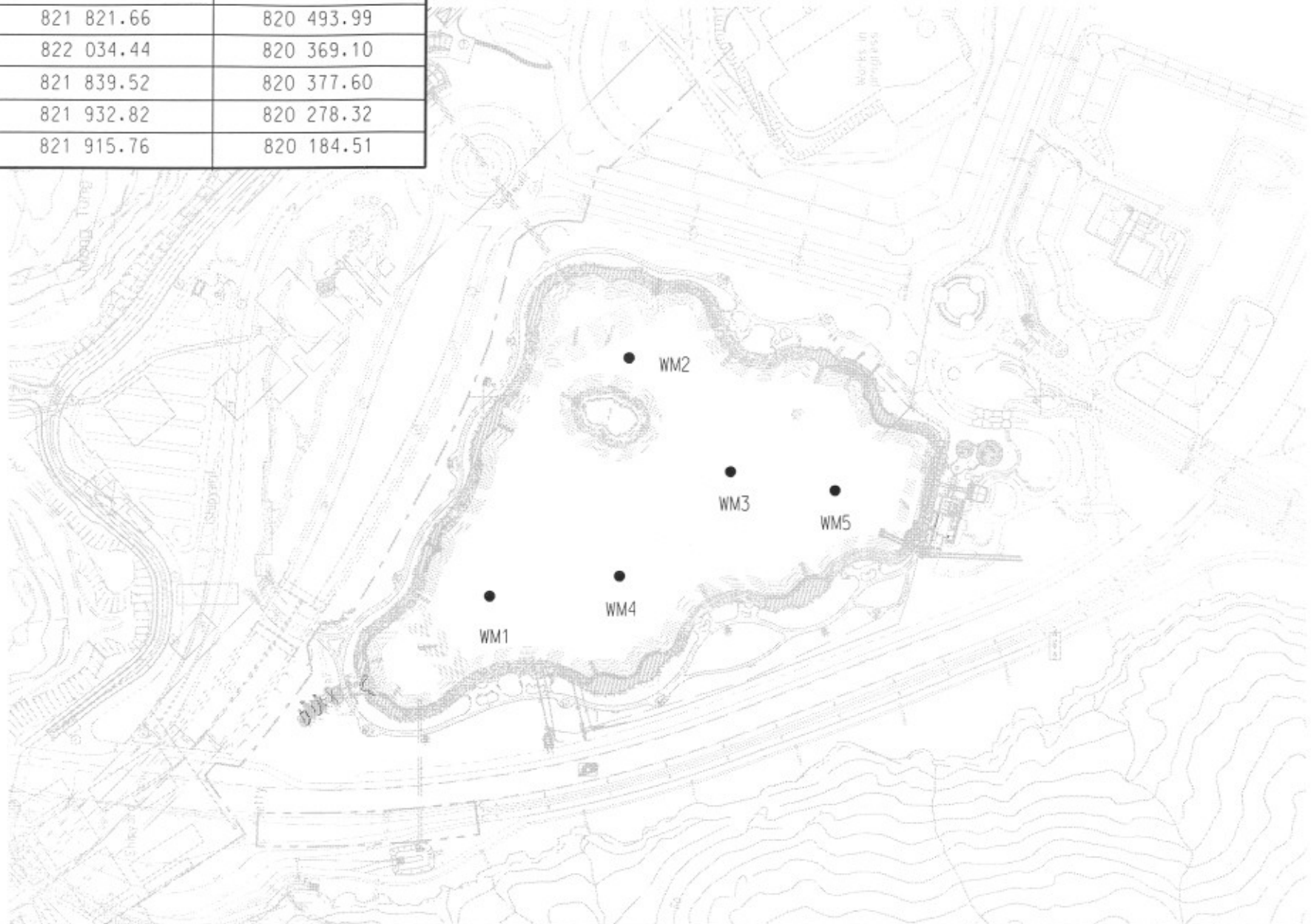
- 4.5 The operator of WRC is reminded to continue to implement measures as recommended in EIA Report and EP.



SCALE	N.T.S.	DATE	2005
CHECK	KCHC	DRAWN	LLMC
JOB NO.	S07105	FIGURE NO.	1.1
			Rev -



Location	HK Metric Grid E	HK Metric Grid N
WM1	821 821.66	820 493.99
WM2	822 034.44	820 369.10
WM3	821 839.52	820 377.60
WM4	821 932.82	820 278.32
WM5	821 915.76	820 184.51



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Maunsell Environmental
Management Consultants Ltd

FEP-01/097/2001/B
PROVISION OF ENVIRONMENTAL MONITORING & AUDIT SERVICES FOR WATER RECREATION CENTRE

LOCATIONS OF WATER QUALITY MONITORING STATIONS

SCALE	A4 1:5000	DATE	2005
CHECK	KCHC	DRAWN	YPK
JOB No.	S07105	DRAWING No.	2.1
		REV	-

Appendix A: Contacts of Key Environmental Staff

	<u>Name</u>	<u>Telephone</u>	<u>Fax</u>
<u>IEC</u>			
Mott MacDonald			
Independent Environmental Checker	Dr. Anne Watker-Zeris	2828 5757	2827 1823
<u>ET</u>			
Maunsell Environmental Management Consultants Limited			
Environmental Team Leader	Mr. Alan Kwok	2893 1551	2891 0305
Environmental Scientist	Mr. Terence Kong	2893 1551	2891 0305

Appendix B – Action and Limit Levels

Action and Limit Levels for Water Quality Monitoring

Parameter, unit	Action	Limit
Dissolved Oxygen	<4.2 mg/L	<2.0 mg/L
pH	<6.3 or >8.5	<6 or >9
Temperature	Not applicable	Within a daily range of 2°C
Suspended Solids	>23.75 mg/L, measured as annual median	>25 mg/L, measured as annual median
Ammonia Nitrogen	>0.01995 mg/L for unionized form, as annual average	>0.021 mg/L for unionized form, as annual average
E. coli	>171 cfu per 100mL, geometric mean for last 5 measurements	>180 cfu per 100mL, geometric mean for last 5 measurements
5-day BOD	>4.75 mg/L	>5 mg/L
COD	>28.5 mg/L	>30 mg/L

Appendix C Calibration Details

Equipment Type	Equipment No.	Calibration Date	Next Calibration Date
HANNA pH Meter HI9023	W.003.05A	19 May 2006	19 Aug. 2006
		16 Aug. 2006	16 Nov. 2006
Turbidimeter HACH 2100P	W.001.07	19 Jun. 2006	19 Sep. 2006
Turbidimeter HACH 2100P	W.001.09	12 Jun. 2006	12 Sep. 2006
		15 Sep. 2006	15 Dec. 2006
YSI Multimeter YSI 85D	W.015.02	19 May 2006	19 Aug. 2006
		16 Aug. 2006	16 Nov. 2006

CERTIFICATE OF ANALYSIS



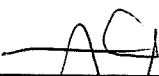
Batch: HK0602381
Sub Batch : 0
Date of Issue: 28/08/2006
Client: MAUNSELL ENV MGT CNLT LTD
Client Reference:

Calibration of pH System

Item : HANNA pH Meter
Model No. : HI9023
Serial No. : 389149
Equipment No. : W-003-05A
Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2510B
Date of Calibration : 16 August,2006

Testing Results :

Expected Reading	Recording Reading
4.00	4.12
7.00	7.03
10.0	9.93
Allowing Deviation	± 0.2


Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS



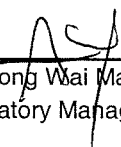
Batch: HK53126
Sub Batch : 0
Date of Issue: 10/07/2006
Client: MAUNSELL ENV MGT CNLT LTD
Client Reference:

Calibration of Turbidimeter

Item : HACH Turbidimeter
Model No. : HACH 2100P
Serial No. : 030700032013
Equipment No. : W-001-07
Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2130B
Date of Calibration : 19 June,2006

Testing Results :

Expected Reading	Recording Reading
0.00 NTU	0.28 NTU
4.00 NTU	4.40 NTU
16.0 NTU	16.9 NTU
80.0 NTU	86.3 NTU
160 NTU	157 NTU
Allowing Deviation	±10%


Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS



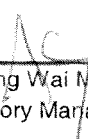
Batch: HK0603549
Sub Batch : 0
Date of Issue: 25/09/2006
Client: MAUNSELL ENV MGT CNLT LTD
Client Reference:

Calibration of Turbidimeter

Item : HACH Turbidimeter
Model No. : HACH 2100P
Serial No. : 040800037000
Equipment No.: W-001-09
Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2130B
Date of Calibration : 15 September, 2006

Testing Results :

Expected Reading	Recording Reading
0.00 NTU	0.22 NTU
4.00 NTU	3.82 NTU
16.0 NTU	14.4 NTU
80.0 NTU	75.9 NTU
160 NTU	156 NTU
Allowing Deviation	±10%


Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS



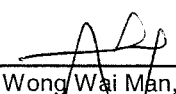
Batch: HK0602379
Sub Batch : 0
Date of Issue: 28/08/2006
Client: MAUNSELL ENV MGT CNLT LTD
Client Reference:

Calibration of DO System

Item : YSI Multimeter
Model No. : YSI 85D
Serial No. : 04G11697AB
Equipment No. : W-015-02
Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2520 A and B
Date of Calibration : 16 August,2006

Testing Results :

Expected Reading	Recording Reading
0.00 mg/L	0.09 mg/L
2.31 mg/L	2.42 mg/L
5.09 mg/L	4.91 mg/L
7.81 mg/L	7.67 mg/L
Allowing Deviation	±0.2 mg/L


Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS




Batch: HK0602379
Sub Batch : 0
Date of Issue: 28/08/2006
Client: MAUNSELL ENV MGT CNLT LTD
Client Reference:

Calibration of Conductivity System

Item : YSI Multimeter
Model No. : YSI 85D
Serial No. : 04G11697AB
Equipment No. : W-015-02
Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2510B
Date of Calibration : 16 August,2006

Testing Results :

Expected Reading	Recording Reading
1412 uS/cm	1431 uS/cm
6667 uS/cm	6840 uS/cm
58670 uS/cm	55700 uS/cm
Allowing Deviation	±10%


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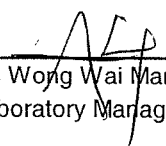
Batch: HK0602379
Sub Batch : 0
Date of Issue: 28/08/2006
Client: MAUNSELL ENV MGT CNLT LTD
Client Reference:

Calibration of Salinity System

Item : YSI Multimeter
Model No. : YSI 85D
Serial No. : 04G11697AB
Equipment No. : W-015-02
Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2520 A and B
Date of Calibration : 16 August,2006

Testing Results :

Expected Reading	Recording Reading
10.0 g/L	9.7 g/L
20.0 g/L	19.2 g/L
30.0 g/L	28.5 g/L
Allowing Deviation	±10%


Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS



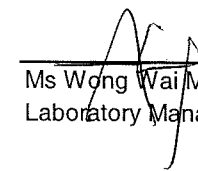
Batch: HK0602379
Sub Batch : 0
Date of Issue: 28/08/2006
Client: MAUNSELL ENV MGT CNLT LTD
Client Reference:

Calibration of Thermometer

Item : YSI Multimeter
Model No. : YSI 85D
Serial No. : 04G11697AB
Equipment No. : W-015-02
Calibration Method : In-house Method
Date of Calibration : 16 August,2006

Testing Results :

Reference Temperature (°C)	Recorded Temperature (°C)
22.9 °C	23.2 °C
35.6 °C	35.0 °C
Allowing Deviation	±2.0°C


Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

**Environmental Monitoring and Audit Services for Water Recreation Centre
Environmental Monitoring and Audit Schedule for August/September 2006**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug
			Weekly Water Quality Monitoring			
20-Aug	21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug
		Weekly Water Quality Monitoring				
27-Aug	28-Aug	29-Aug	30-Aug	31-Aug	1-Sep	2-Sep
	Weekly Water Quality Monitoring					
3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	8-Sep	9-Sep
					Weekly Water Quality Monitoring	
10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep
				Weekly Water Quality Monitoring		

Water Quality Monitoring Results at WM1

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		In-situ Monitoring											Laboratory Analysis														
						Temperature (°C)		DO Saturation (%)		Turbidity (NTU)			pH			Dissolved Oxygen (mg/L)		Conductivity (mS/cm)		Salinity (g/L)		Copper (mg/L)		Chromium (mg/L)		Lead (mg/L)		Zinc (mg/L)			
						Value	Average	Value	Average	Value	Average	DA	Value	Average	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA		
16-Aug-06	Sunny	Calm	9:37	Surface	1	31.5 31.6	31.6	85.3 83.9	84.6	1.5 1.6	1.6	1.6	7.5 7.6	7.6	7.6	8	8.8	77.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.2	31.4 31.5	31.5	82.1 84.0	83.1	1.5 1.6	1.6		7.6 7.6	7.6		11		77.0		<0.1		<1		<1		<1		<1		<1	<10
				Bottom	3.4	31.3 31.4	31.4	81.1 81.6	81.4	1.6 1.7	1.7		7.5 7.5	7.5		8		78.0		<0.1		<1		<1		<1		<1		<10	
22-Aug-06	Sunny	Calm	9:35	Surface	1	31.7 31.6	31.7	90.6 91.3	91.0	1.4 1.4	1.4	1.4	7.2 7.2	7.2	7.2	9	8.1	78.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.2	31.5 31.6	31.6	90.4 90.2	90.3	1.6 1.5	1.6		7.2 7.2	7.2		7		77.0		<0.1		<1		<1		<1		<1		<10	
				Bottom	3.3	31.7 31.6	31.7	88.7 89.2	89.0	1.3 1.3	1.3		7.2 7.2	7.2		8		76.0		<0.1		<1		<1		<1		<1		<10	
28-Aug-06	Sunny	Calm	9:30	Surface	1	31.3 31.2	31.3	88.9 89.2	89.1	1.5 1.6	1.6	1.6	7.1 7.1	7.1	7.1	8	8.0	78.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.2	31.0 31.1	31.1	83.7 84.7	84.2	1.9 1.8	1.9		7.2 7.2	7.2		7		76.0		<0.1		<1		<1		<1		<1		<10	
				Bottom	3.3	31.2 31.1	31.2	82.1 83.6	82.9	1.3 1.3	1.3		7.1 7.1	7.1		8		76.0		<0.1		<1		<1		<1		<1		<10	
8-Sep-06	Fine	Moderate	8:48	Surface	1	31.8 31.8	31.8	86.1 85.7	85.9	1.4 1.4	1.4	1.6	7.5 7.5	7.5	7.5	8	7.5	78.0	79.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.4	31.6 31.3	31.5	85.0 85.4	85.2	1.6 1.7	1.7		7.5 7.5	7.5		7		80.0		<0.1		<1		<1		<1		<1		<10	
				Bottom	3.8	31.4 31.4	31.4	80.3 82.6	81.5	1.7 1.7	1.7		7.5 7.5	7.5		8		78.0		<0.1		<1		<1		<1		<1		<10	
14-Sep-06	Cloudy	Calm	9:22	Surface	1	27.0 27.0	27.0	75.3 77.4	76.4	1.4 1.4	1.4	1.9	7.9 7.9	7.9	7.9	9	8.1	76.0	76.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.4	26.9 26.8	26.9	78.4 78.1	78.3	1.9 2.0	2.0		7.9 7.9	7.9		8		76.0		<0.1		<1		<1		<1		<1		<10	
				Bottom	3.8	26.7 26.7	26.7	76.6 76.0	76.3	2.1 2.2	2.2		7.9 7.8	7.9		8		77.0		<0.1		<1		<1		<1		<1		<10	

Note:
 Lake Condition - Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 DA - Depth Average
 AA - Annual Average
 AM - Annual Median
 GM - Geometric Mean for last 5 measurements

Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at WM1

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		Laboratory Analysis																							
						Tributyltin (ng Sn/L)		Suspended Solid (mg/L)			Total Nitrogen (mg/L)		Total Phosphorous (mg/L)		Silica (mg/L)		5-day BOD (mg/L)		COD (mg/L)		Ammonia Nitrogen (mg/L)		Unionised Ammonia (mg/L)	chlorophyll-a (mg/L)		E.Coli (cfu/100mL)			
						Value	DA	Value	DA	AM	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	AA	Value	DA	Value	DA	GM	
16-Aug-06	Sunny	Calm	9:37	Surface	1	<5	<5	<2	<2	<2.00	0.2	<0.2	<0.02	<0.02	4.8	4.6	<2	<2	4.000	3.0	<0.01000	0.04	<0.02000	<0.00072	2	1.9	<1	<1	<5
				Middle	2.2	<5	<2	<2	<2.00	0.3	0.2	<0.02	<0.02	4.8	4.6	<2	<2	3.000	3.0	0.04	<0.02000	<0.00072	2	1.9	<1	<1	<5		
				Bottom	3.4	<5	<2	<2	<2.00	0.2	<0.2	<0.02	<0.02	4.3	4.6	<2	<2	3.000	3.0	<0.01000	<0.02000	<0.00072	2	1.9	<1	<1	<5		
22-Aug-06	Sunny	Calm	9:35	Surface	1	<5	<5	<2	<2	<2.00	0.2	<0.2	<0.02	<0.02	5.4	5.3	<2	<2	6.000	5.0	0.20	0.083	<0.00074	4	3.4	<1	<1	<3	
				Middle	2.2	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	5.2	5.3	<2	<2	4.000	5.0	0.02	0.083	<0.00074	3	3.4	<1	<1	<3		
				Bottom	3.3	<5	<2	<2	<2.00	0.2	<0.2	<0.02	<0.02	5.2	5.3	<2	<2	5.000	5.0	0.03	0.083	<0.00074	3	3.4	<1	<1	<3		
28-Aug-06	Sunny	Calm	9:30	Surface	1	<5	<5	<2	<2	<2.00	0.2	<0.2	<0.02	<0.02	4.6	4.6	<2	<2	4.000	4.0	0.02	<0.01333	<0.00073	3	2.8	<1	<1	<3	
				Middle	2.2	<5	<2	<2	<2.00	0.2	<0.2	<0.02	<0.02	4.6	4.6	<2	<2	4.000	4.0	<0.01000	<0.01333	<0.00073	3	2.8	<1	<1	<3		
				Bottom	3.3	<5	<2	<2	<2.00	<0.1	<0.2	<0.02	<0.02	4.6	4.6	<2	<2	4.000	4.0	0.01	<0.01333	<0.00073	3	2.8	<1	<1	<3		
8-Sep-06	Fine	Moderate	8:48	Surface	1	<5	<5	<2	<2	<2.00	0.3	<0.2	<0.02	<0.02	3.8	3.8	<2	<2	5.000	5.0	<0.01000	<0.01000	<0.00072	9	9.9	<1	<1	<2	
				Middle	2.4	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	3.7	3.8	<2	<2	5.000	5.0	<0.01000	<0.01000	<0.00072	11	9.9	<1	<1	<2		
				Bottom	3.8	<5	<2	<2	<2.00	0.2	<0.2	<0.02	<0.02	3.7	3.8	<2	<2	4.000	5.0	<0.01000	<0.01000	<0.00072	10	9.9	<1	<1	<2		
14-Sep-06	Cloudy	Calm	9:22	Surface	1	<5	<5	<2	<2	<2.00	0.3	<0.2	<0.02	<0.02	3.6	3.6	<2	<2	5.000	5.0	0.01	<0.01000	<0.00072	10	9.0	4	4.0	<1	
				Middle	2.4	<5	<2	<2	<2.00	0.3	0.3	<0.02	<0.02	3.6	3.6	<2	<2	4.000	5.0	<0.01000	<0.01000	<0.00072	10	9.0	4	4.0	<1		
				Bottom	3.8	<5	2.0	<2	<2.00	0.3	<0.2	<0.02	<0.02	3.6	3.6	<2	<2	5.000	5.0	<0.01000	<0.01000	<0.00072	8	9.0	4	4.0	<1		

Note:
 Lake Condition - Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 DA - Depth Average
 AA - Annual Average
 AM - Annual Median
 GM - Geometric Mean for last 5 measurements

Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at WM2

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		In-situ Monitoring											Laboratory Analysis																
						Temperature (°C)		DO Saturation (%)		Turbidity (NTU)			pH			Dissolved Oxygen (mg/L)		Conductivity (mS/cm)		Salinity (g/L)		Copper (mg/L)		Chromium (mg/L)		Lead (mg/L)		Zinc (mg/L)					
						Value	Average	Value	Average	Value	Average	DA	Value	Average	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA				
16-Aug-06	Sunny	Calm	9:48	Surface	1	31.4 31.6	31.5	82.0 82.4	82.2	1.9 1.8	1.9	1.9	7.6 7.6	7.6	7.6	9	8.2	24.0	45.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.3	31.5 31.4	31.5	81.6 81.2	81.4	1.8 1.9	1.9		7.6 7.6	7.6		6		24.0		<0.1		<1		<1		<1		<1		<1		<1	<10
				Bottom	3.5	31.4 31.4	31.4	83.1 81.0	82.1	2.0 2.0	2.0		7.5 7.6	7.6		9		87.0		<0.1		<1		<1		<1		<1		<1		<1	<10
22-Aug-06	Sunny	Calm	9:52	Surface	1	31.7 31.6	31.7	87.6 86.1	86.9	1.9 1.9	1.9	1.8	7.2 7.2	7.2	7.2	10	10.1	76.0	76.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.2	31.6 31.5	31.6	88.2 89.4	88.8	1.8 1.7	1.8		7.2 7.2	7.2		10		76.0		<0.1		<1		<1		<1		<1		<1		<1	<10
				Bottom	3.4	31.4 31.4	31.4	89.1 87.2	88.2	1.7 1.7	1.7		7.2 7.2	7.2		10		76.0		<0.1		<1		<1		<1		<1		<1		<1	<10
28-Aug-06	Sunny	Calm	9:46	Surface	1	31.4 31.5	31.5	85.4 85.9	85.7	1.9 1.8	1.9	1.6	7.2 7.2	7.2	7.2	9	8.6	77.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.3	31.3 31.2	31.3	83.6 85.1	84.4	1.7 1.7	1.7		7.2 7.2	7.2		9		77.0		<0.1		<1		<1		<1		<1		<1		<10	
				Bottom	3.5	31.2 31.1	31.2	80.6 81.1	80.9	1.1 1.2	1.2		7.2 7.2	7.2		8		77.0		<0.1		<1		<1		<1		<1		<1		<1	<10
8-Sep-06	Fine	Moderate	9:06	Surface	1	31.6 31.6	31.6	82.4 82.6	82.5	1.2 1.2	1.2	1.4	7.5 7.5	7.5	7.5	8	7.6	79.0	78.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.4	31.5 31.5	31.5	79.1 81.0	80.1	1.2 1.3	1.3		7.5 7.6	7.6		8		78.0		<0.1		<1		<1		<1		<1		<1		<10	
				Bottom	3.9	31.0 31.2	31.1	78.3 77.2	77.8	1.8 1.8	1.8		7.3 7.3	7.3		8		78.0		<0.1		<1		<1		<1		<1		<1		<10	
14-Sep-06	Cloudy	Calm	9:40	Surface	1	26.8 26.7	26.8	78.0 76.7	77.4	1.3 1.3	1.3	1.4	7.8 7.8	7.8	7.8	7	8.0	76.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.4	26.5 26.5	26.5	78.1 77.4	77.8	1.3 1.3	1.3		7.7 7.8	7.8		8		76.0		<0.1		<1		<1		<1		<1		<1		<10	
				Bottom	3.8	26.2 26.4	26.3	75.2 74.3	74.8	1.6 1.6	1.6		7.8 7.8	7.8		9		78.0		<0.1		<1		<1		<1		<1		<1		<10	

Note:
 Lake Condition - Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 DA - Depth Average
 AA - Annual Average
 AM - Annual Median
 GM - Geometric Mean for last 5 measurements

Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at WM2

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		Laboratory Analysis																											
						Tributyltin (ng Sn/L)		Suspended Solid (mg/L)			Total Nitrogen (mg/L)		Total Phosphorous (mg/L)		Silica (mg/L)		5-day BOD (mg/L)		COD (mg/L)		Ammonia Nitrogen (mg/L)		Unionised Ammonia (mg/L)	chlorophyll-a (mg/L)		E.Coli (cfu/100mL)							
						Value	DA	Value	DA	AM	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	AA	Value	DA	Value	DA	GM			
16-Aug-06	Sunny	Calm	9:48	Surface	1	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	4.8	4.8	<2	<2	3.000	3.0	0.17	0.157	<0.00077	2	1.8	<1	<1	<4					
				Middle	2.3	<5		<2			0.1		<0.02		4.7		<2		2.000		0.10			2		<1							
				Bottom	3.5	<5		<2			0.2		<0.02		4.8		<2		3.000		0.20			2		<1							
22-Aug-06	Sunny	Calm	9:52	Surface	1	<5	<5	<2	<2	<2.00	0.1	0.1	<0.02	<0.02	5.1	5.1	<2	<2	5.000	5.0	0.02	0.097	<0.00079	3	3.6	<1	<1	<3					
				Middle	2.2	<5		<2			0.2		<0.02		5.2		<2		4.000		0.17			4		<1							
				Bottom	3.4	<5		<2			0.1		<0.02		5.1		<2		5.000		0.10			4		<1							
28-Aug-06	Sunny	Calm	9:46	Surface	1	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	4.7	4.6	<2	<2	3.000	4.0	<0.01000	<0.01000	<0.00078	3	2.6	<1	<1	<3					
				Middle	2.3	<5		<2			0.2		<0.02		4.6		<2		4.000		0.01			3		<1							
				Bottom	3.5	<5		<2			0.1		<0.02		4.6		<2		4.000		<0.01000			2		<1							
8-Sep-06	Fine	Moderate	9:06	Surface	1	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	3.8	4.0	<2	<2	5.000	5.0	<0.01000	<0.01000	<0.00077	11	9.5	3	2.0	<2					
				Middle	2.4	<5		<2			0.2		<0.02		4.1		<2		5.000		<0.01000			8		2							
				Bottom	3.9	<5		<2			0.3		<0.02		4.0		<2		5.000		<0.01000			10		2							
14-Sep-06	Cloudy	Calm	9:40	Surface	1	<5	<5	<2	<2	<2.00	0.4	0.3	<0.02	<0.02	3.7	3.7	<2	<2	5.000	5.0	<0.01000	<0.01000	<0.00076	13	12.6	6	5.0	<2					
				Middle	2.4	<5		<2			0.2		<0.02		3.7		<2		4.000		<0.01000			14		4							
				Bottom	3.8	<5		<2			0.3		<0.02		3.7		<2		5.000		<0.01000			11		4							

Note:
 Lake Condition - Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 DA - Depth Average
 AA - Annual Average
 AM - Annual Median
 GM - Geometric Mean for last 5 measurements

Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at WM3

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		In-situ Monitoring											Laboratory Analysis																				
						Temperature (°C)		DO Saturation (%)		Turbidity (NTU)			pH			Dissolved Oxygen (mg/L)		Conductivity (mS/cm)		Salinity (g/L)		Copper (mg/L)		Chromium (mg/L)		Lead (mg/L)		Zinc (mg/L)									
						Value	Average	Value	Average	Value	Average	DA	Value	Average	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA								
16-Aug-06	Sunny	Calm	10:04	Surface	1	31.4 31.3	31.4	80.0 79.6	79.8	2.1 2.1	2.1	2.0	7.6 7.6	7.6	7.6	7	7.1	26.0	25.0	<0.1	<0.1	1	<1	<1	<1	<1	<1	<1	<1	<10	<10						
				Middle	2.3	31.2 31.3	31.3	81.1 80.2	80.7	1.9 1.9	1.9		7.6 7.6	7.6		8		24.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<10	<10
				Bottom	3.6	31.1 31.1	31.1	78.6 78.9	78.8	2.1 2.0	2.1		7.5 7.5	7.5		6		25.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<1	<1
22-Aug-06	Sunny	Calm	10:06	Surface	1	31.6 31.6	31.6	83.9 85.1	84.5	1.6 1.7	1.7	1.7	7.1 7.1	7.1	7.1	8	8.4	77.0	76.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10						
				Middle	2.3	31.5 31.4	31.5	82.2 81.9	82.1	1.5 1.4	1.5		7.1 7.1	7.1		7		76.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<10	<10
				Bottom	3.6	31.3 31.4	31.4	80.0 80.9	80.5	1.8 1.9	1.9		7.0 7.0	7.0		10		75.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<1	<1
28-Aug-06	Sunny	Calm	9:59	Surface	1	31.2 31.3	31.3	82.1 81.8	82.0	1.4 1.4	1.4	1.5	7.4 7.3	7.4	7.4	10	9.0	77.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10						
				Middle	2.3	31.1 31.1	31.1	82.6 82.9	82.8	1.5 1.6	1.6		7.3 7.3	7.3		9		76.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<10	<10
				Bottom	3.6	31.0 31.0	31.0	80.1 81.3	80.7	1.4 1.4	1.4		7.3 7.4	7.4		8		77.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<1	<1
8-Sep-06	Fine	Moderate	9:23	Surface	1	31.2 31.4	31.3	85.5 85.0	85.3	1.7 1.7	1.7	1.9	7.6 7.7	7.7	7.6	8	7.7	78.0	78.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10						
				Middle	2.3	31.0 31.0	31.0	82.4 82.9	82.7	1.8 1.8	1.8		7.6 7.6	7.6		8		78.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<10	<10
				Bottom	3.6	30.8 30.8	30.8	79.1 78.6	78.9	2.1 2.0	2.1		7.5 7.5	7.5		7		78.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<1	<10
14-Sep-06	Cloudy	Calm	9:57	Surface	1	27.3 27.3	27.3	75.6 75.5	75.6	1.1 1.1	1.1	1.6	7.9 7.9	7.9	7.7	8	8.6	77.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10						
				Middle	2.3	26.8 26.6	26.7	76.3 76.1	76.2	1.7 1.7	1.7		7.8 7.8	7.8		9		76.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<10	<10
				Bottom	3.7	26.5 26.5	26.5	76.2 76.6	76.4	2.0 2.1	2.1		7.4 7.6	7.5		9		78.0		<0.1		<0.1		<1		<1		<1		<1		<1	<1	<1	<1	<1	<10

Note:
 Lake Condition - Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 DA - Depth Average
 AA - Annual Average
 AM - Annual Median
 GM - Geometric Mean for last 5 measurements

Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at WM3

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		Laboratory Analysis																											
						Tributyltin (ng Sn/L)		Suspended Solid (mg/L)			Total Nitrogen (mg/L)		Total Phosphorous (mg/L)		Silica (mg/L)		5-day BOD (mg/L)		COD (mg/L)		Ammonia Nitrogen (mg/L)		Unionised Ammonia (mg/L)	chlorophyll-a (mg/L)		E.Coli (cfu/100mL)							
						Value	DA	Value	DA	AM	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	AA	Value	DA	Value	DA	GM			
16-Aug-06	Sunny	Calm	10:04	Surface	1	<5		<2			0.2		<0.02		4.7		<2		5.000		0.01			2		<1							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	5.0	4.8	<2	<2	3.000	4.0	0.11	0.043	<0.00071	2	1.9	<1	<1	<4					
				Bottom	3.6	<5		<2			0.2		<0.02		4.7		<2		5.000		0.01			2		<1							
22-Aug-06	Sunny	Calm	10:06	Surface	1	<5		<2			0.2		<0.02		5.2		<2		5.000		0.01			4		<1							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.3	0.2	<0.02	<0.02	5.2	5.2	<2	<2	5.000	5.0	0.20	0.077	<0.00072	3	3.4	1	<1	<2					
				Bottom	3.6	<5		<2			0.2		<0.02		5.2		<2		6.000		0.02			4		<1							
28-Aug-06	Sunny	Calm	9:59	Surface	1	<5		<2			0.2		<0.02		4.5		<2		4.000		<0.01000			3		<1							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	4.5	4.5	<2	<2	4.000	4.0	<0.01000	<0.01000	<0.00071	3	3.0	<1	<1	<2					
				Bottom	3.6	<5		<2			0.1		<0.02		4.5		<2		4.000		<0.01000			3		<1							
8-Sep-06	Fine	Moderate	9:23	Surface	1	<5		<2			0.3		<0.02		4.0		<2		4.000		0.02			9		3							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.4	0.3	<0.02	<0.02	4.2	4.1	<2	<2	5.000	5.0	<0.01000	<0.01333	<0.00071	9	8.9	2	<2	<1					
				Bottom	3.6	<5		<2			0.3		<0.02		4.1		<2		5.000		<0.01000			9		<1							
14-Sep-06	Cloudy	Calm	9:57	Surface	1	<5		<2			0.3		<0.02		3.6		<2		5.000		<0.01000			11		11							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.3	0.3	<0.02	<0.02	3.5	3.6	<2	<2	4.000	5.0	<0.01000	<0.01000	<0.00070	11	11.1	3	8.0	<2					
				Bottom	3.7	<5		<2			0.3		<0.02		3.6		<2		5.000		<0.01000			12		9							

Note:
 Lake Condition - Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 DA - Depth Average
 AA - Annual Average
 AM - Annual Median
 GM - Geometric Mean for last 5 measurements

Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at WM4

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		In-situ Monitoring											Laboratory Analysis														
						Temperature (°C)		DO Saturation (%)		Turbidity (NTU)			pH			Dissolved Oxygen (mg/L)		Conductivity (mS/cm)		Salinity (g/L)		Copper (mg/L)		Chromium (mg/L)		Lead (mg/L)		Zinc (mg/L)			
						Value	Average	Value	Average	Value	Average	DA	Value	Average	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA		
16-Aug-06	Sunny	Calm	10:23	Surface	1	31.4 31.5	31.5	81.1 80.7	80.9	1.9 1.9	1.9	1.8	7.6 7.6	7.6	7.6	10	8.2	25.0	25.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.3	31.4 31.4	31.4	79.8 80.0	79.9	1.7 1.9	1.8		7.6 7.5	7.6		7		25.0		<0.1		<1		<1		<1		<1		<1	<10
				Bottom	3.6	31.4 31.3	31.4	80.1 79.6	79.9	1.7 1.6	1.7		7.6 7.5	7.6		8		24.0		<0.1		<1		<1		<1		<1		<1	<10
22-Aug-06	Sunny	Calm	10:24	Surface	1	31.5 31.7	31.6	85.2 84.6	84.9	2.0 2.1	2.1	2.1	7.3 7.3	7.3	7.3	7	8.2	75.0	76.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.3	31.6 31.7	31.7	83.7 85.9	84.8	2.1 2.0	2.1		7.4 7.3	7.4		7		76.0		<0.1		<1		<1		<1		<1		<1	<10
				Bottom	3.6	31.7 31.5	31.6	86.2 87.1	86.7	2.1 2.1	2.1		7.3 7.3	7.3		11		76.0		<0.1		<1		<1		<1		<1		<1	<10
28-Aug-06	Sunny	Calm	10:20	Surface	1	31.3 31.3	31.3	84.6 84.9	84.8	1.2 1.2	1.2	1.3	7.4 7.3	7.4	7.3	8	8.2	76.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.4	31.2 31.2	31.2	83.5 82.0	82.8	1.3 1.3	1.3		7.3 7.3	7.3		9		76.0		<0.1		<1		<1		<1		<1		<1	<10
				Bottom	3.7	31.1 31.0	31.1	80.6 79.4	80.0	1.4 1.5	1.5		7.3 7.3	7.3		8		78.0		<0.1		<1		<1		<1		<1		<1	<10
8-Sep-06	Fine	Moderate	9:39	Surface	1	31.2 31.4	31.3	84.4 84.5	84.5	1.3 1.2	1.3	1.8	7.6 7.6	7.6	7.6	7	7.5	80.0	79.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.3	30.8 30.7	30.8	83.2 83.9	83.6	1.8 1.9	1.9		7.5 7.5	7.5		8		80.0		<0.1		<1		<1		<1		<1		<1	<10
				Bottom	3.6	30.4 30.4	30.4	80.4 80.0	80.2	2.2 2.2	2.2		7.6 7.6	7.6		8		78.0		<0.1		<1		<1		<1		<1		<1	<10
14-Sep-06	Cloudy	Calm	10:13	Surface	1	27.2 27.3	27.3	76.5 75.8	76.2	2.1 2.2	2.2	2.2	7.3 7.3	7.3	7.4	8	7.9	78.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.3	27.0 27.0	27.0	76.6 76.1	76.4	1.9 1.8	1.9		7.4 7.5	7.5		8		78.0		<0.1		<1		<1		<1		<1		<1	<10
				Bottom	3.7	26.4 26.6	26.5	74.8 73.9	74.4	2.3 2.4	2.4		7.4 7.4	7.4		8		76.0		<0.1		<1		<1		<1		<1		<1	<10

Note:
 Lake Condition - Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 DA - Depth Average
 AA - Annual Average
 AM - Annual Median
 GM - Geometric Mean for last 5 measurements

Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at WM4

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		Laboratory Analysis																											
						Tributyltin (ng Sn/L)		Suspended Solid (mg/L)			Total Nitrogen (mg/L)		Total Phosphorous (mg/L)		Silica (mg/L)		5-day BOD (mg/L)		COD (mg/L)		Ammonia Nitrogen (mg/L)		Unionised Ammonia (mg/L)	chlorophyll-a (mg/L)		E.Coli (cfu/100mL)							
						Value	DA	Value	DA	AM	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	AA	Value	DA	Value	DA	Value	DA	GM	
16-Aug-06	Sunny	Calm	10:23	Surface	1	<5		<2			0.2		<0.02		4.8		<2		3.000		0.20			2		<1							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	4.9	4.8	<2	<2	4.000	3.0	0.20	0.190	<0.00091	2	2.0	<1	<1	<4					
				Bottom	3.6	<5		<2			0.2		<0.02		4.8		<2		3.000		0.17			2		<1							
22-Aug-06	Sunny	Calm	10:24	Surface	1	<5		<2			0.2		<0.02		5.1		<2		6.000		0.20			3		<1							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	5.1	5.1	<2	<2	5.000	5.0	0.20	0.200	<0.00098	3	3.1	<1	<1	<2					
				Bottom	3.6	<5		<2			0.2		<0.02		5.1		<2		5.000		0.20			3		1							
28-Aug-06	Sunny	Calm	10:20	Surface	1	<5		<2			0.1		<0.02		4.3		<2		4.000		<0.01000			3		23							
				Middle	2.4	<5	<5	<2	<2	<2.00	0.1	0.1	<0.02	<0.02	4.3	4.3	<2	<2	4.000	4.0	<0.01000	<0.01000	<0.00097	3	2.7	10	14.0	<3					
				Bottom	3.7	<5		<2			0.1		<0.02		4.2		<2		4.000		<0.01000			3		8							
8-Sep-06	Fine	Moderate	9:39	Surface	1	<5		<2			0.3		<0.02		4.2		<2		5.000		<0.01000			10		3							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.3	0.3	<0.02	<0.02	4.4	4.3	<2	<2	5.000	5.0	<0.01000	<0.01000	<0.00096	10	10.4	2	2.0	<2					
				Bottom	3.6	<5		<2			0.3		<0.02		4.3		<2		5.000		<0.01000			11		1							
14-Sep-06	Cloudy	Calm	10:13	Surface	1	<5		<2			0.4		<0.02		3.6		<2		4.000		0.05			13		12							
				Middle	2.3	<5	<5	2.0	<2	<2.00	0.4	0.4	<0.02	<0.02	3.5	3.5	<2	<2	6.000	5.0	0.03	0.037	<0.00095	12	12.2	14	13.0	<3					
				Bottom	3.7	<5		<2			0.3		<0.02		3.4		<2		6.000		0.03			12		13							

Note:
 Lake Condition - Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 DA - Depth Average
 AA - Annual Average
 AM - Annual Median
 GM - Geometric Mean for last 5 measurements

Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at WM5

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		In-situ Monitoring											Laboratory Analysis																
						Temperature (°C)		DO Saturation (%)		Turbidity (NTU)			pH			Dissolved Oxygen (mg/L)		Conductivity (mS/cm)		Salinity (g/L)		Copper (mg/L)		Chromium (mg/L)		Lead (mg/L)		Zinc (mg/L)					
						Value	Average	Value	Average	Value	Average	DA	Value	Average	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA				
16-Aug-06	Sunny	Calm	10:38	Surface	1	31.2 31.3	31.3	82.1 81.6	81.9	1.8 1.7	1.8	1.8	7.6 7.6	7.6	7.6	9	8.3	23.0	58.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.4	31.3 31.1	31.2	81.4 81.2	81.3	1.5 1.6	1.6		7.6 7.6	7.6		8		78.0		<0.1		<1		<1		<1		<1		<1		<1	<10
				Bottom	3.8	31.1 31.2	31.2	80.1 79.7	79.9	1.8 1.9	1.9		7.5 7.5	7.5		8		73.0		<0.1		<1		<1		<1		<1		<1		<1	<10
22-Aug-06	Sunny	Calm	10:45	Surface	1	31.6 31.5	31.6	84.6 87.1	85.9	1.8 1.9	1.9	1.8	7.3 7.2	7.3	7.3	11	9.5	77.0	76.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.4	31.5 31.4	31.5	83.2 84.4	83.8	1.8 1.9	1.9		7.3 7.3	7.3		9		76.0		<0.1		<1		<1		<1		<1		<1		<1	<10
				Bottom	3.7	31.3 31.2	31.3	81.6 80.8	81.2	1.7 1.7	1.7		7.3 7.3	7.3		9		76.0		<0.1		<1		<1		<1		<1		<1		<1	<10
28-Aug-06	Sunny	Calm	10:33	Surface	1	31.3 31.4	31.4	81.6 81.9	81.8	1.7 1.7	1.7	1.6	7.2 7.2	7.2	7.2	7	7.6	77.0	77.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.3	31.2 31.3	31.3	84.0 82.3	83.2	1.6 1.6	1.6		7.2 7.2	7.2		8		77.0		<0.1		<1		<1		<1		<1		<1		<10	
				Bottom	3.6	31.1 31.4	31.3	80.6 80.9	80.8	1.4 1.4	1.4		7.2 7.2	7.2		8		76.0		<0.1		<1		<1		<1		<1		<1		<10	
8-Sep-06	Fine	Moderate	9:57	Surface	1	31.4 31.4	31.4	86.7 86.1	86.4	2.0 2.0	2.0	2.2	7.6 7.6	7.6	7.6	8	8.0	80.0	79.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.2	31.2 31.1	31.2	85.2 85.3	85.3	2.2 2.1	2.2		7.6 7.6	7.6		7		78.0		<0.1		<1		<1		<1		<1		<1		<10	
				Bottom	3.5	30.9 31.0	31.0	82.4 82.4	82.4	2.3 2.4	2.4		7.5 7.5	7.5		8		79.0		<0.1		<1		<1		<1		<1		<1		<10	
14-Sep-06	Cloudy	Calm	10:28	Surface	1	27.2 27.4	27.3	74.7 75.2	75.0	2.2 2.1	2.2	2.7	7.5 7.5	7.5	7.4	12	9.2	76.0	76.0	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10		
				Middle	2.3	26.9 26.9	26.9	74.9 73.8	74.4	2.8 3.0	2.9		7.4 7.4	7.4		8		77.0		<0.1		<1		<1		<1		<1		<1		<10	
				Bottom	3.7	27.0 26.8	26.9	73.2 73.6	73.4	3.0 3.2	3.1		7.3 7.3	7.3		8		76.0		<0.1		<1		<1		<1		<1		<1		<10	

Note:
 Lake Condition - Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 DA - Depth Average
 AA - Annual Average
 AM - Annual Median
 GM - Geometric Mean for last 5 measurements

Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

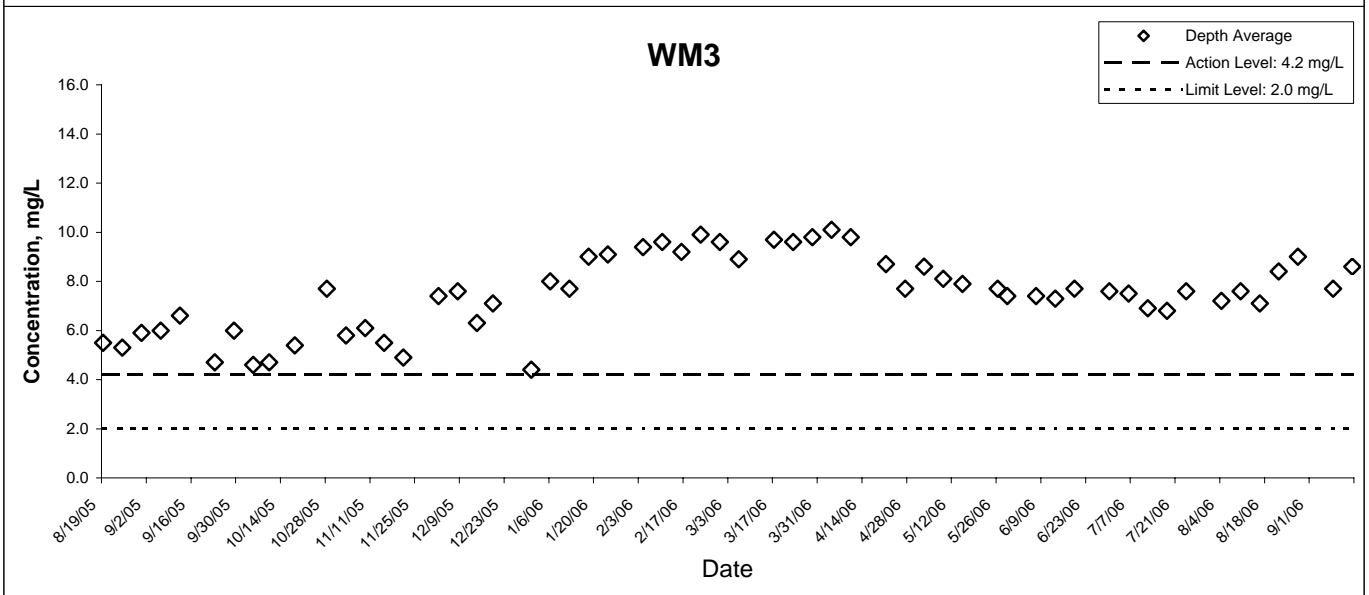
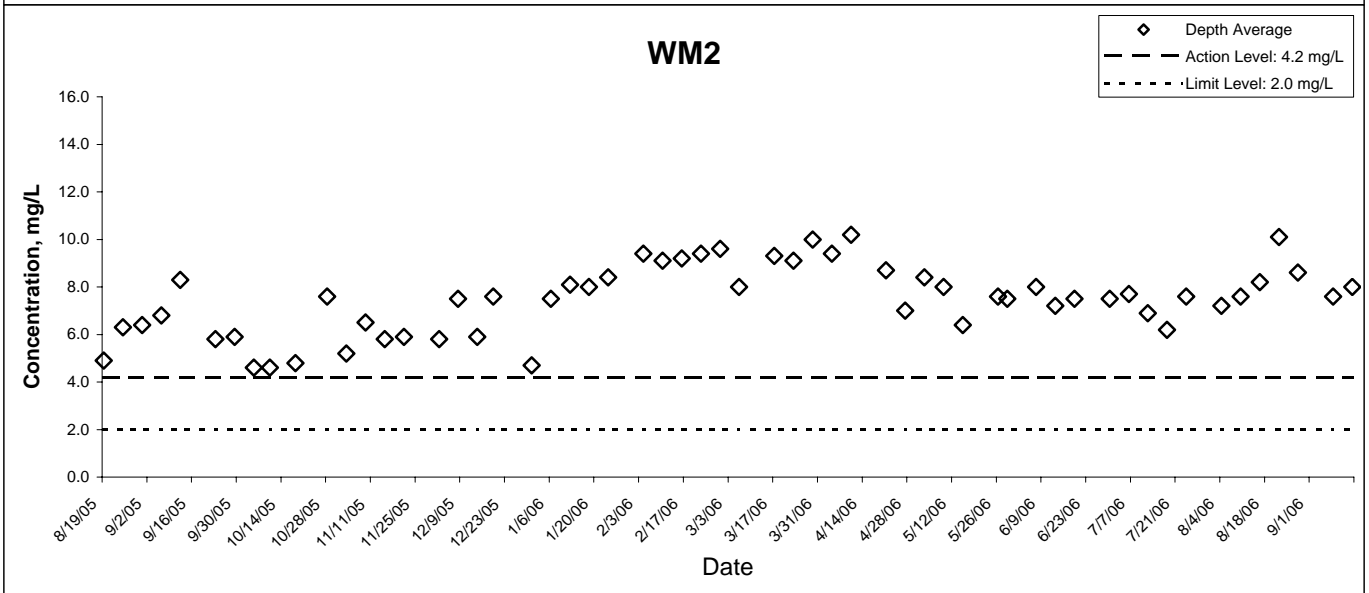
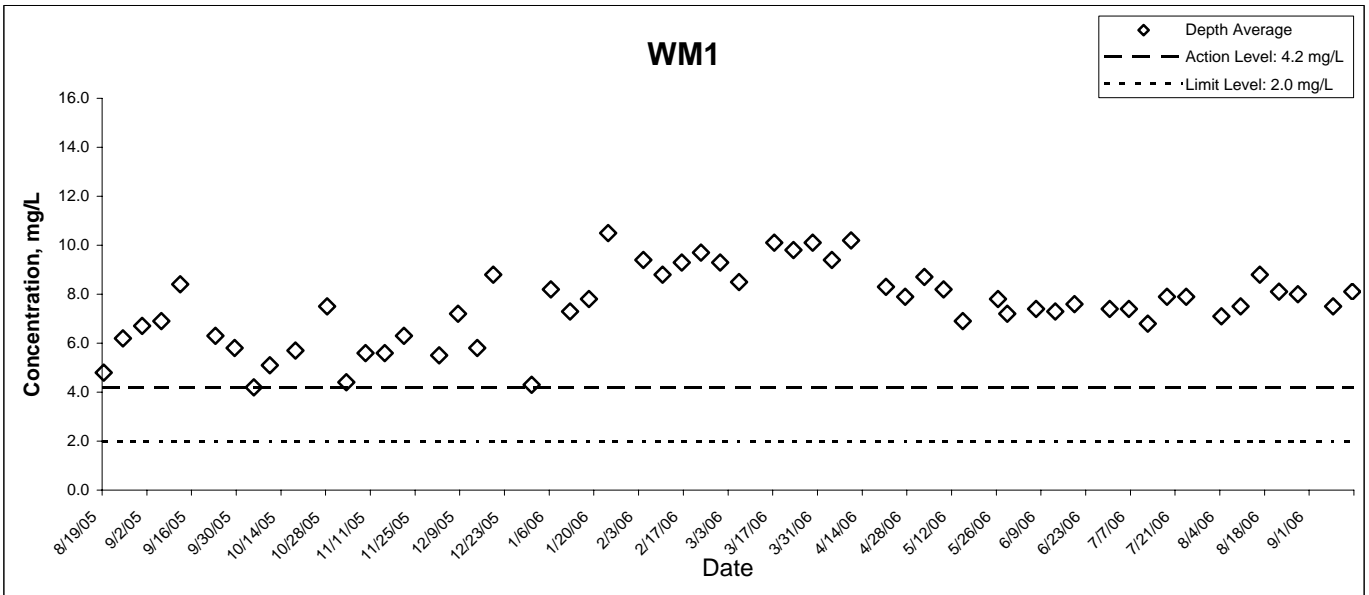
Water Quality Monitoring Results at WM5

Date	Weather Condition	Lake Condition	Sampling Time	Depth (m)		Laboratory Analysis																											
						Tributyltin (ng Sn/L)		Suspended Solid (mg/L)			Total Nitrogen (mg/L)		Total Phosphorous (mg/L)		Silica (mg/L)		5-day BOD (mg/L)		COD (mg/L)		Ammonia Nitrogen (mg/L)		Unionised Ammonia (mg/L)	chlorophyll-a (mg/L)		E. Coli (cfu/100mL)							
						Value	DA	Value	DA	AM	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	AA	Value	DA	Value	DA	GM			
16-Aug-06	Sunny	Calm	10:38	Surface	1	<5		<2			0.1		<0.02		4.7		<2		4.000		0.01			2		<1							
				Middle	2.4	<5	<5	<2	<2	<2.00	0.1	<0.1	<0.02	<0.02	4.8	4.8	<2	<2	3.000	3.0	0.01	<0.01000	<0.00069	2	1.9	<1	<1	<4					
				Bottom	3.8	<5		<2			<0.1		<0.02		4.8		<2		3.000		<0.01000			2		<1							
22-Aug-06	Sunny	Calm	10:45	Surface	1	<5		<2			0.2		<0.02		5.2		<2		5.000		0.20			3		<1							
				Middle	2.4	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	5.1	5.1	<2	<2	5.000	5.0	0.17	0.127	<0.00072	4	3.5	1	<1	<2					
				Bottom	3.7	<5		<2			0.2		<0.02		5.1		<2		5.000		0.01			4		<1							
28-Aug-06	Sunny	Calm	10:33	Surface	1	<5		<2			0.2		<0.02		4.2		<2		3.000		<0.01000			3		20							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	4.1	4.1	<2	<2	3.000	4.0	<0.01000	<0.01000	<0.00071	3	2.5	25	18.0	<4					
				Bottom	3.6	<5		<2			0.2		<0.02		4.1		<2		5.000		<0.01000			2		8							
8-Sep-06	Fine	Moderate	9:57	Surface	1	<5		<2			0.2		<0.02		4.4		<2		5.000		<0.01000			10		1							
				Middle	2.2	<5	<5	<2	<2	<2.00	0.2	0.2	<0.02	<0.02	4.5	4.4	<2	<2	6.000	5.0	<0.01000	<0.01000	<0.00071	9	9.4	1	1.0	<2					
				Bottom	3.5	<5		<2			0.3		<0.02		4.2		<2		5.000		<0.01000			9		1							
14-Sep-06	Cloudy	Calm	10:28	Surface	1	<5		<2			0.3		<0.02		3.5		<2		6.000		<0.01000			10		3							
				Middle	2.3	<5	<5	<2	<2	<2.00	0.3	0.3	<0.02	<0.02	3.5	3.5	<2	<2	6.000	6.0	<0.01000	<0.01000	<0.00070	13	11.6	4	5.0	<2					
				Bottom	3.7	<5		<2			0.3		<0.02		3.6		<2		5.000		<0.01000			12		9							

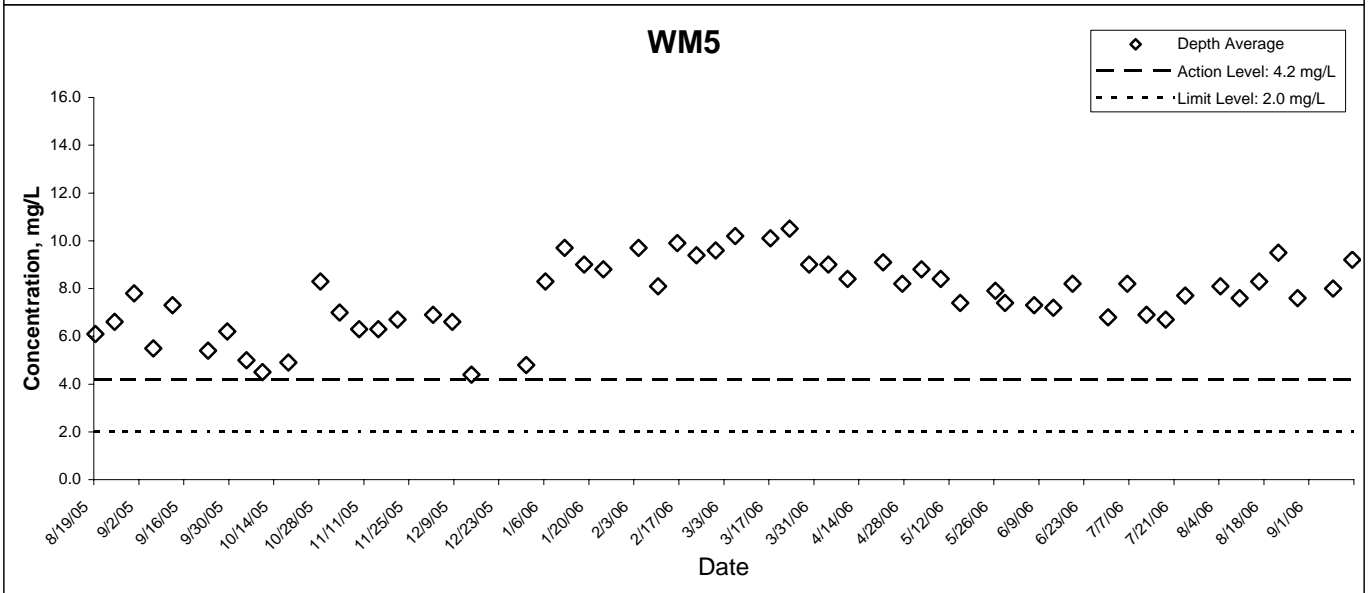
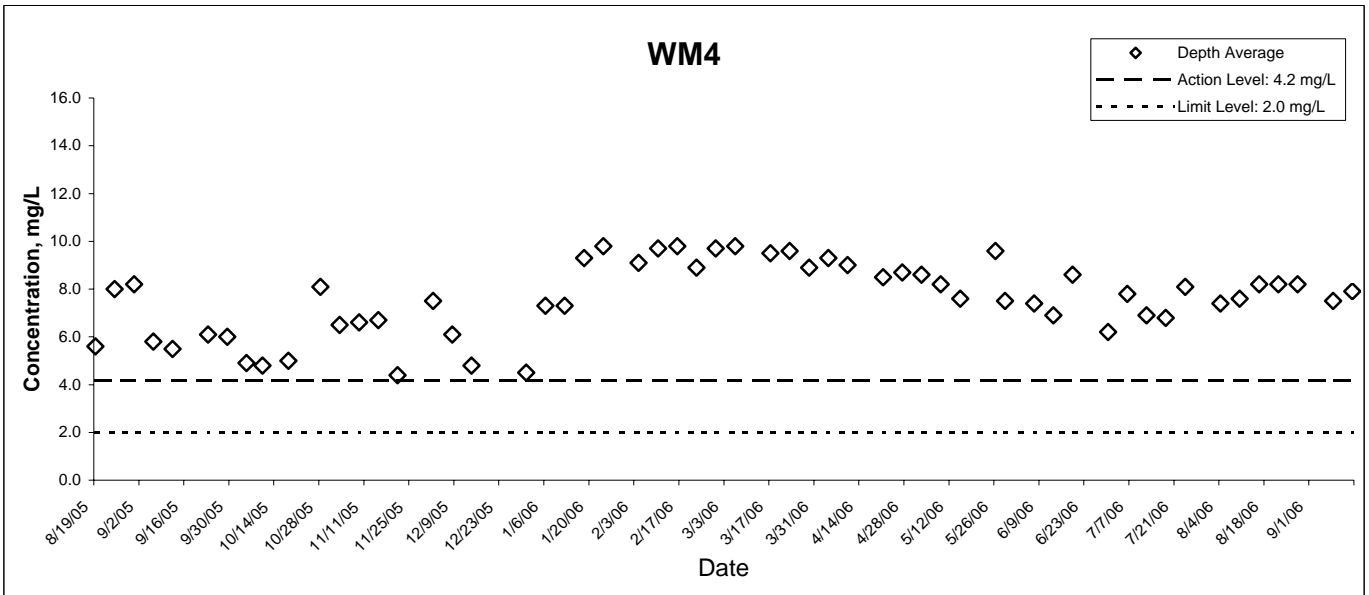
Note:
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Remarks: * Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

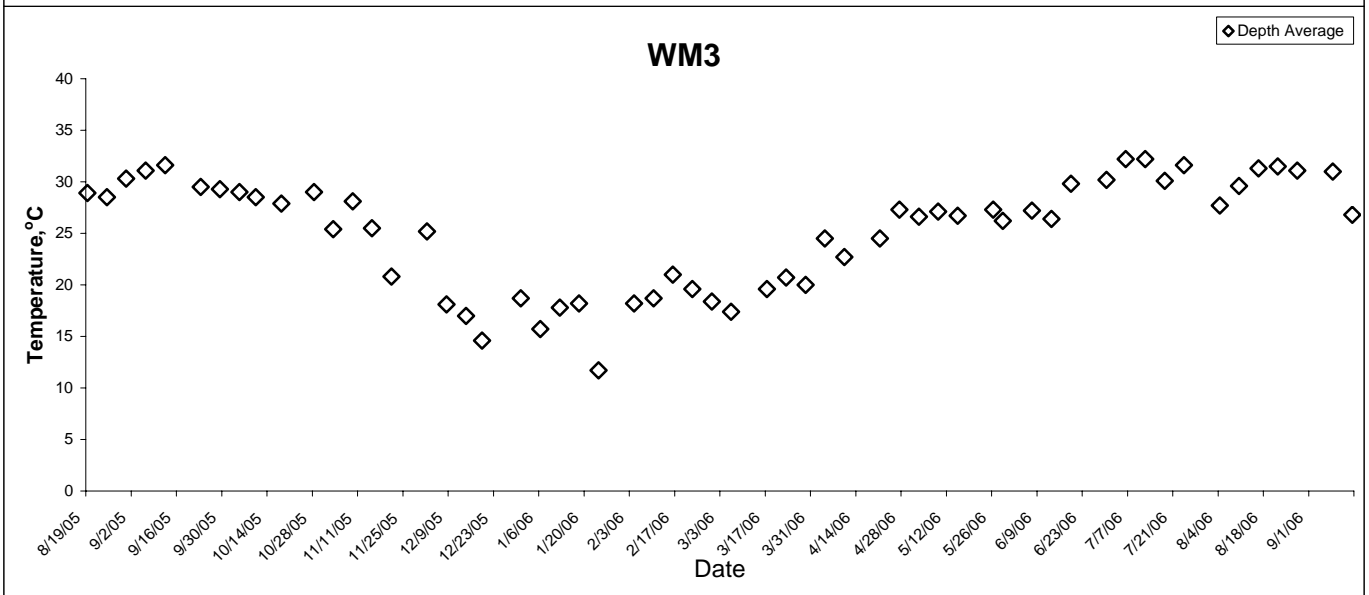
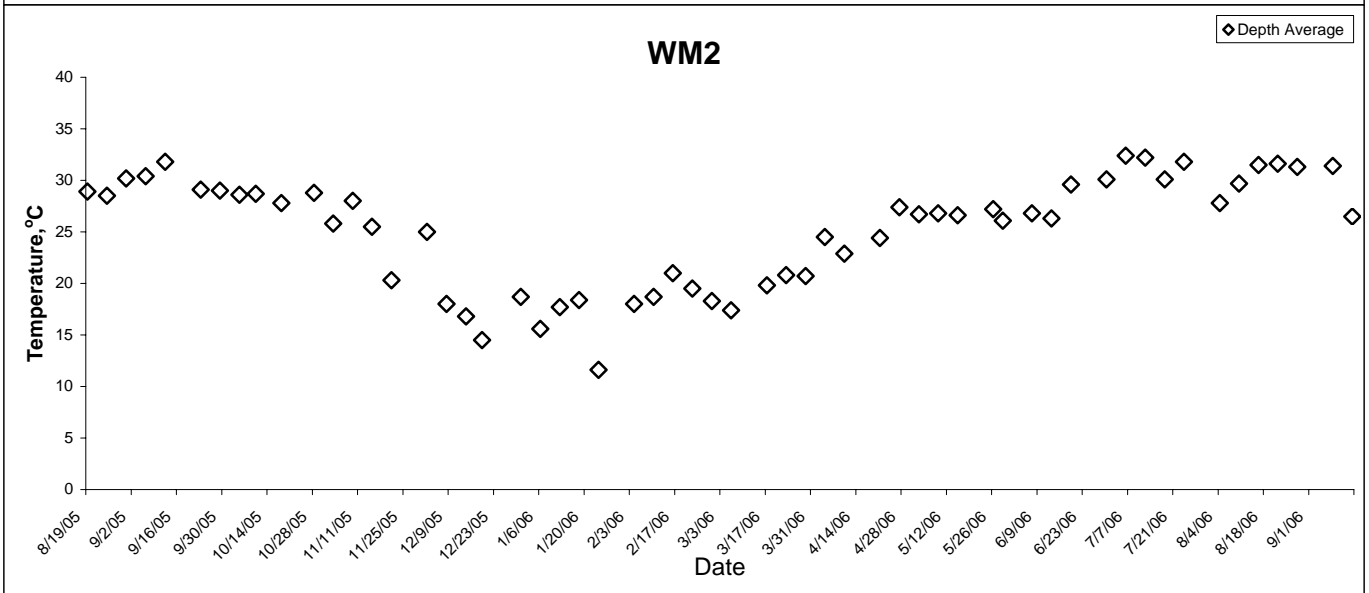
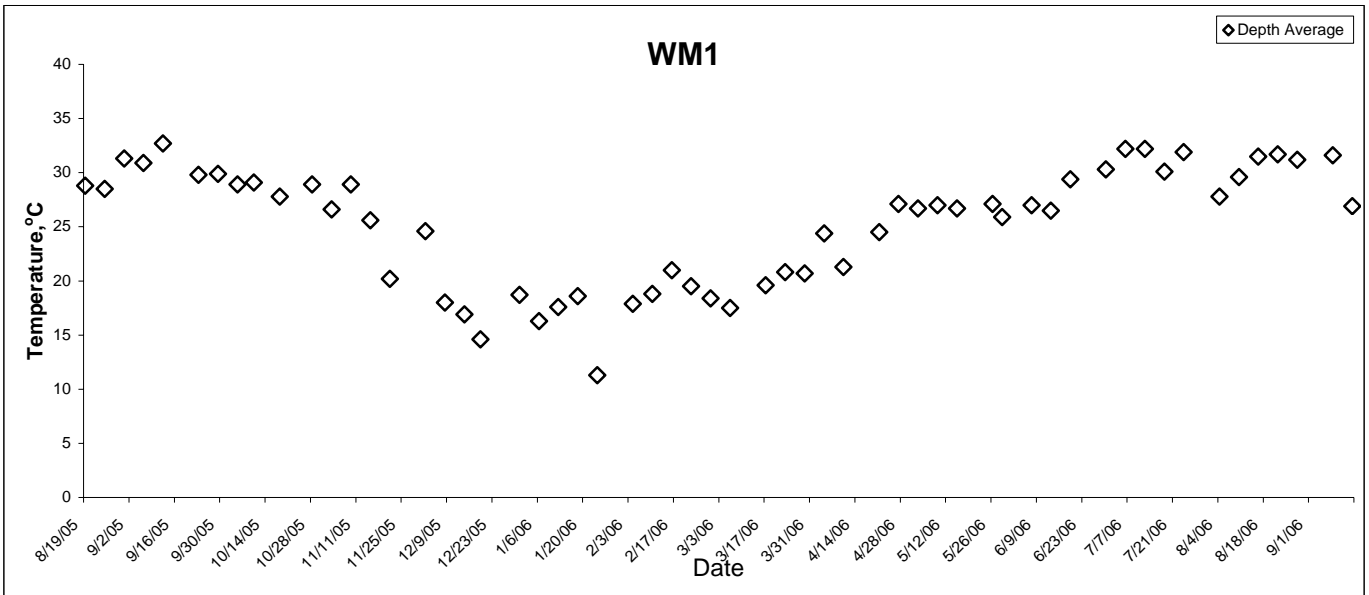
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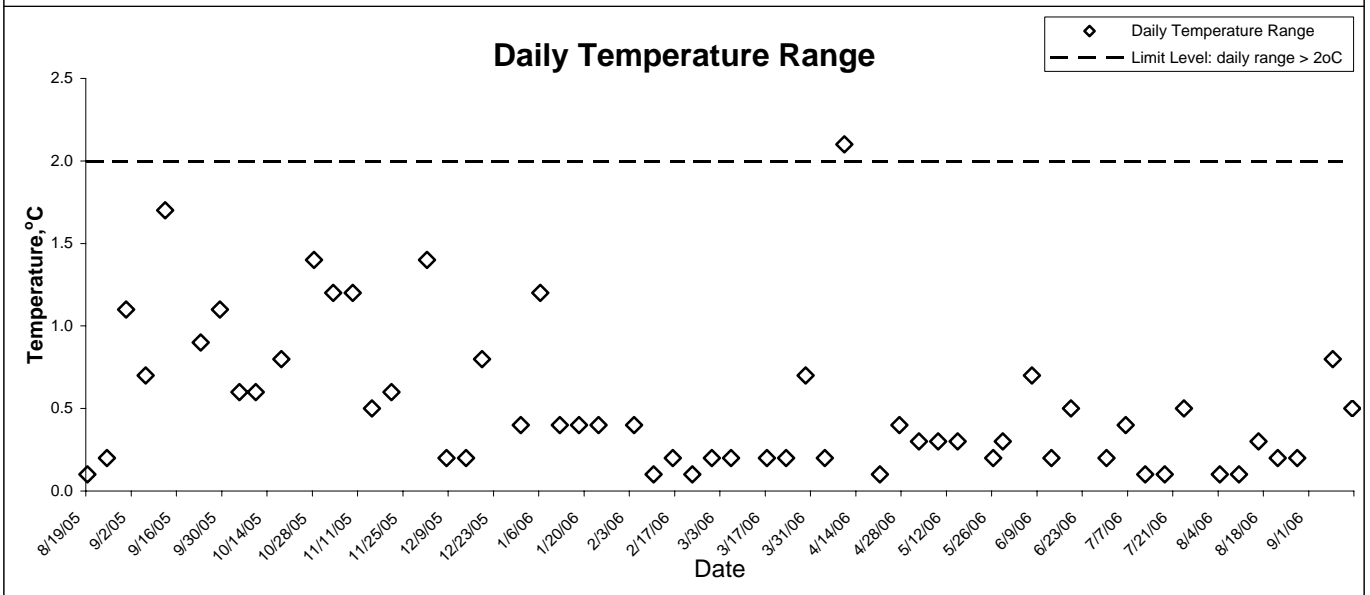
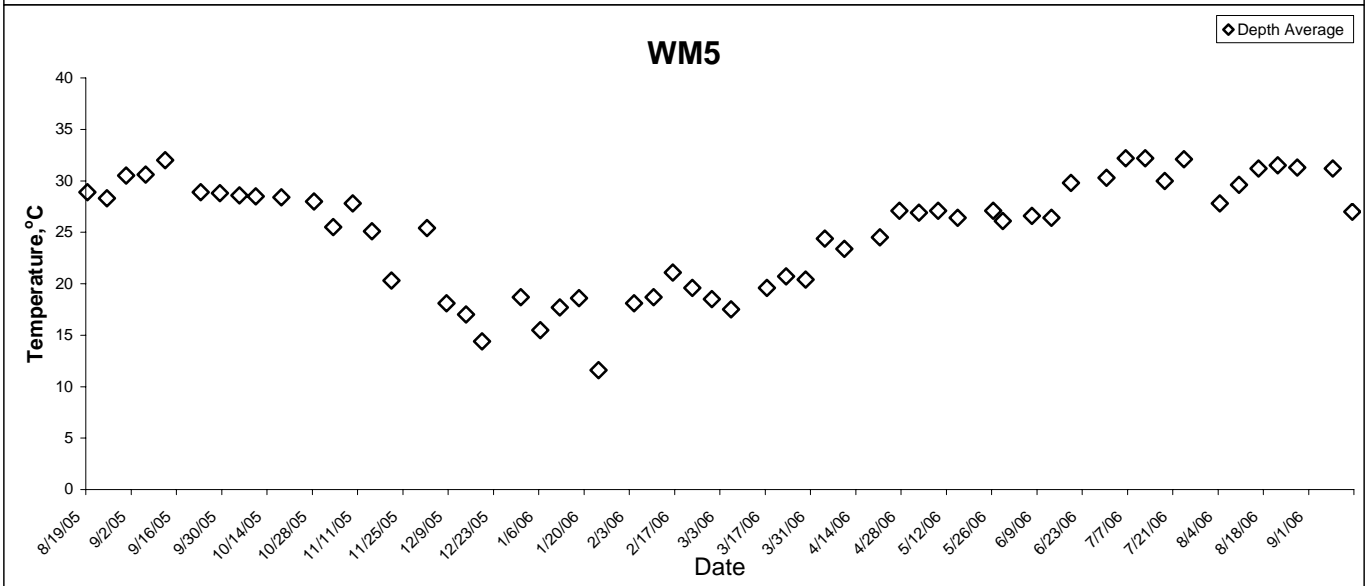
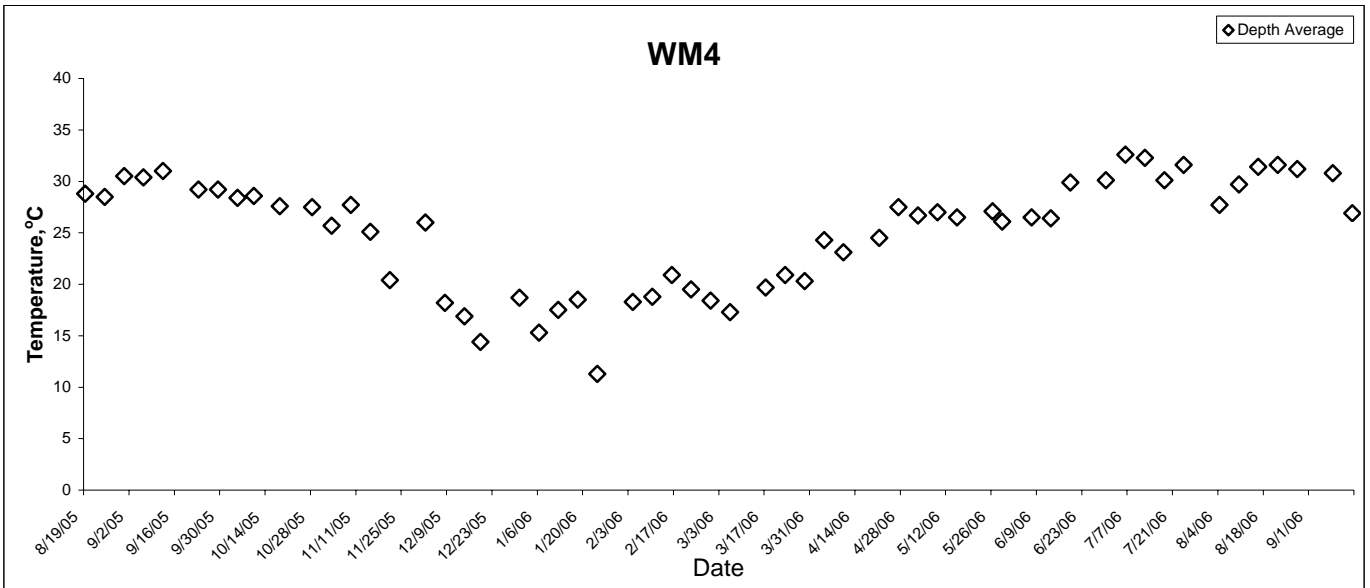
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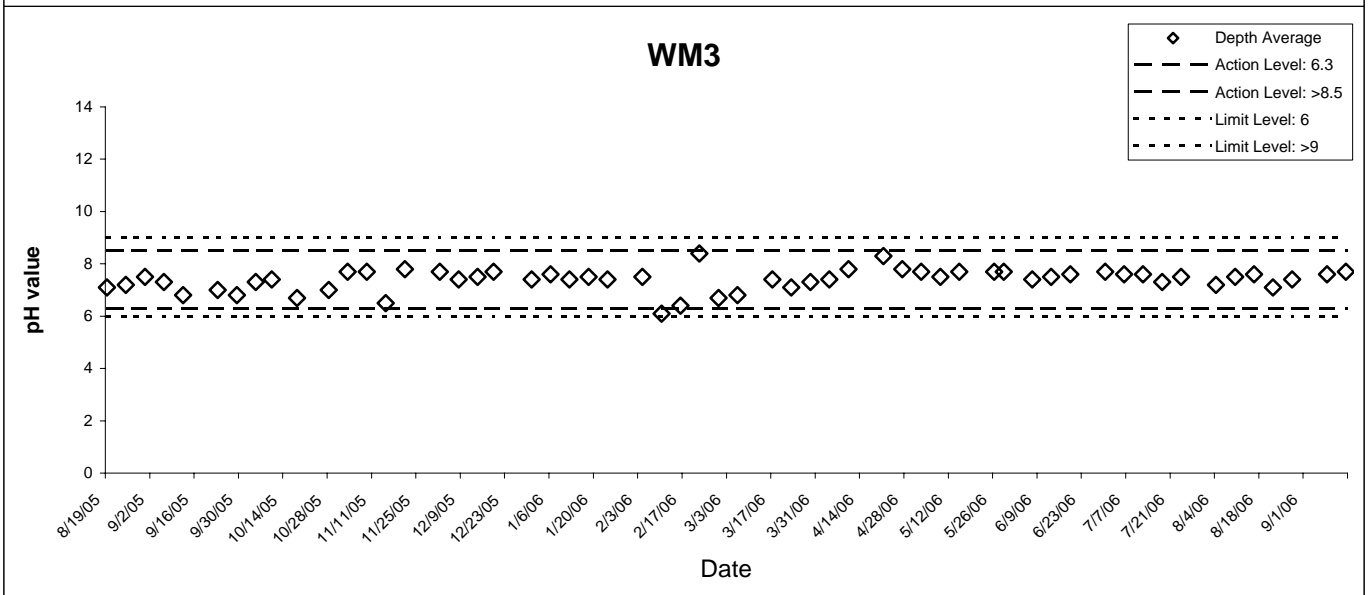
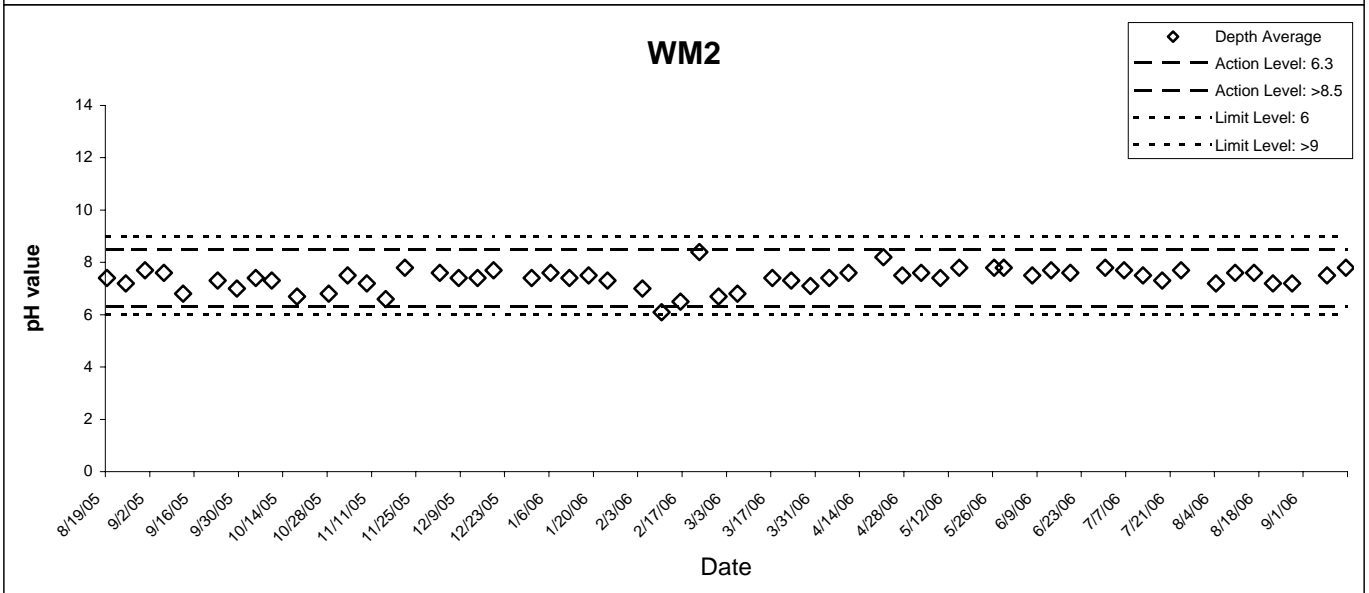
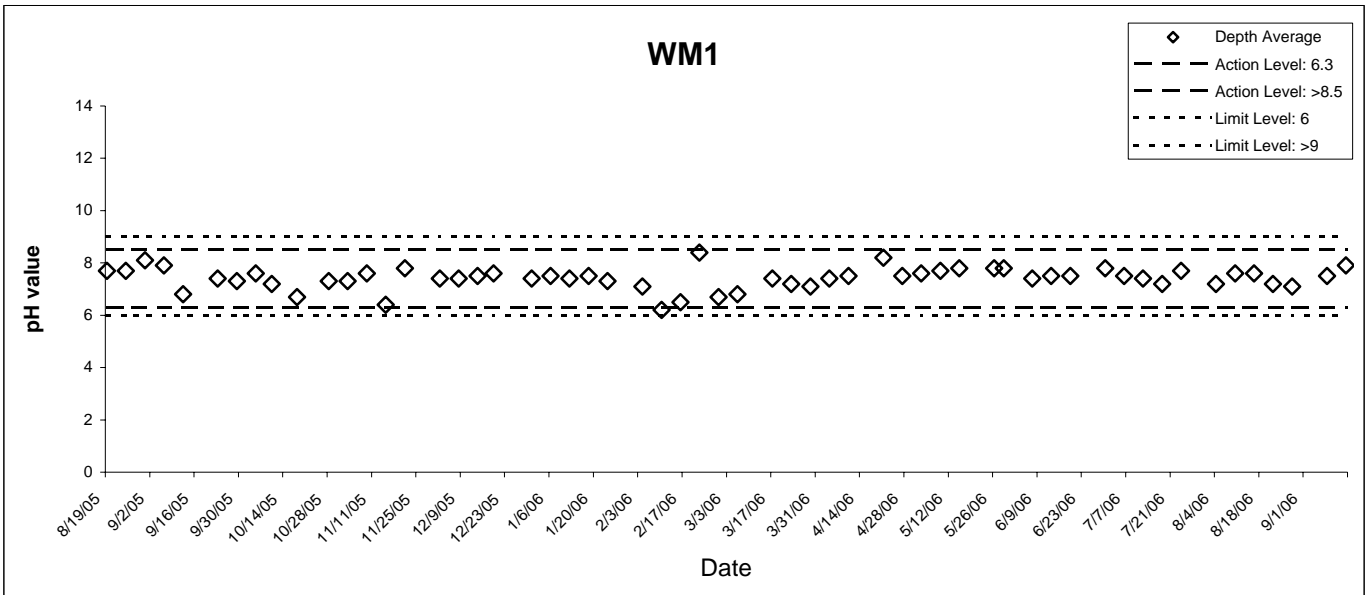
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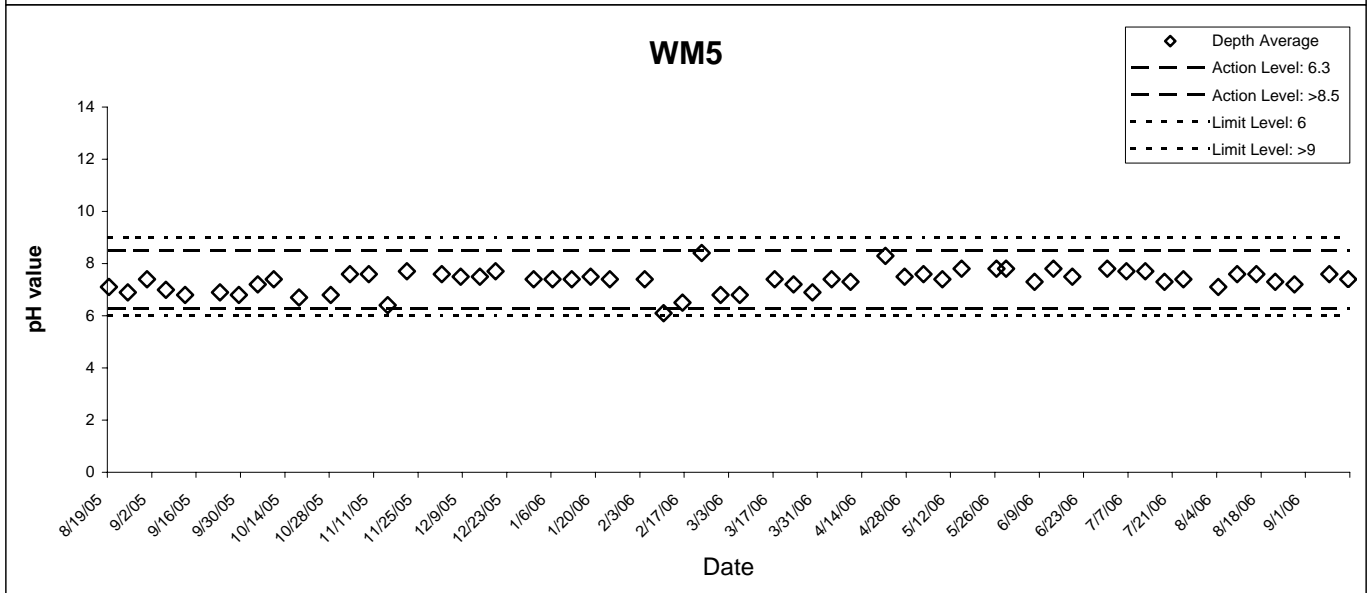
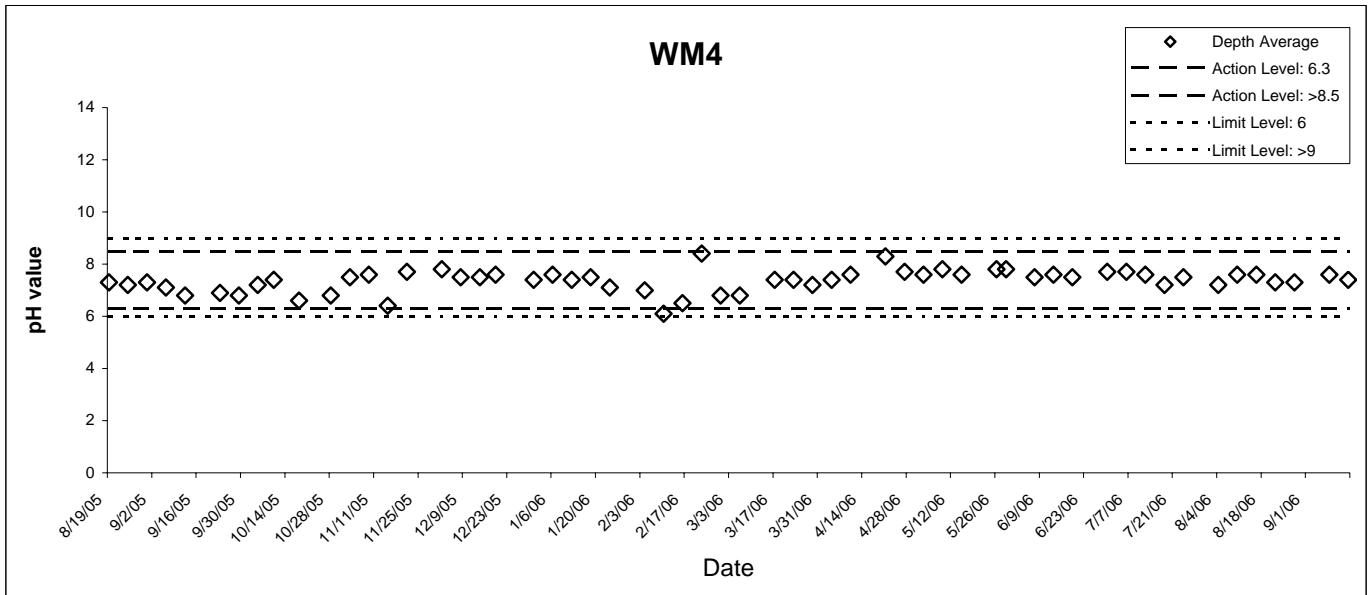
Temperature



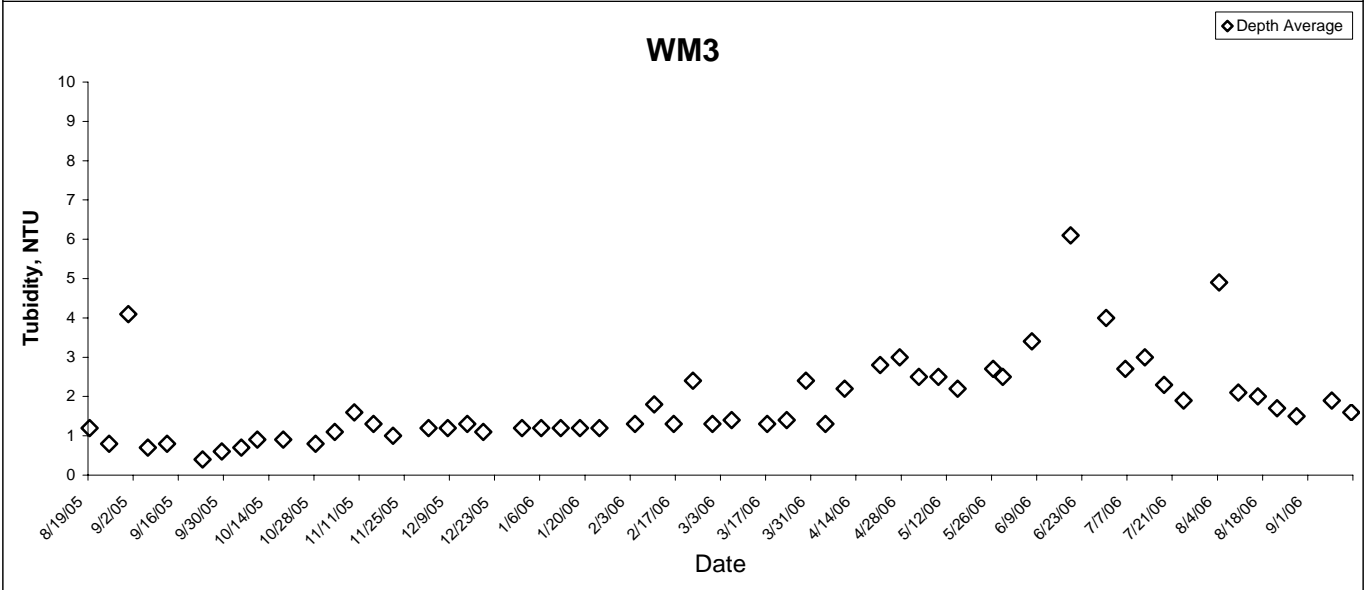
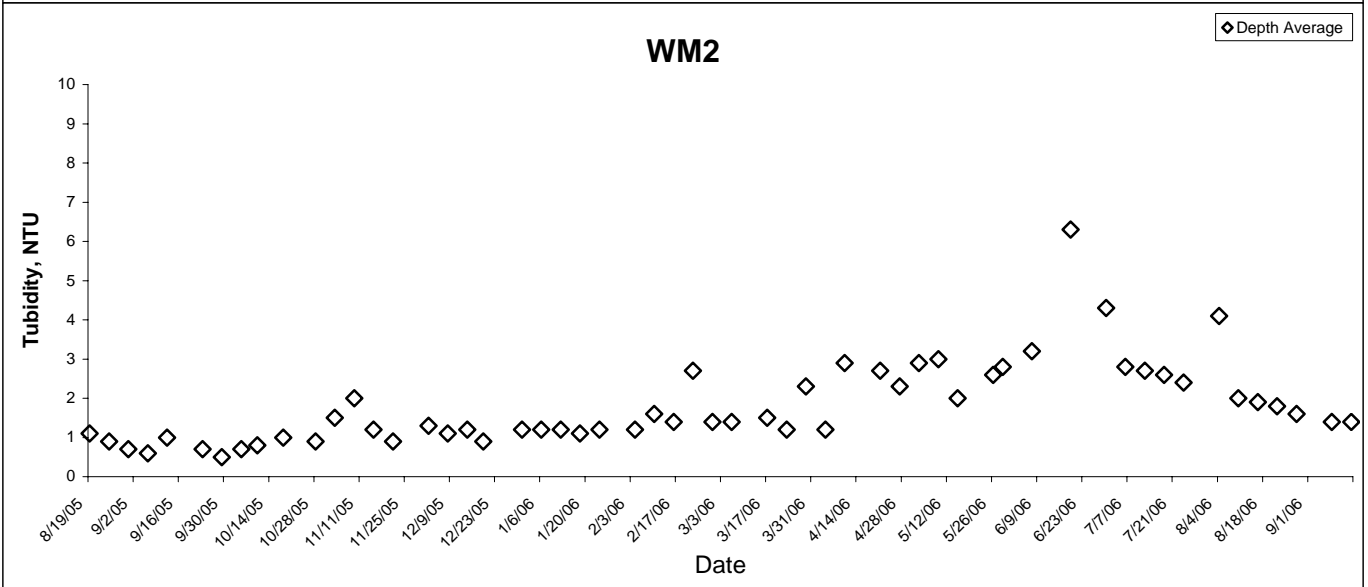
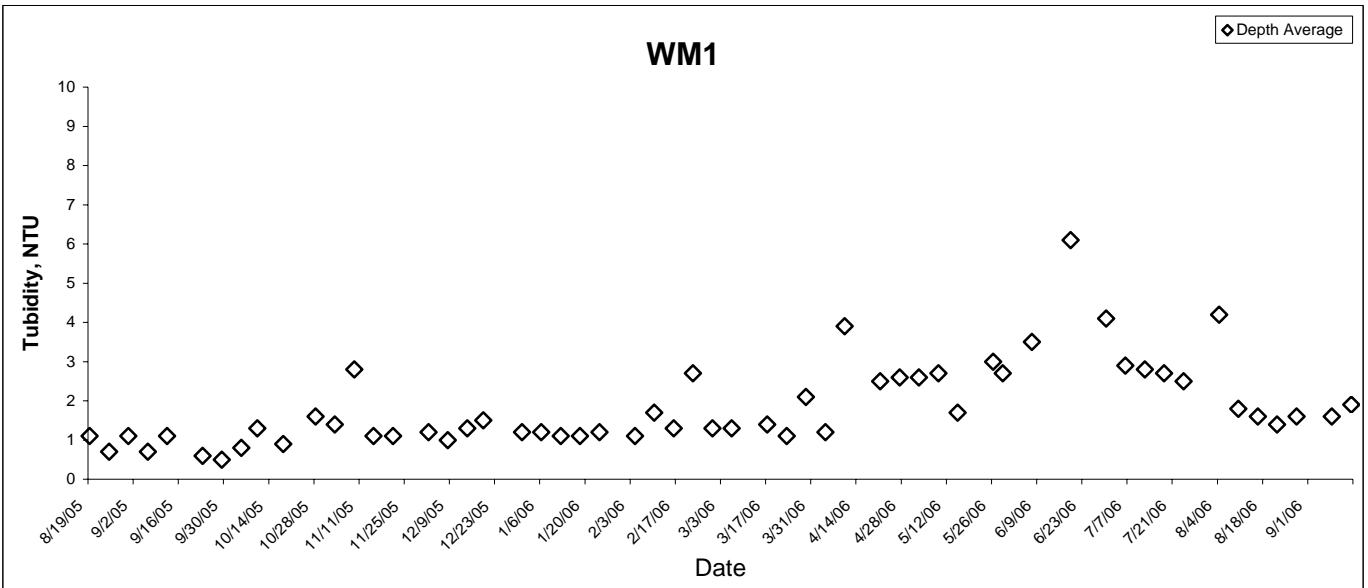
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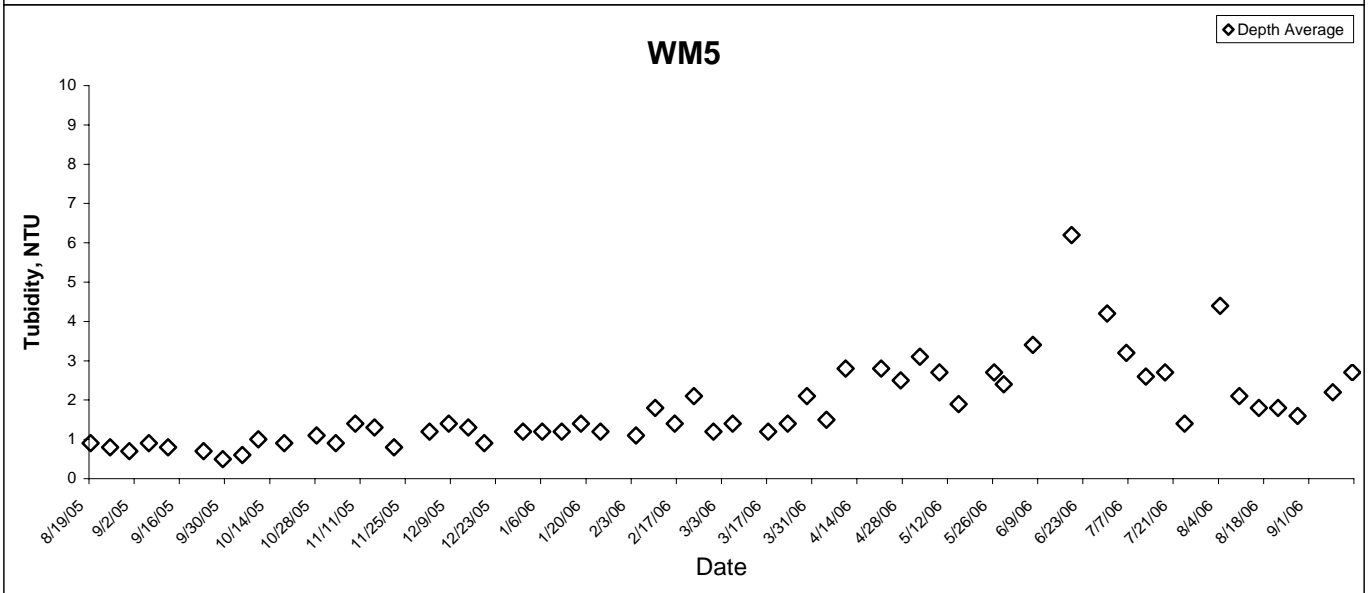
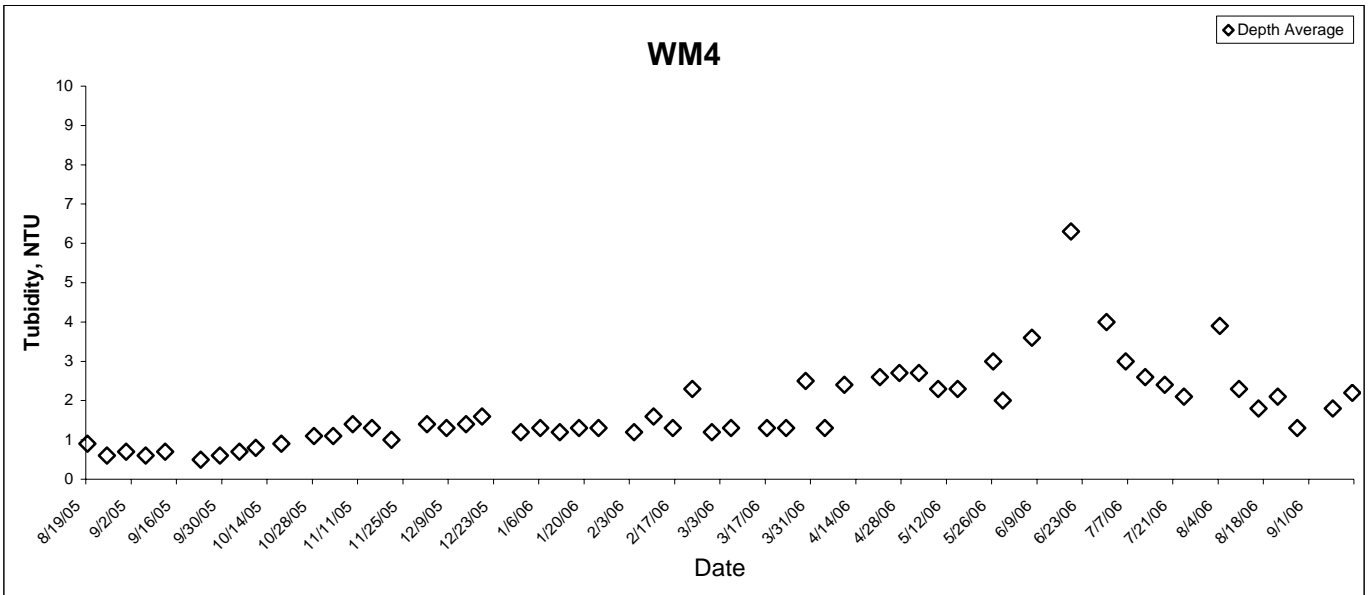
pH



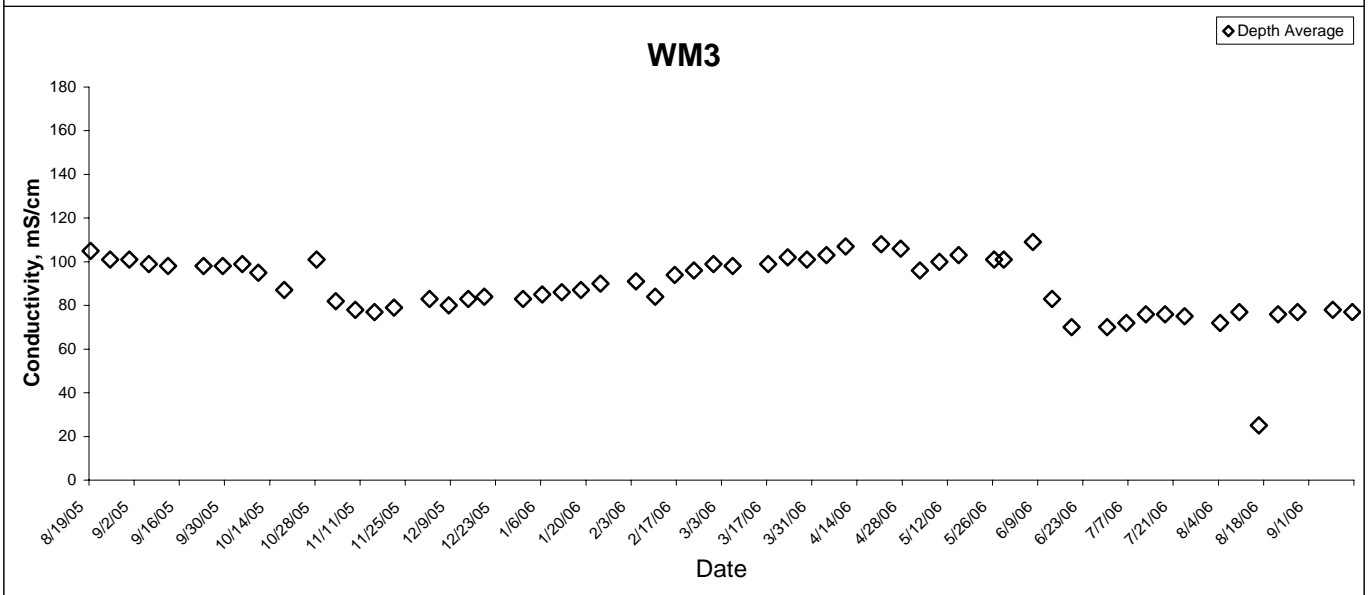
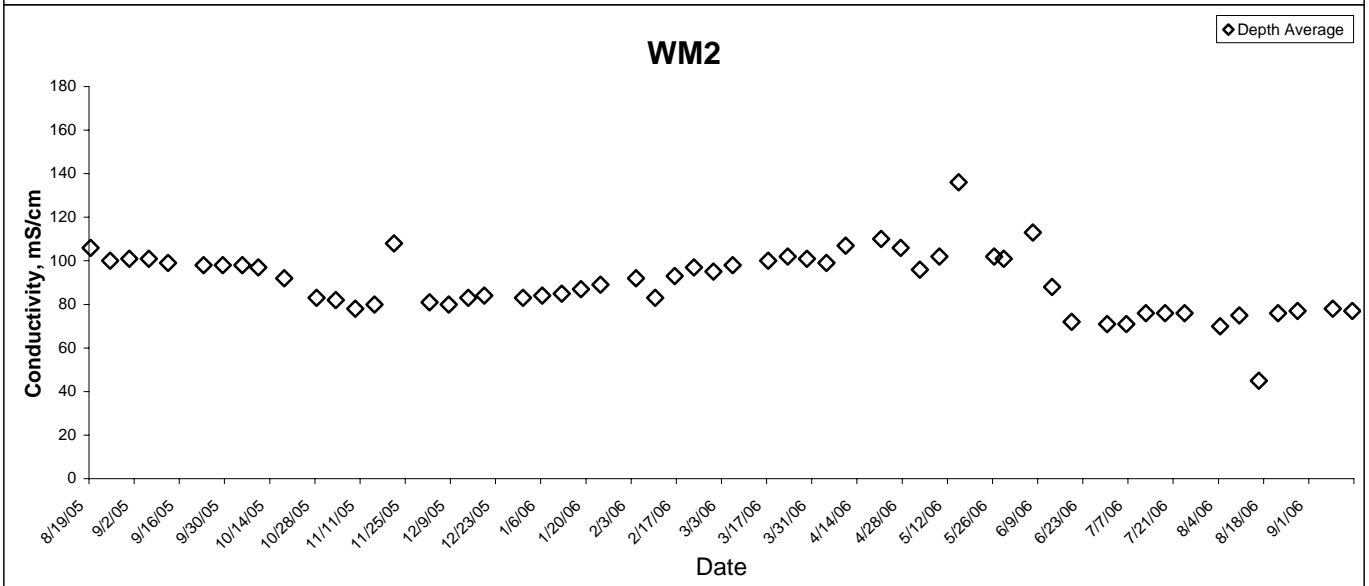
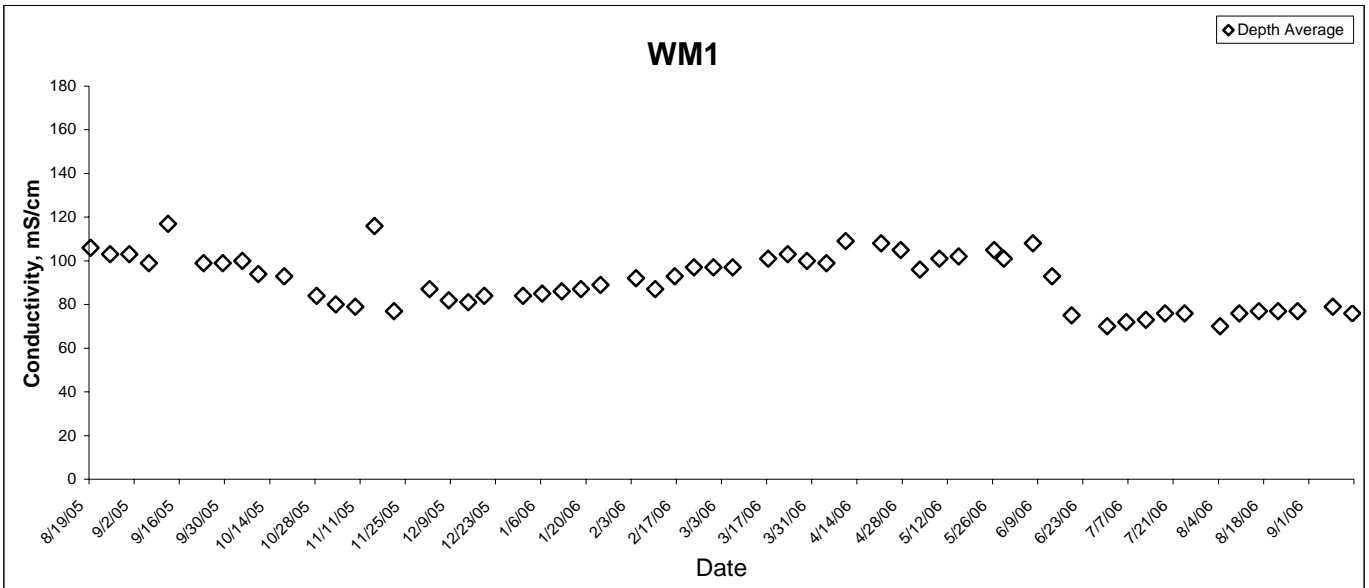
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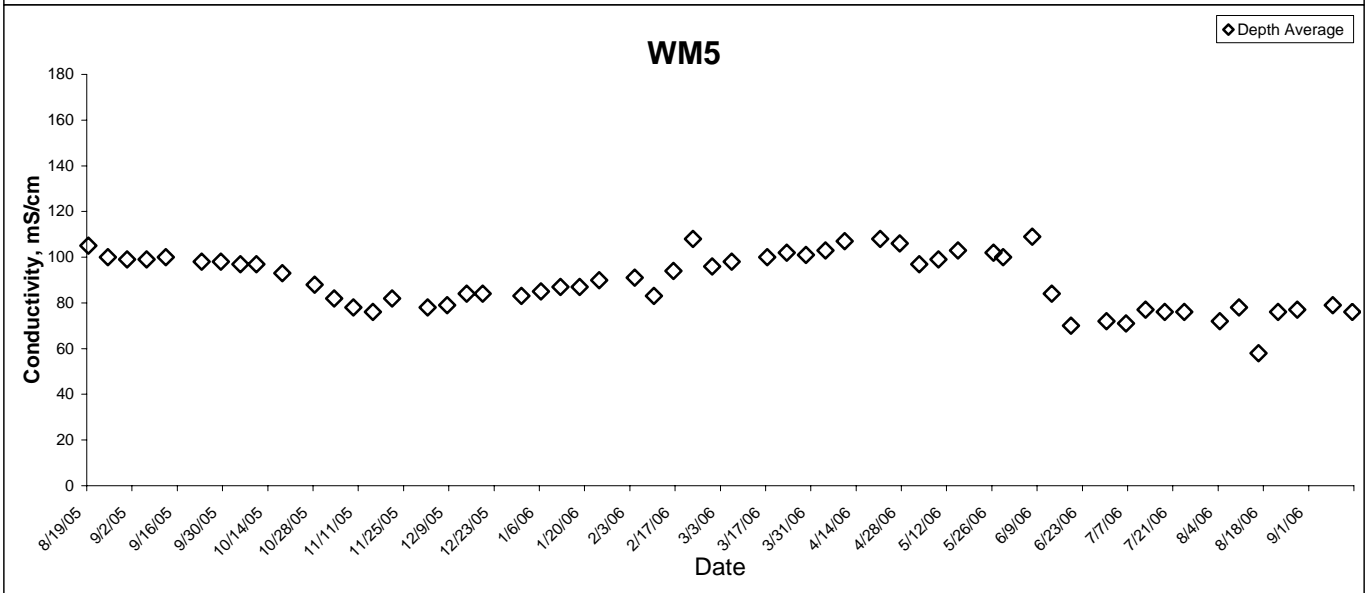
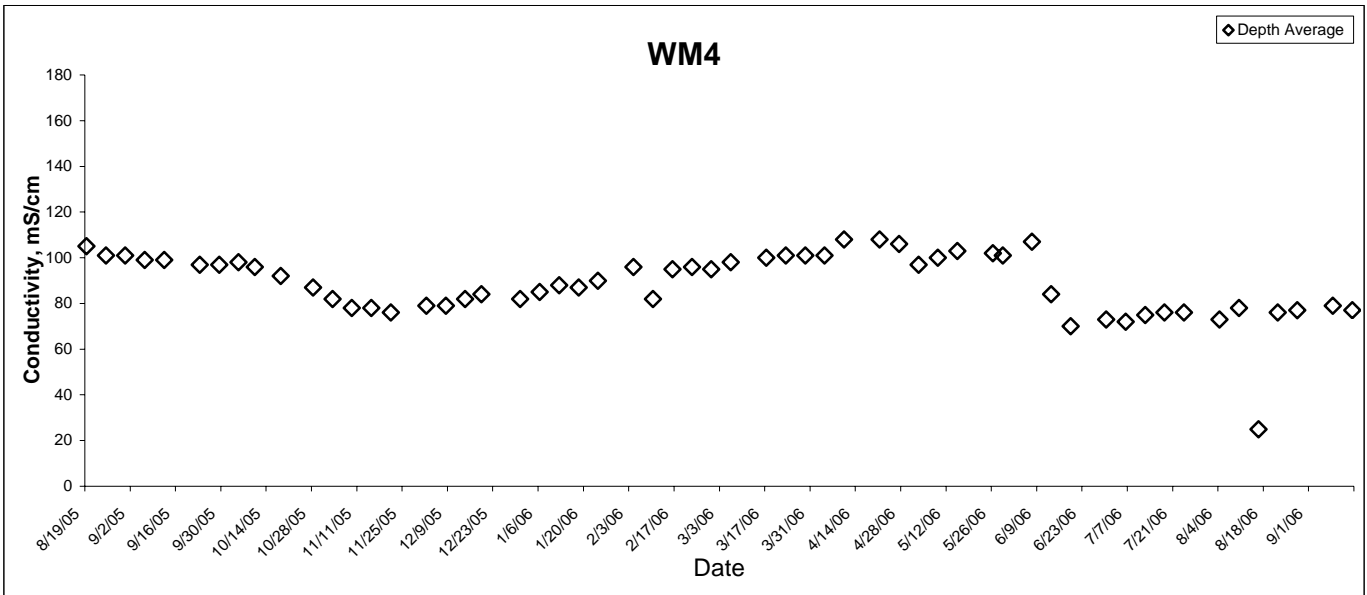
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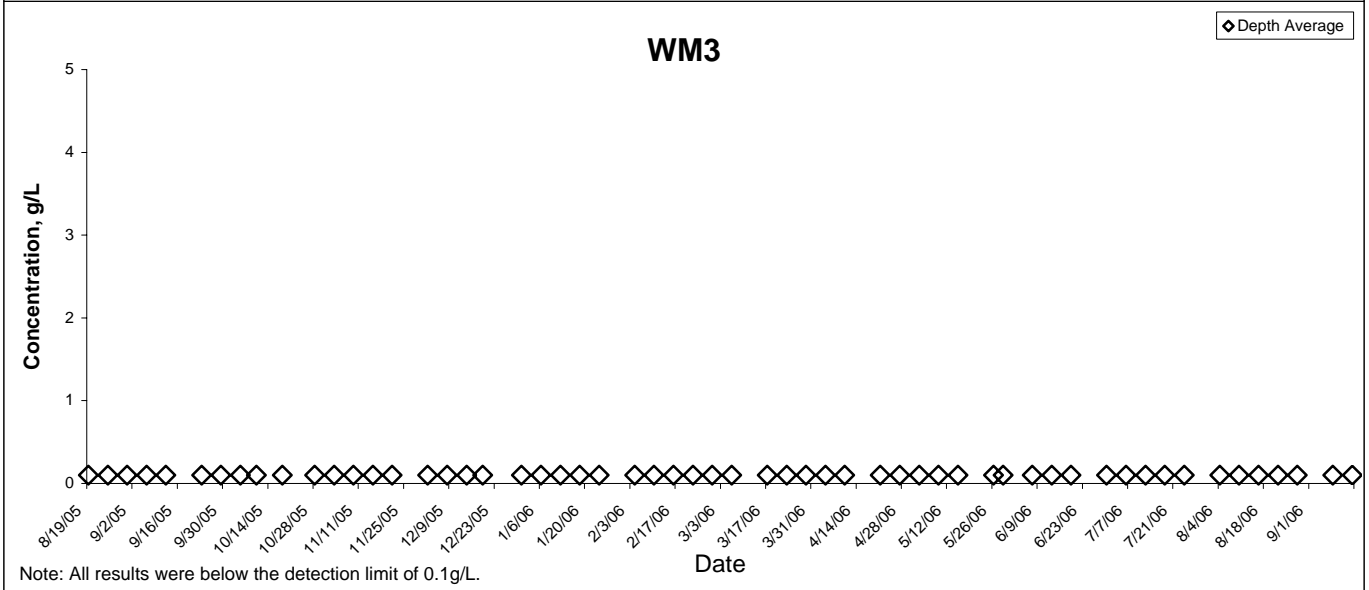
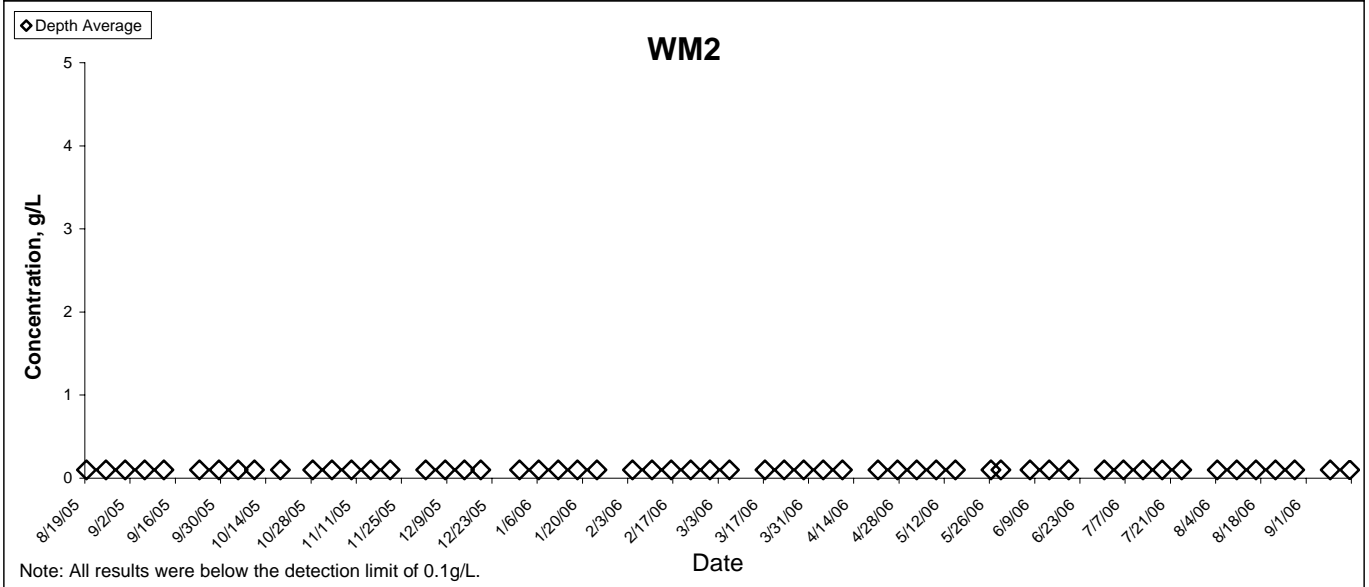
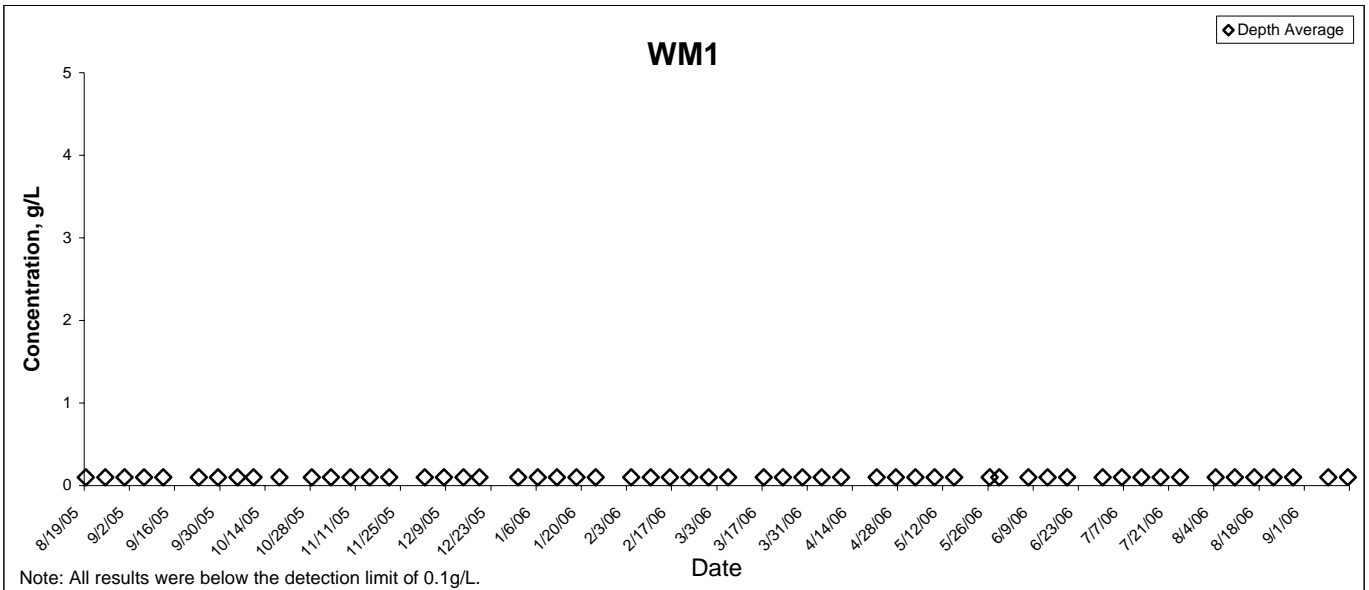
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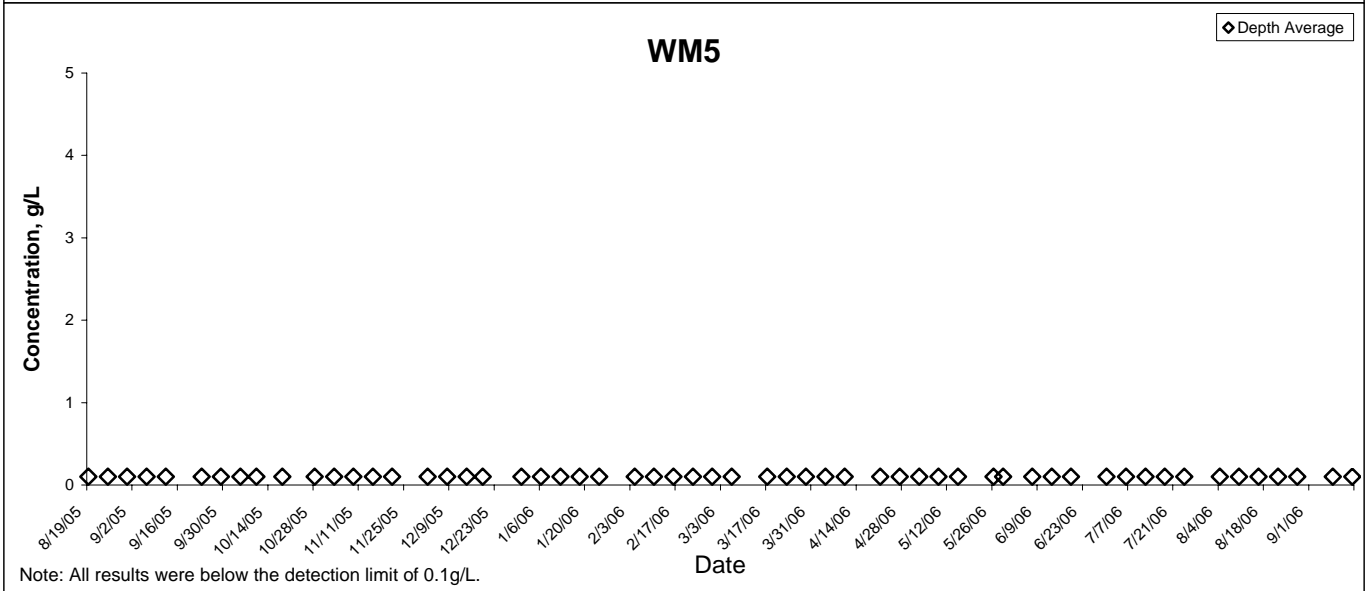
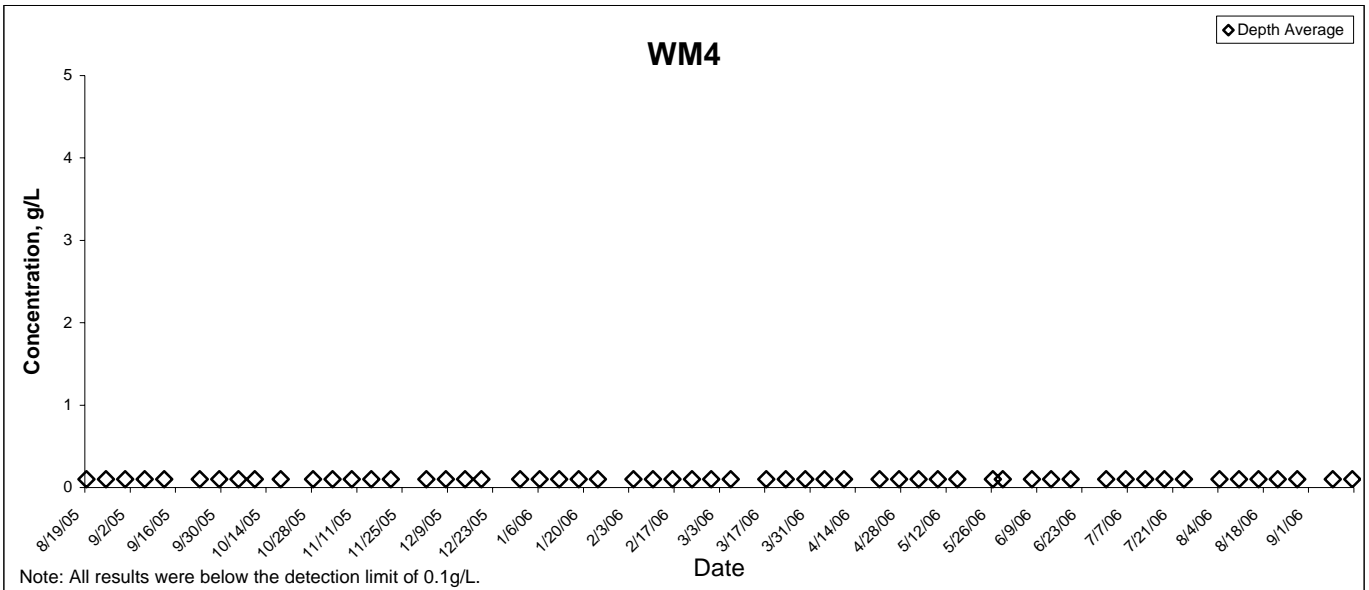
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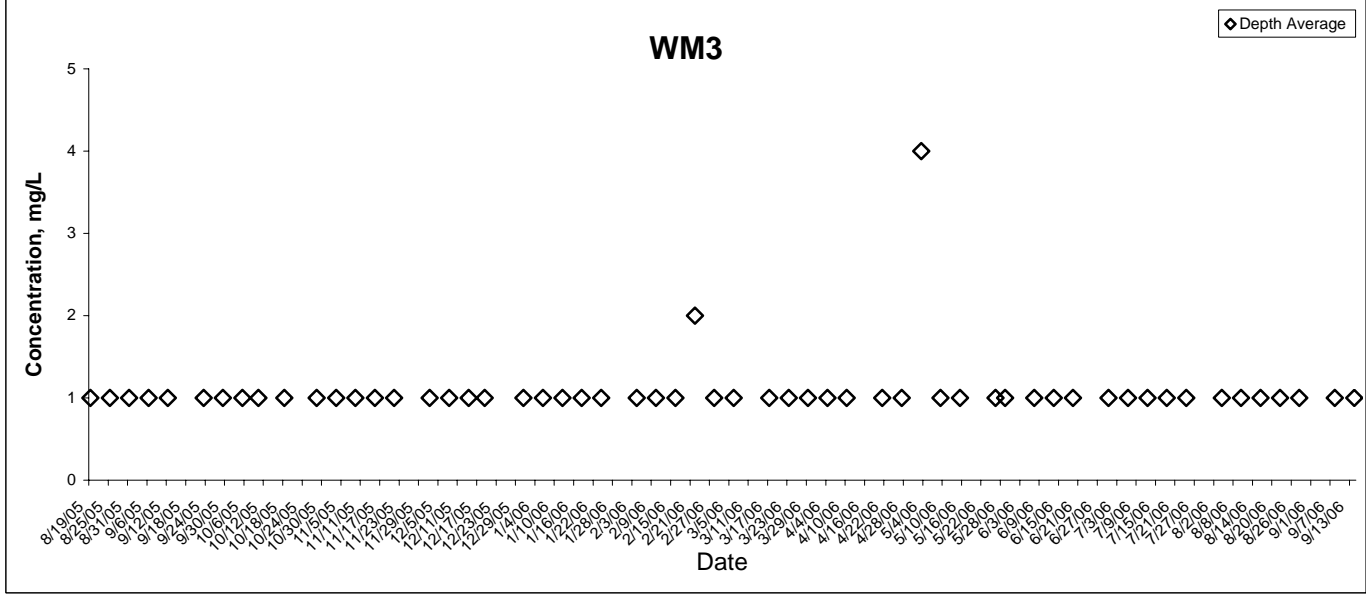
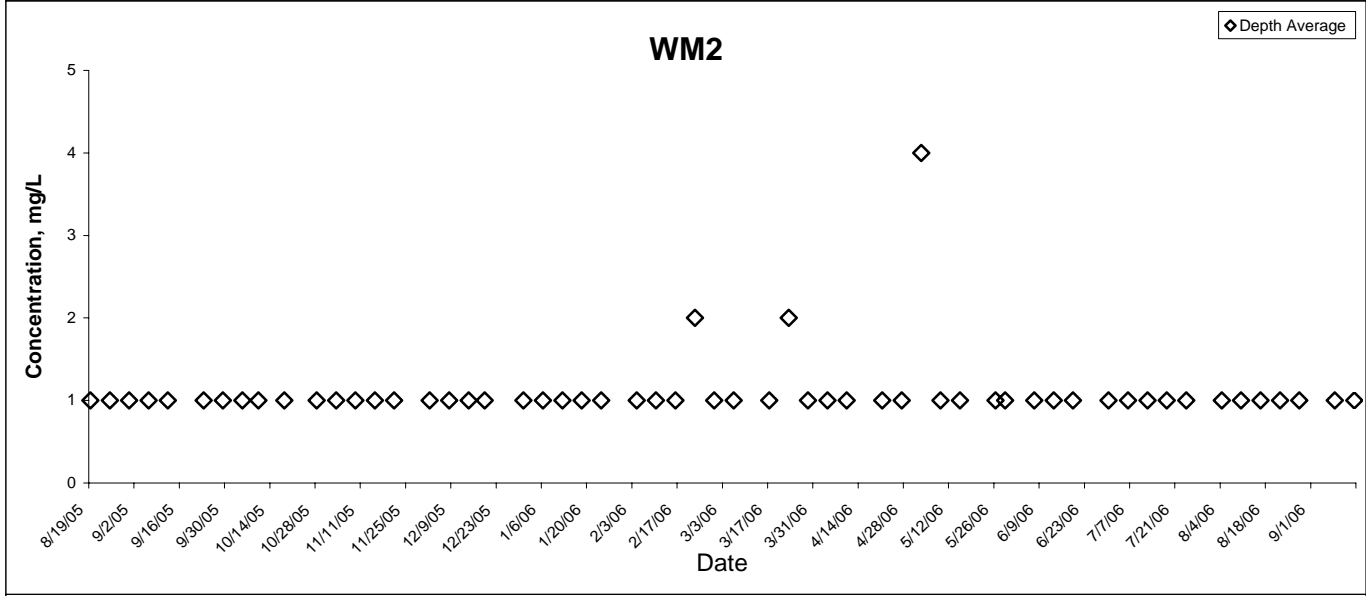
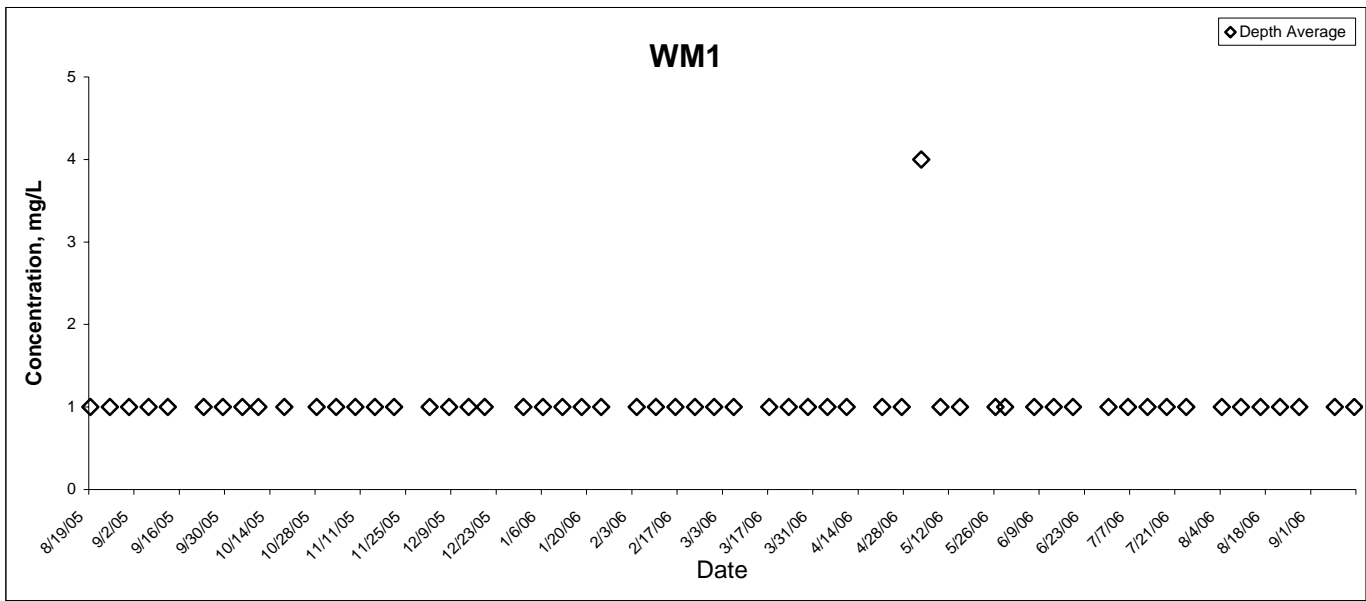
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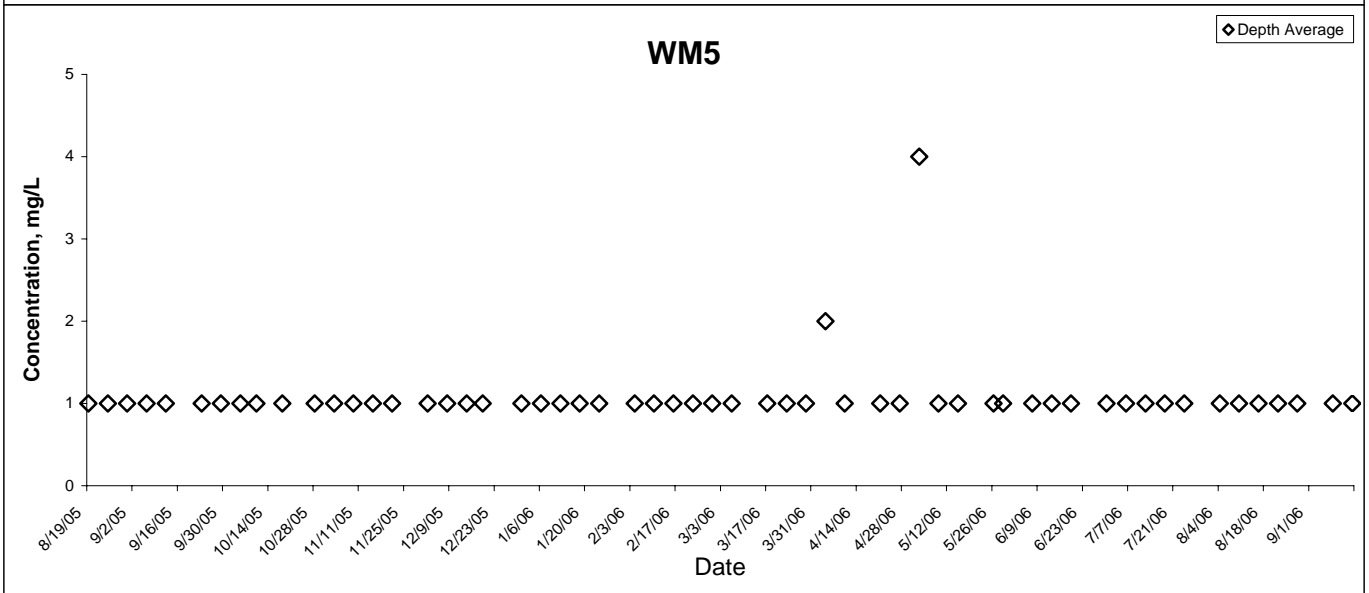
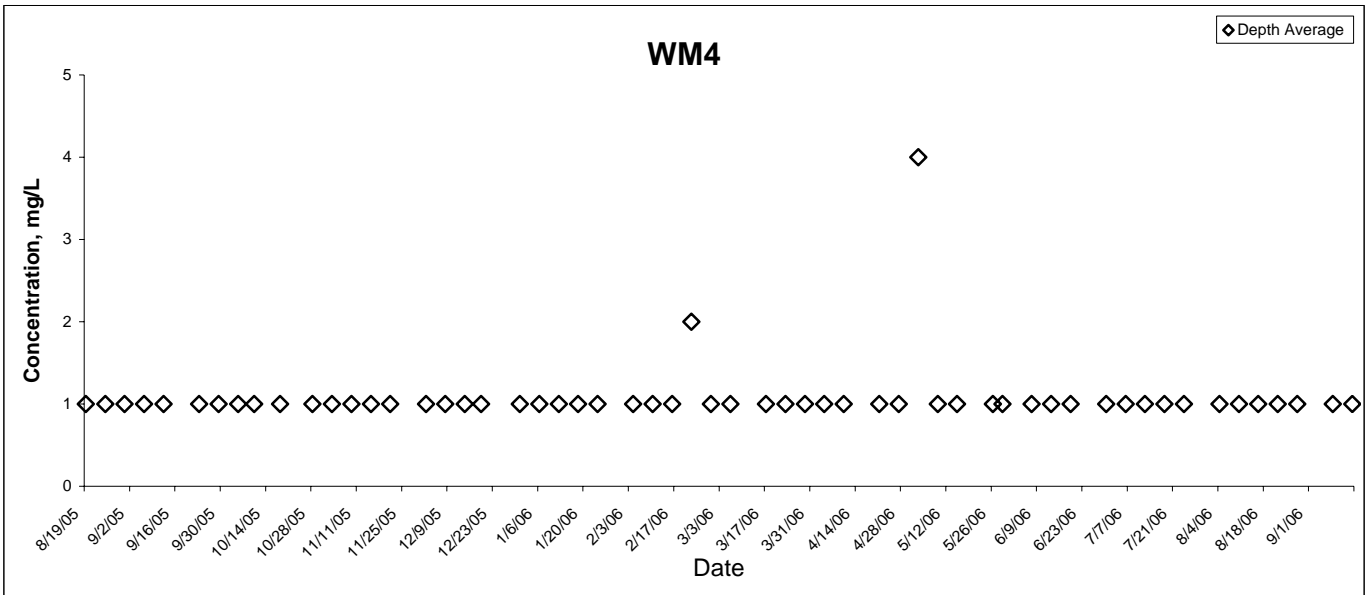
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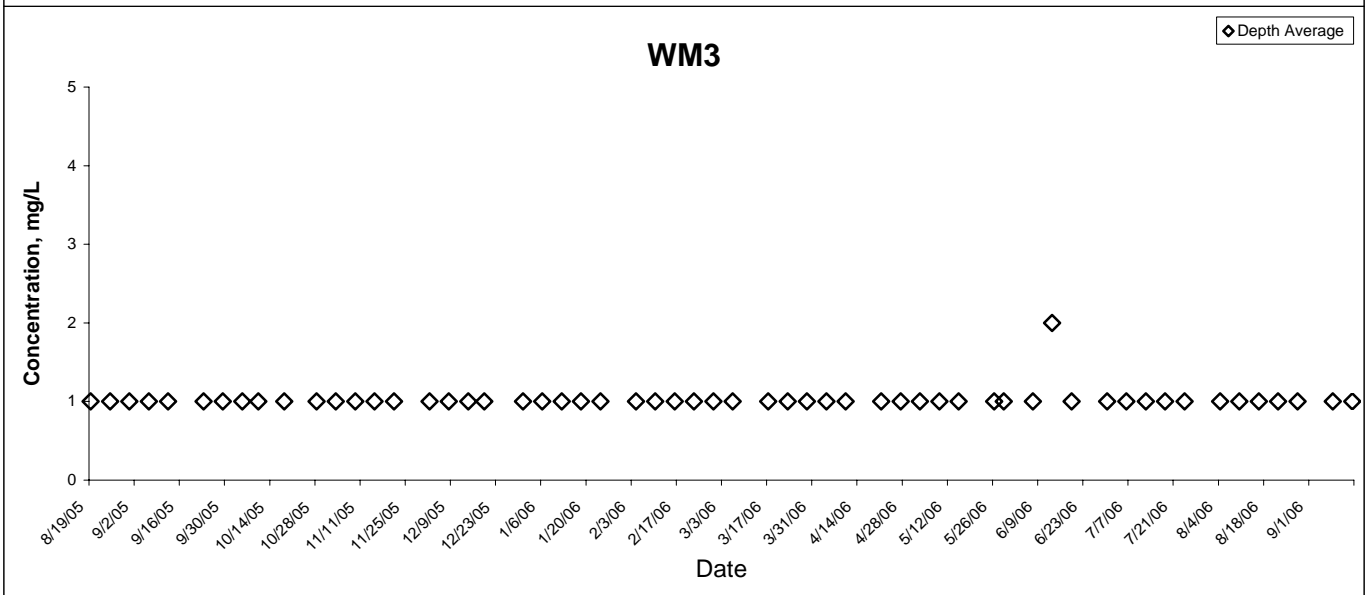
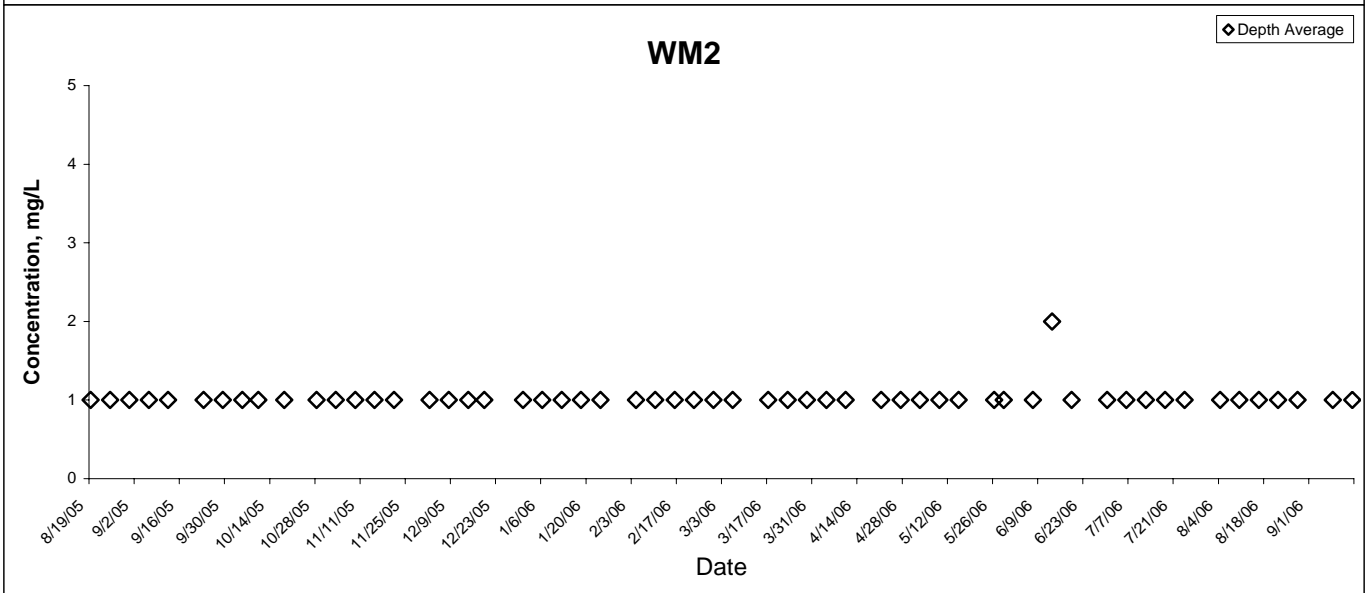
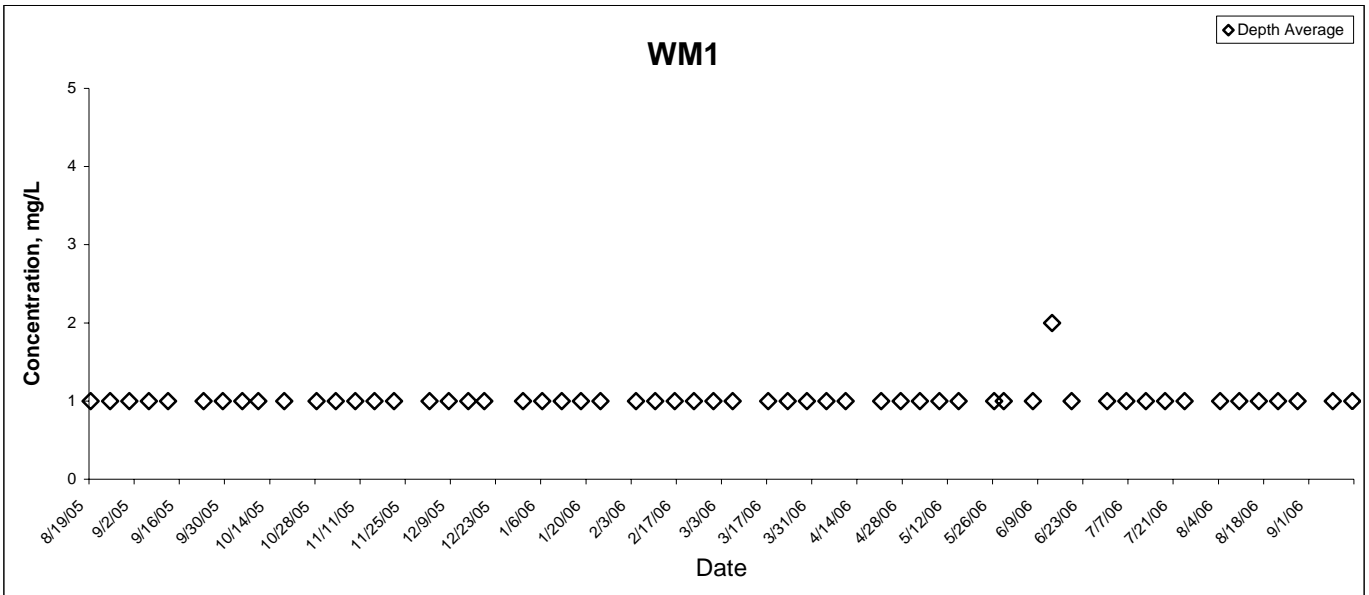
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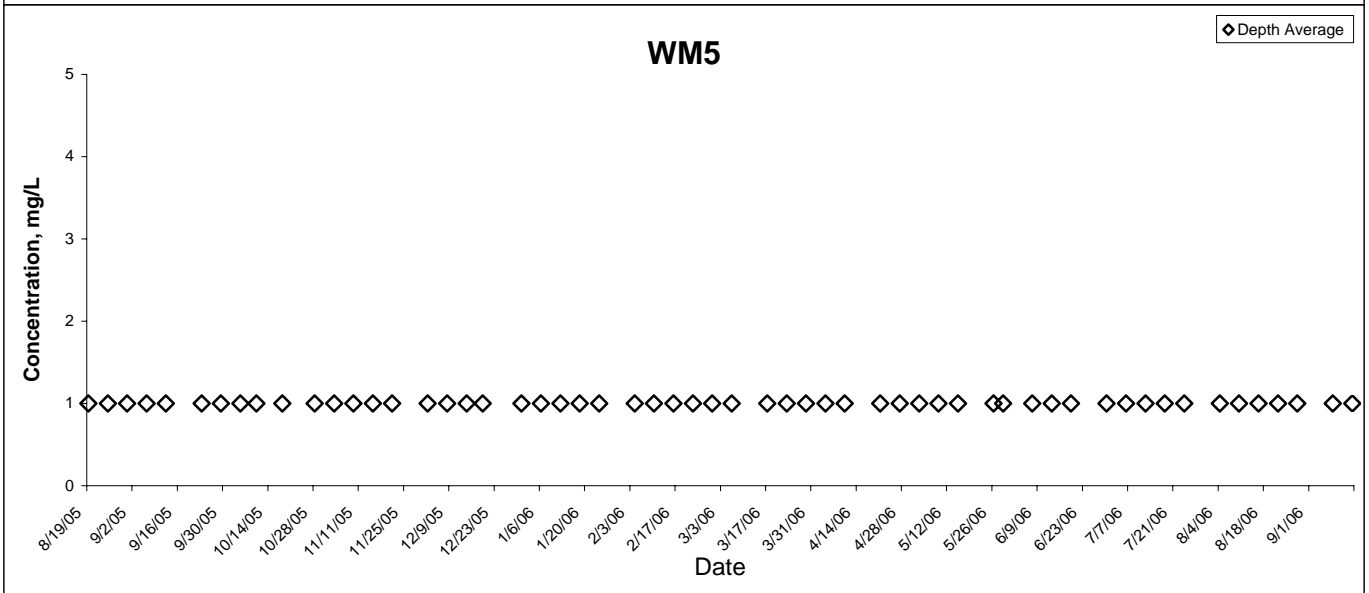
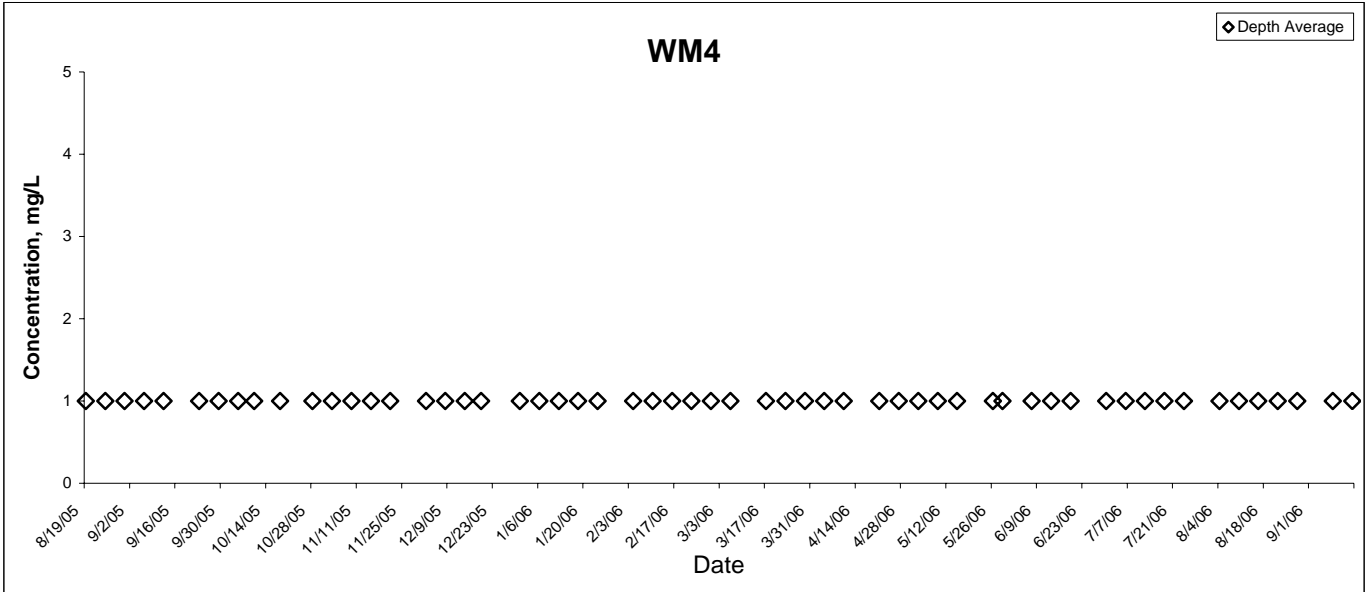
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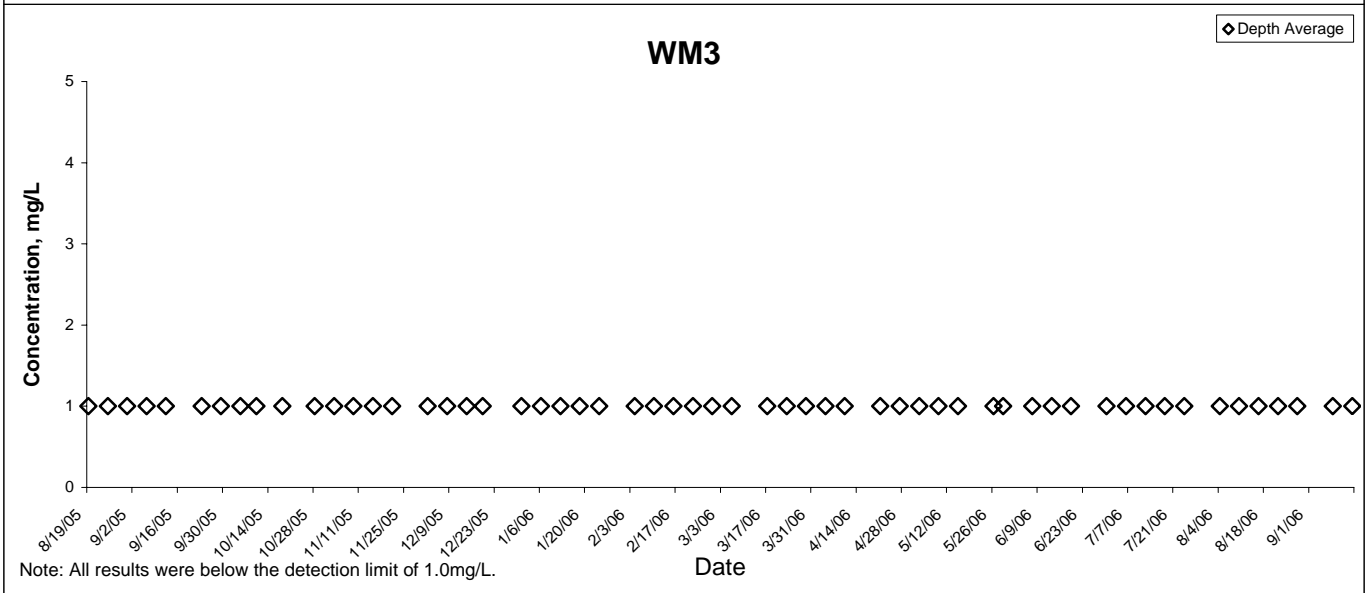
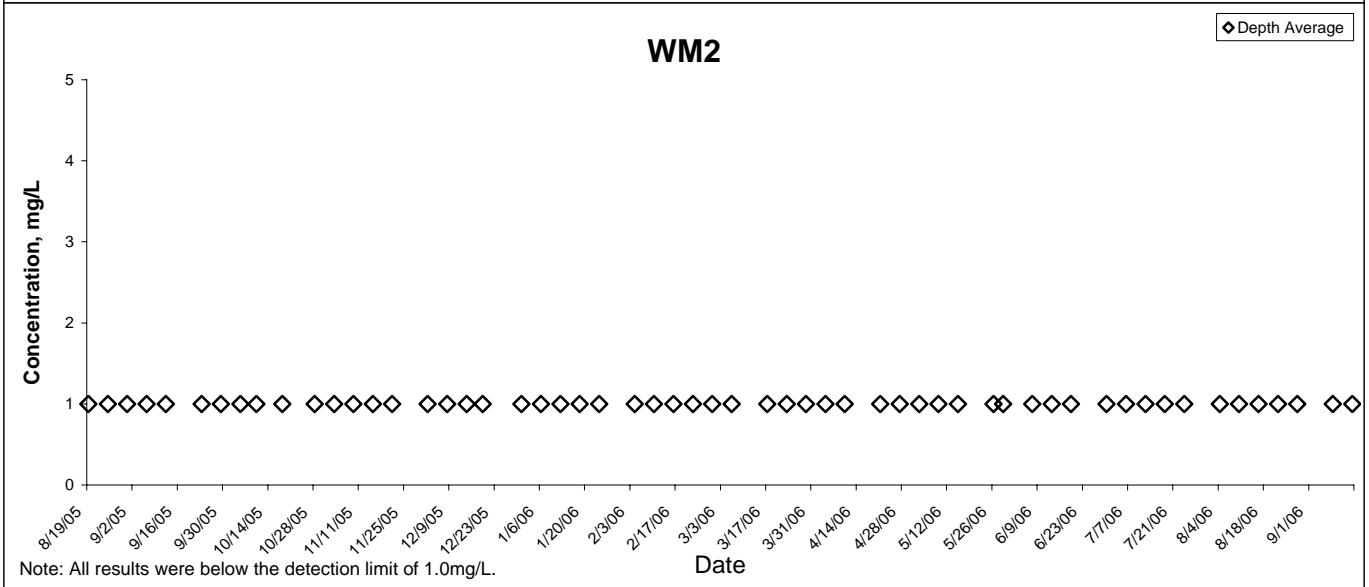
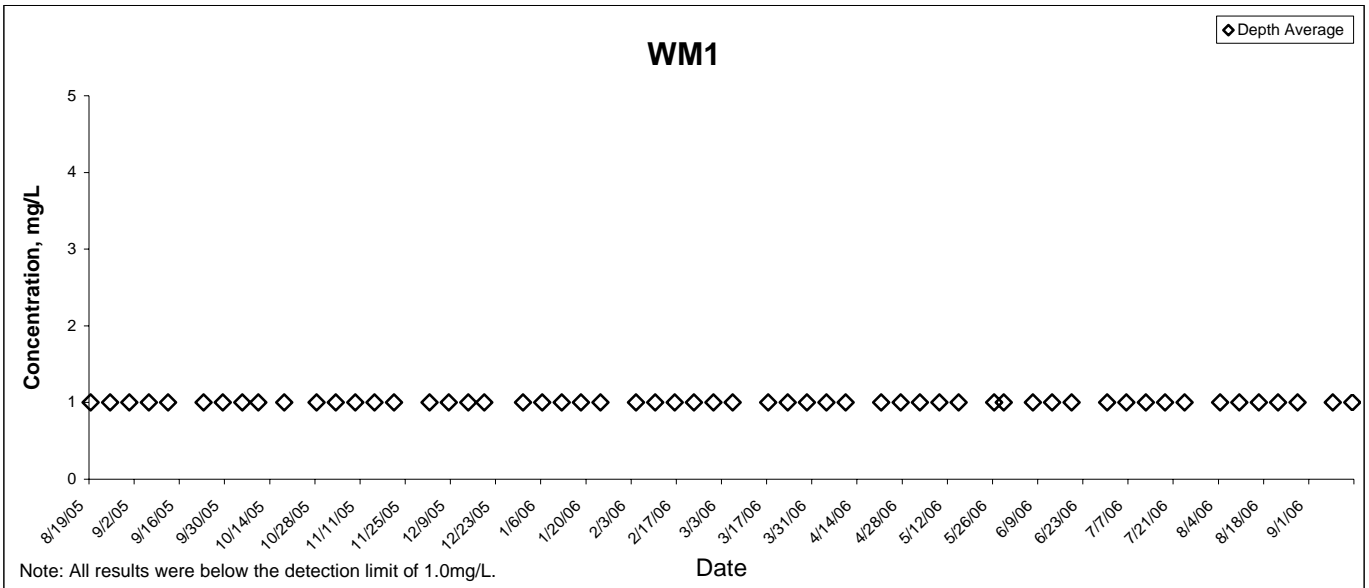
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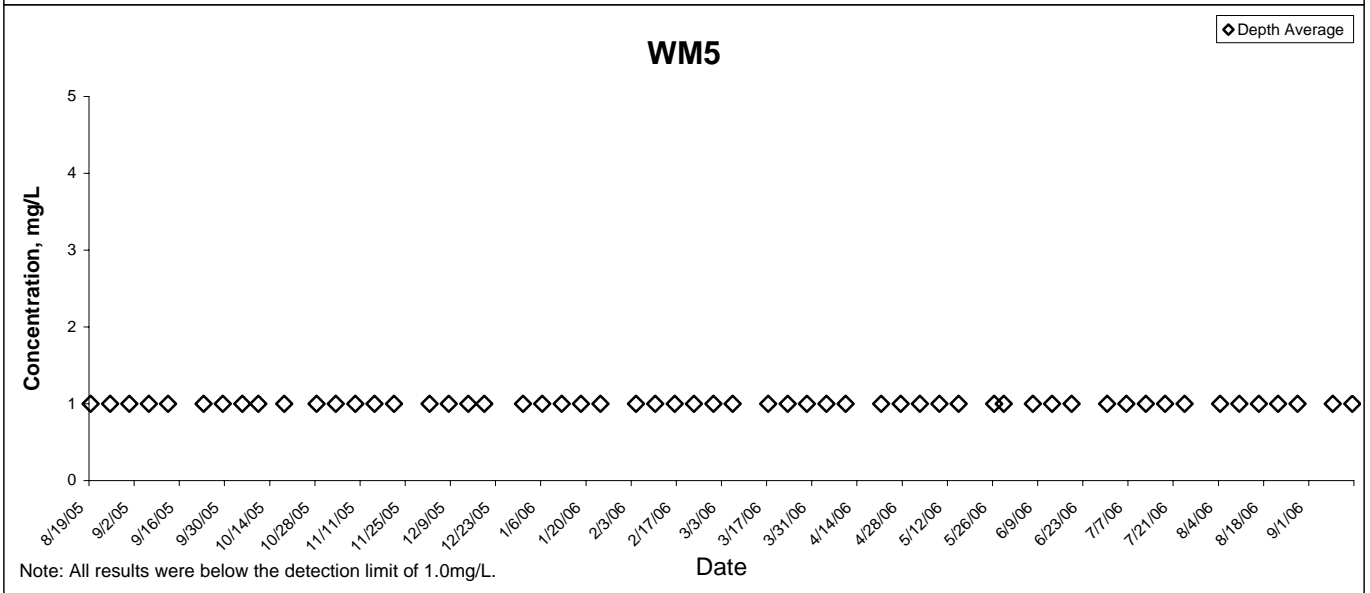
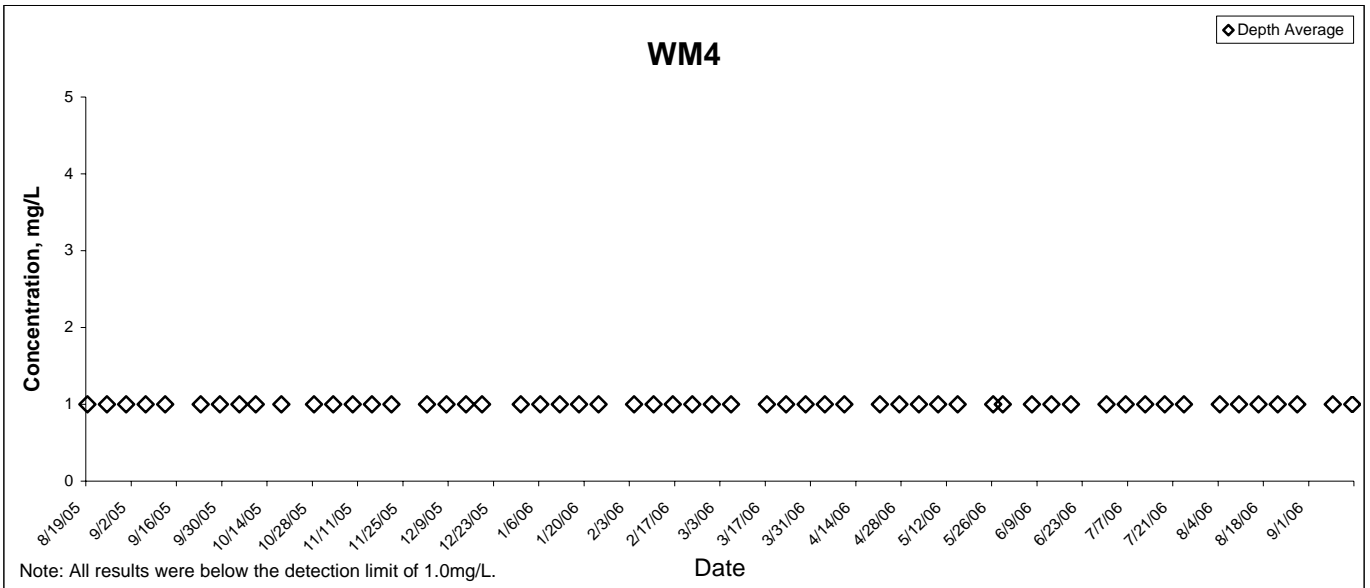
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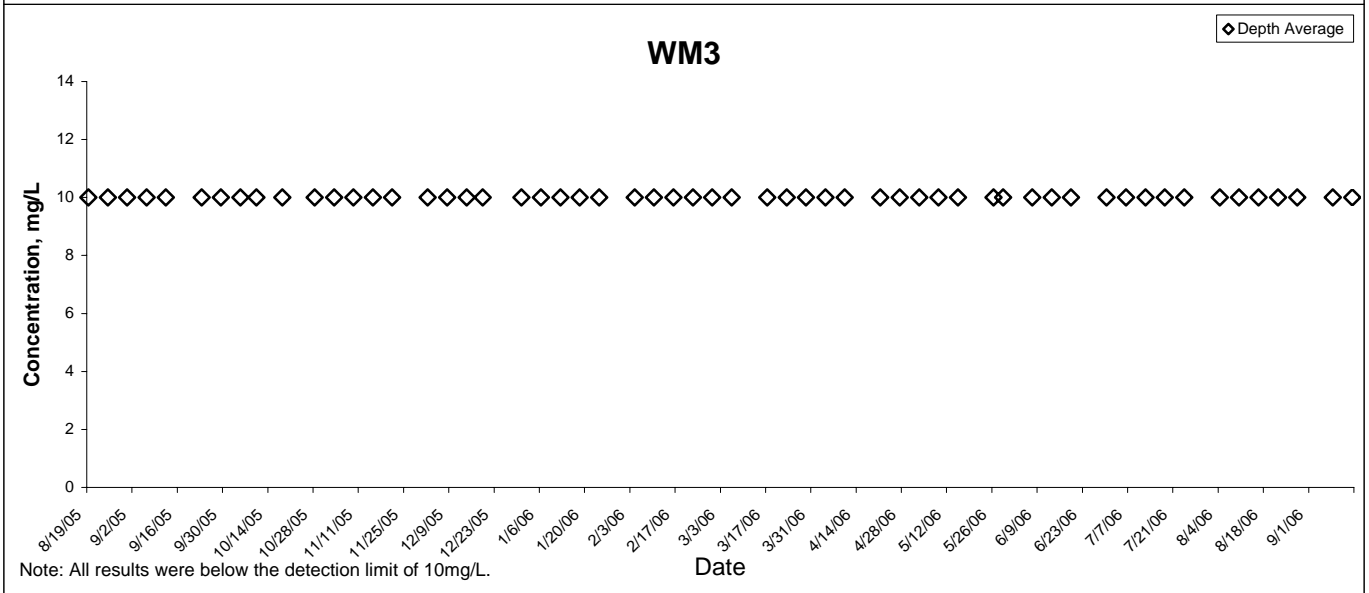
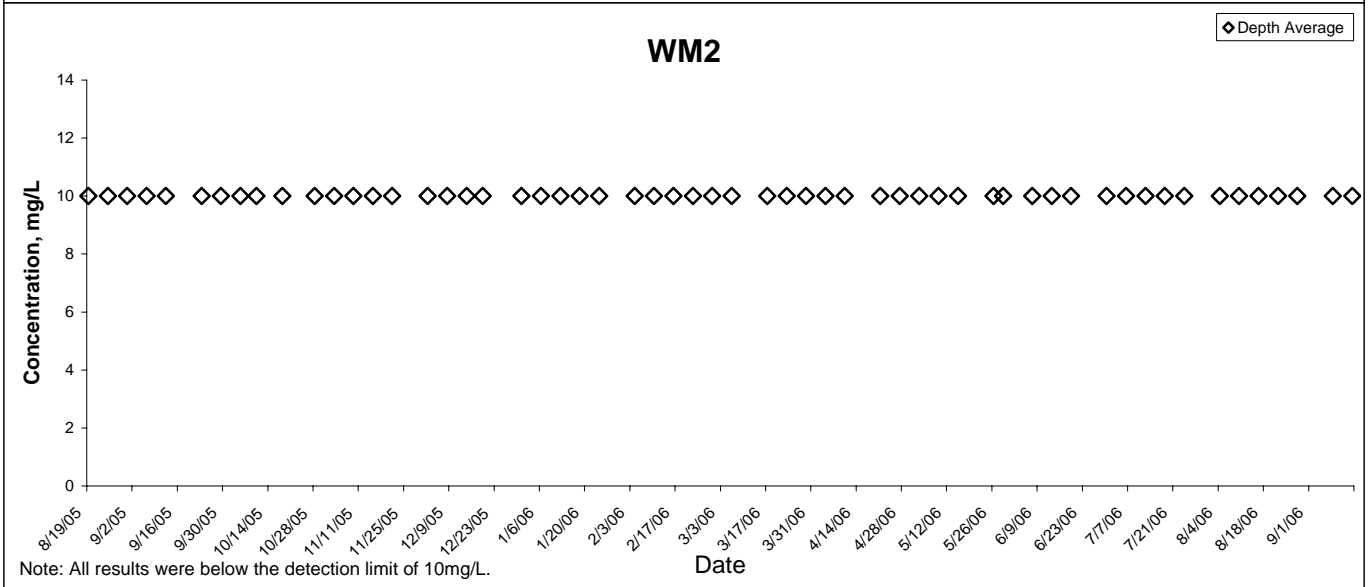
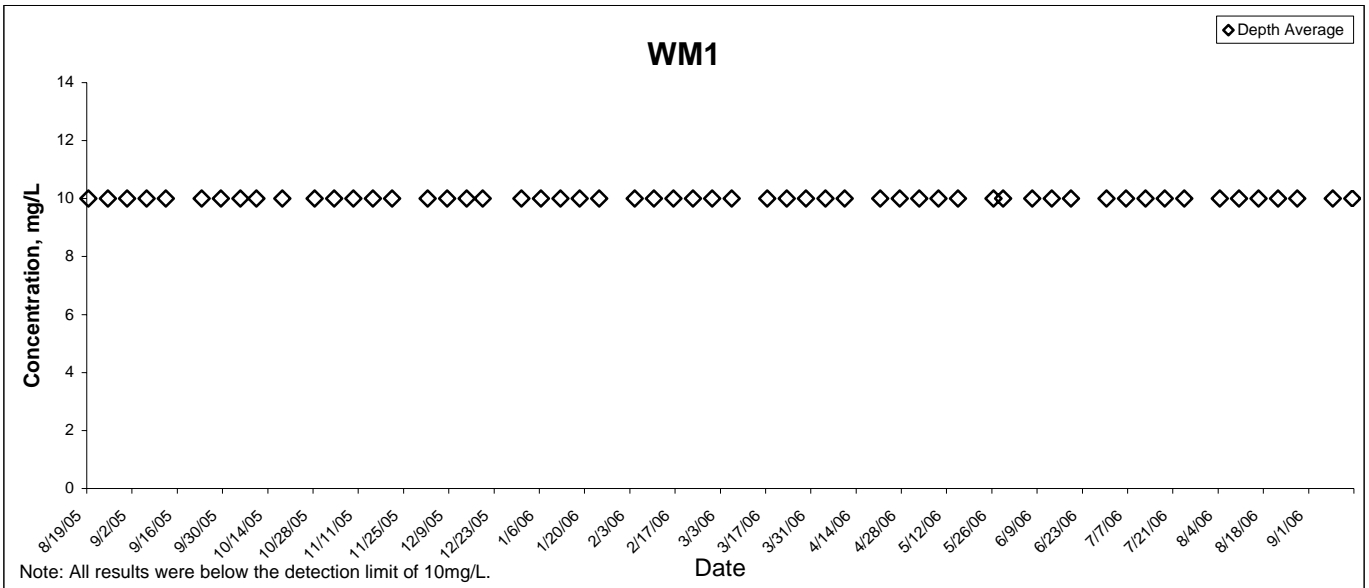
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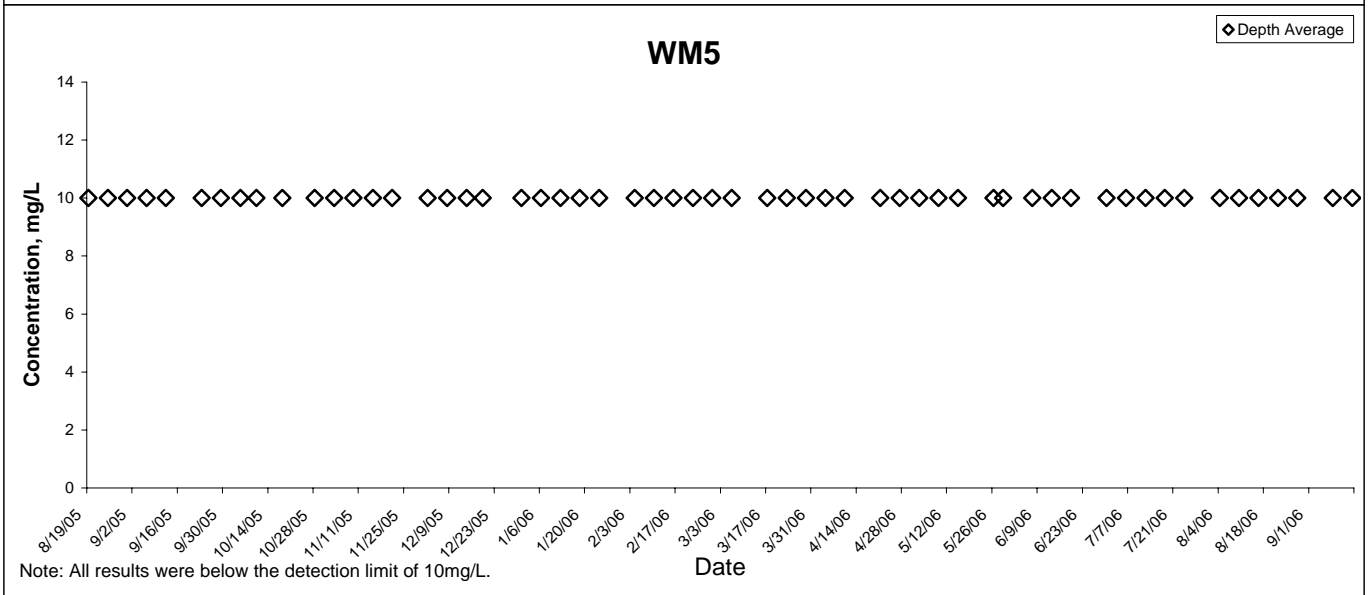
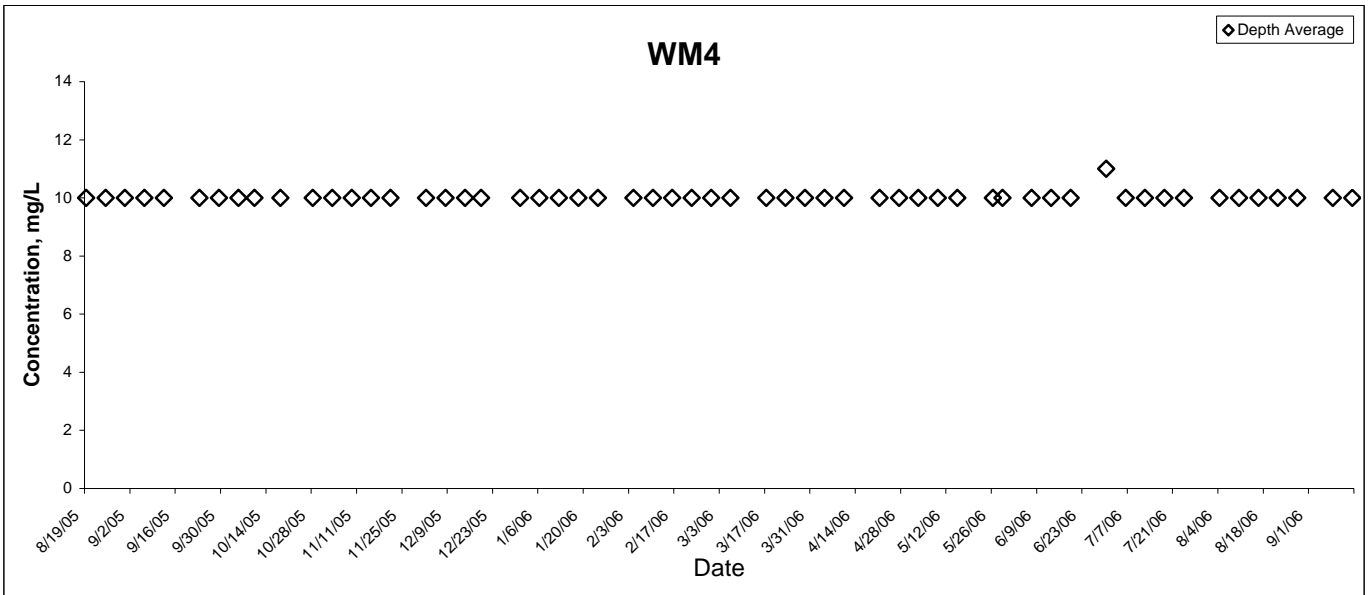
Lead



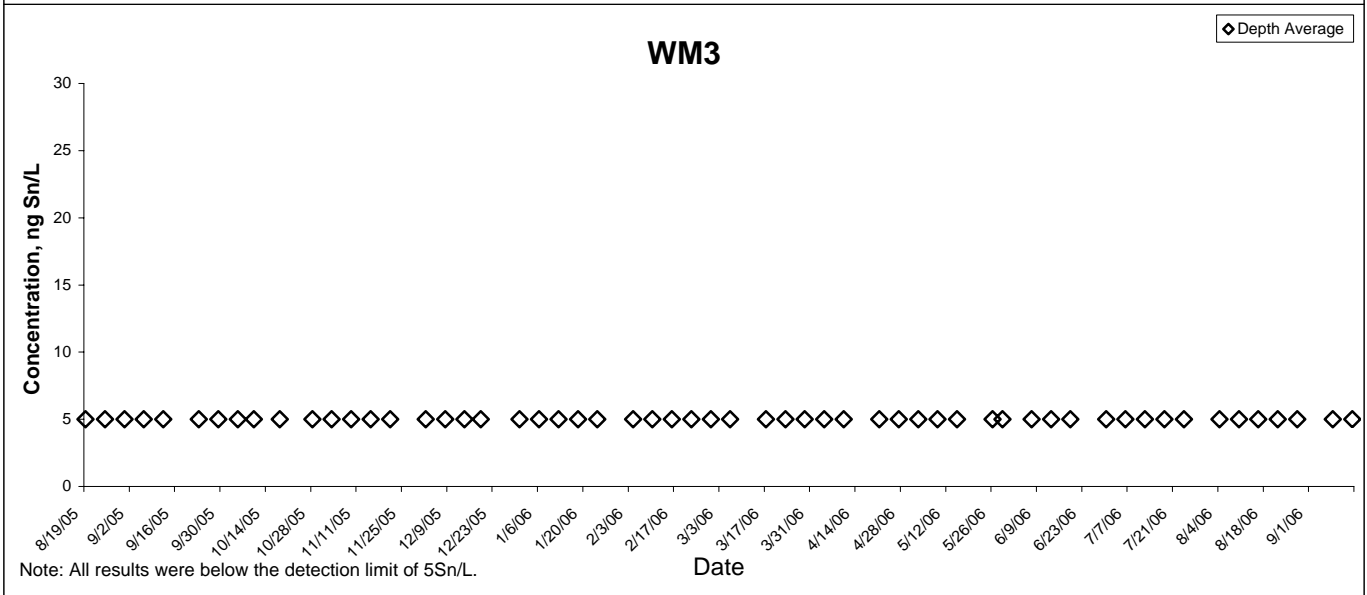
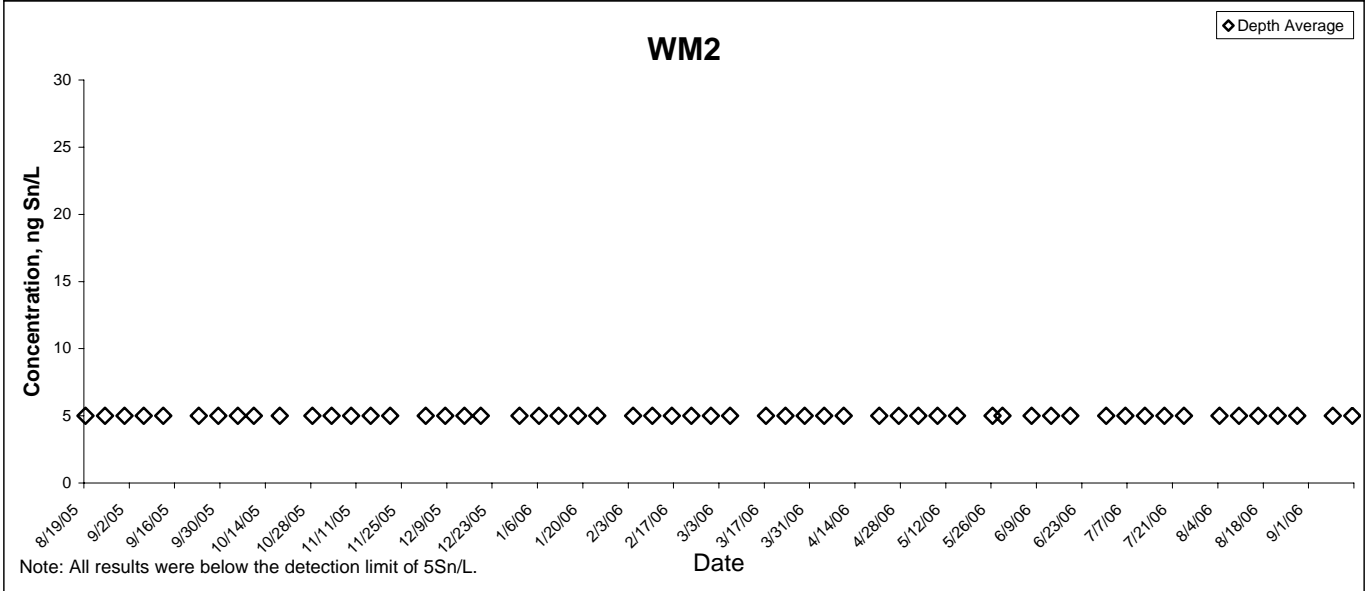
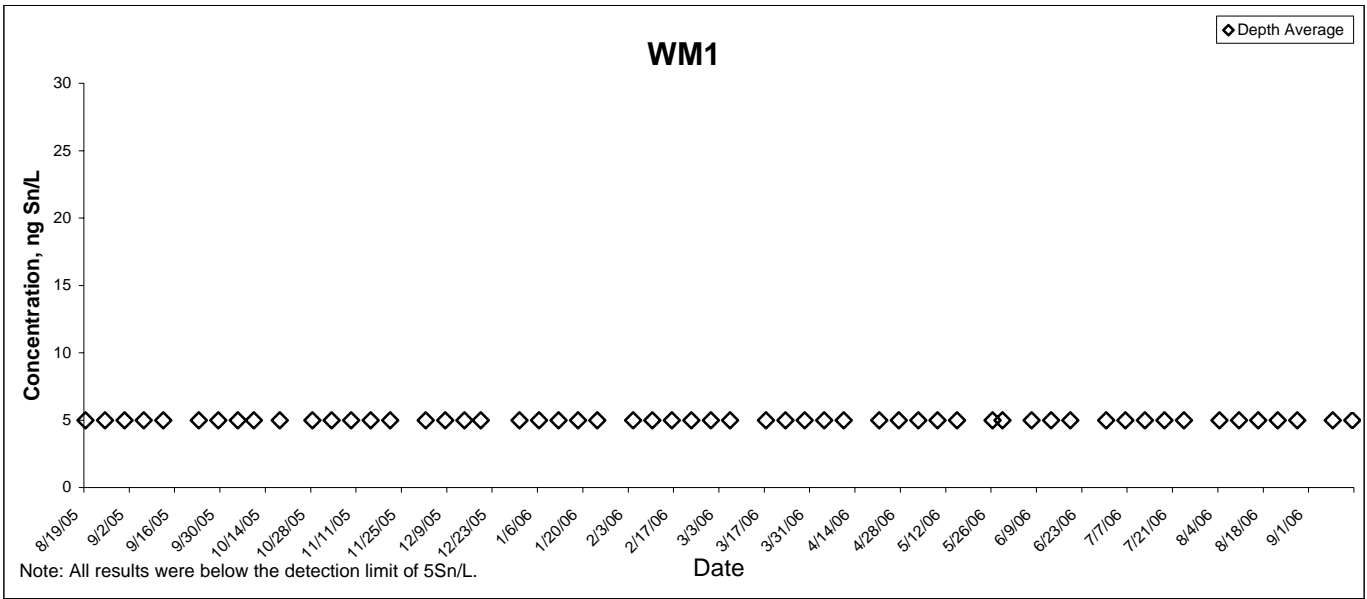
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Zinc



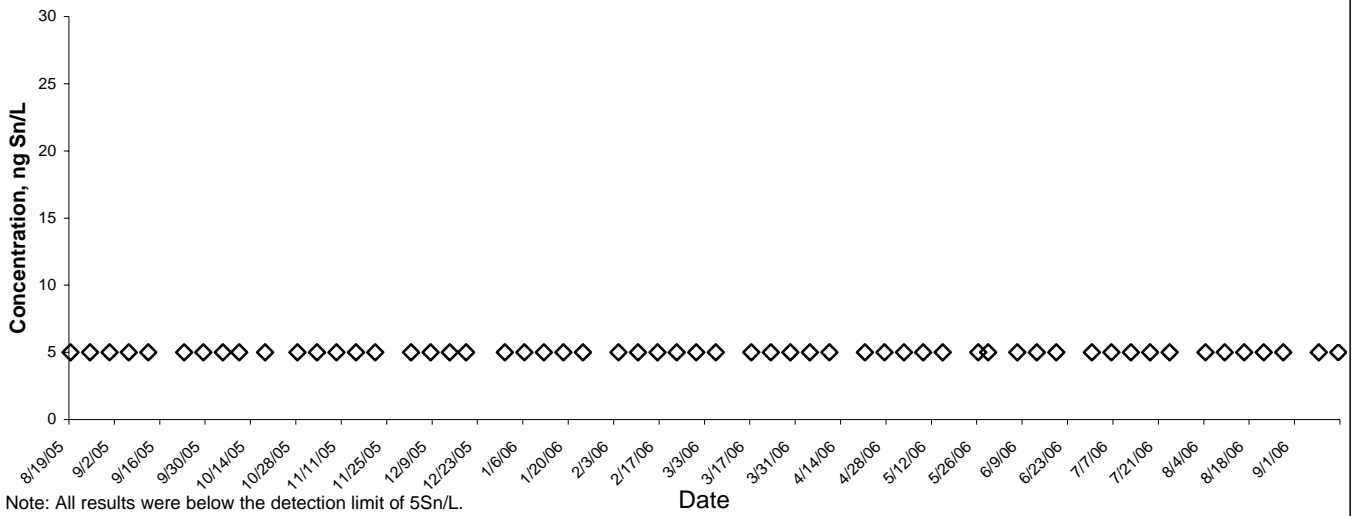
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TBT

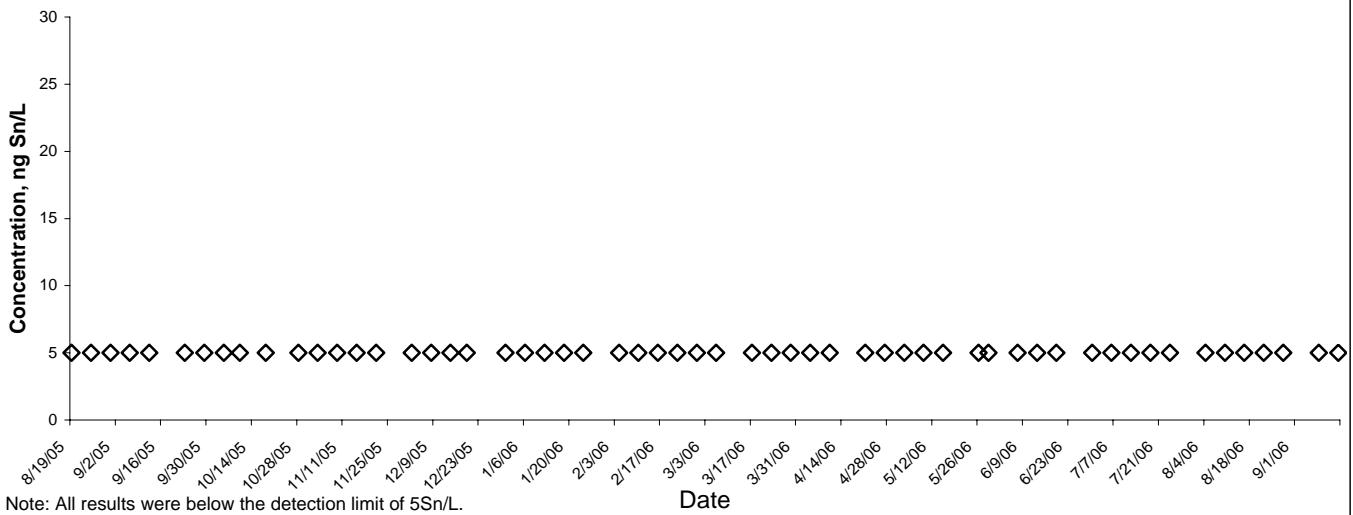
WM4

◆ Depth Average

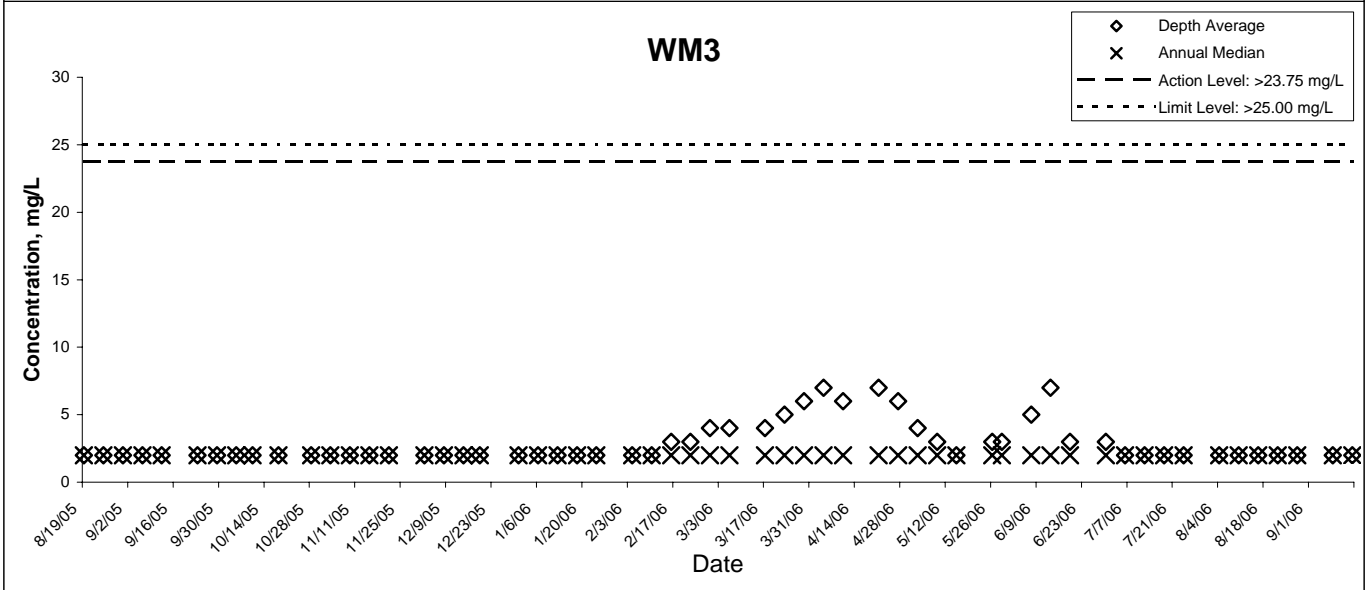
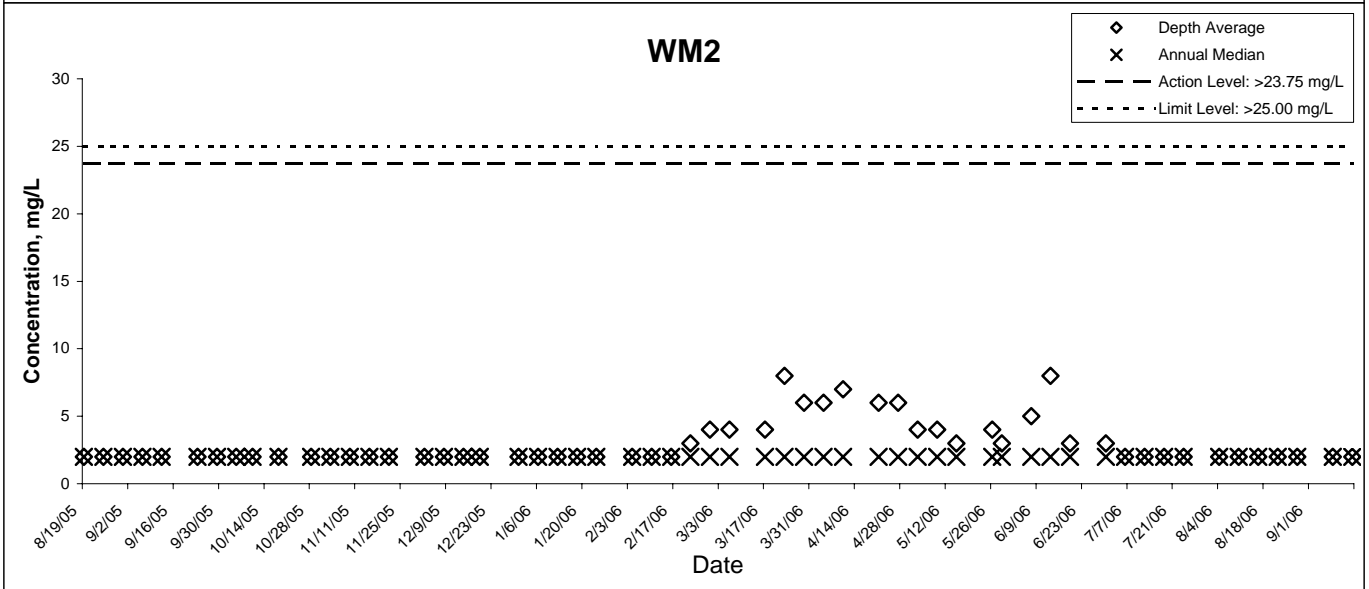
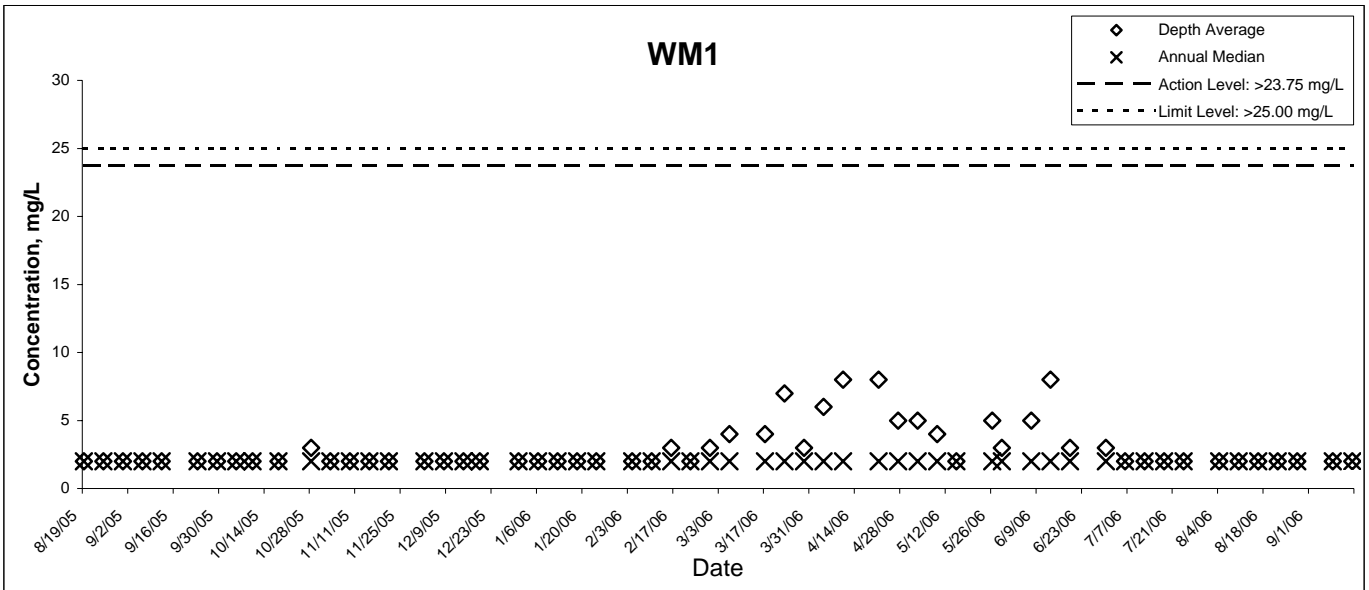


WM5

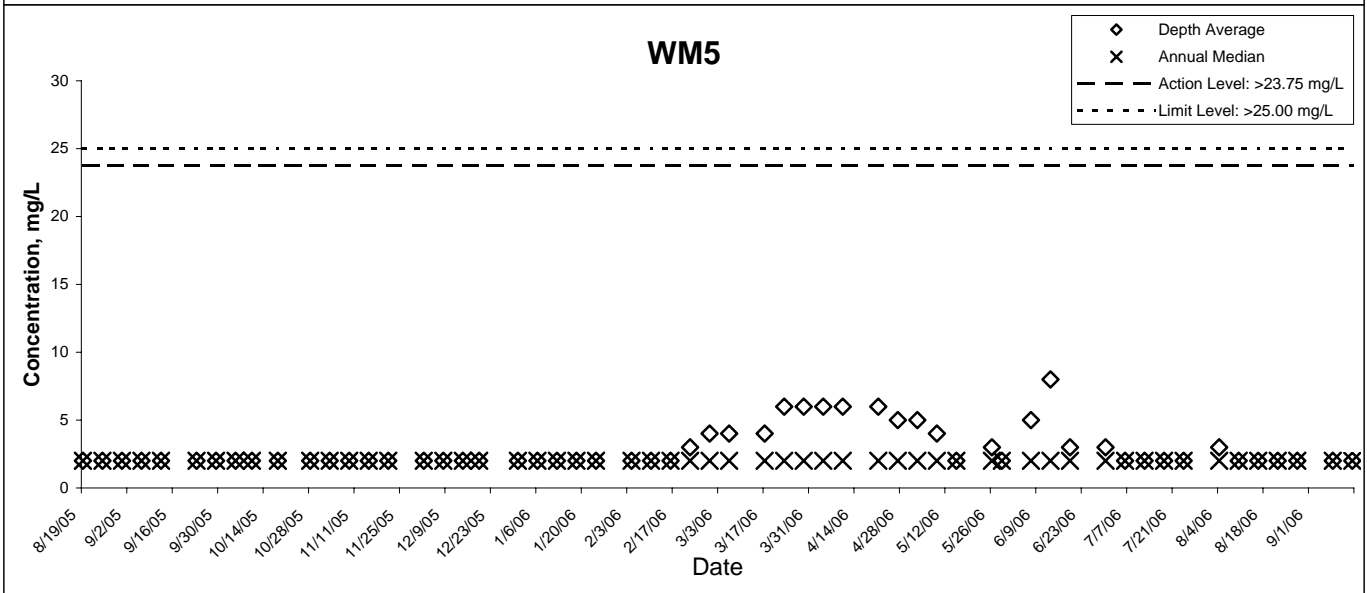
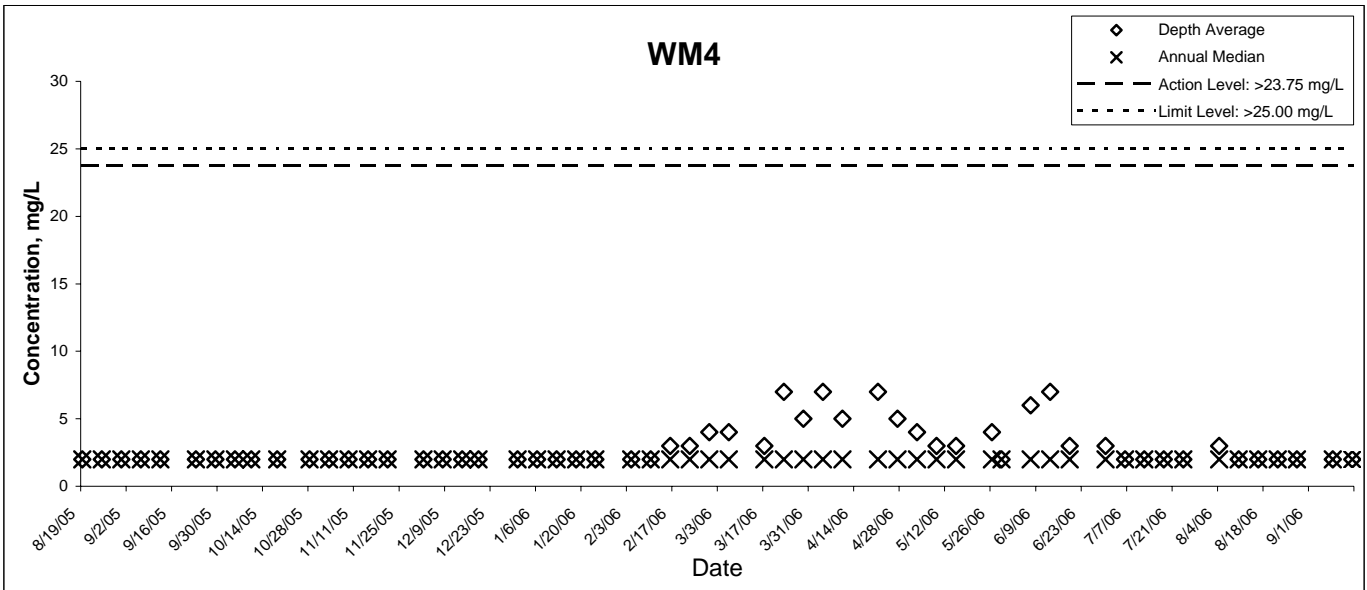
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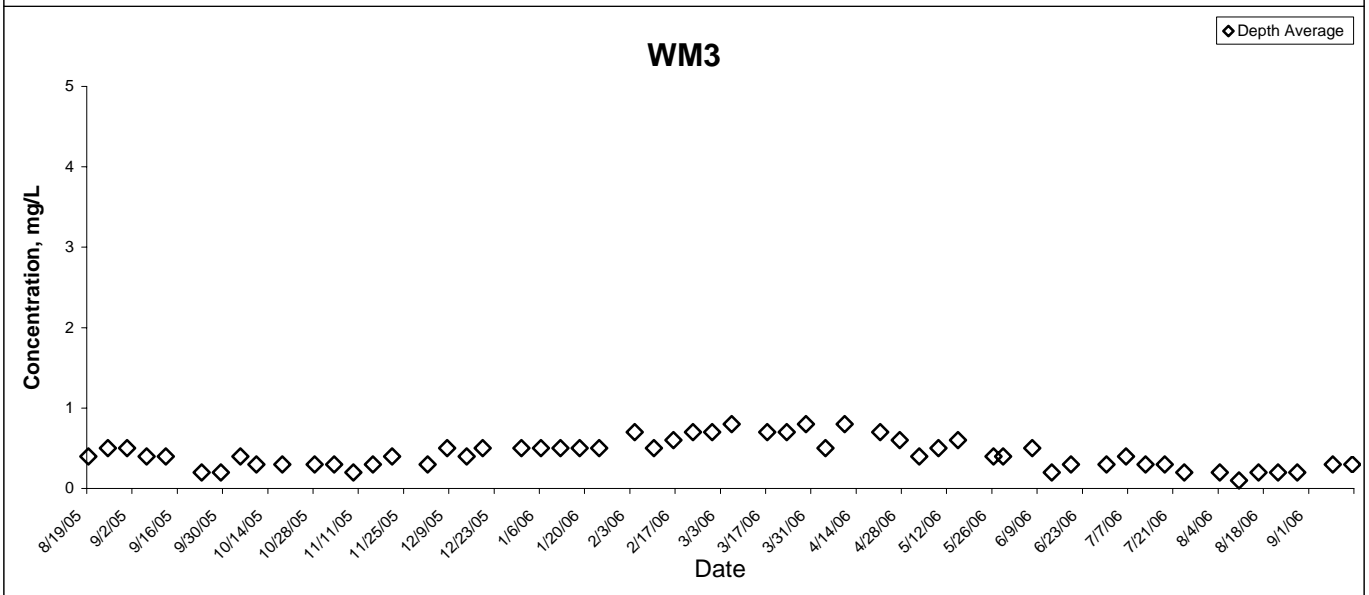
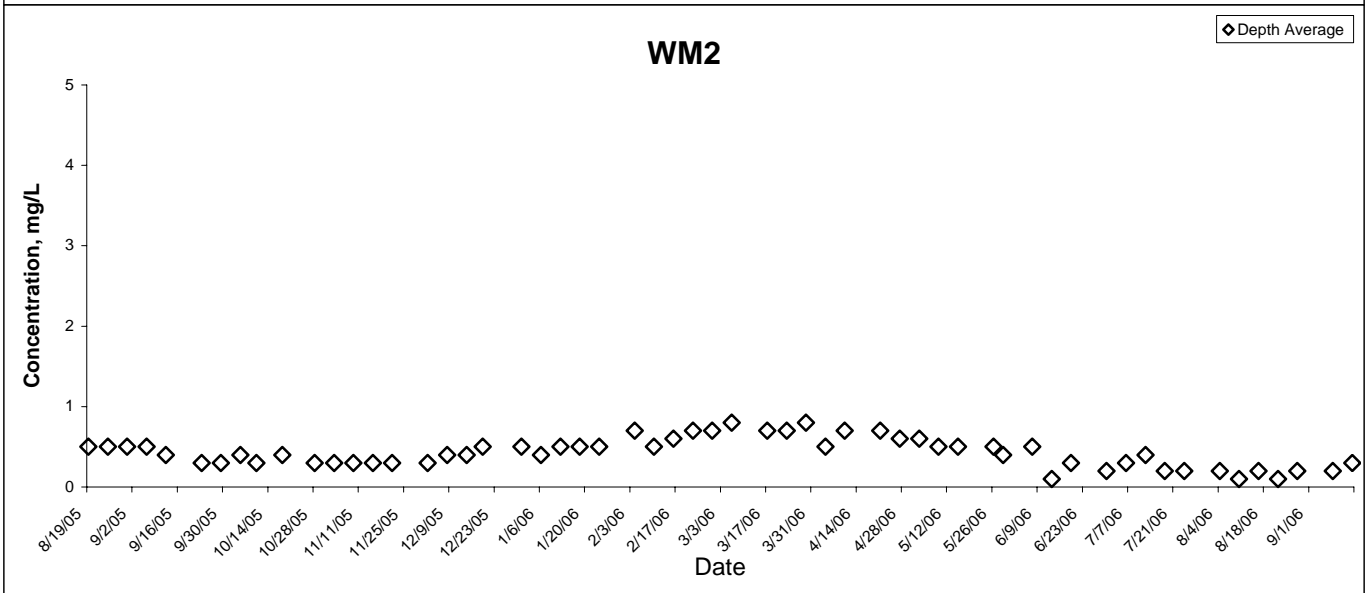
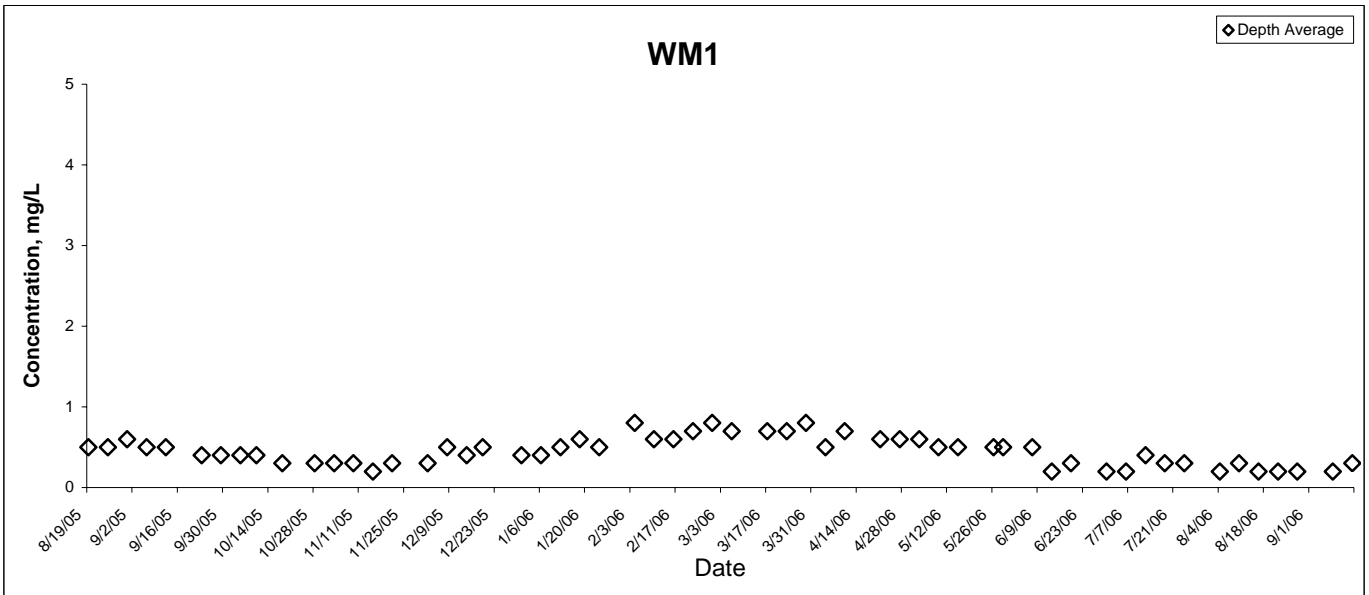
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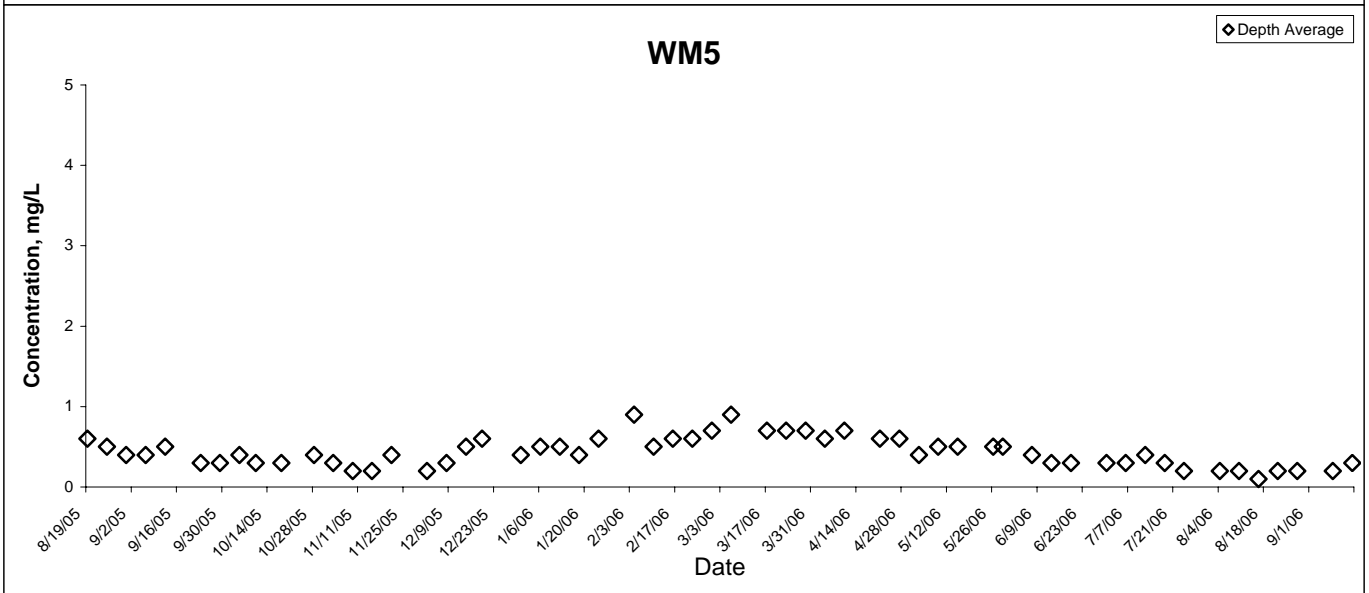
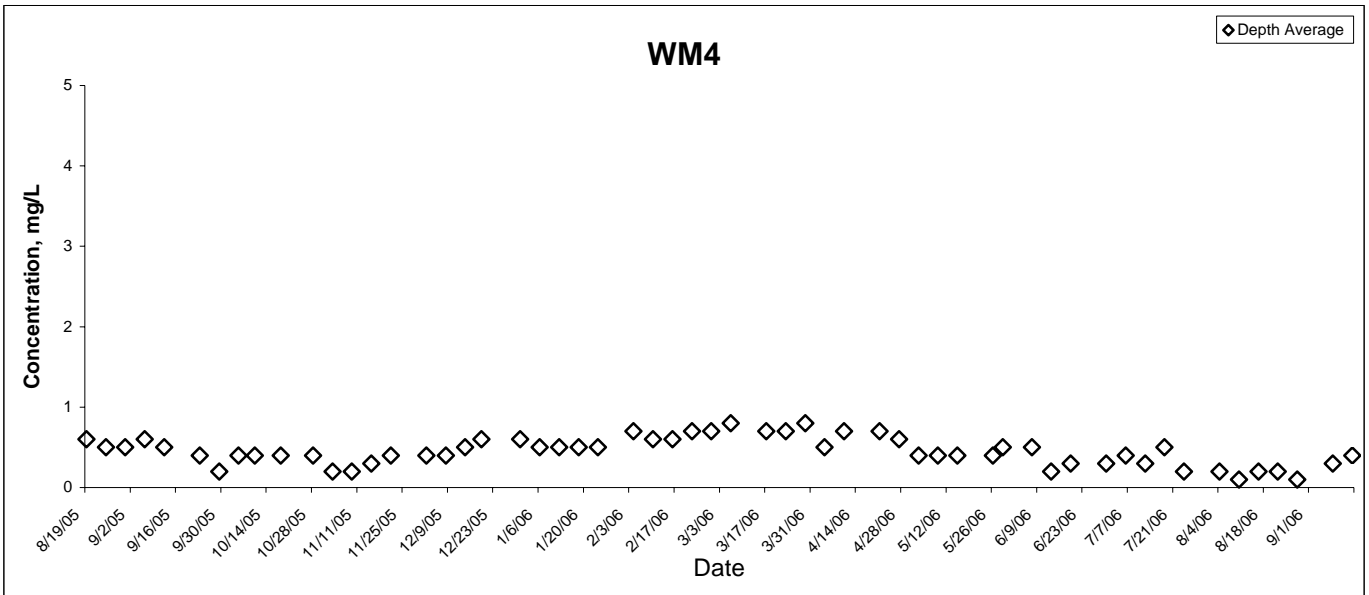
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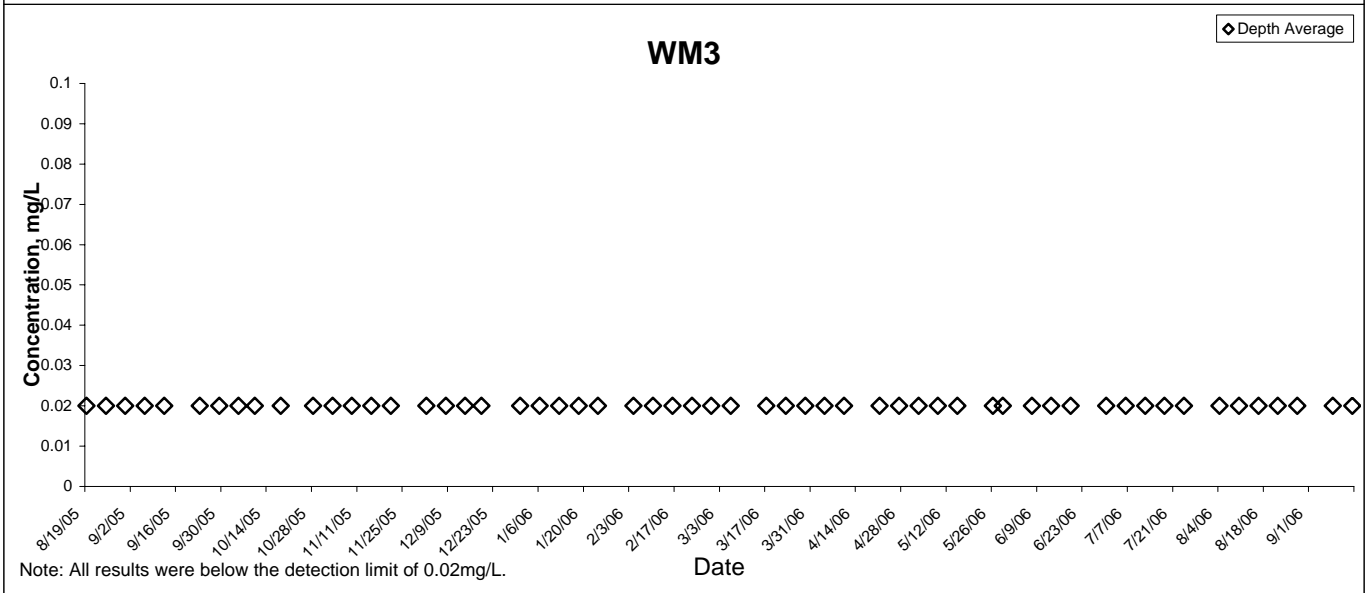
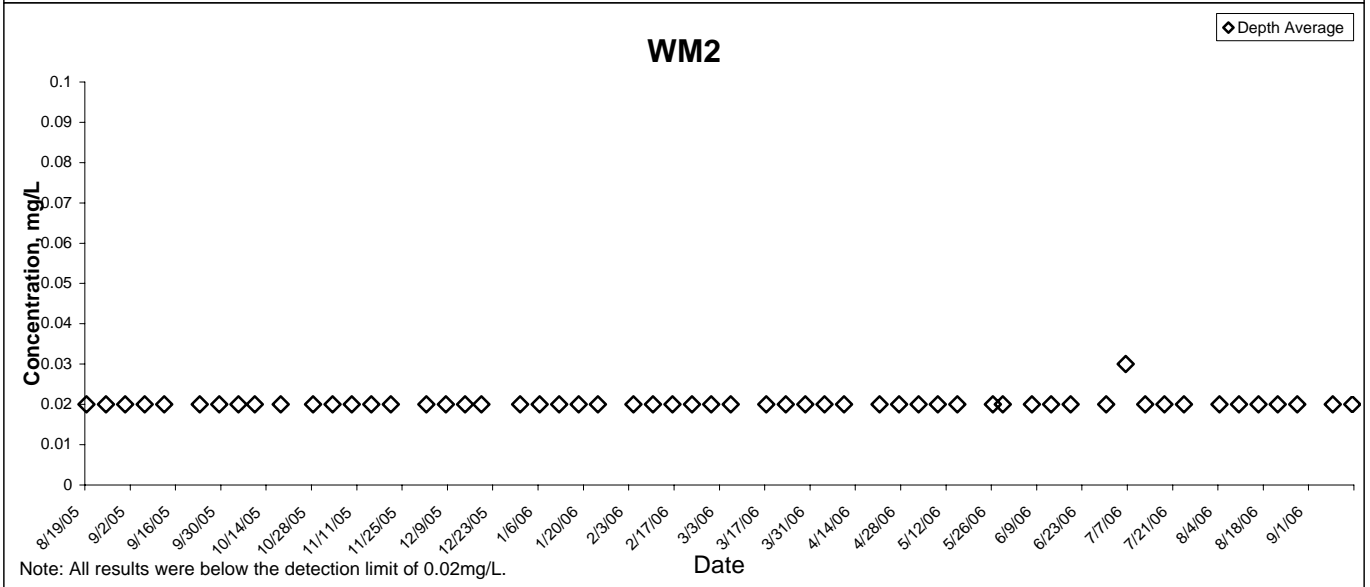
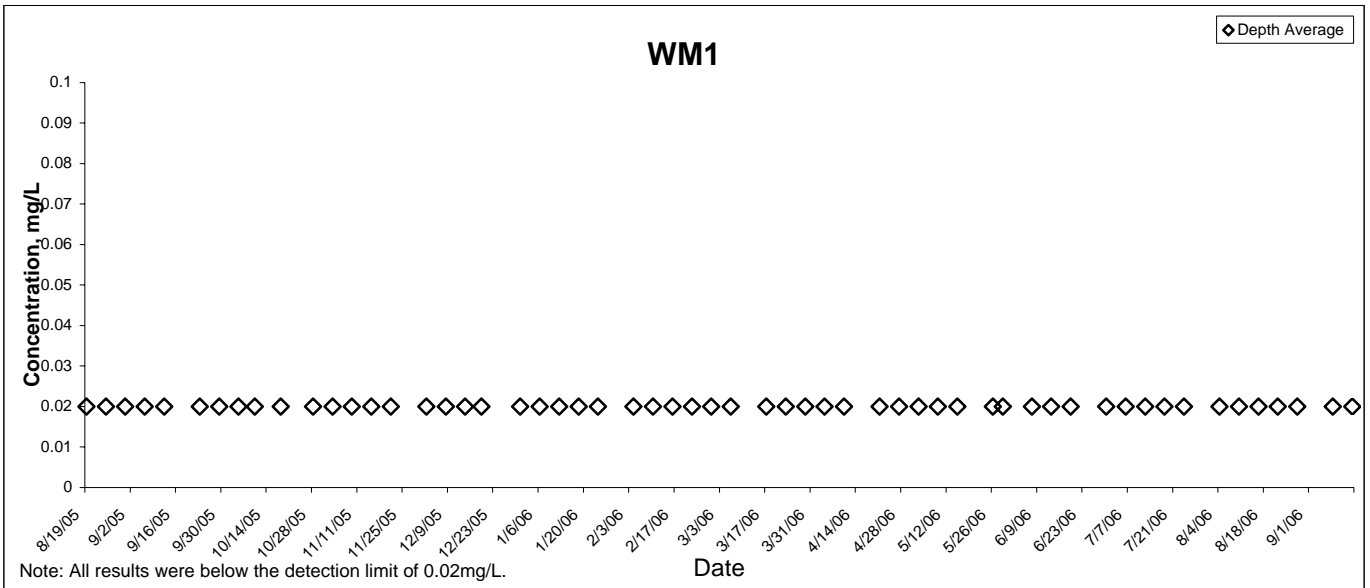
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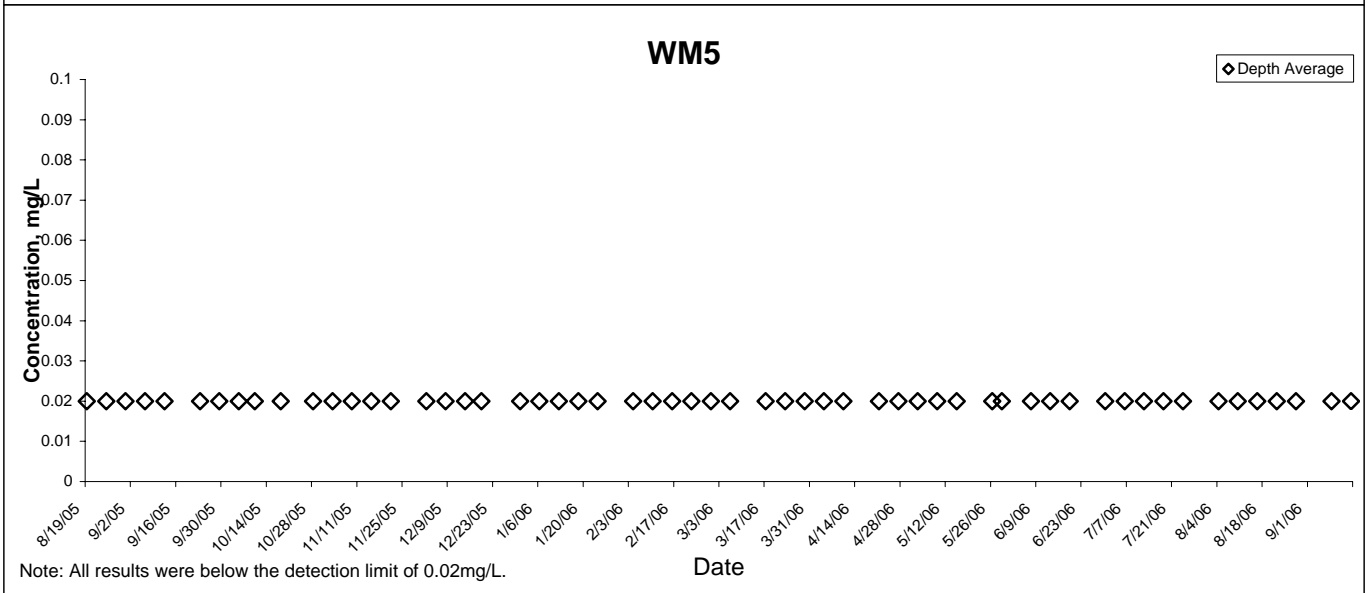
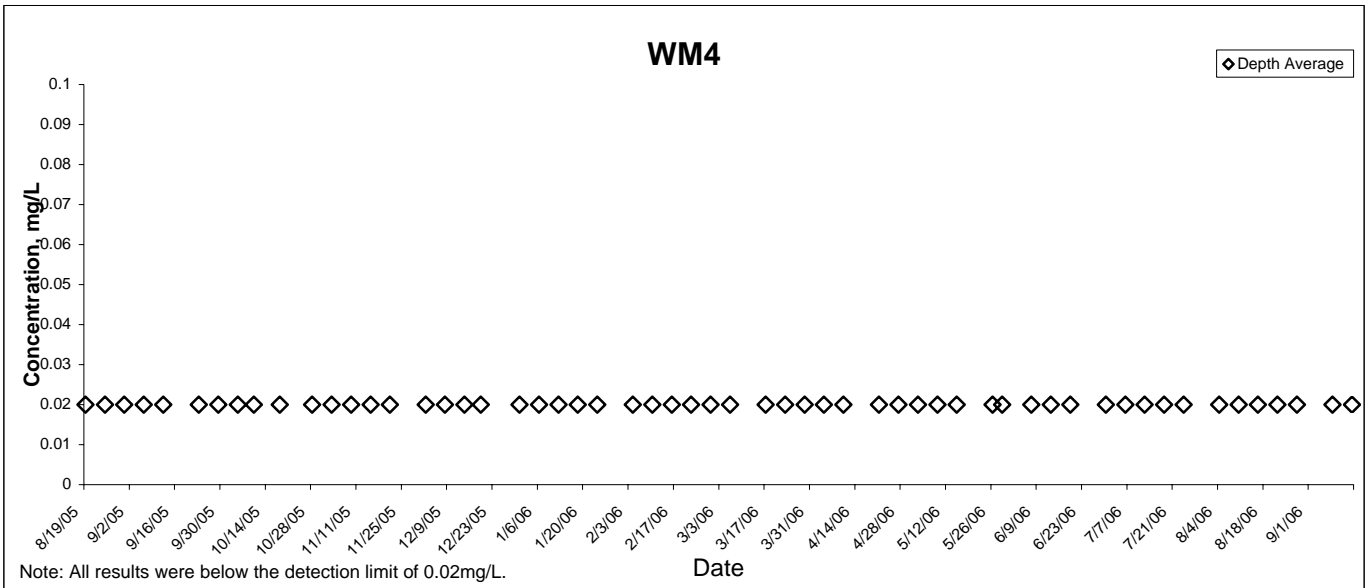
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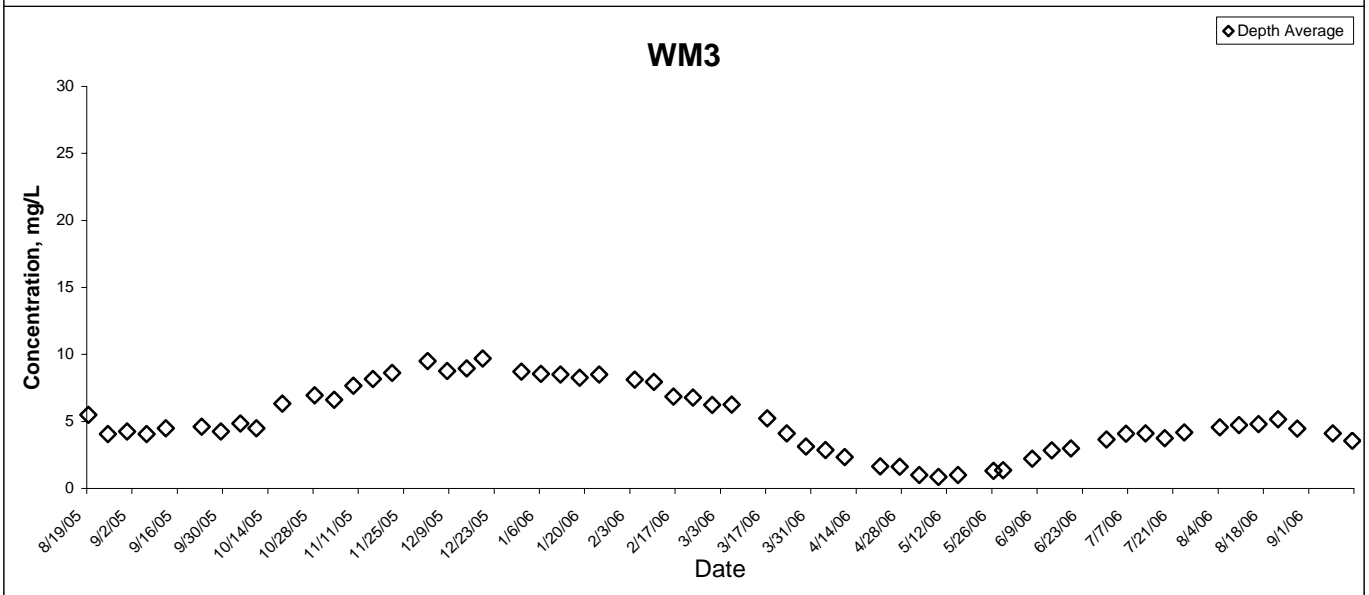
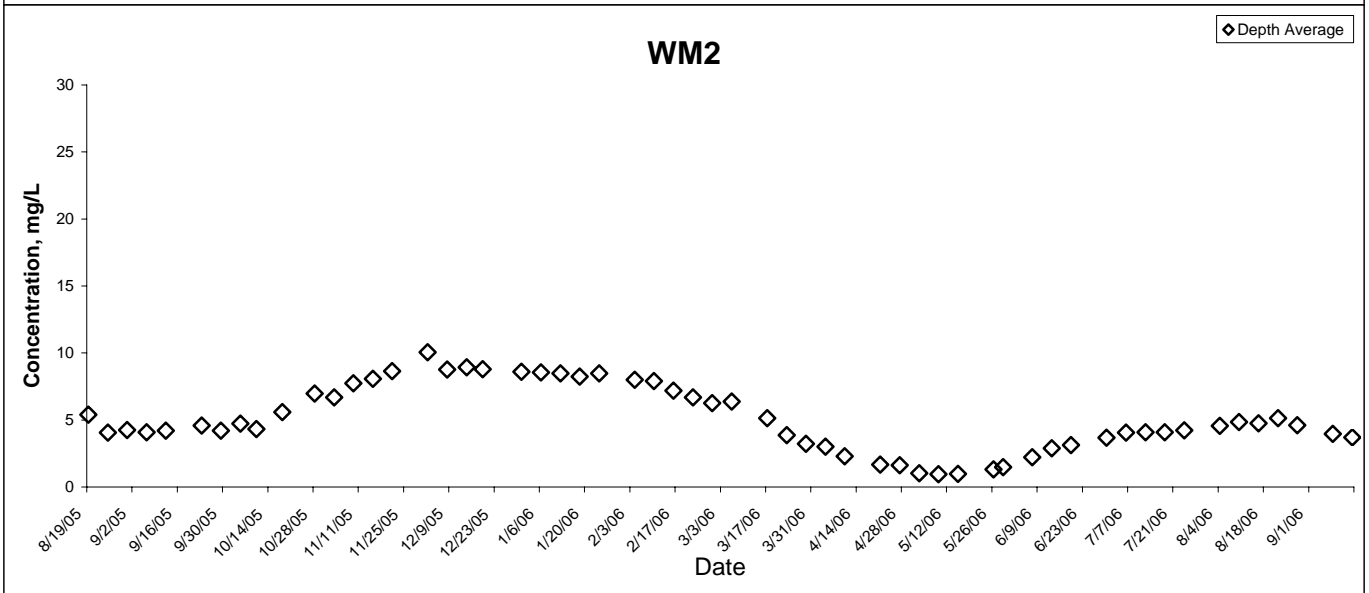
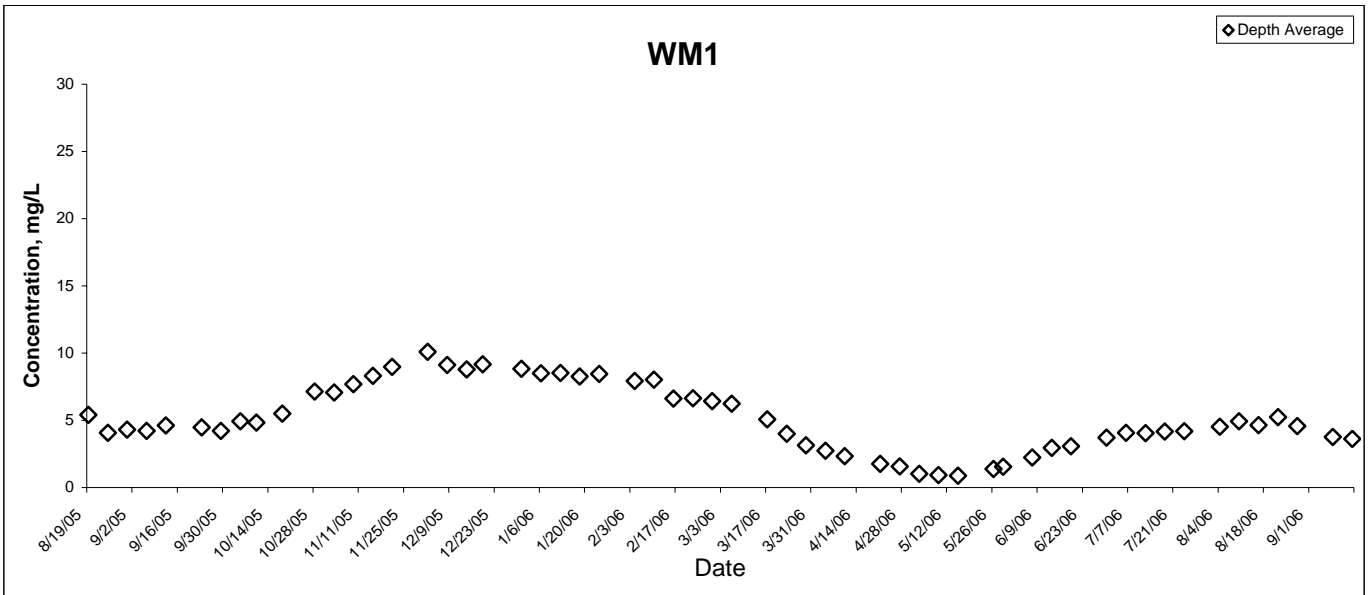
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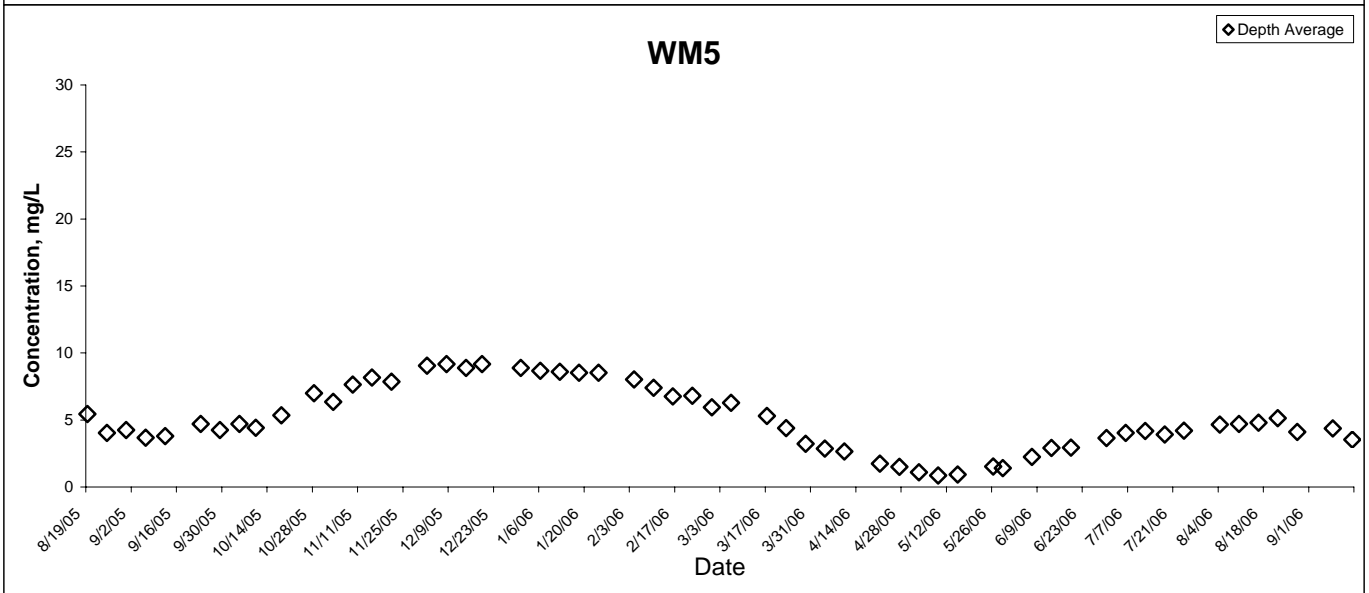
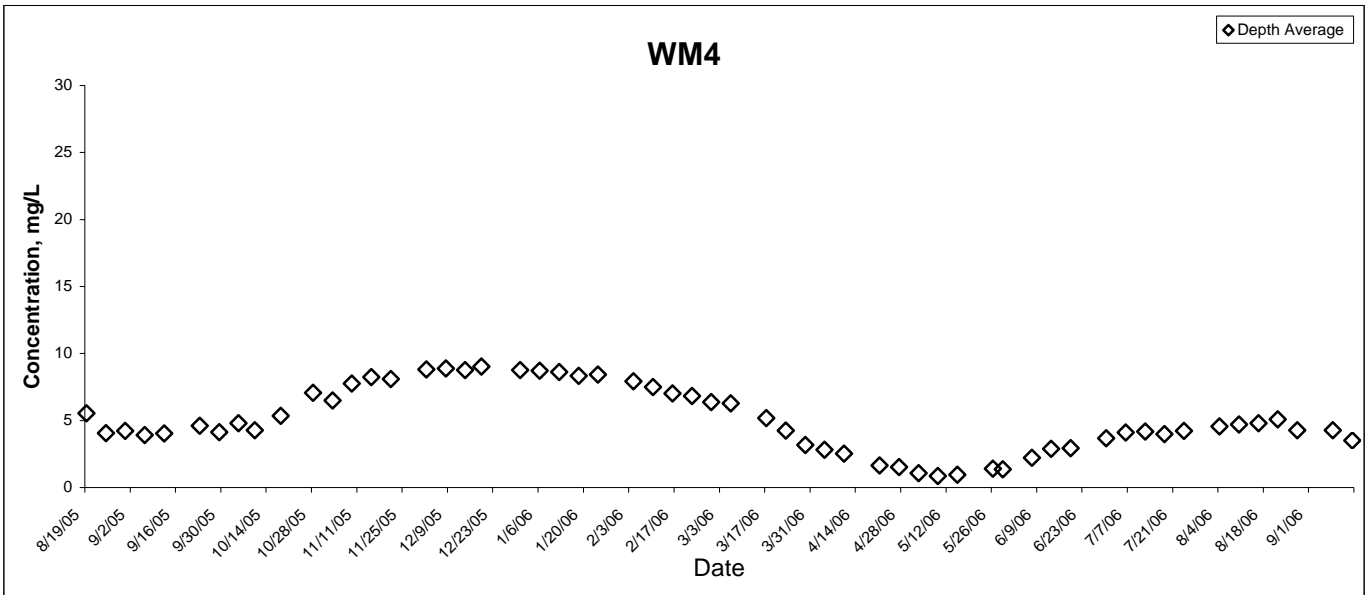
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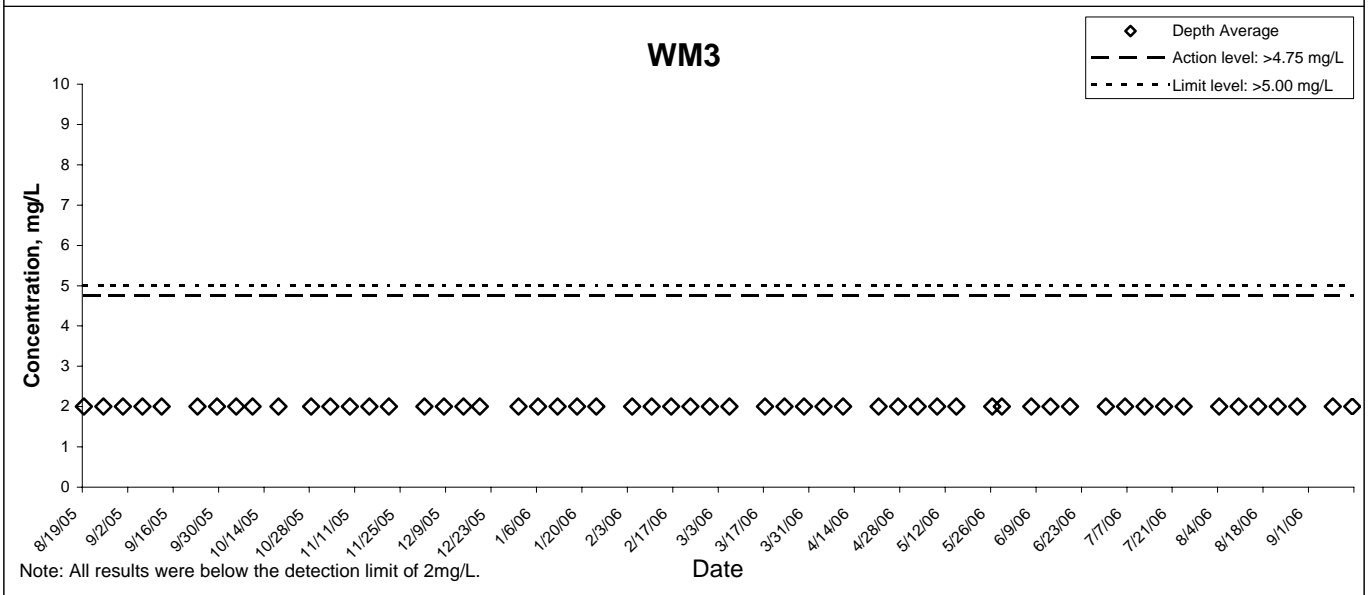
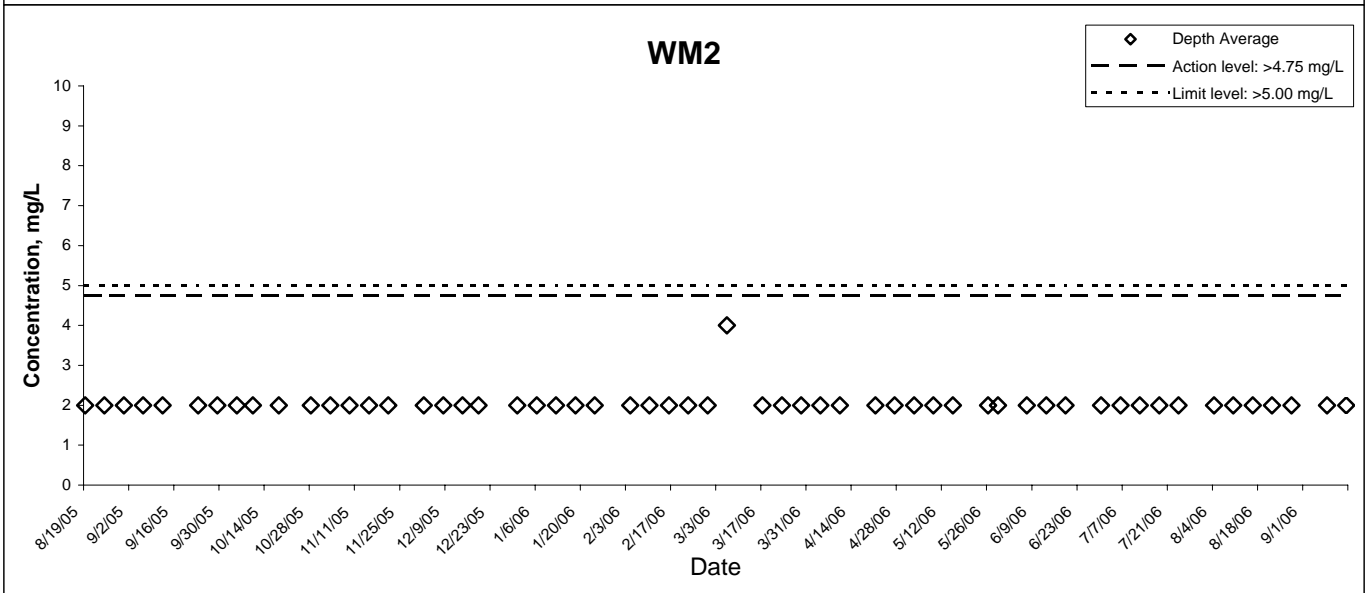
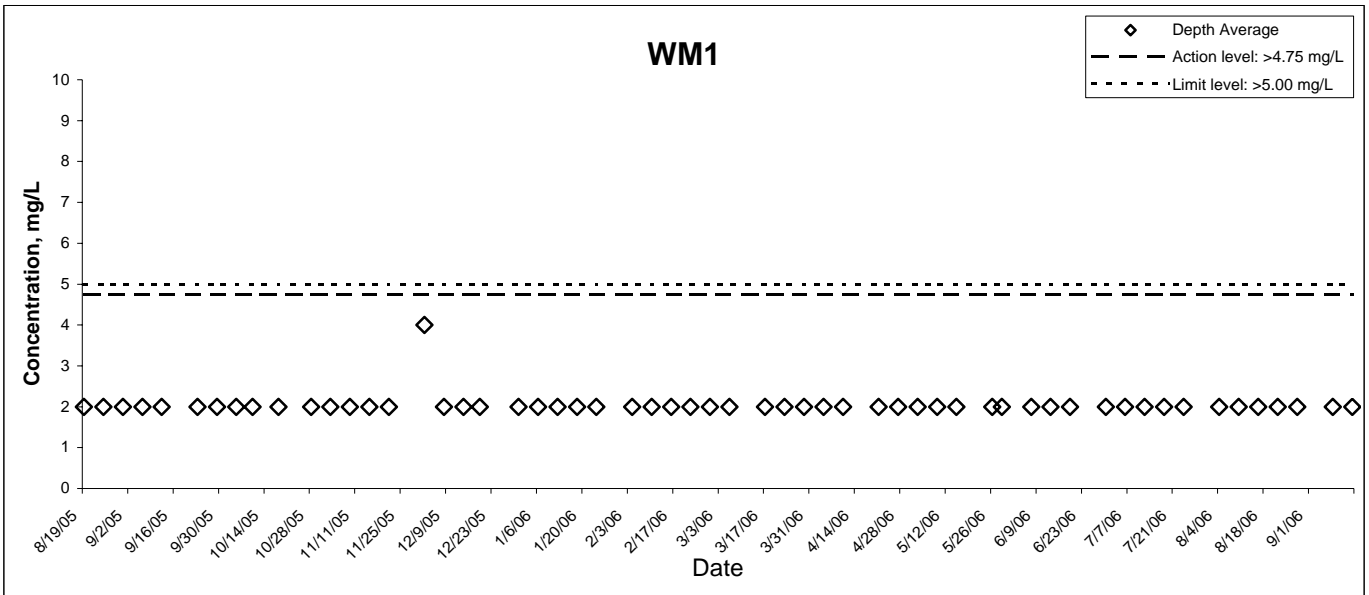
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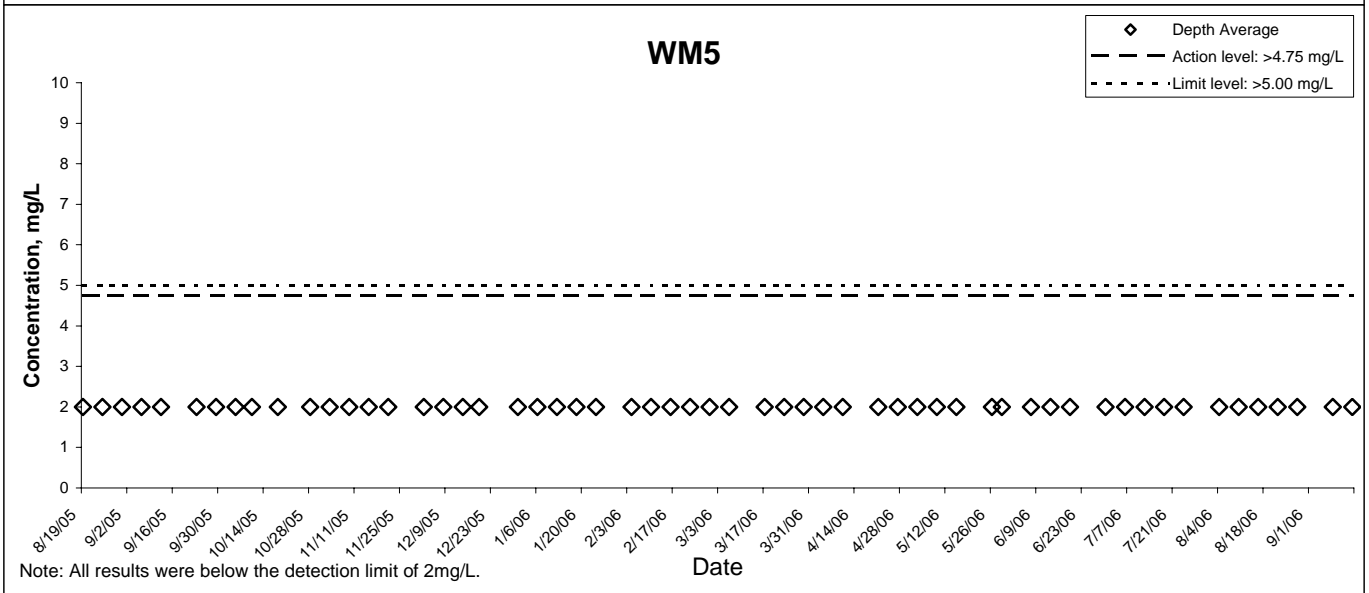
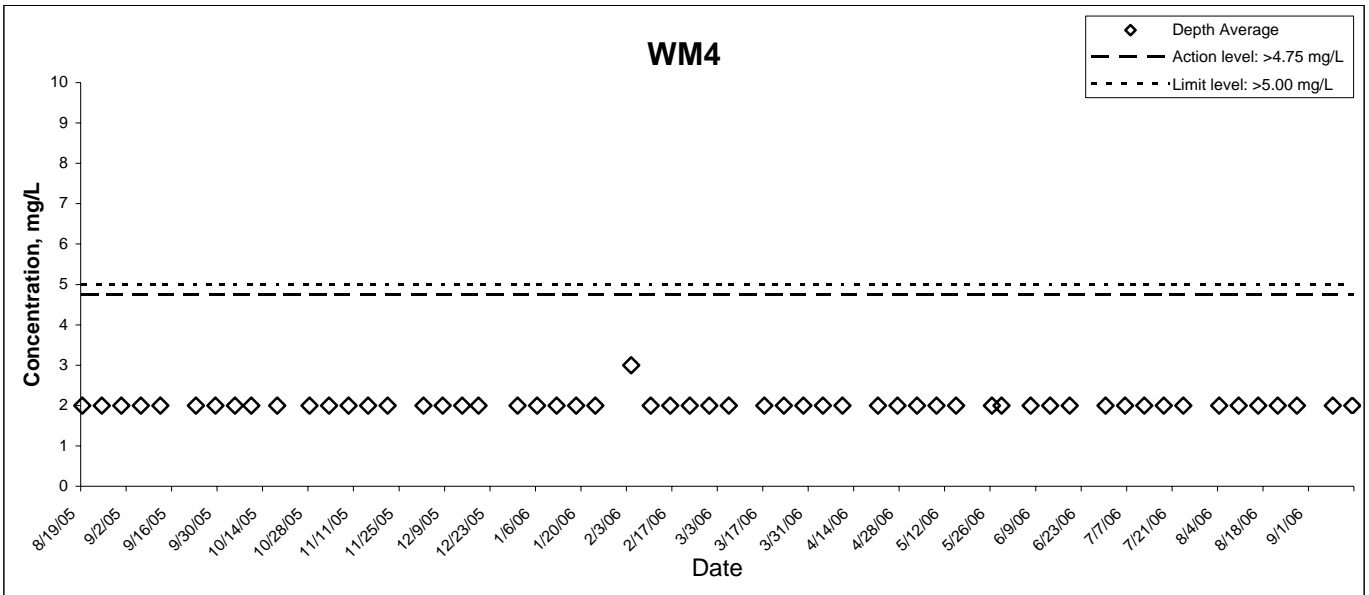
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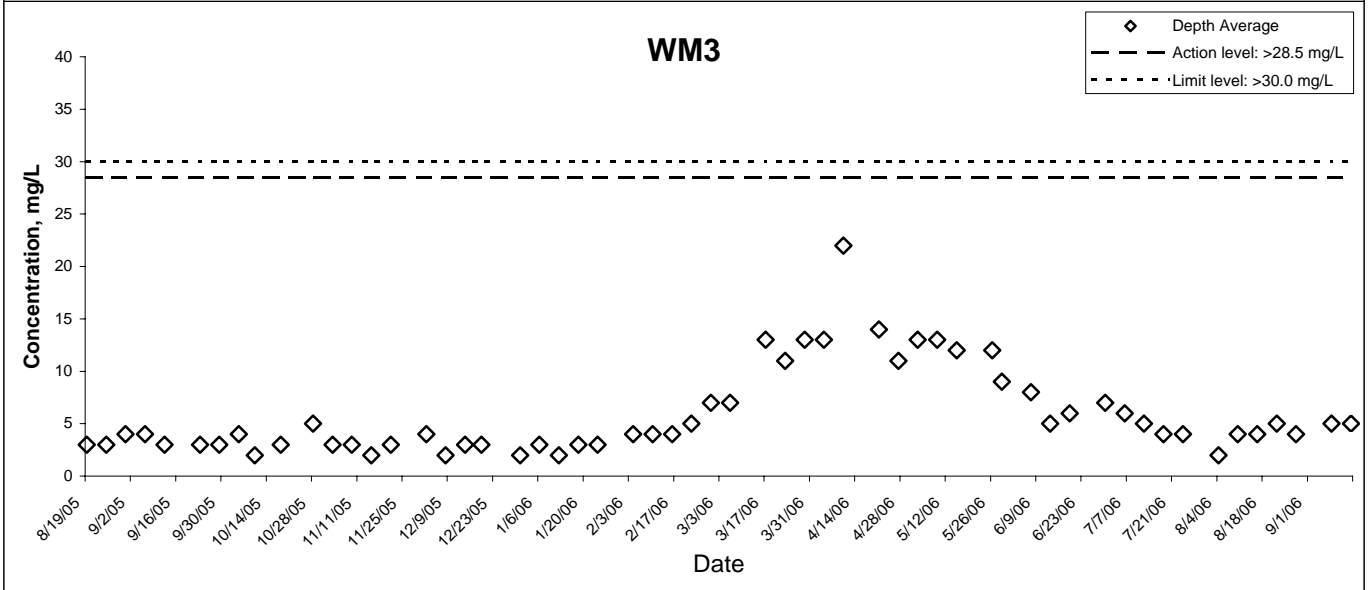
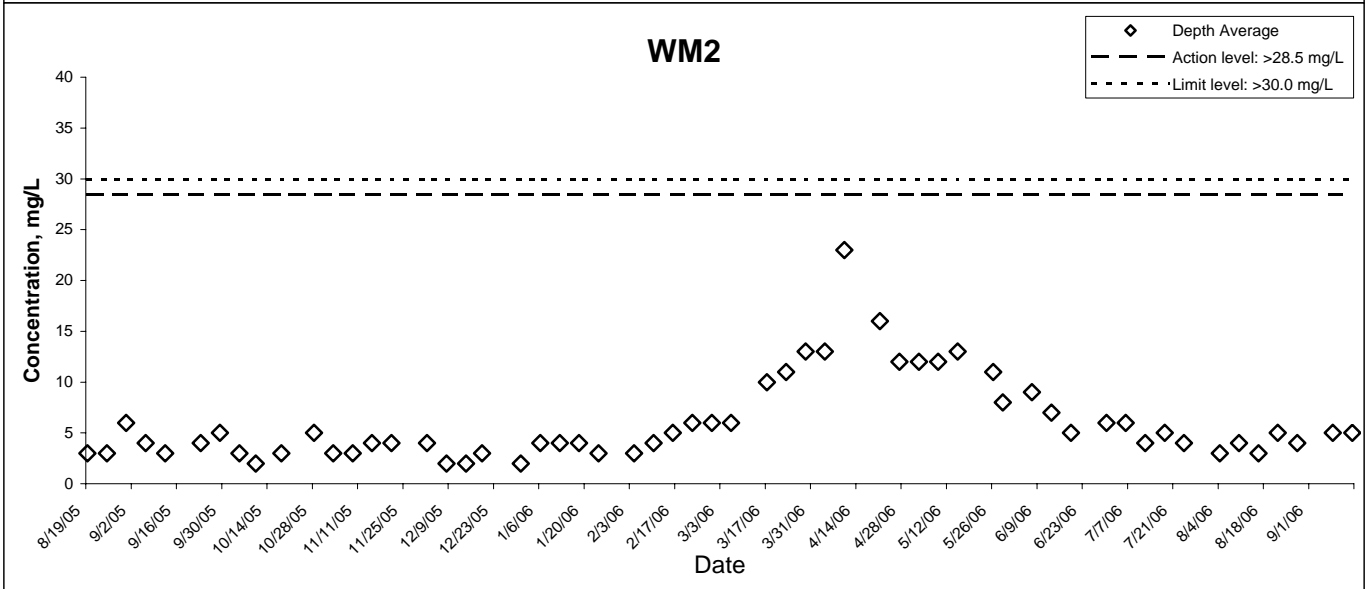
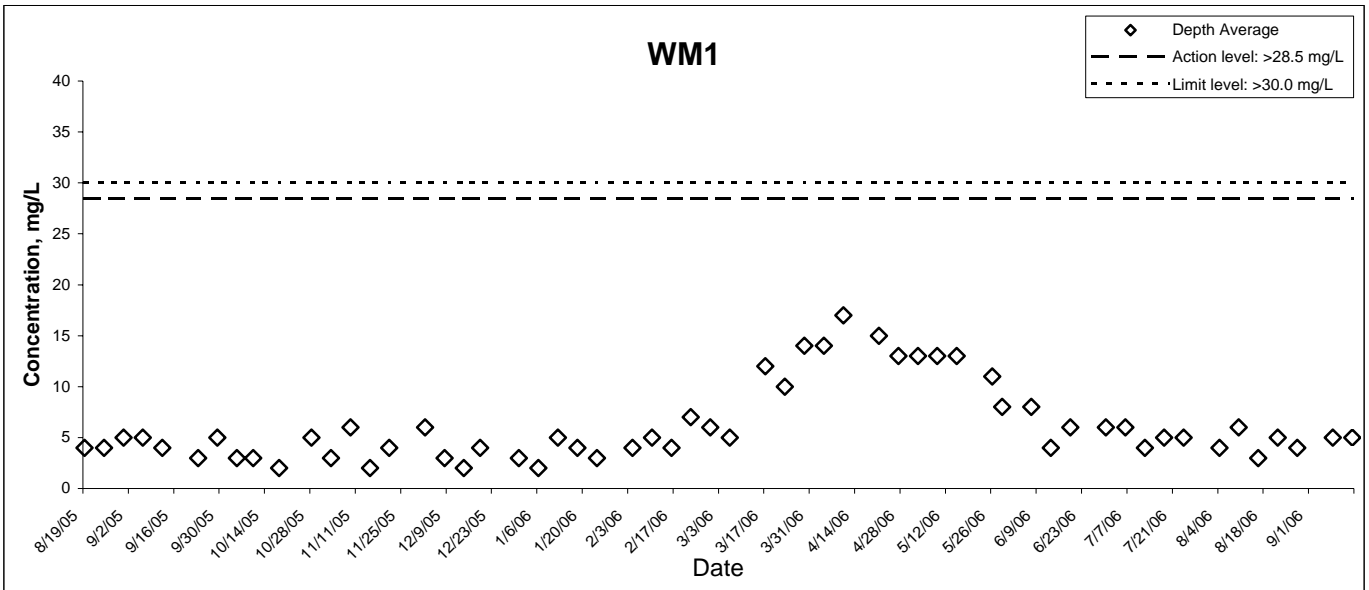
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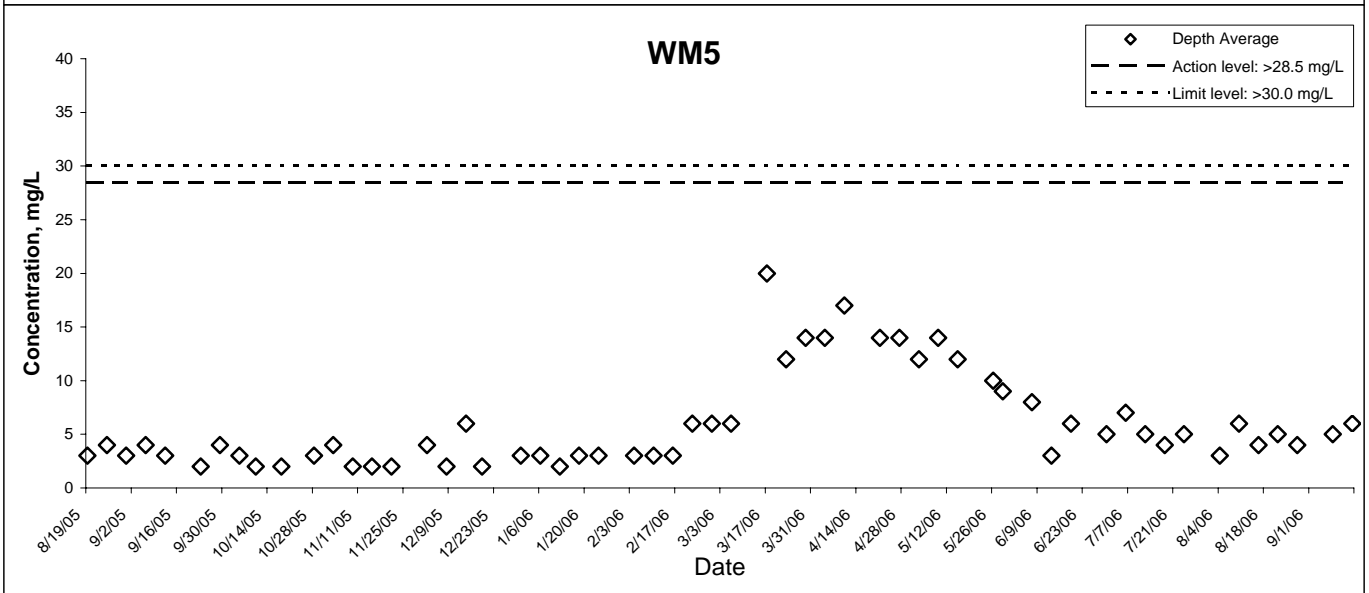
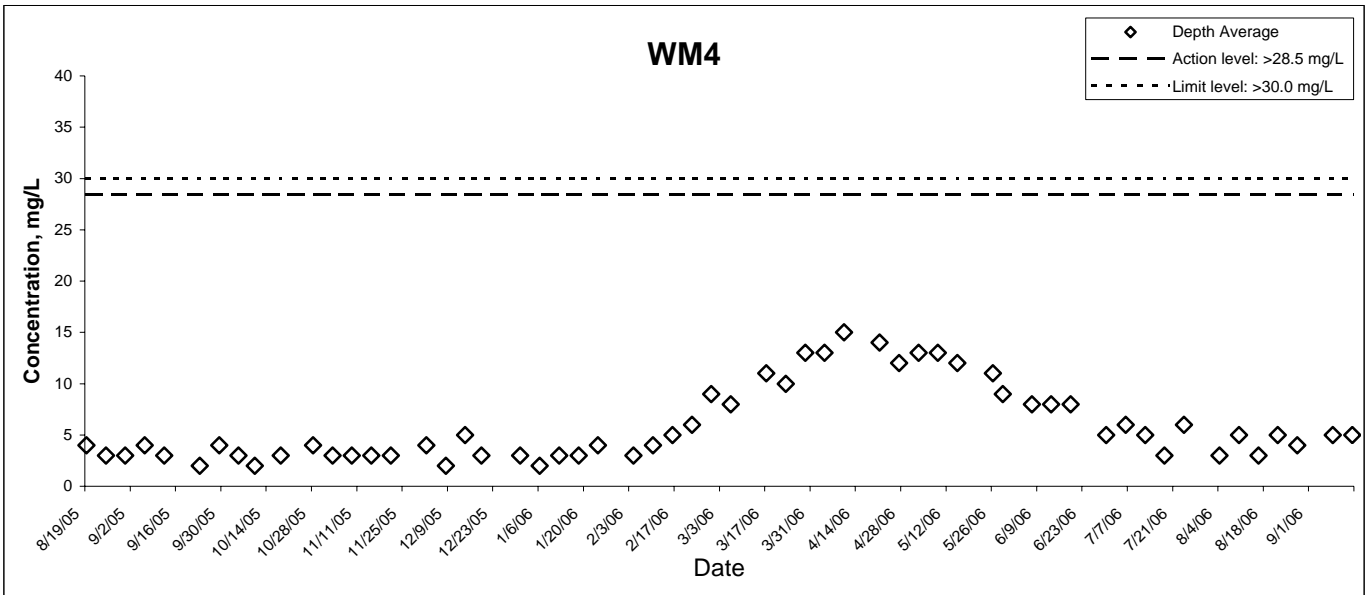
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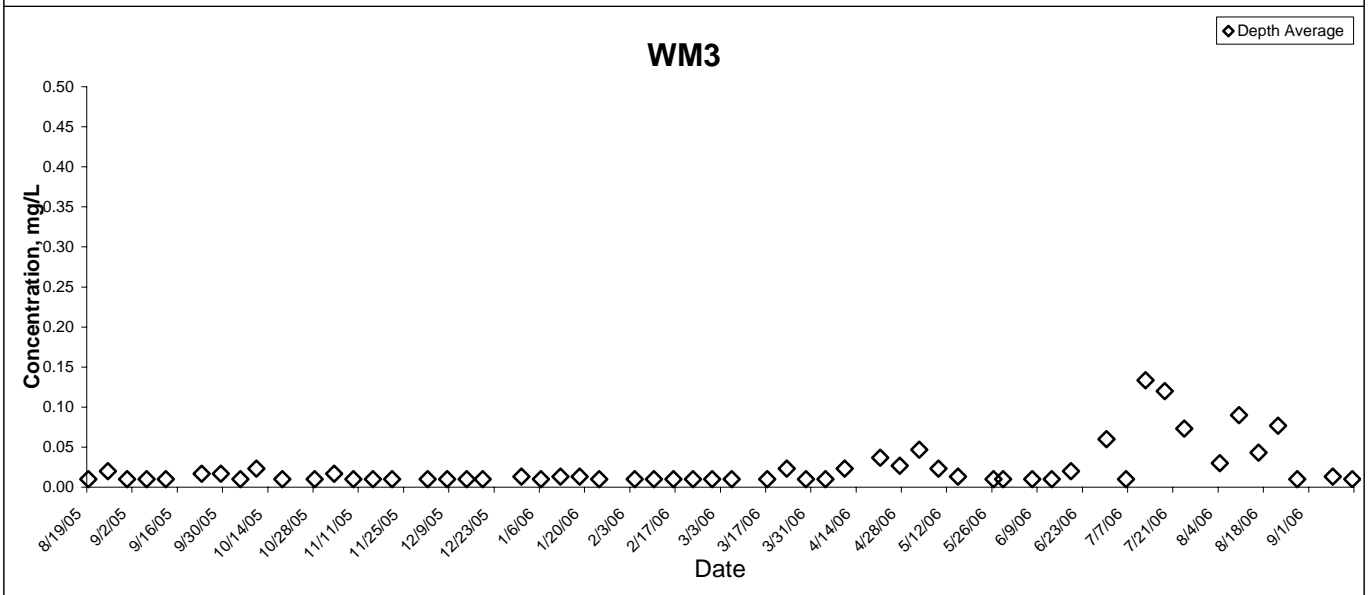
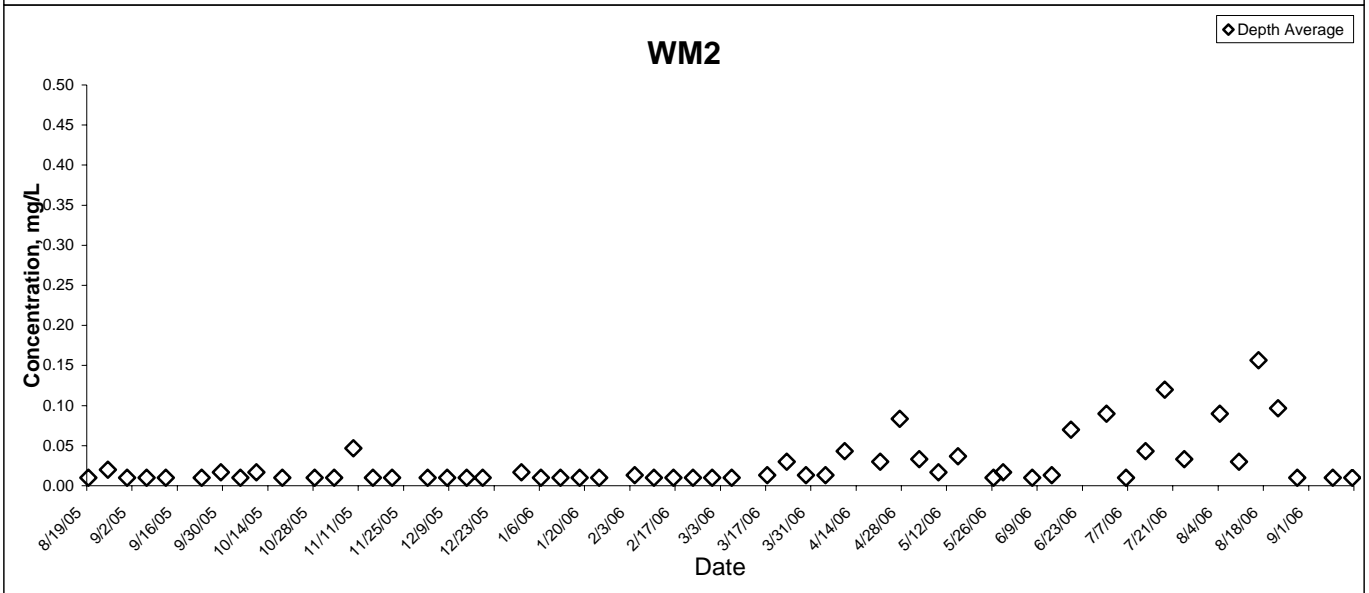
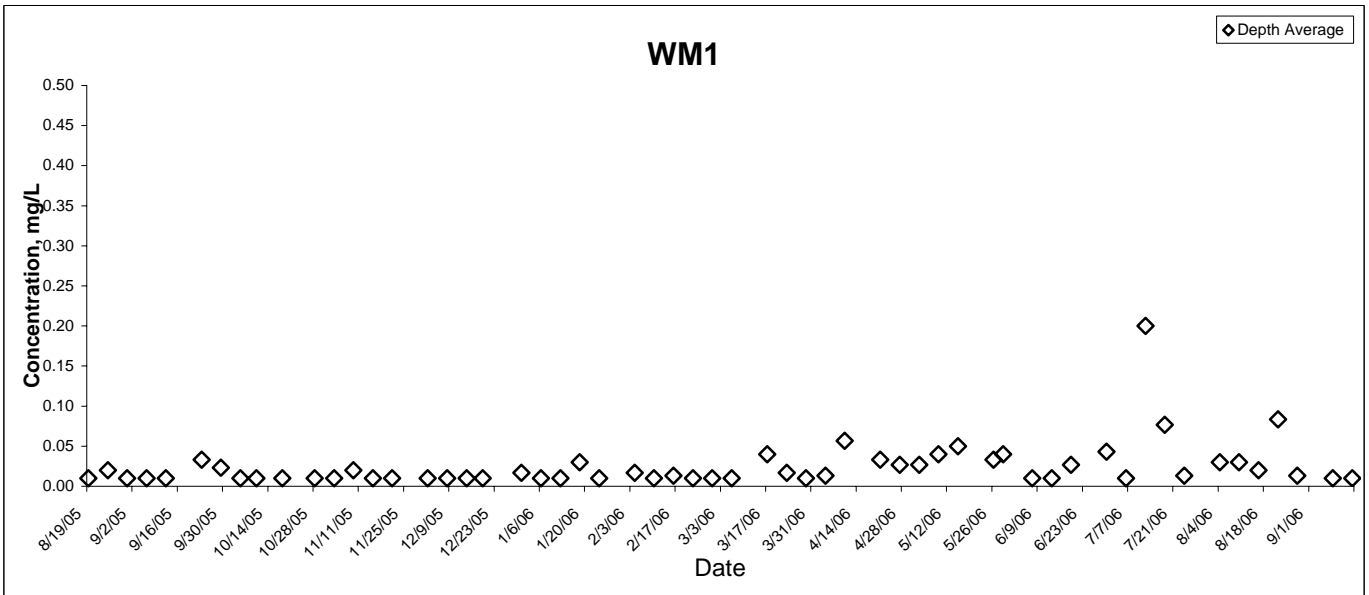
Chemical Oxygen Demand



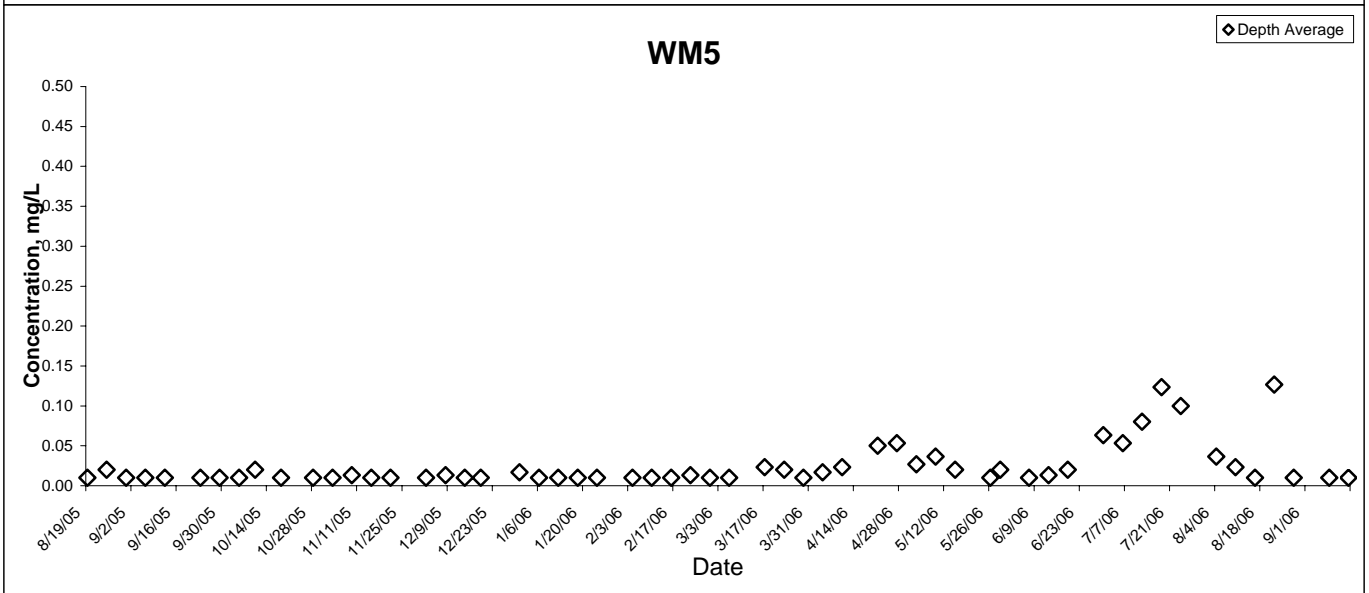
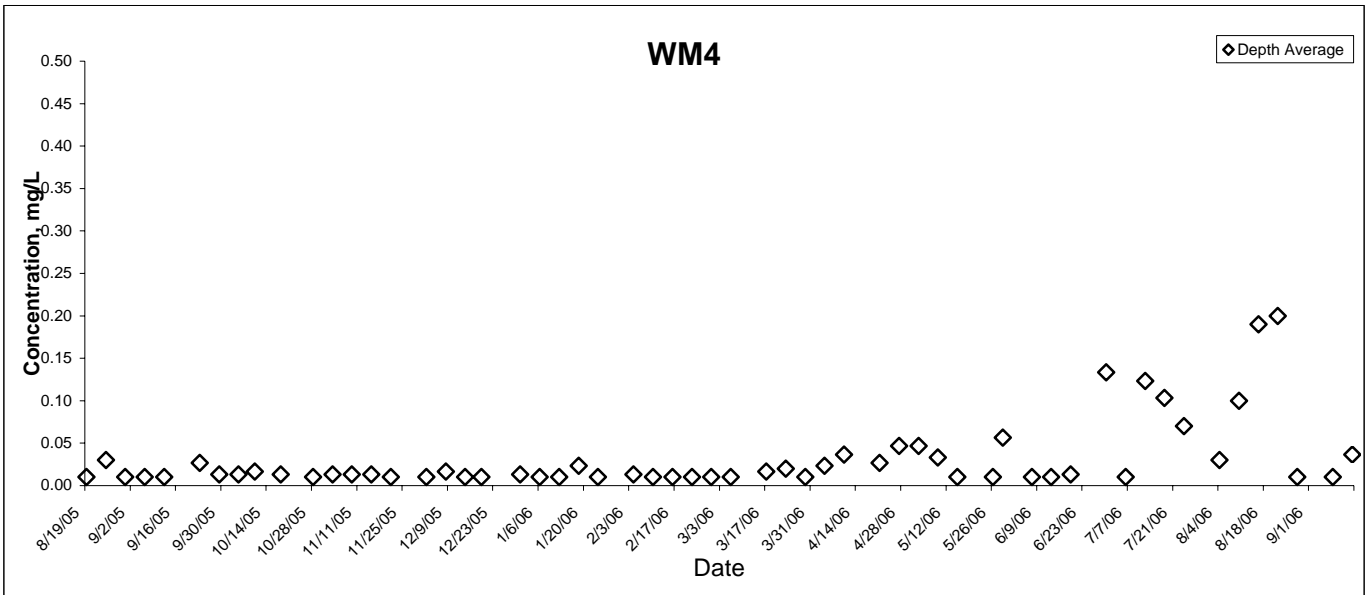
Chemical Oxygen Demand



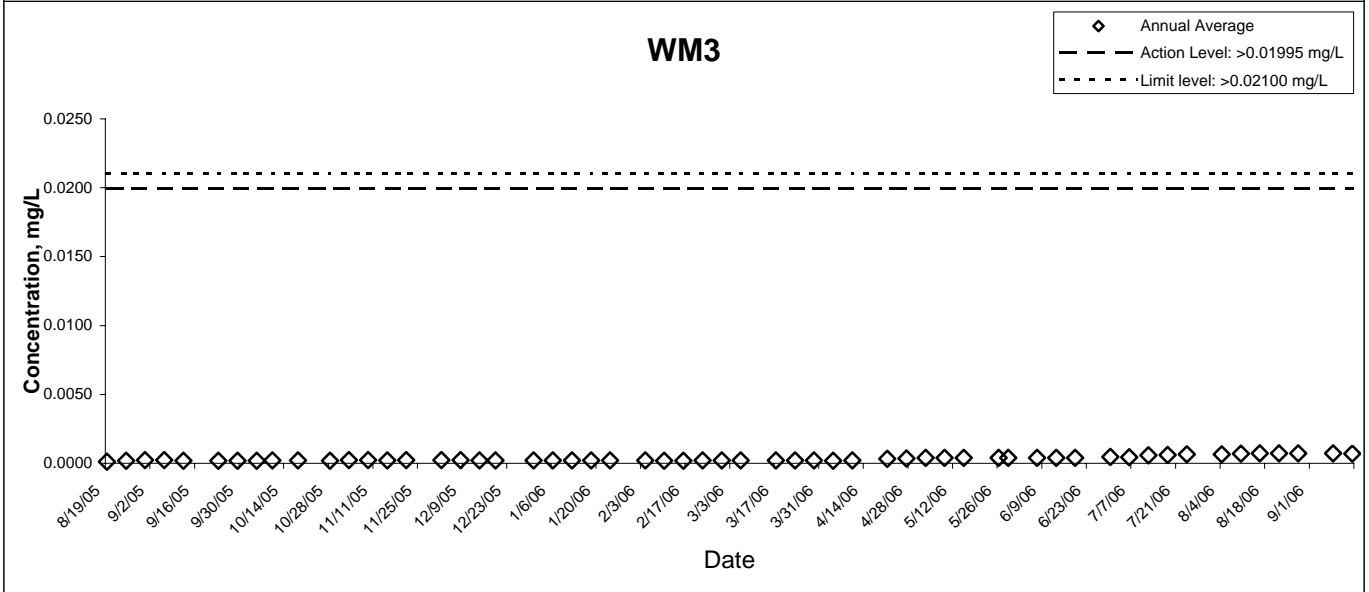
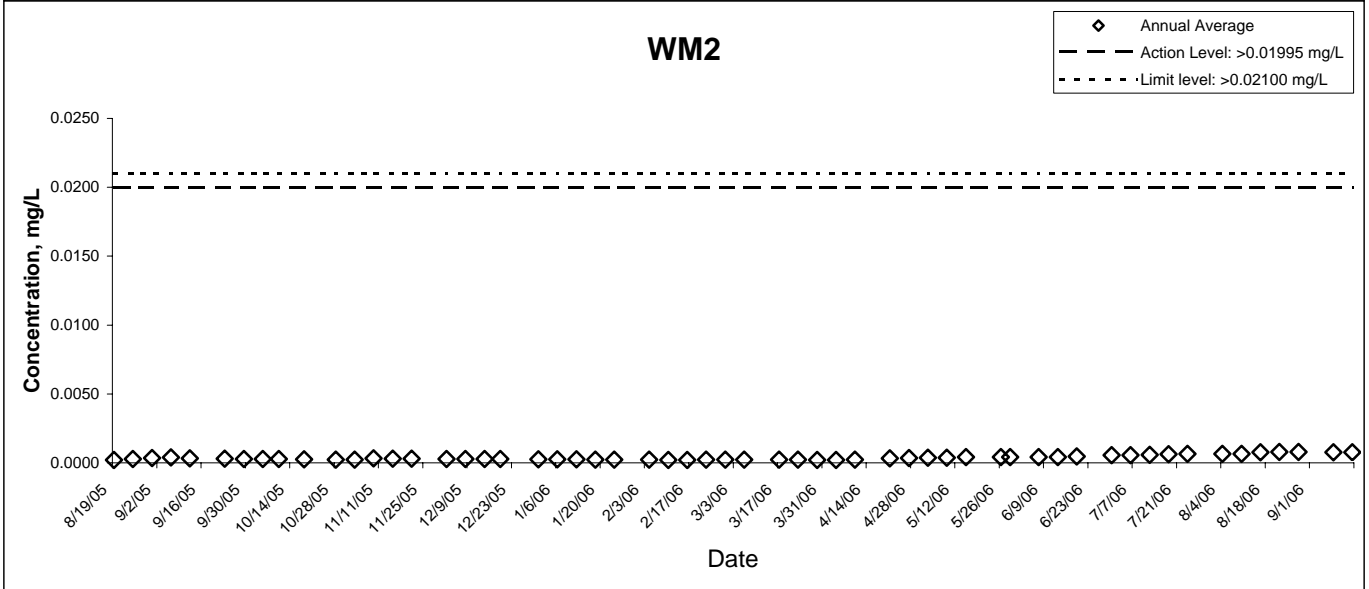
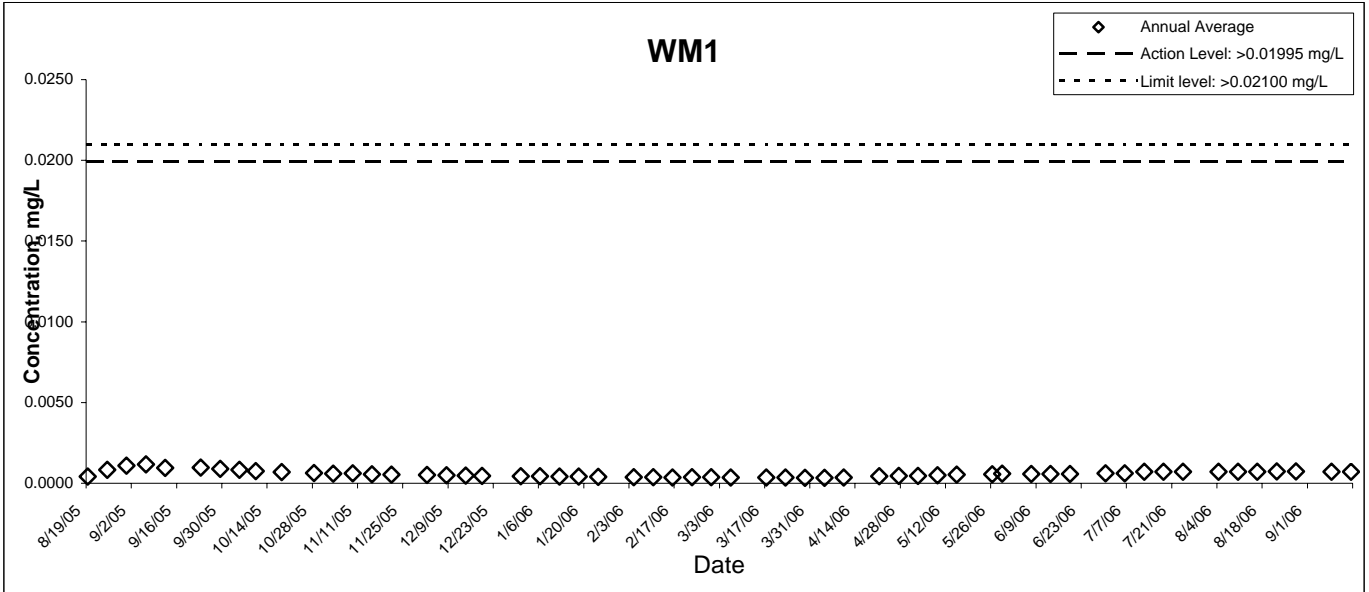
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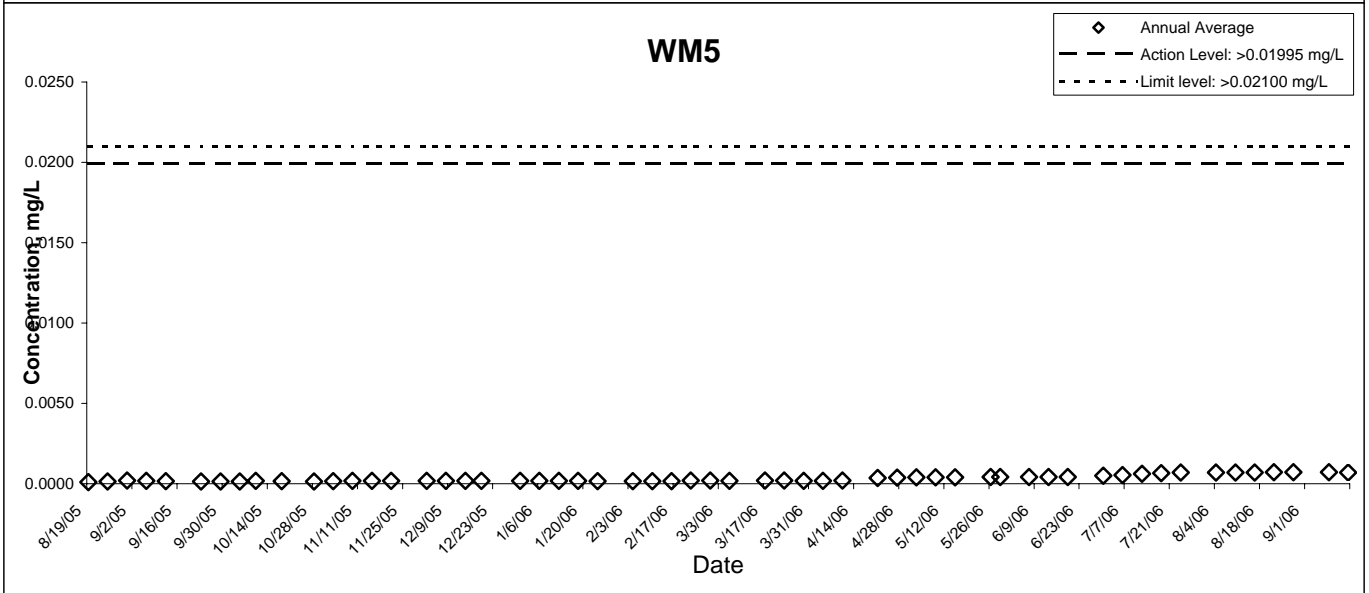
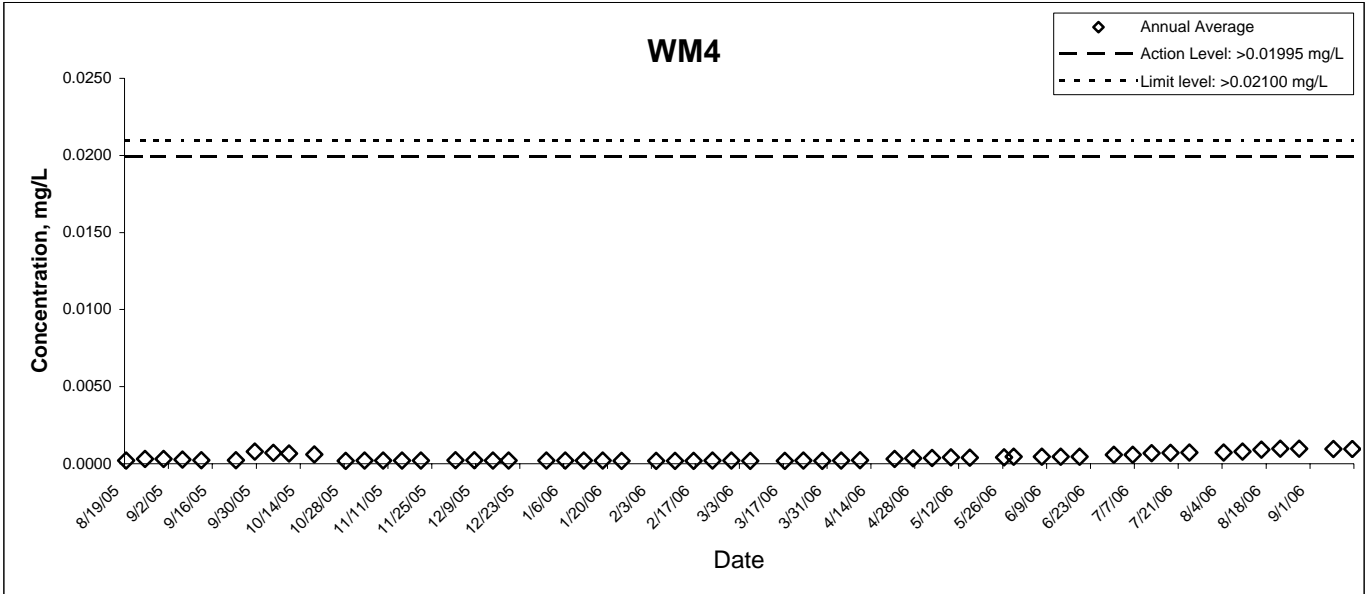
Ammonia Nitrogen



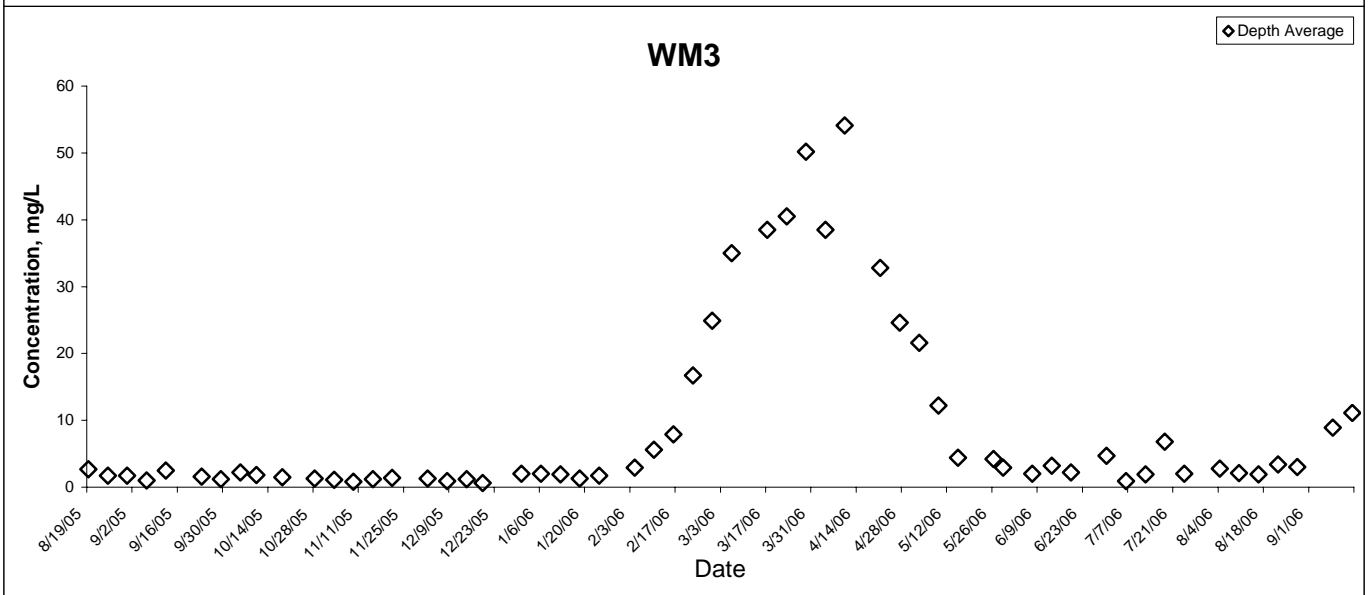
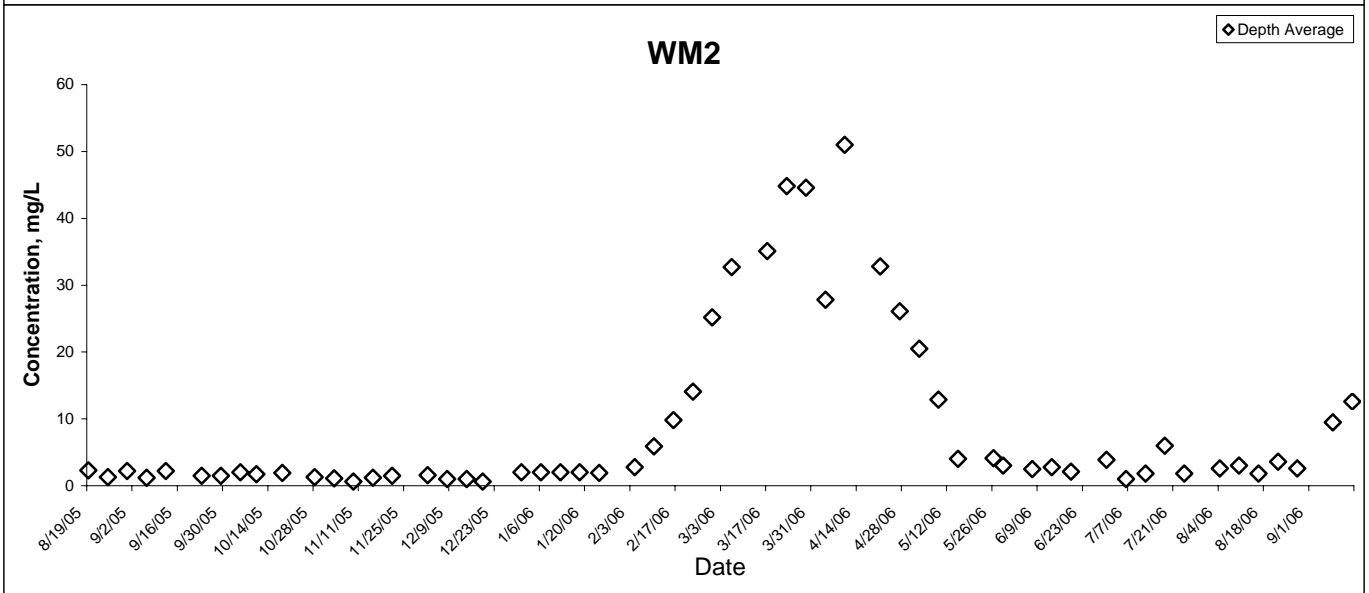
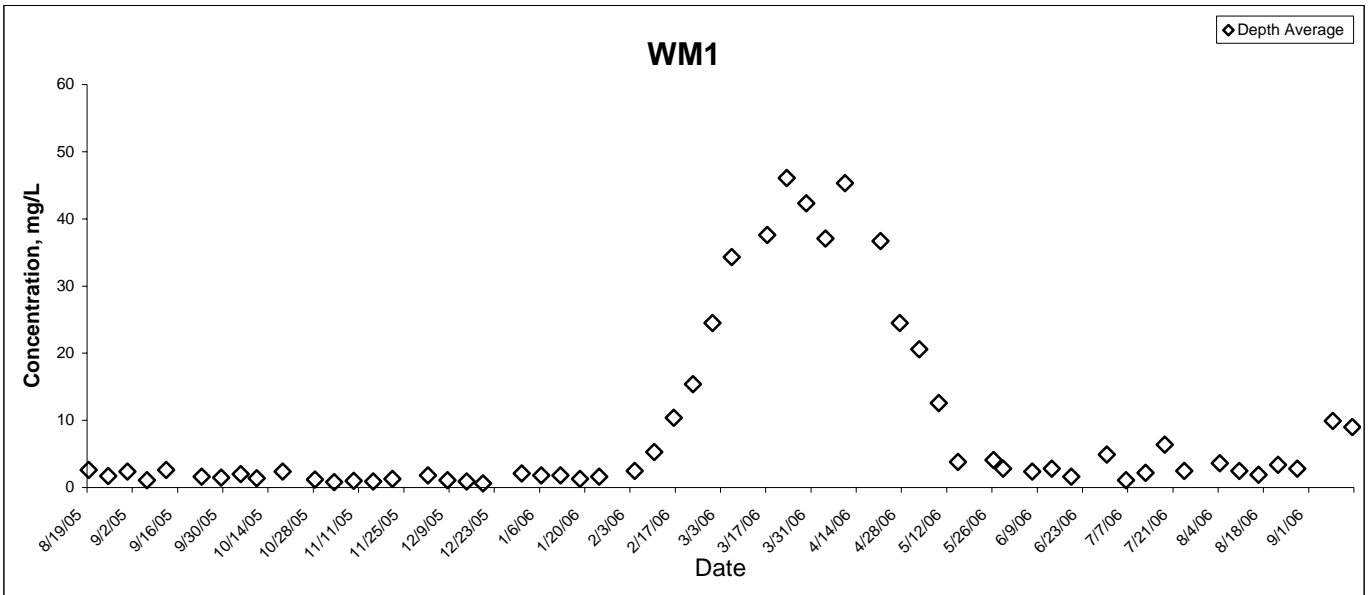
Unionised Nitrogen (Annual Average)



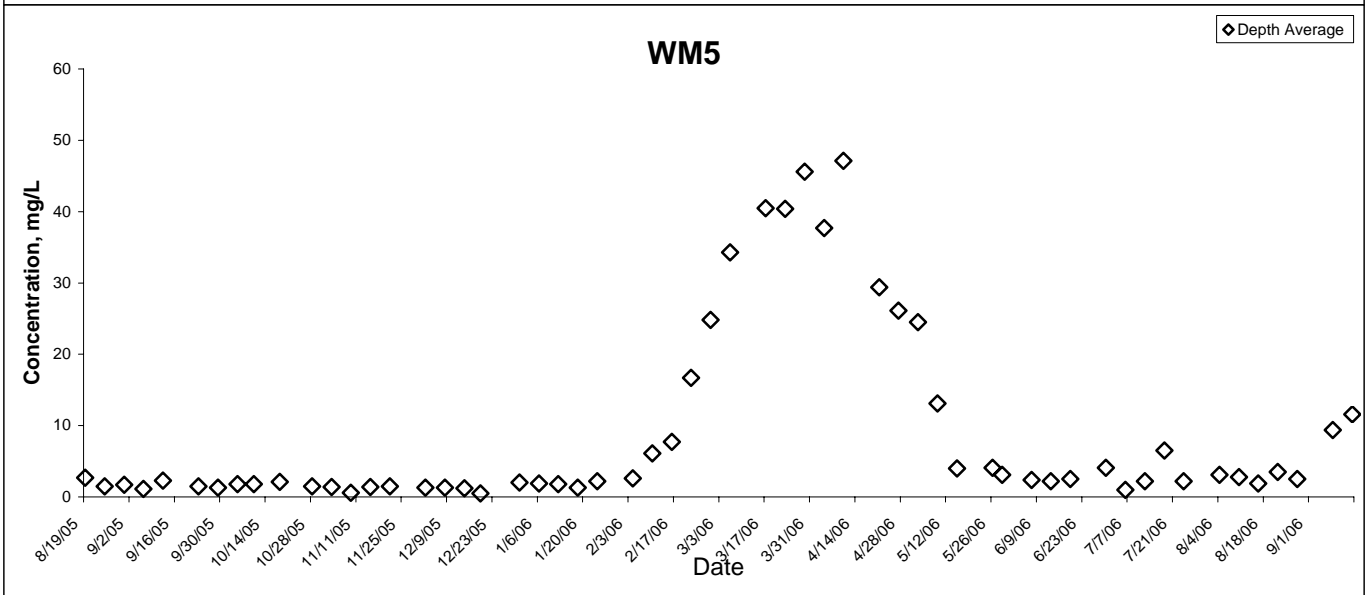
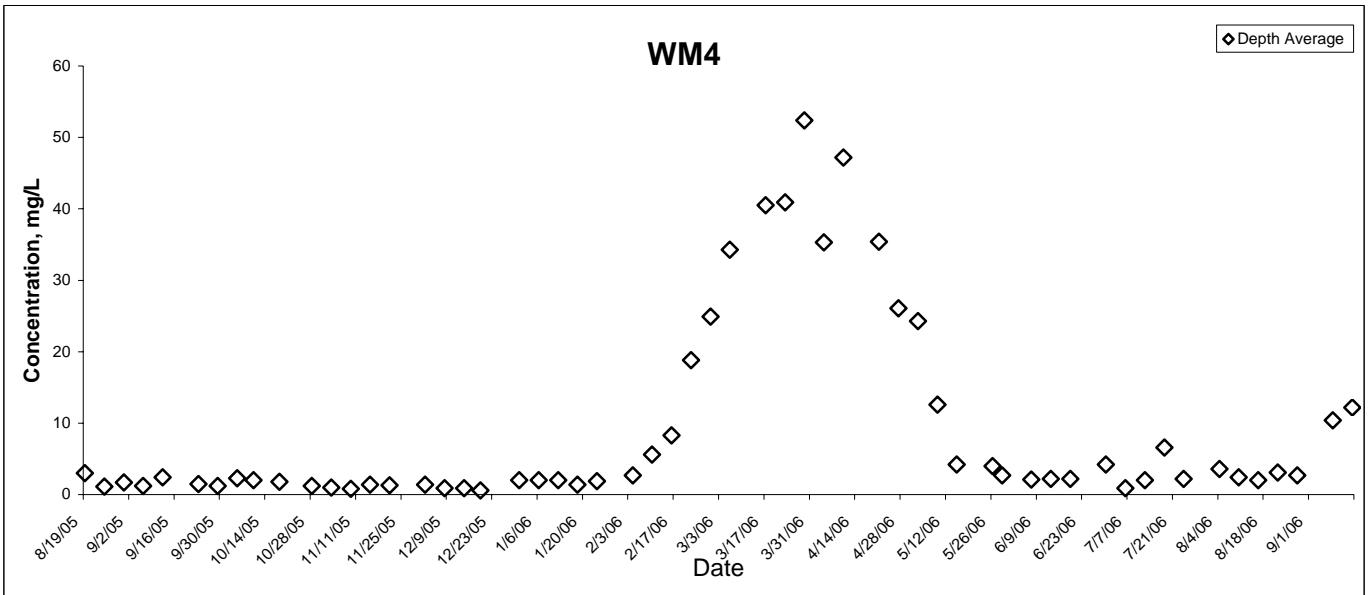
Unionised Nitrogen (Annual Average)



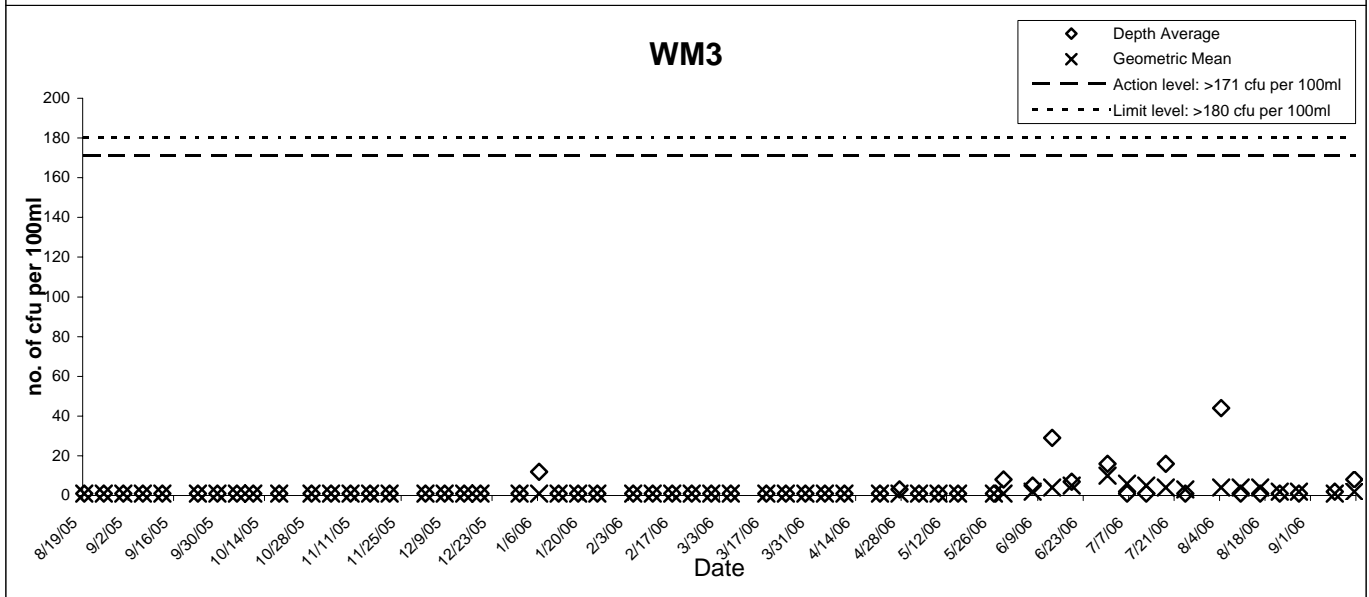
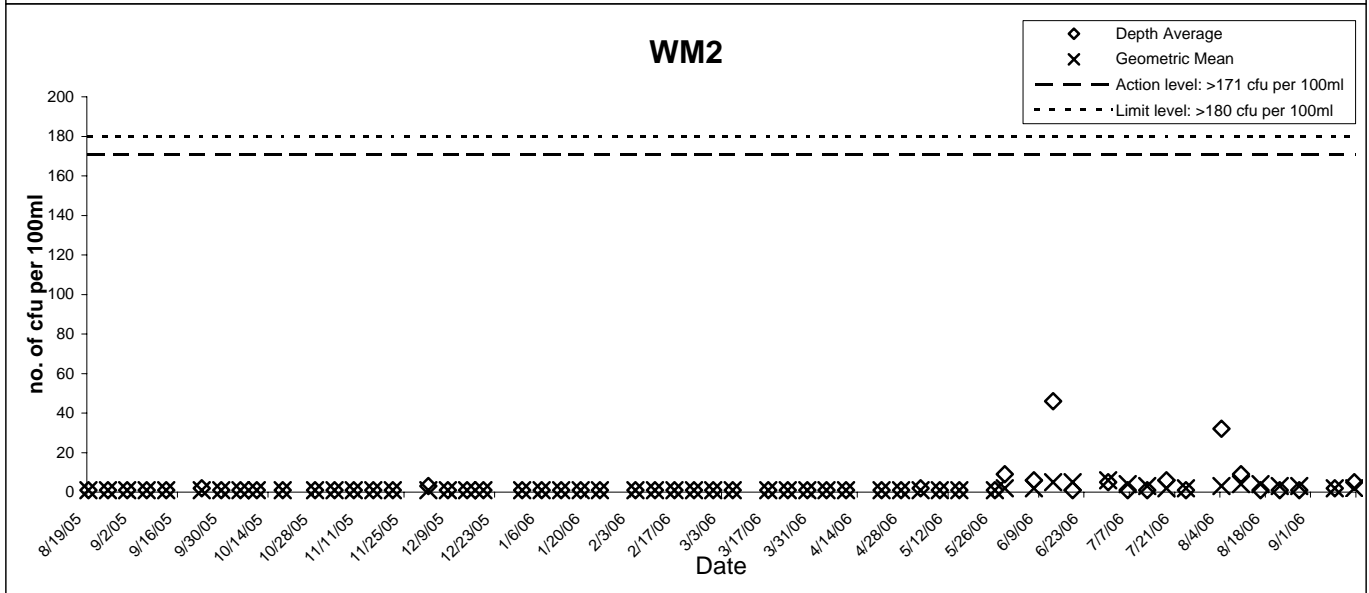
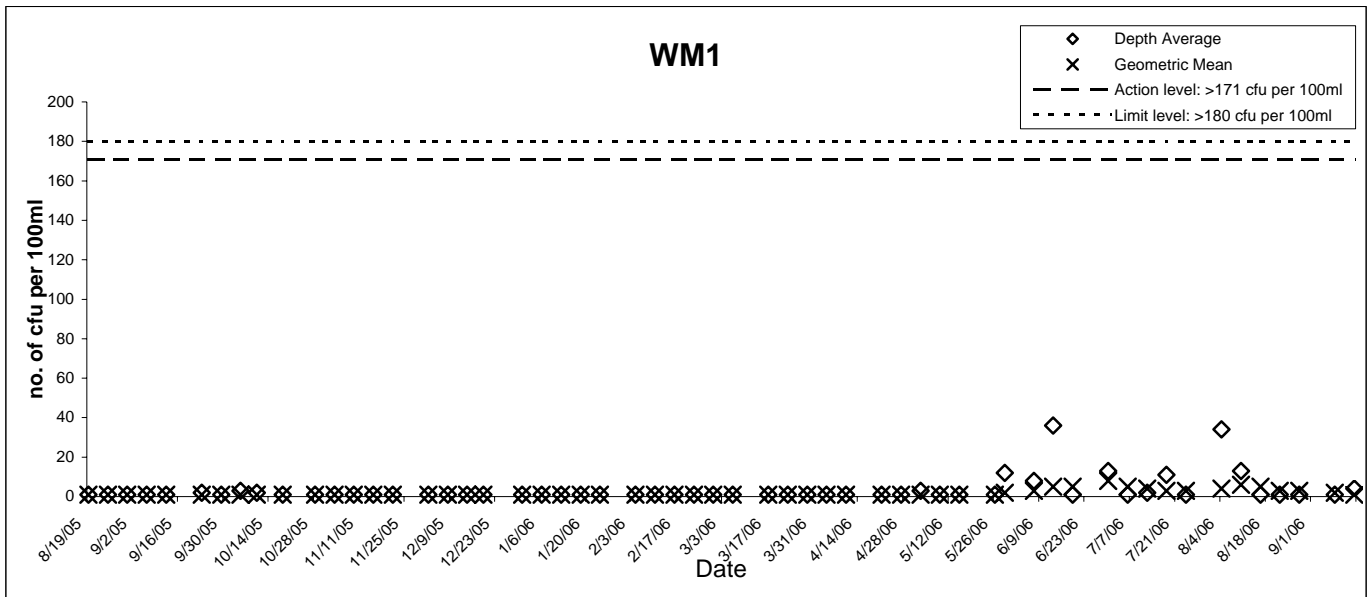
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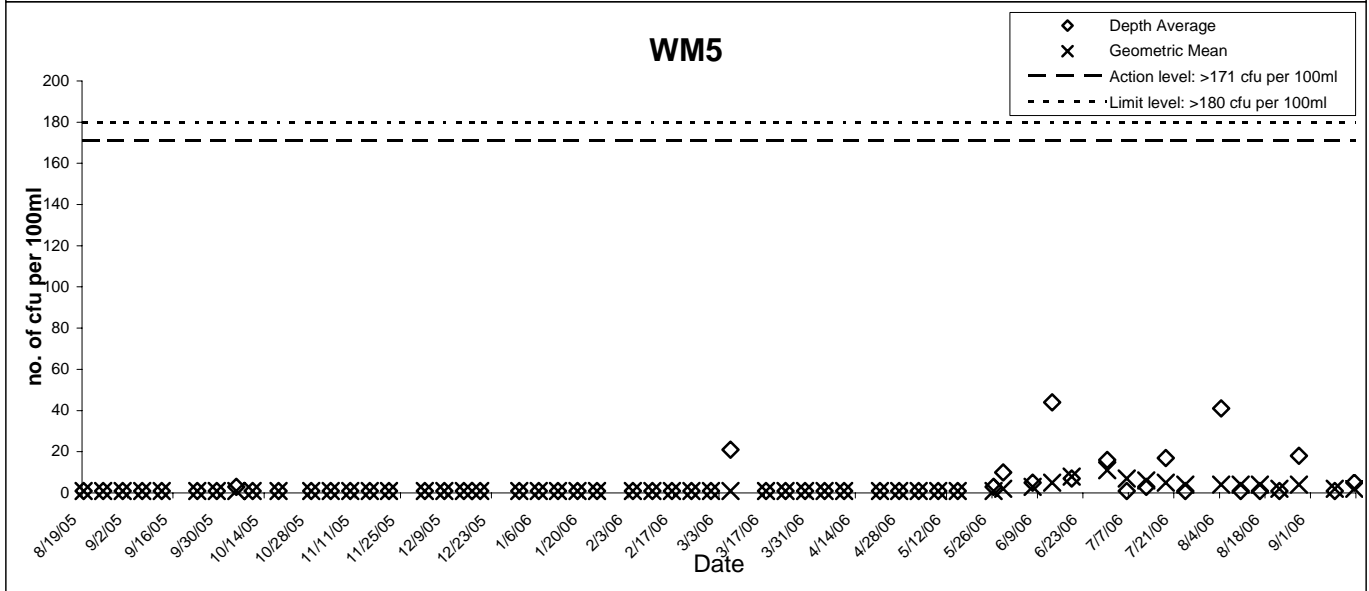
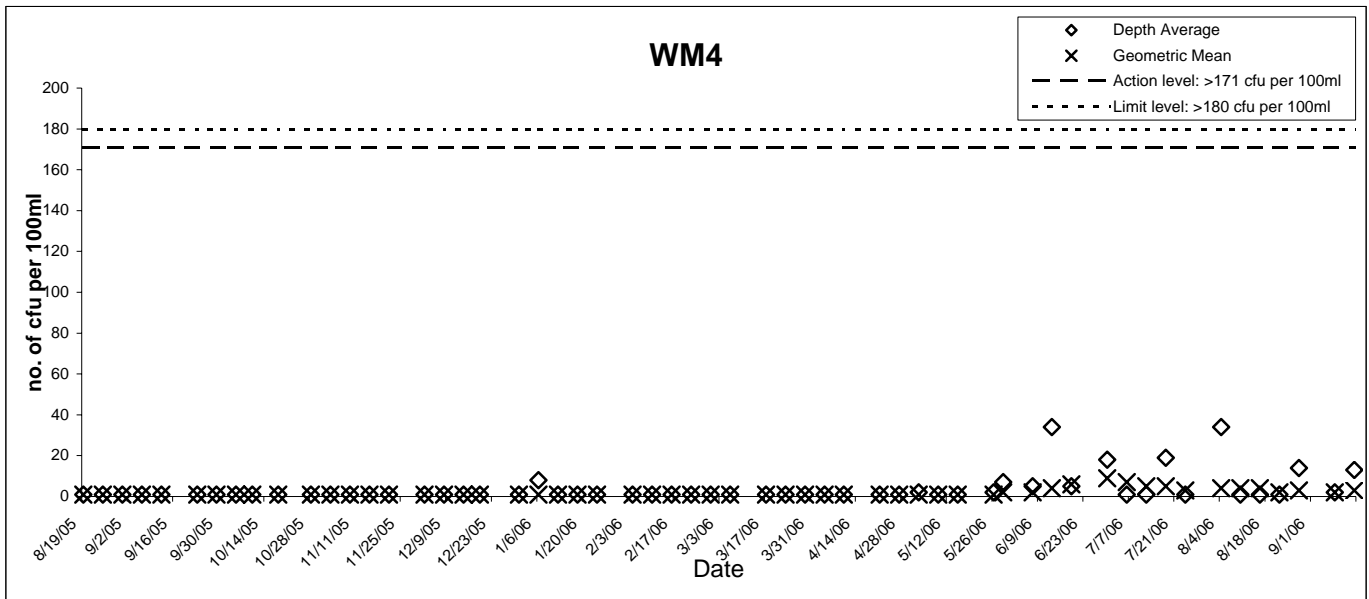
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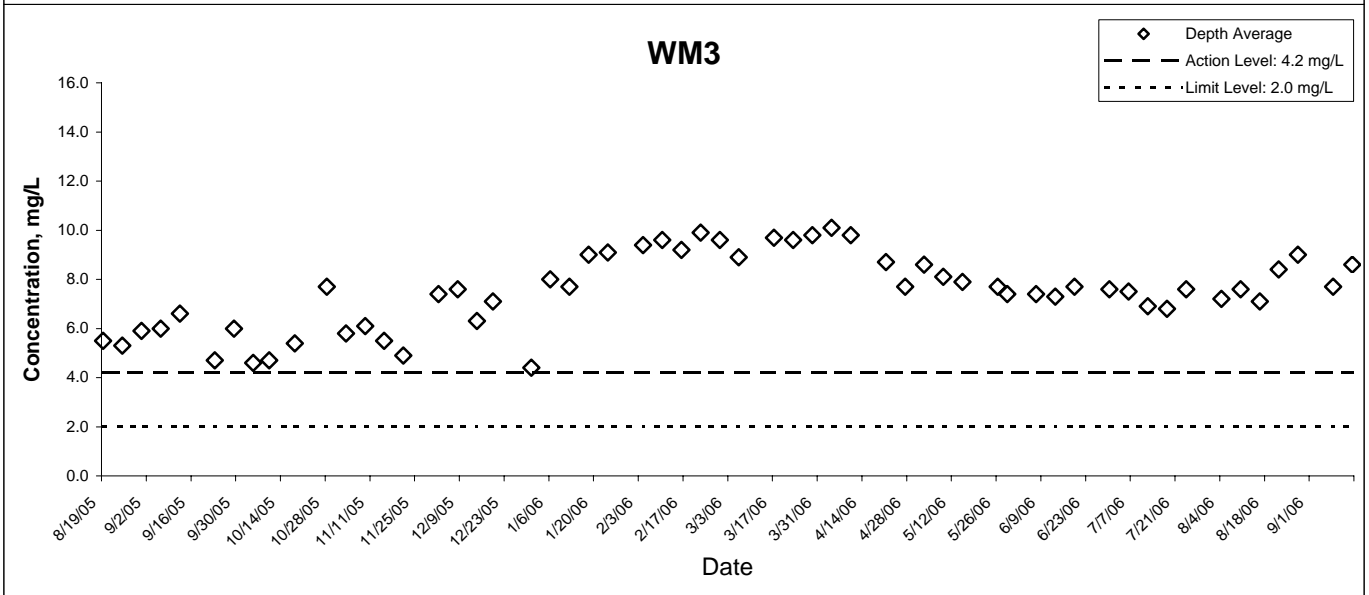
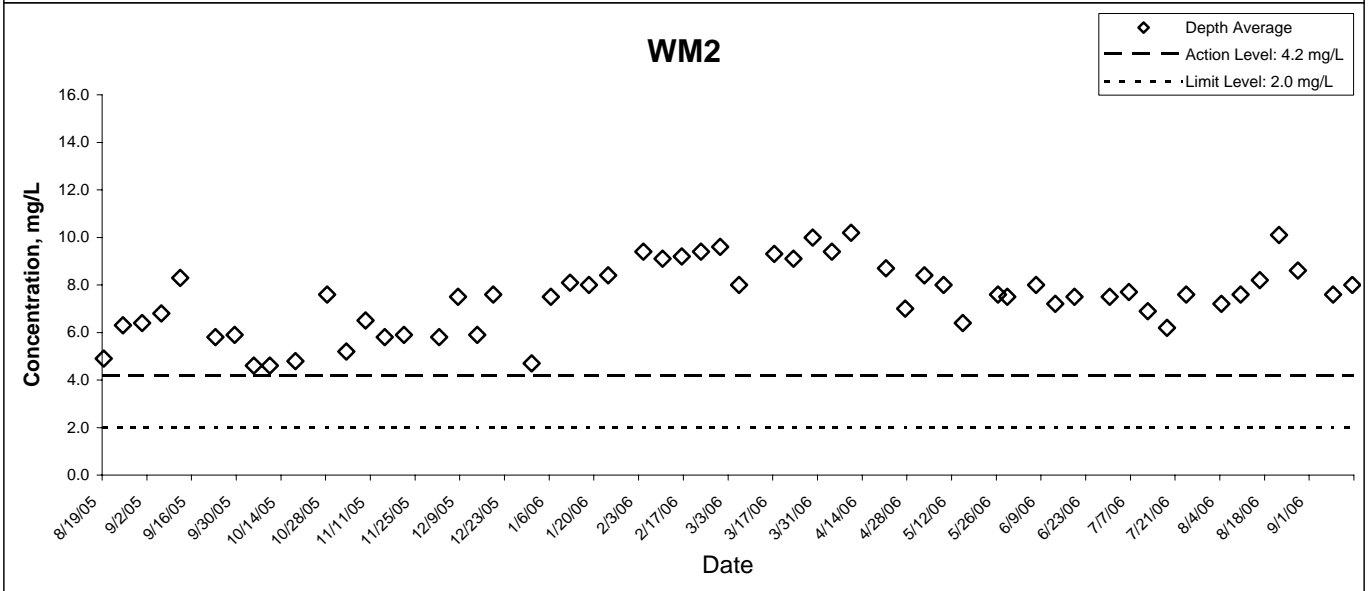
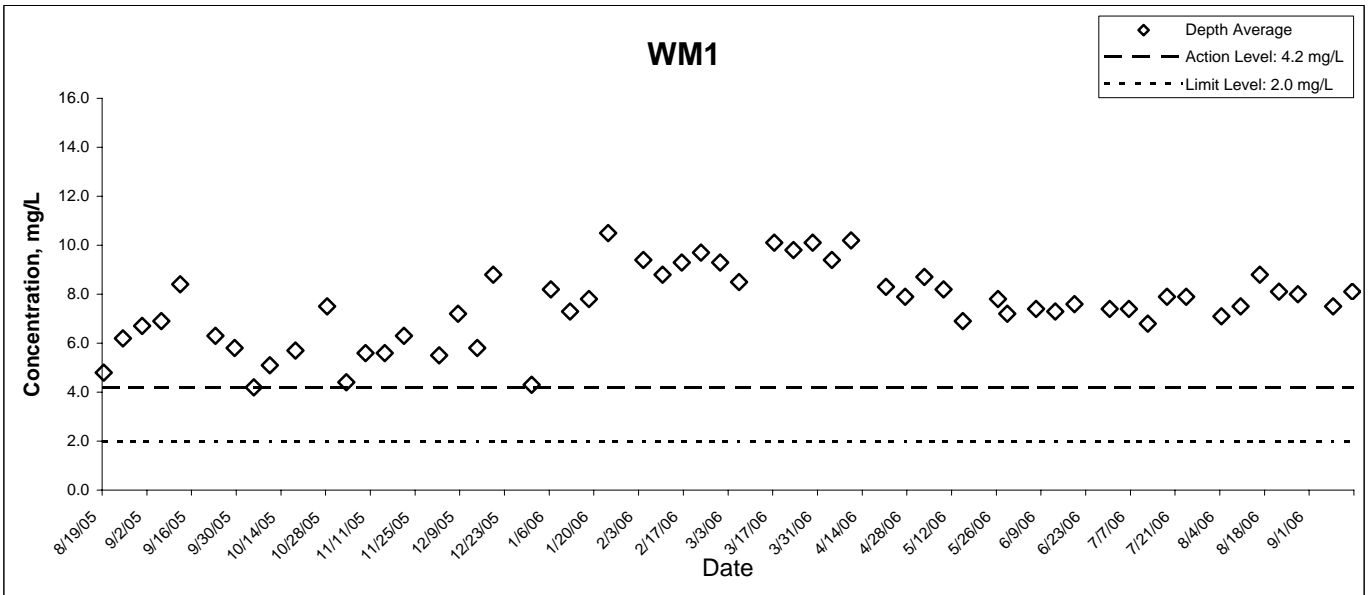
E.coli



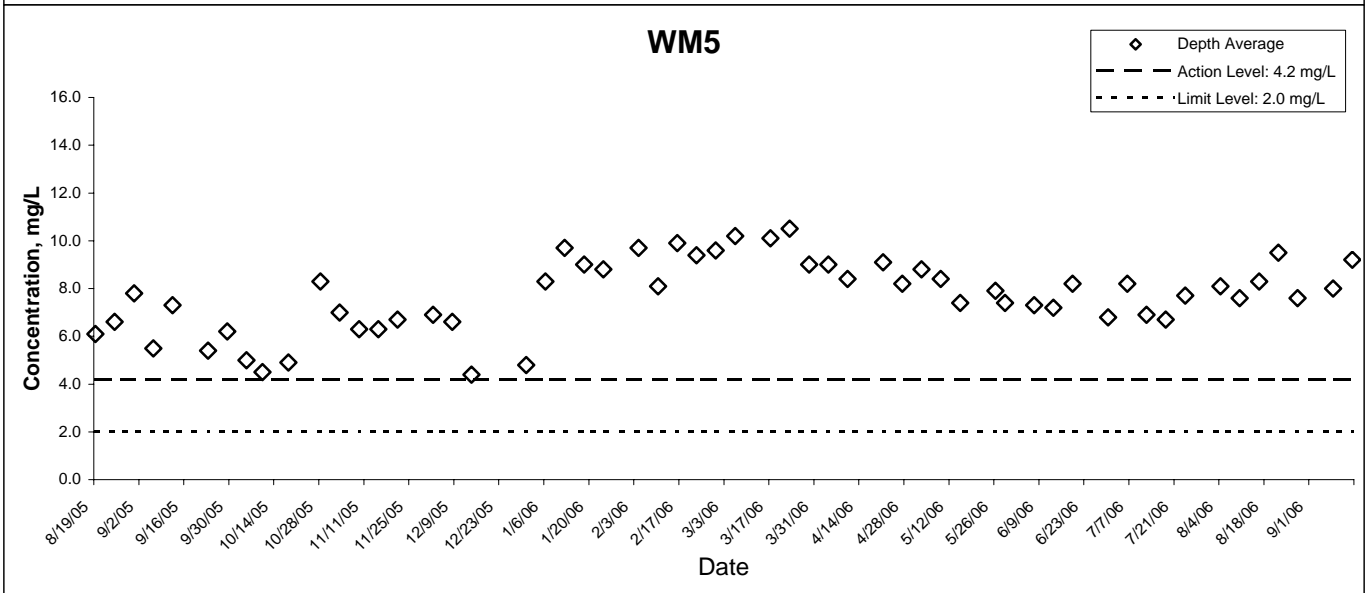
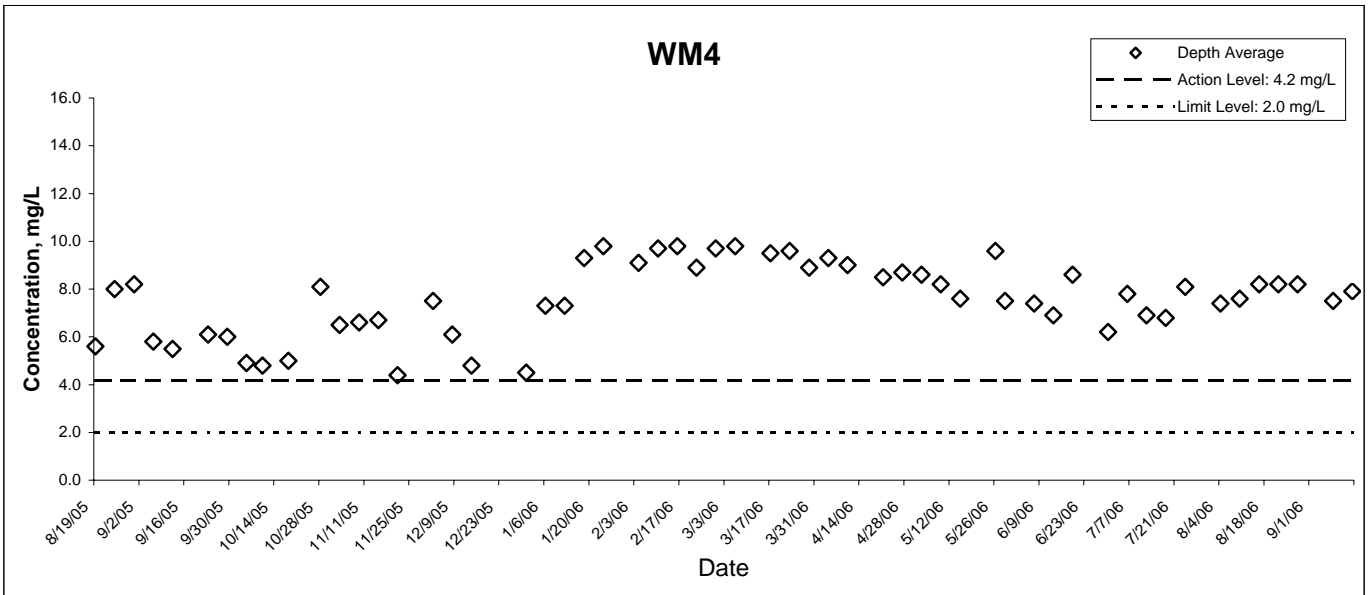
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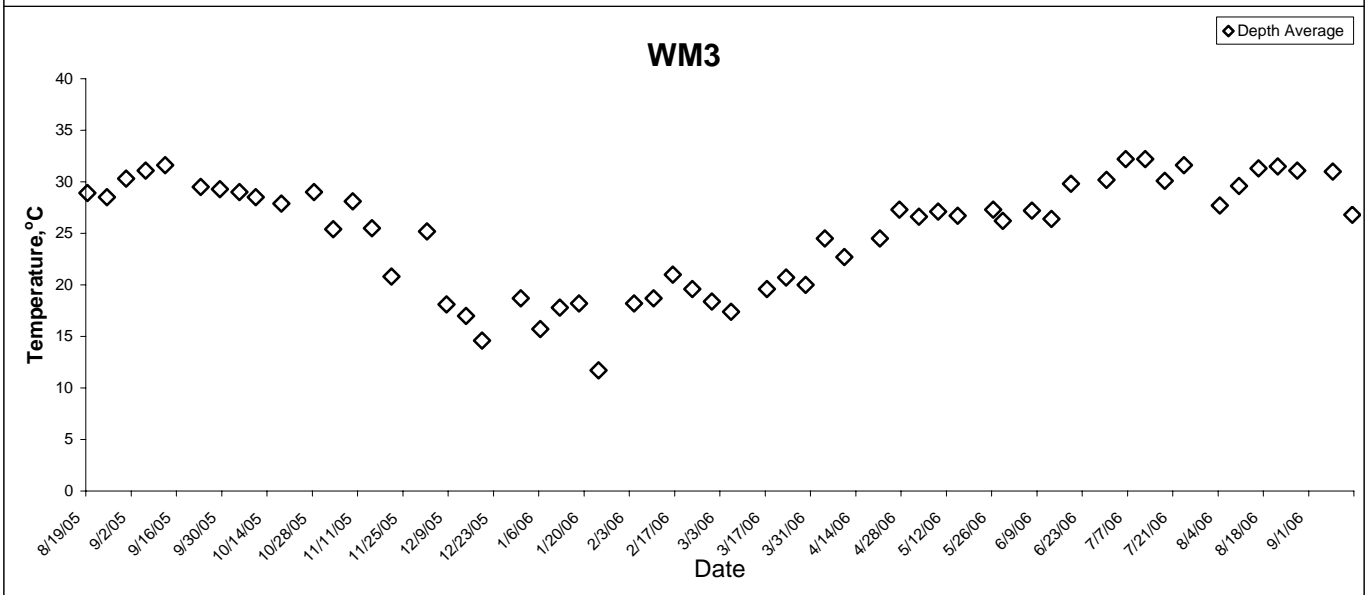
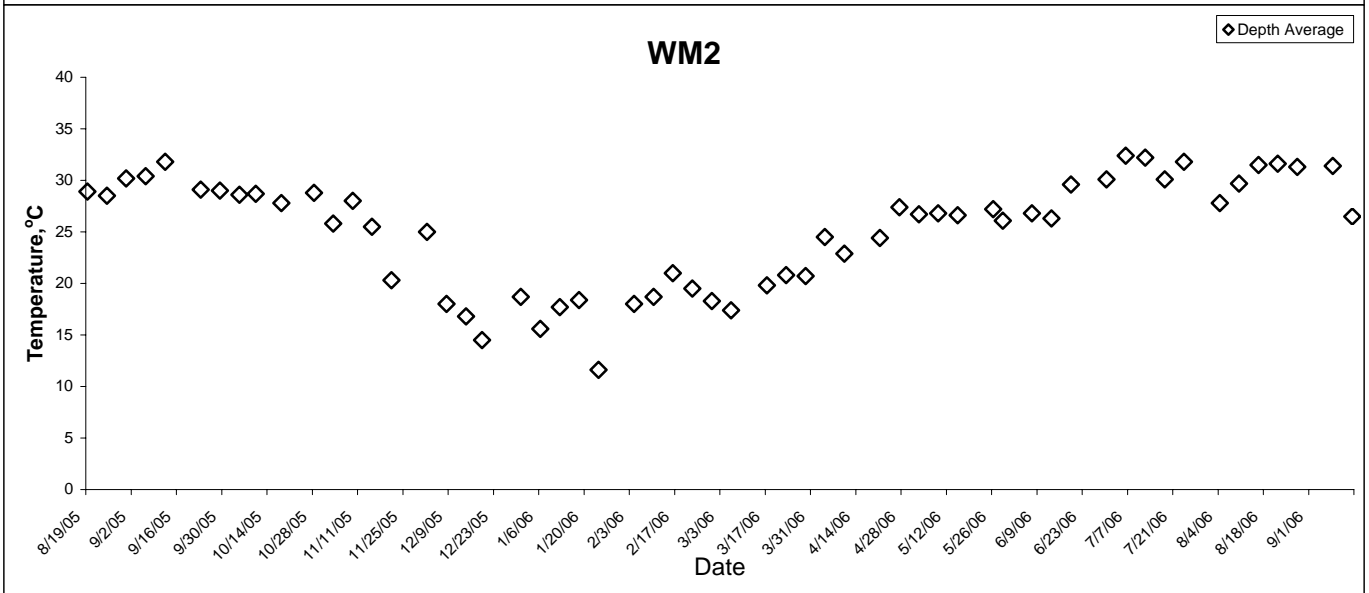
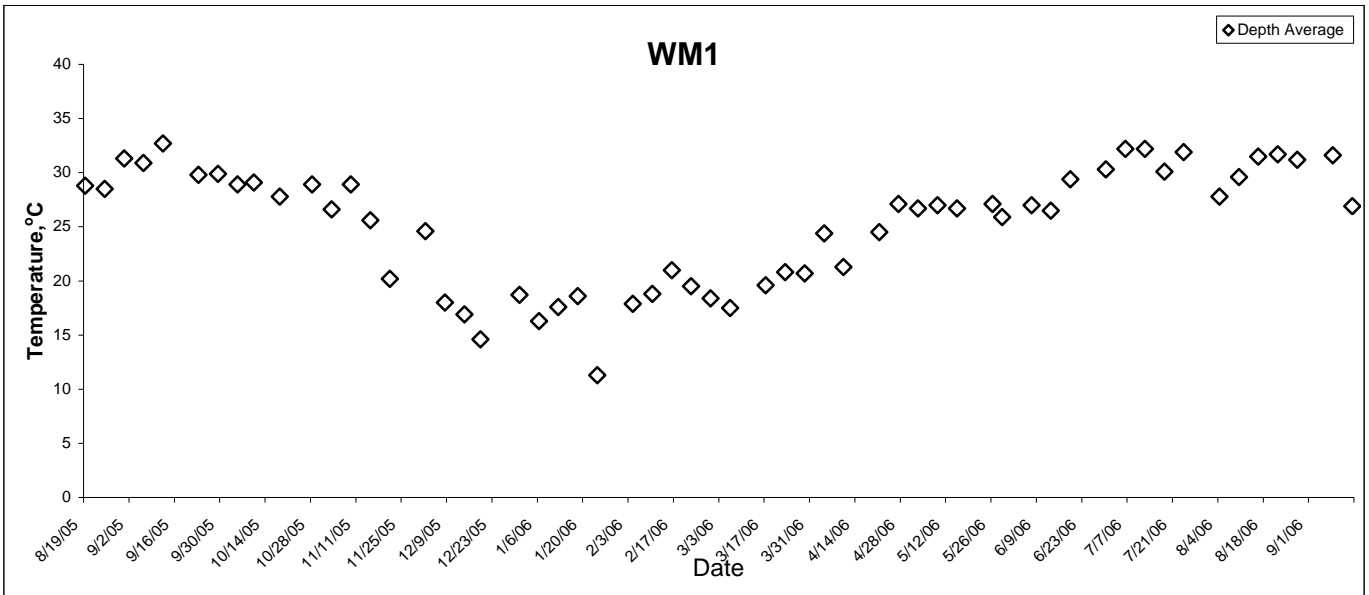
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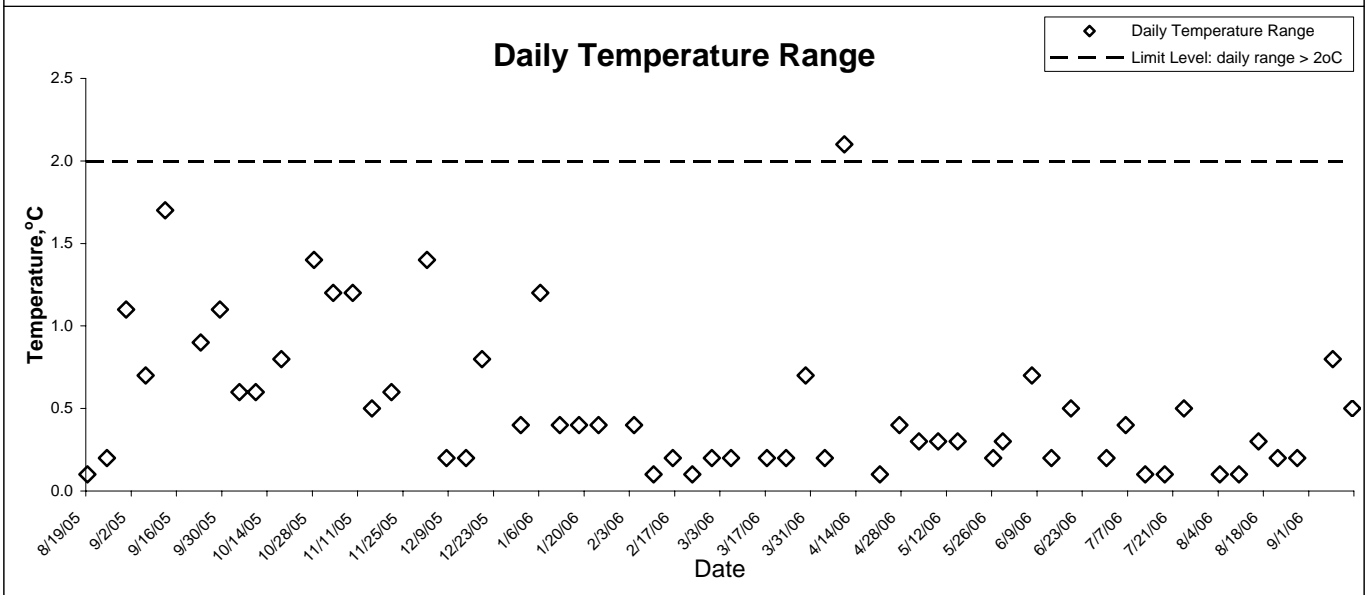
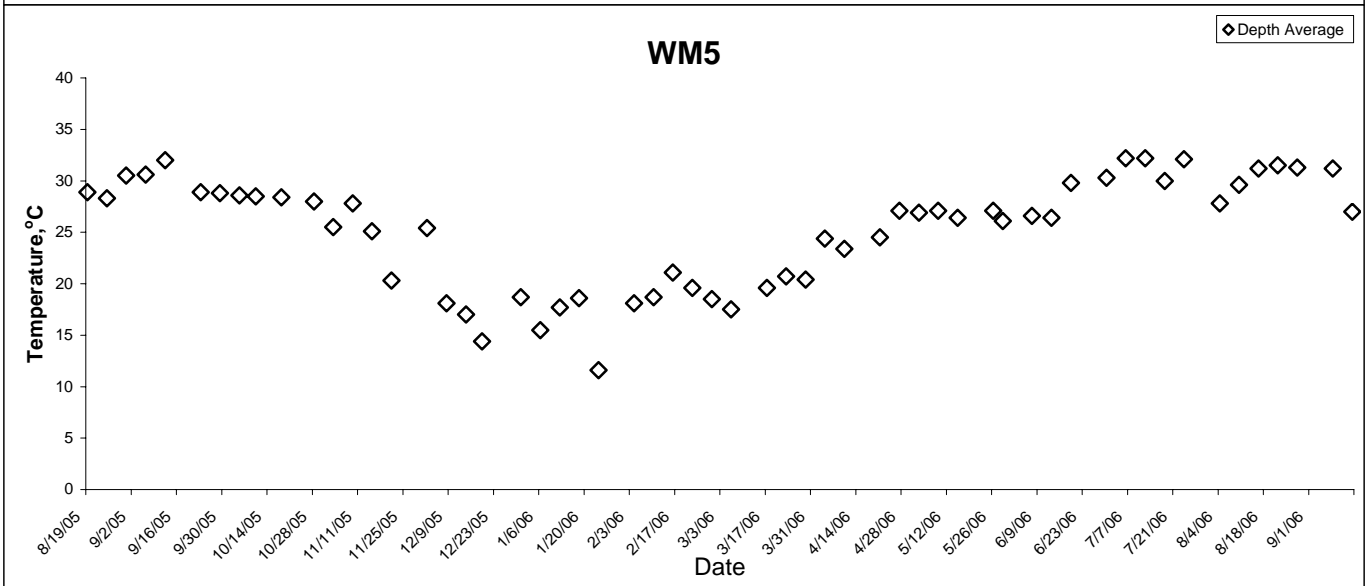
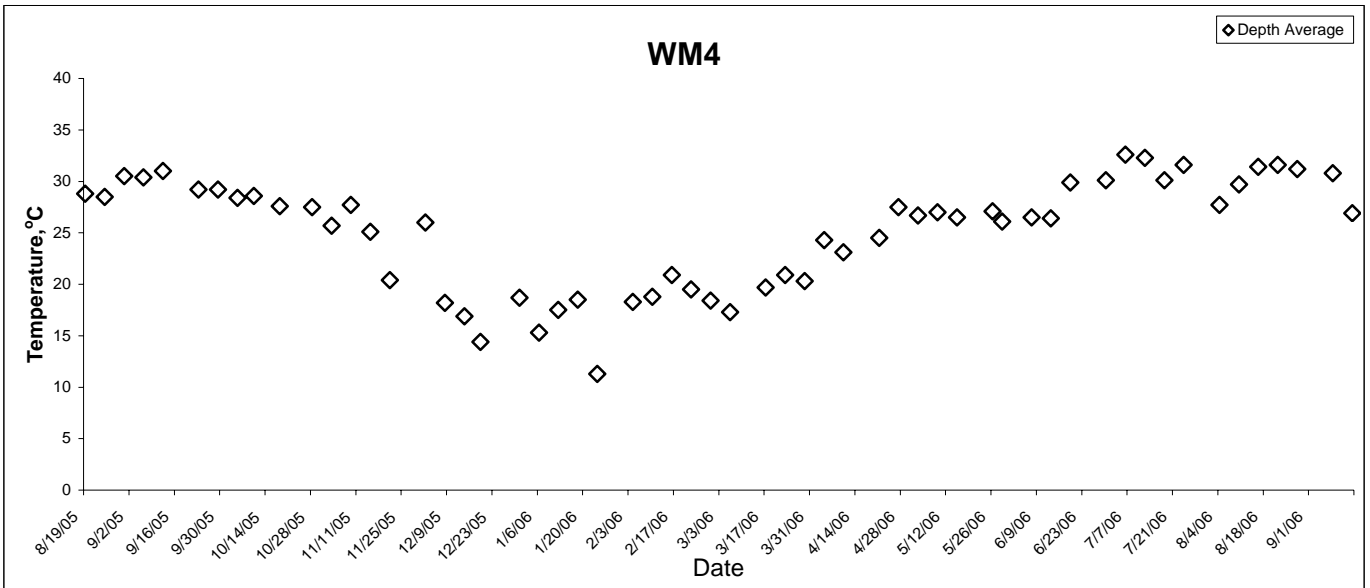
Dissoved Oxygen



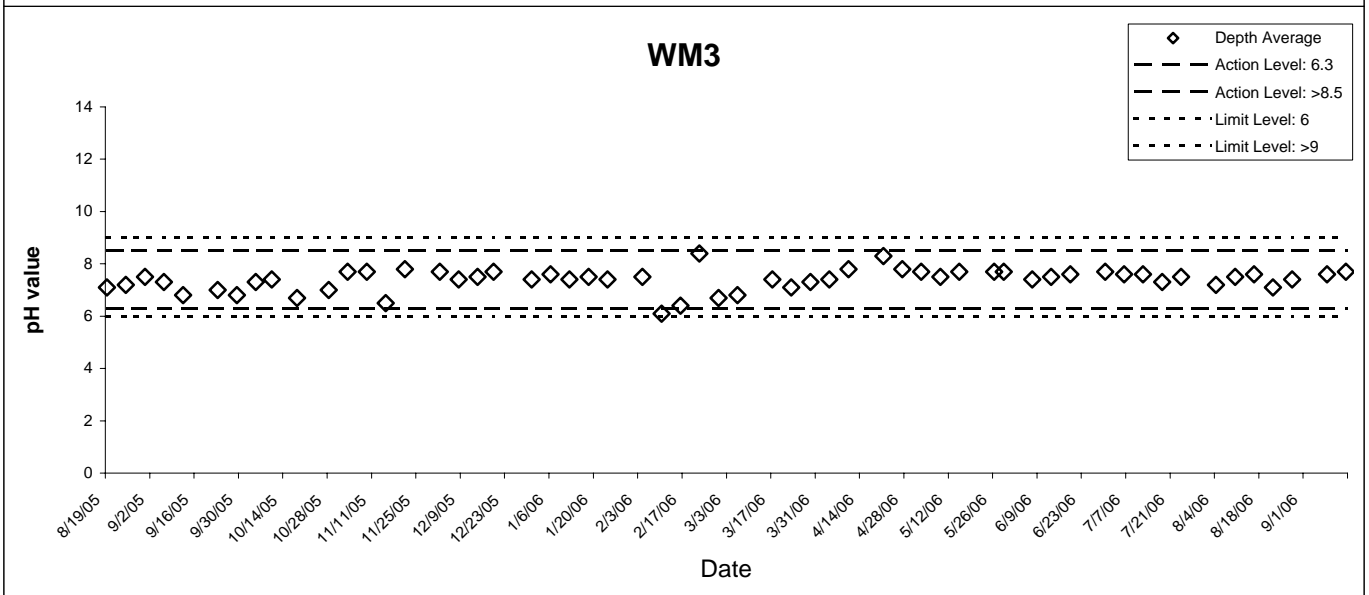
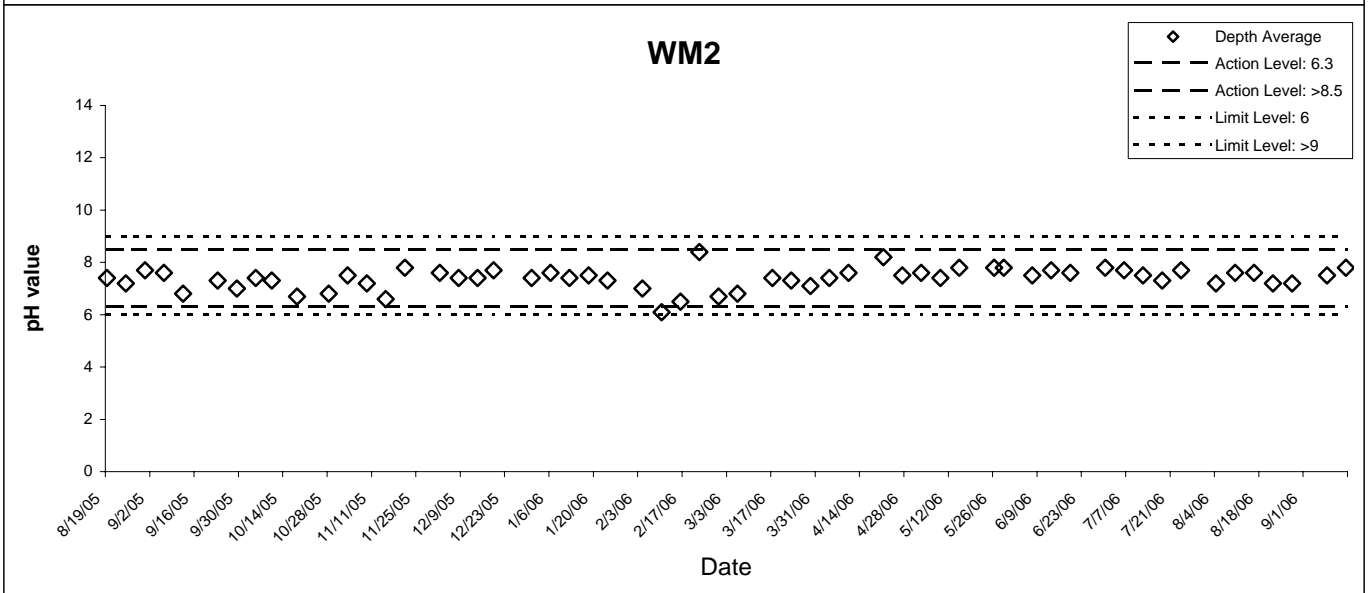
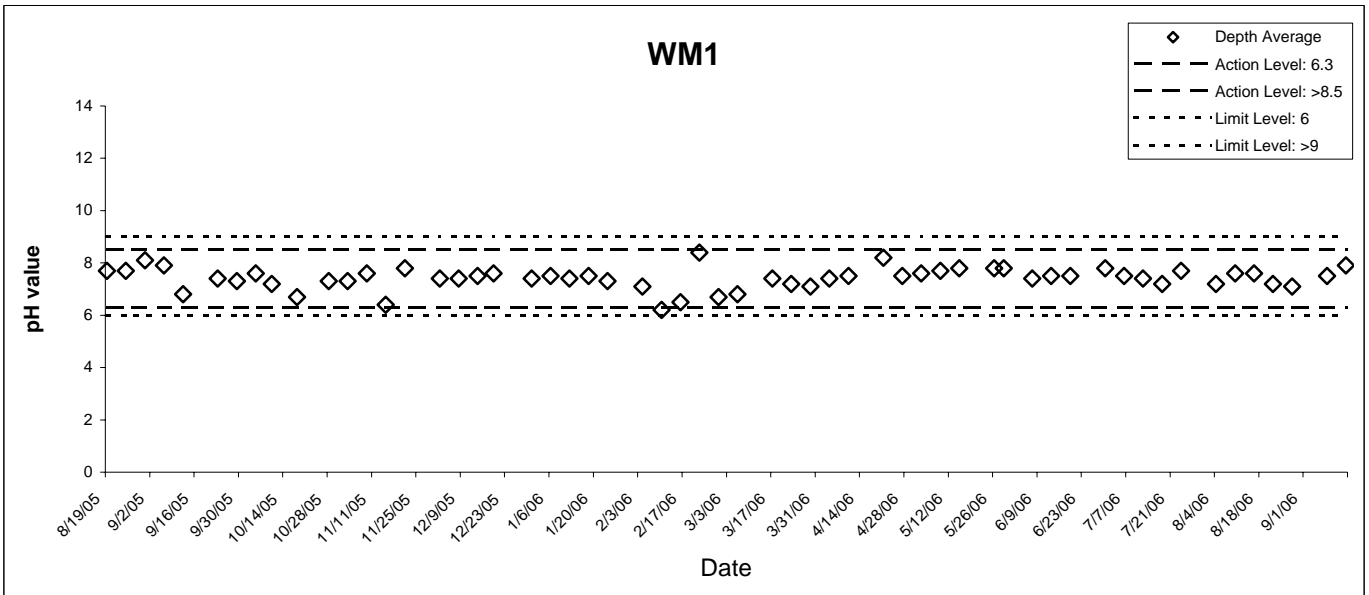
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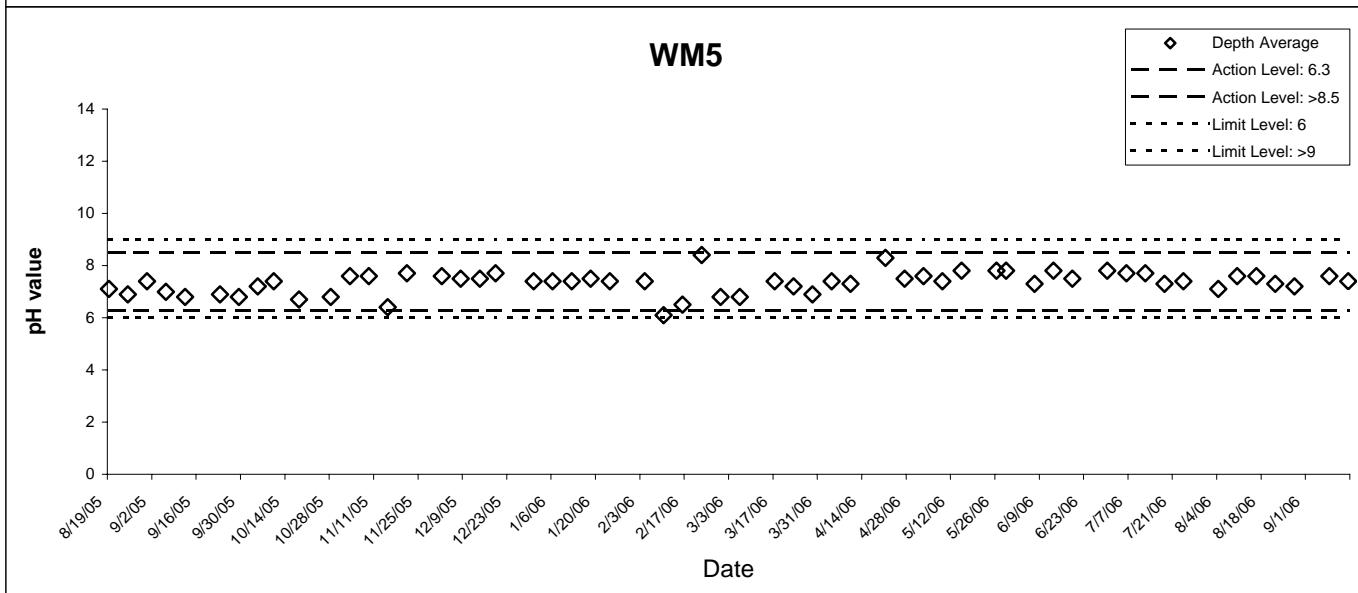
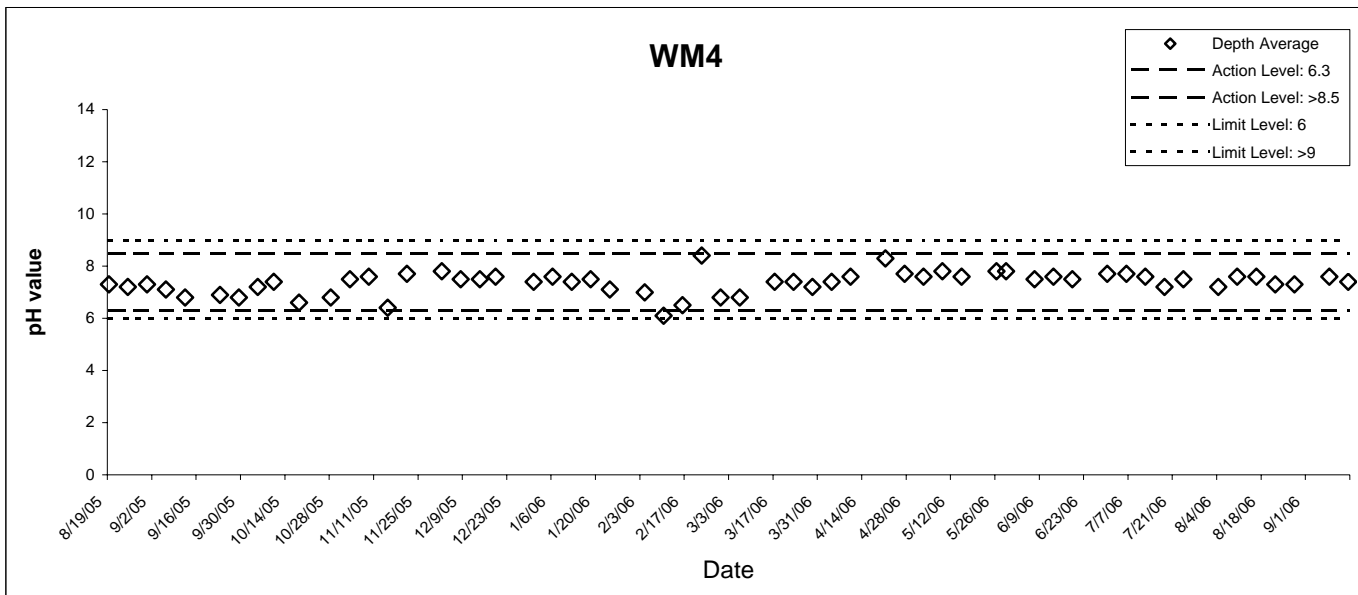
Temperature



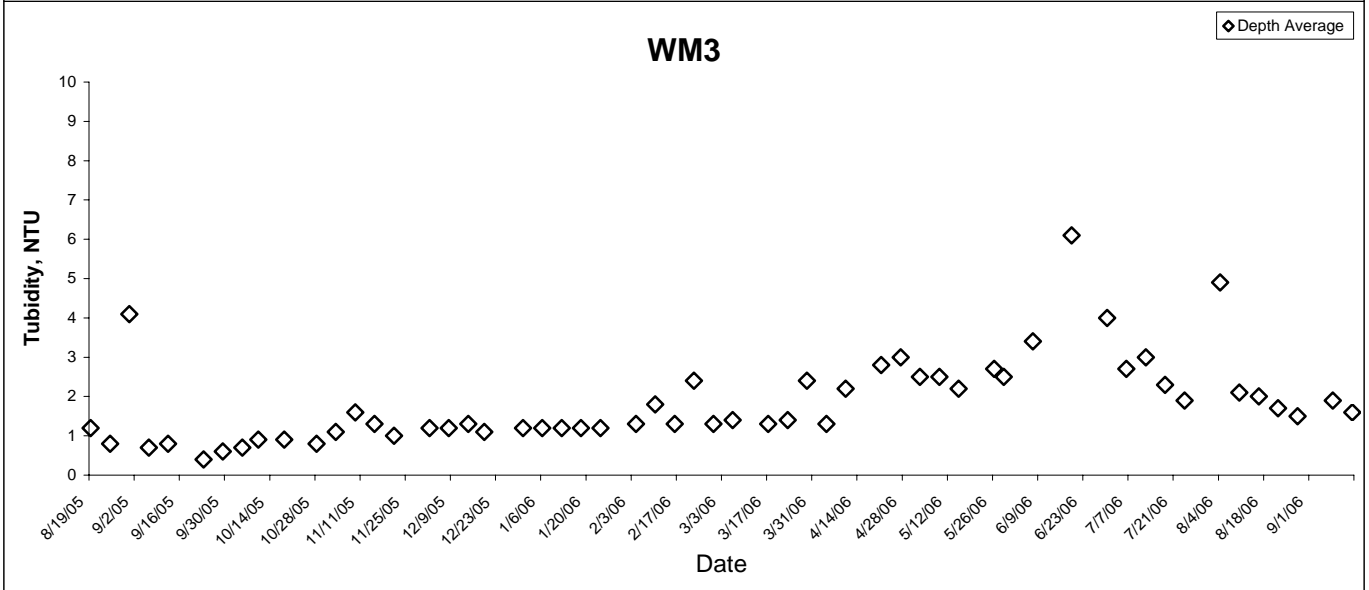
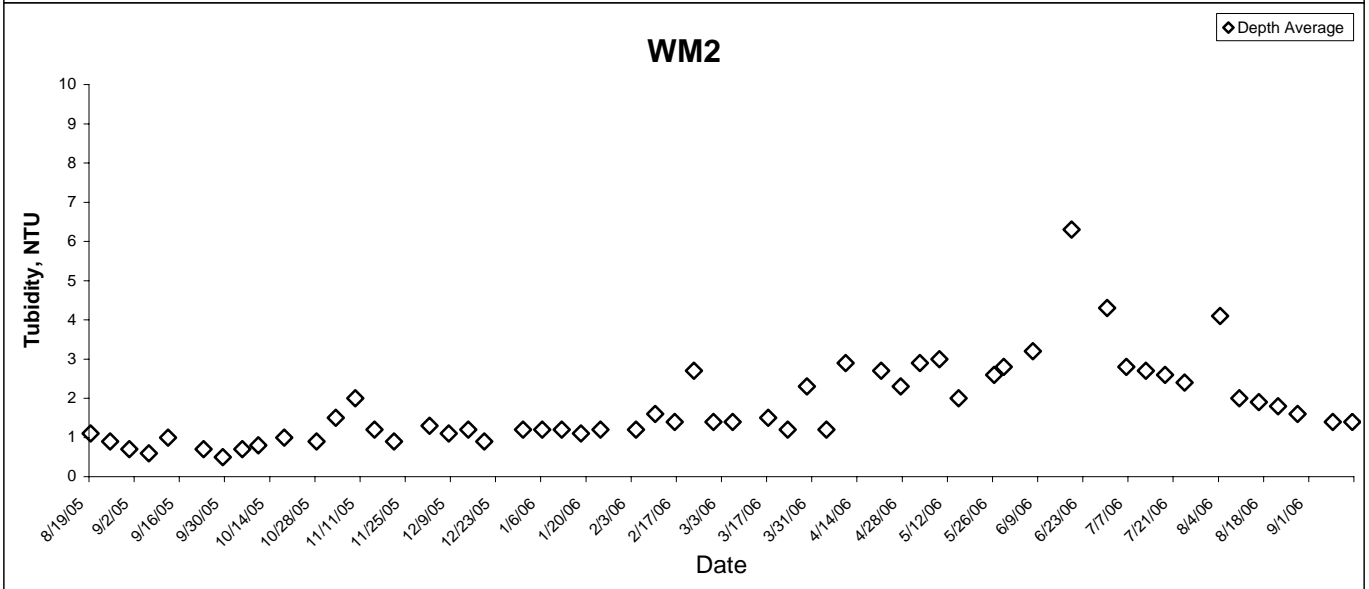
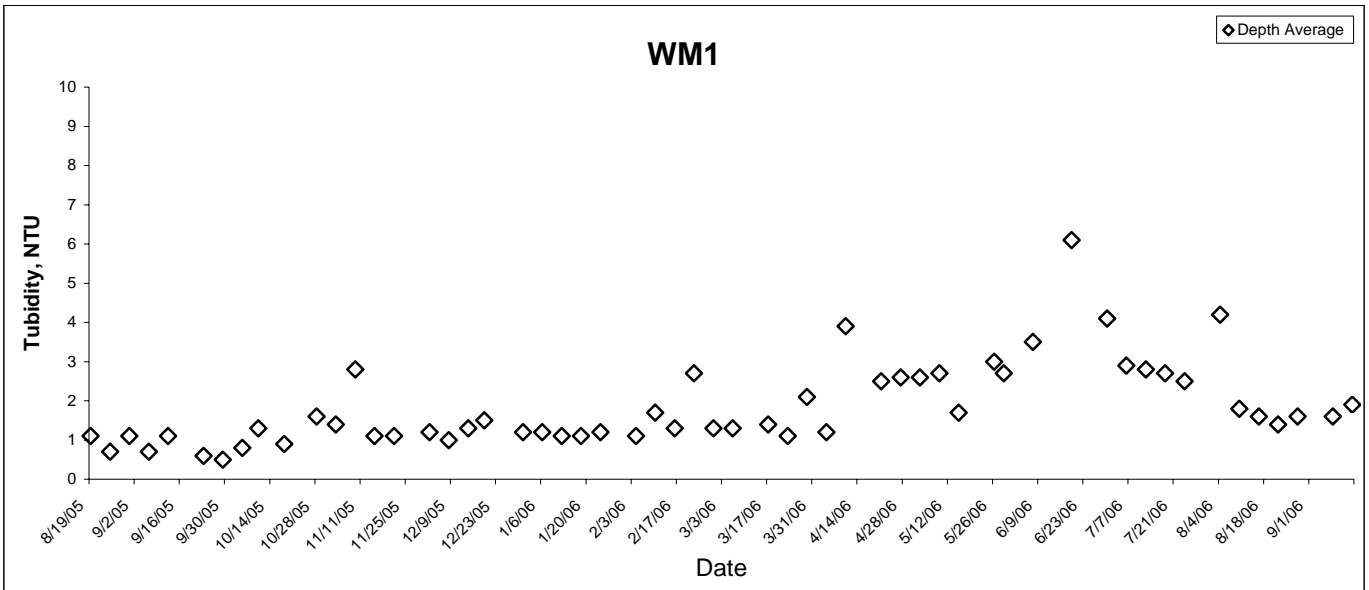
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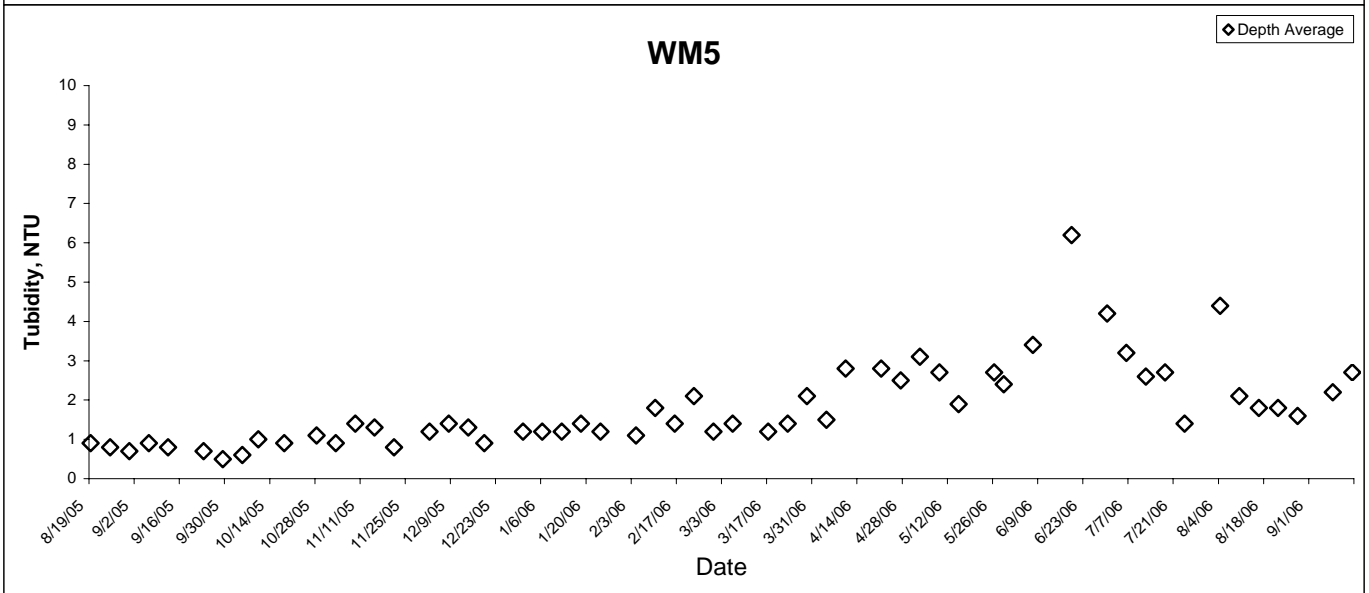
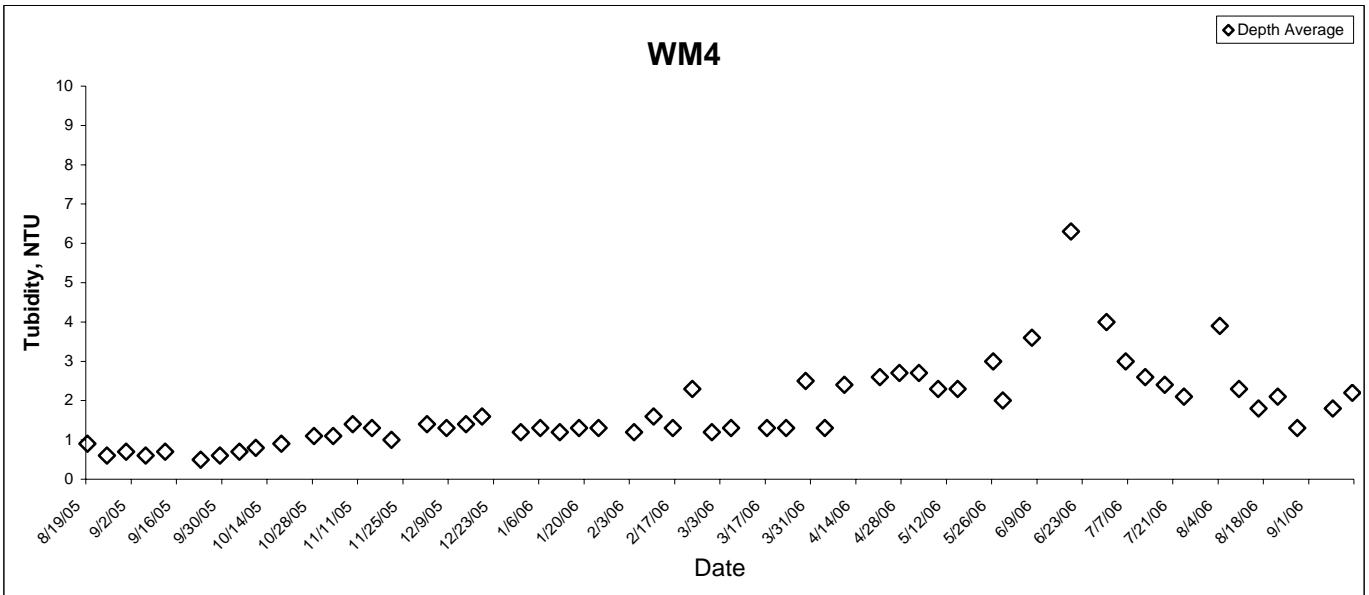
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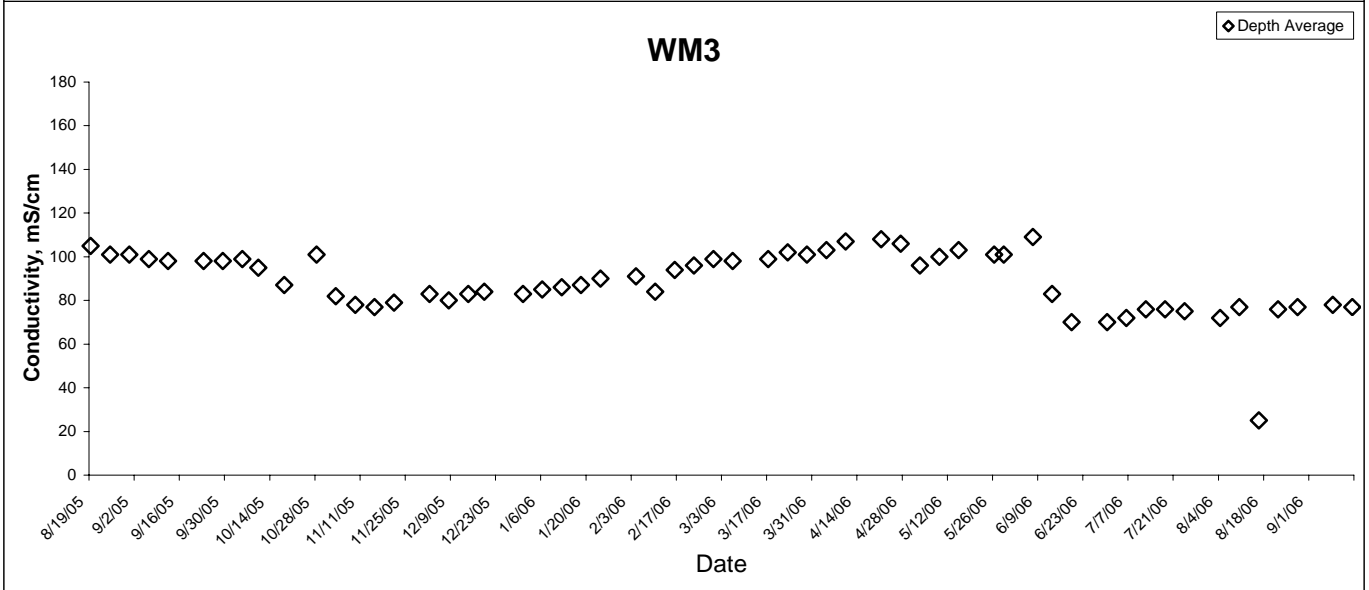
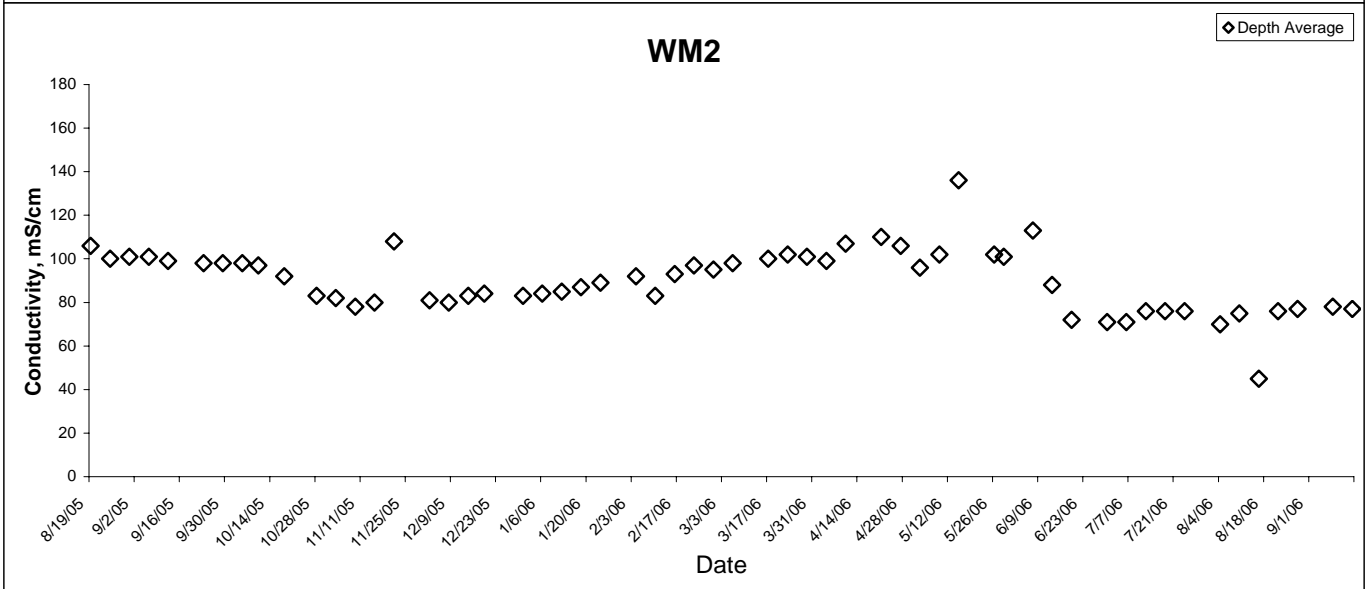
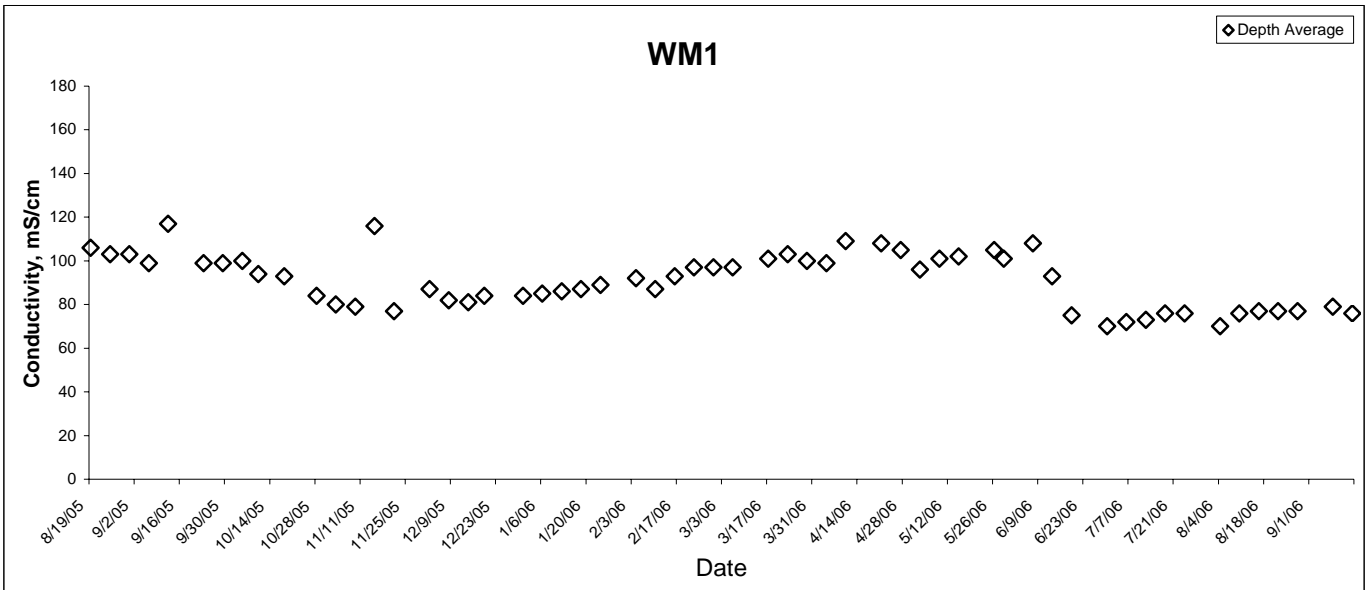
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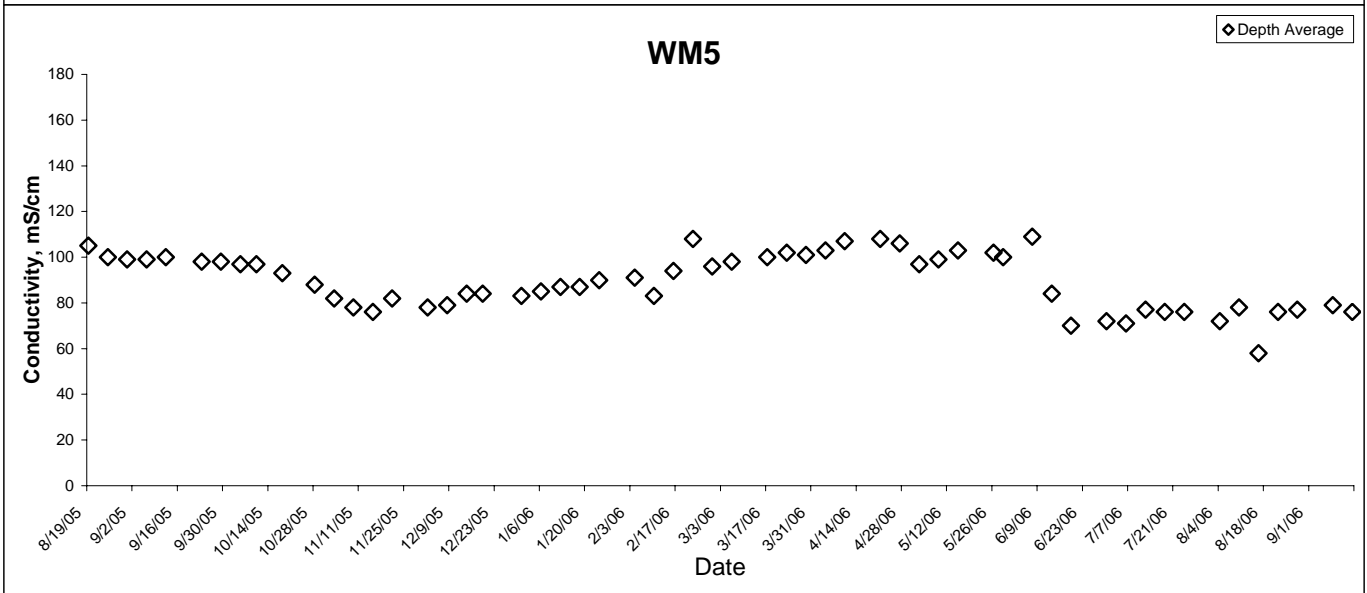
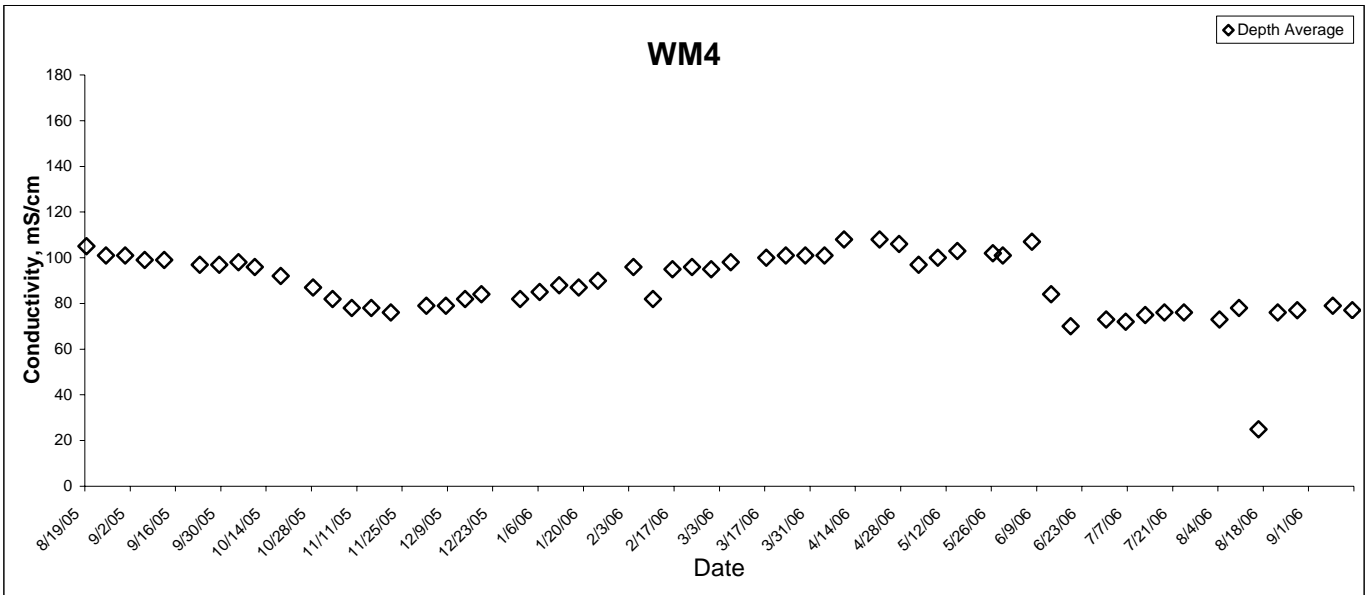
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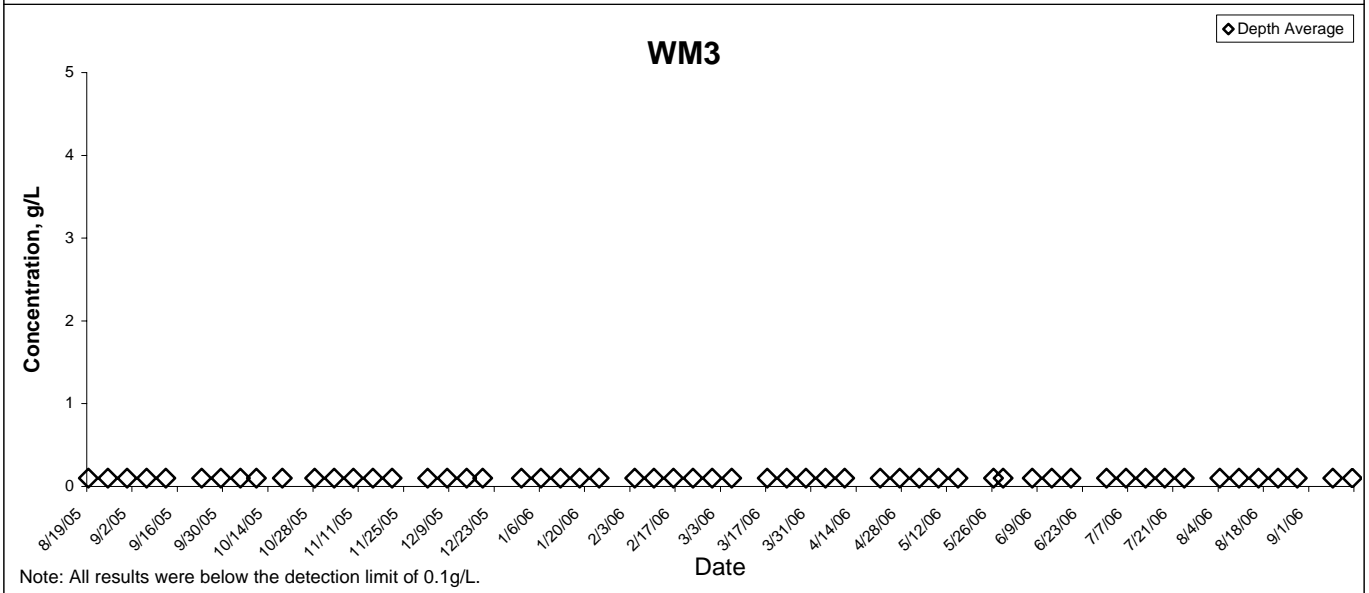
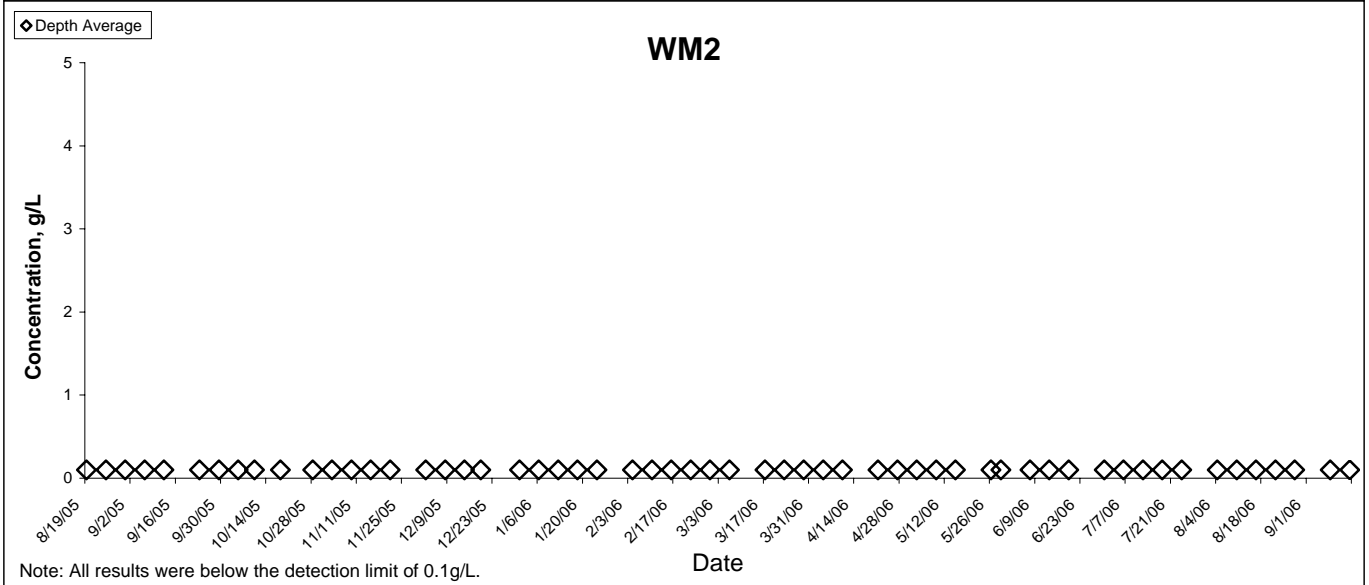
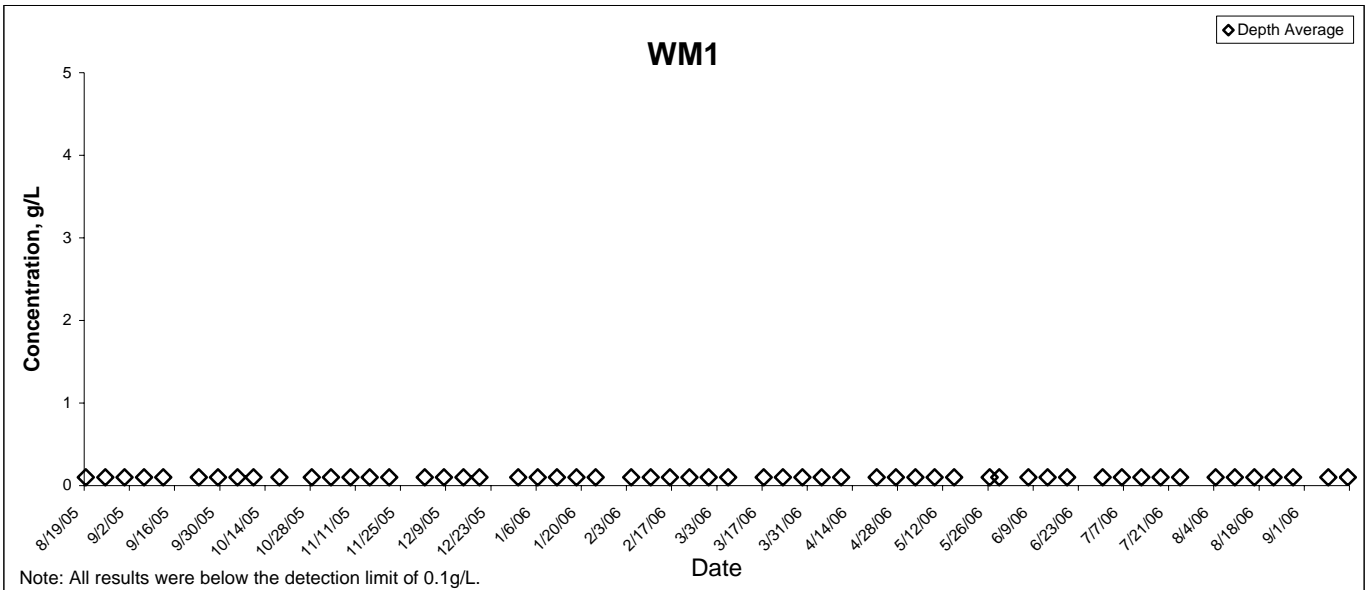
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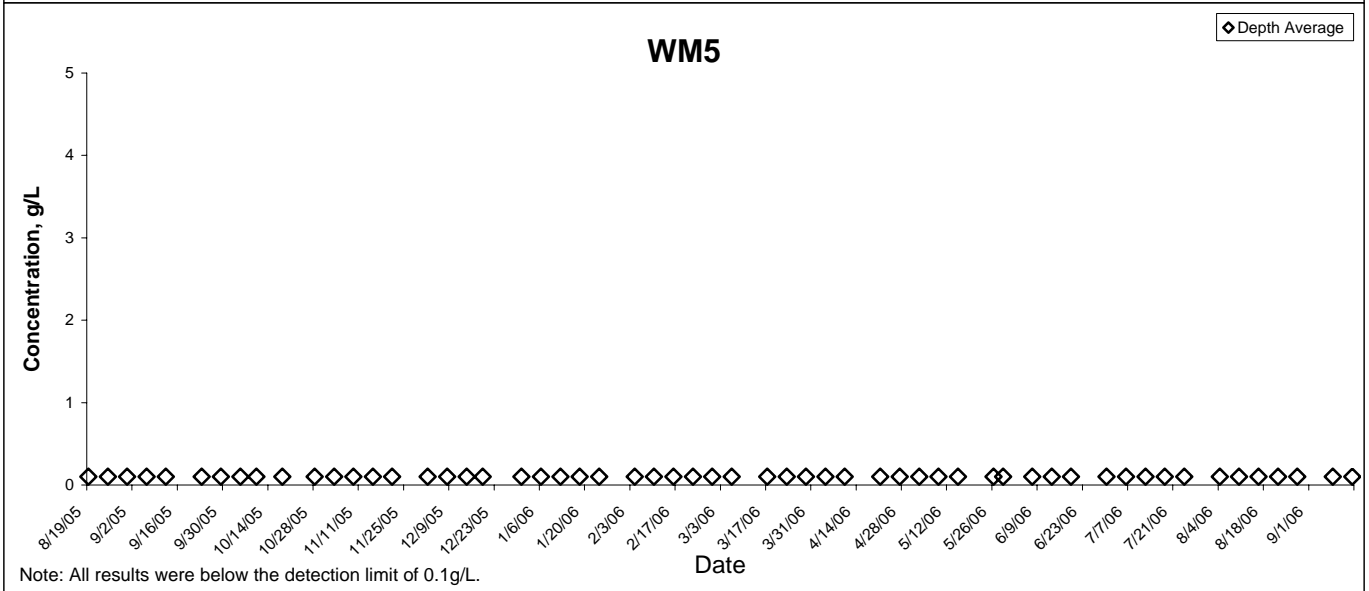
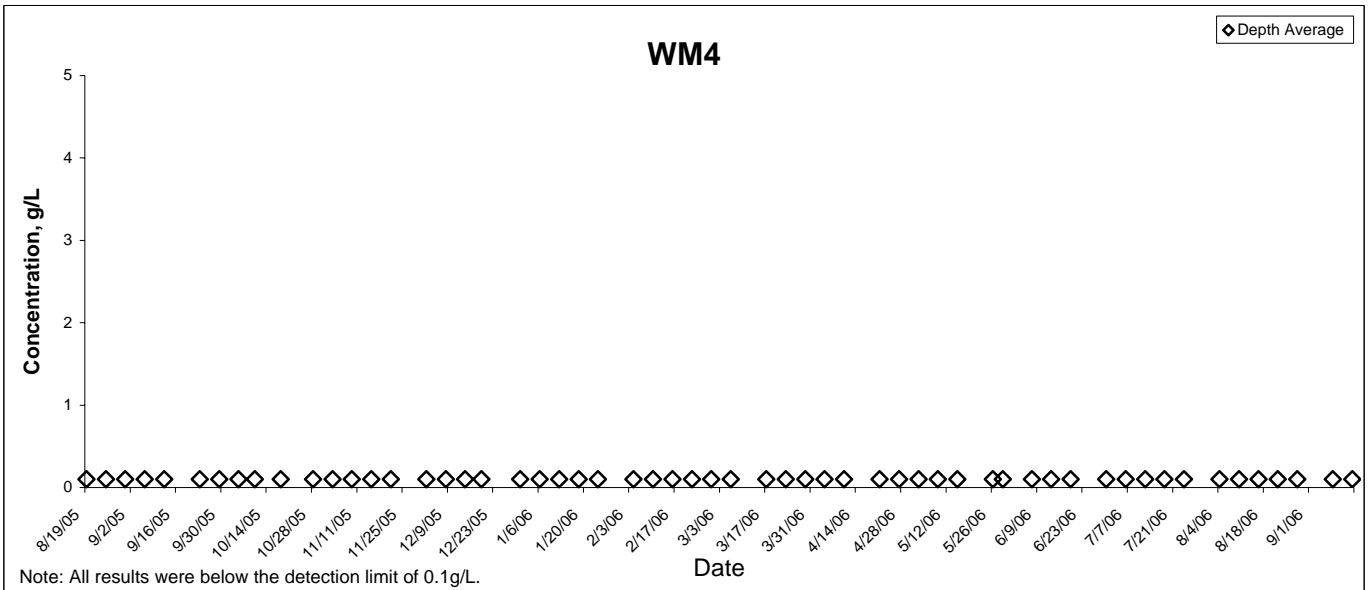
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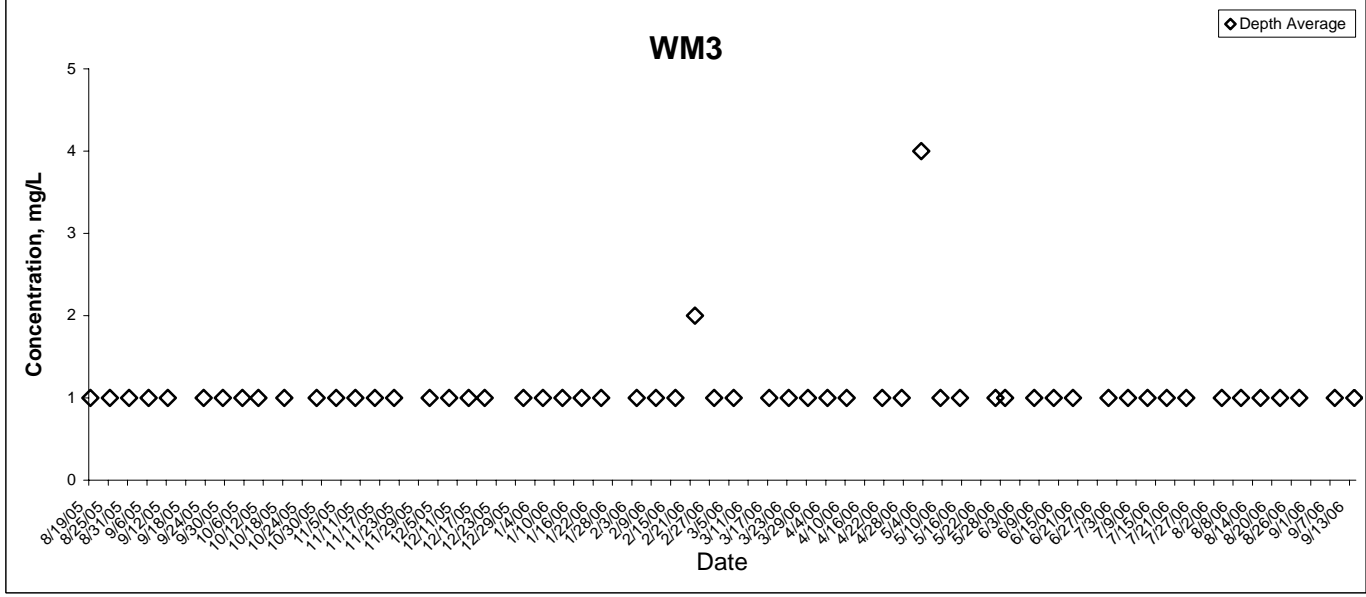
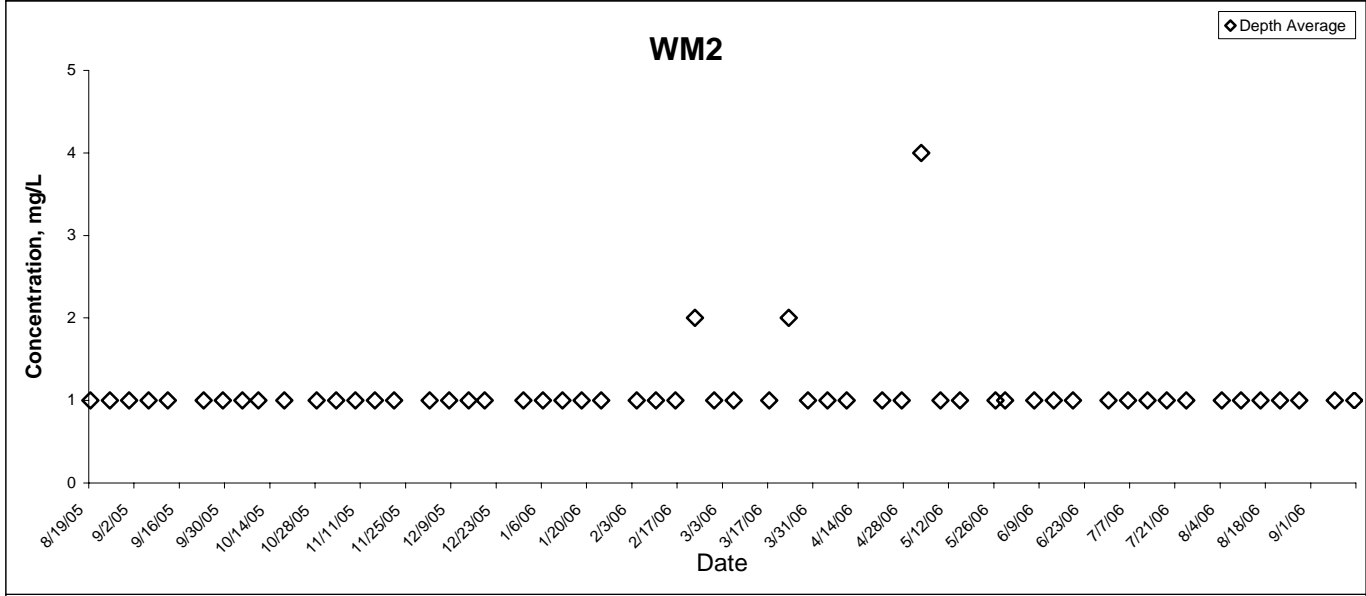
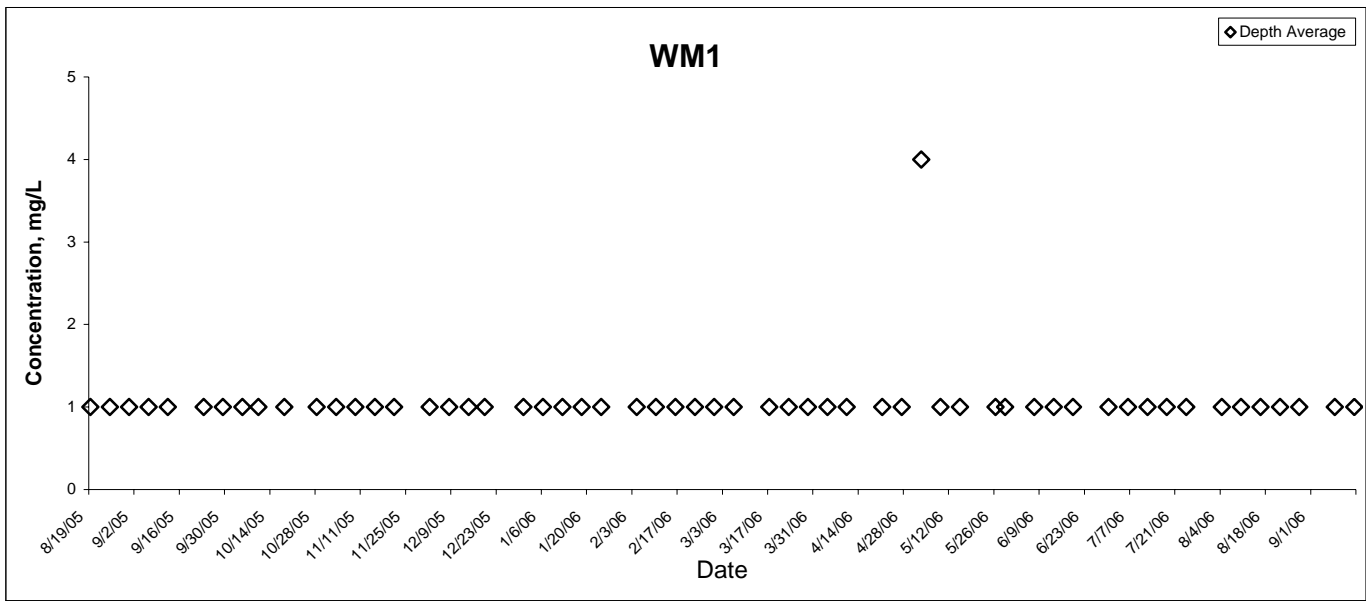
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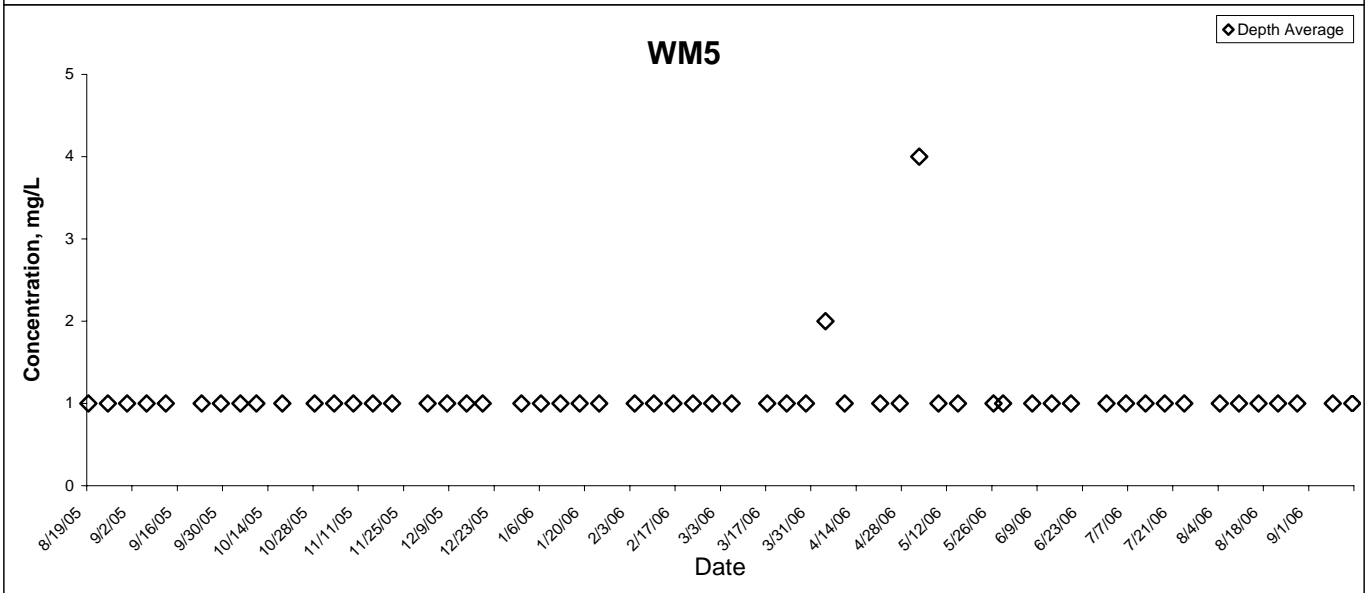
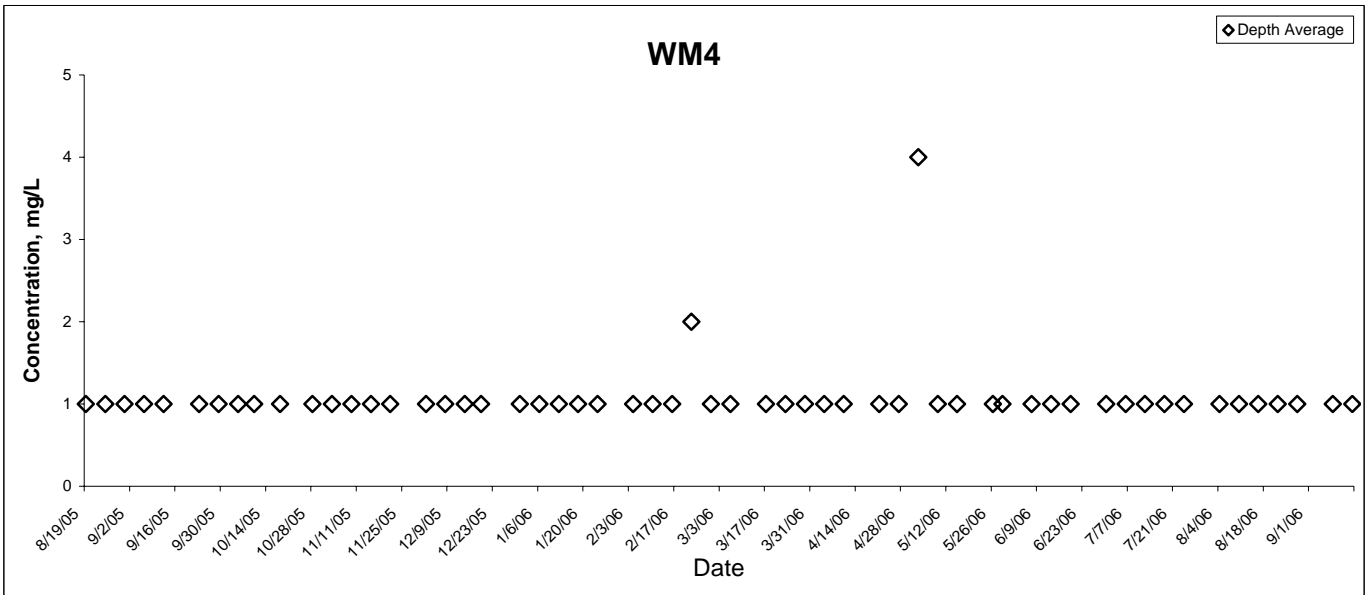
Salinity



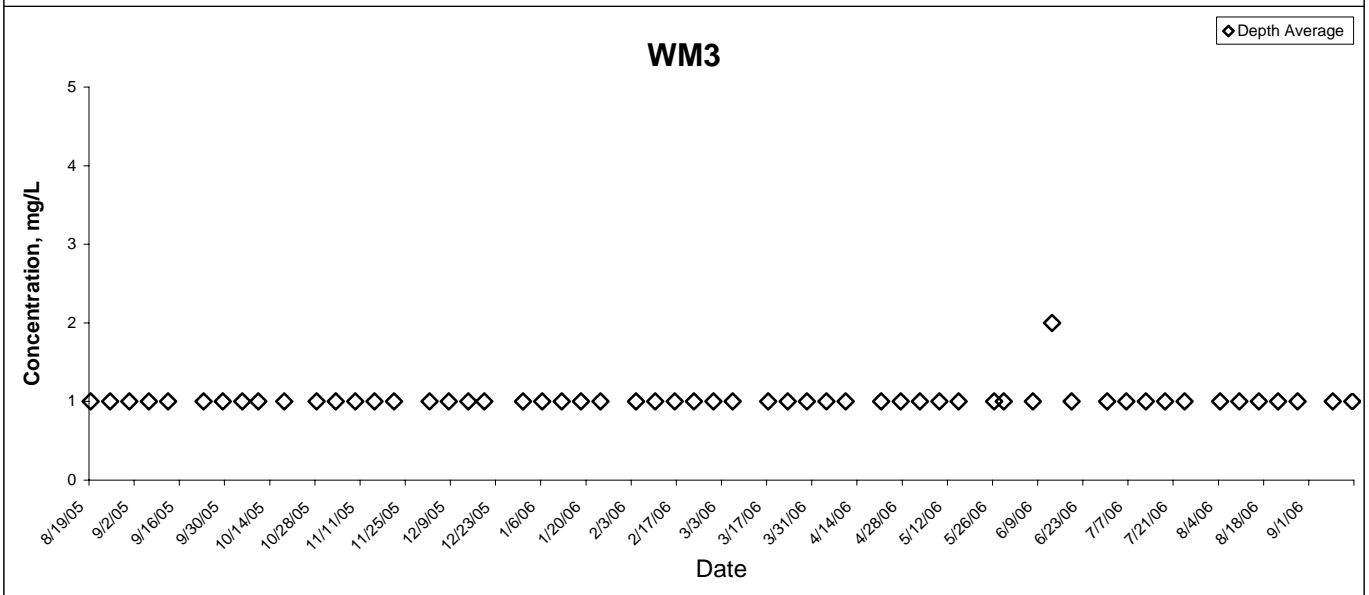
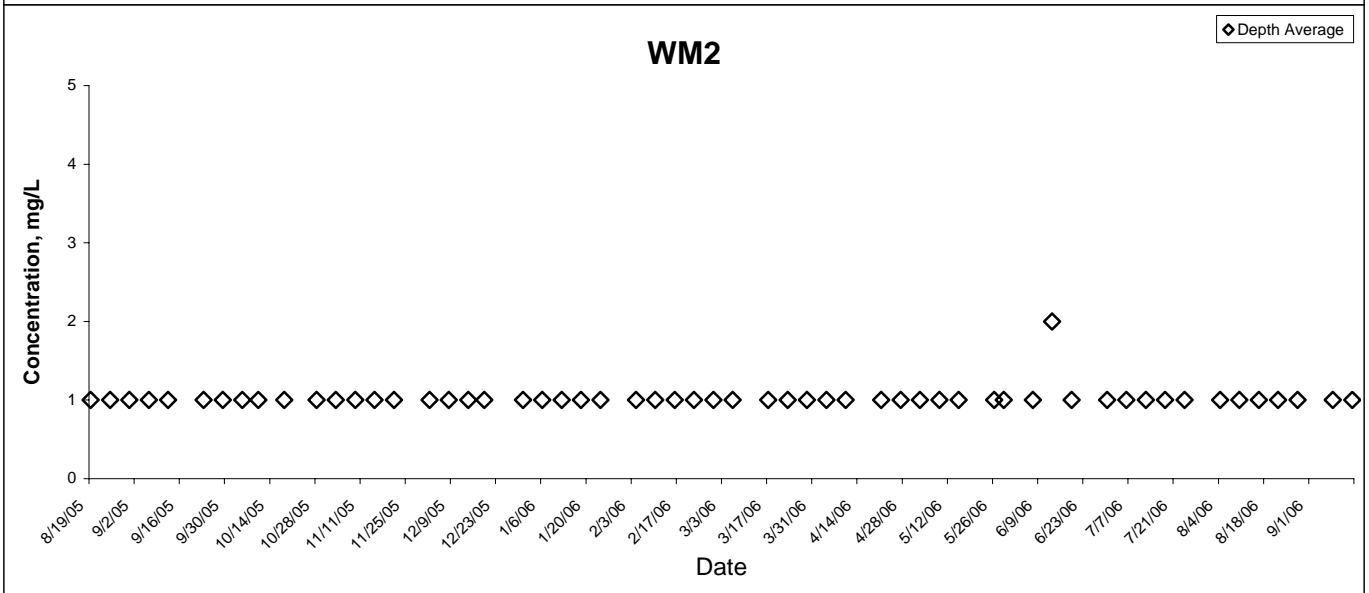
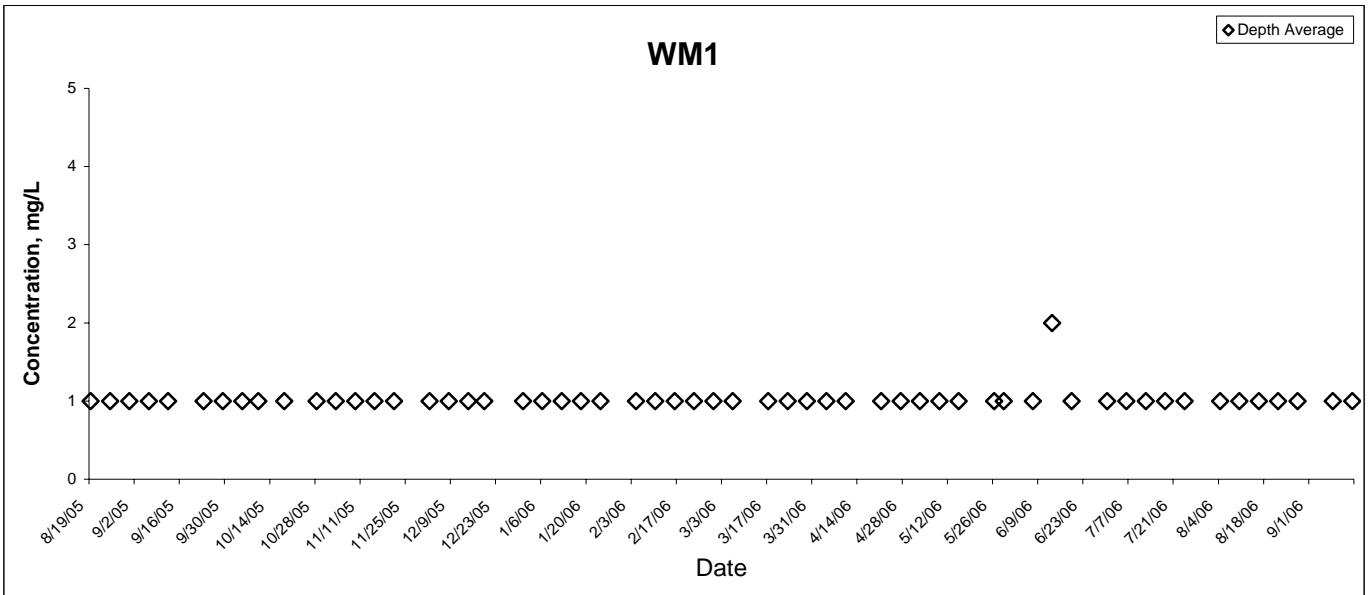
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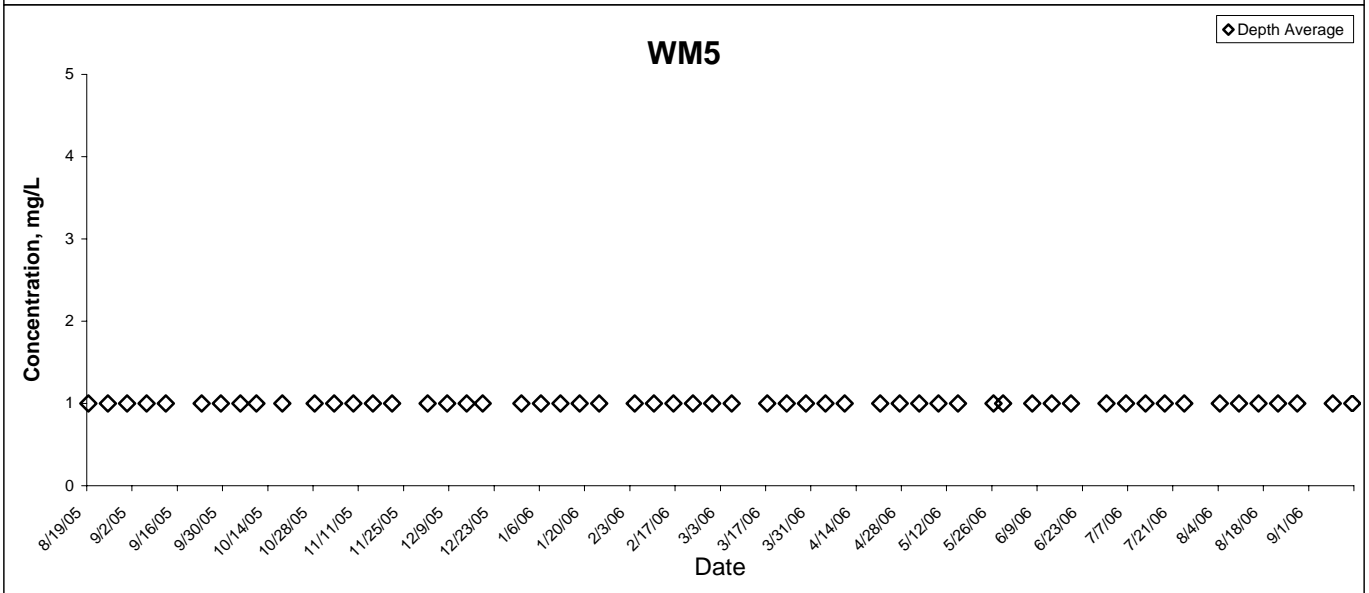
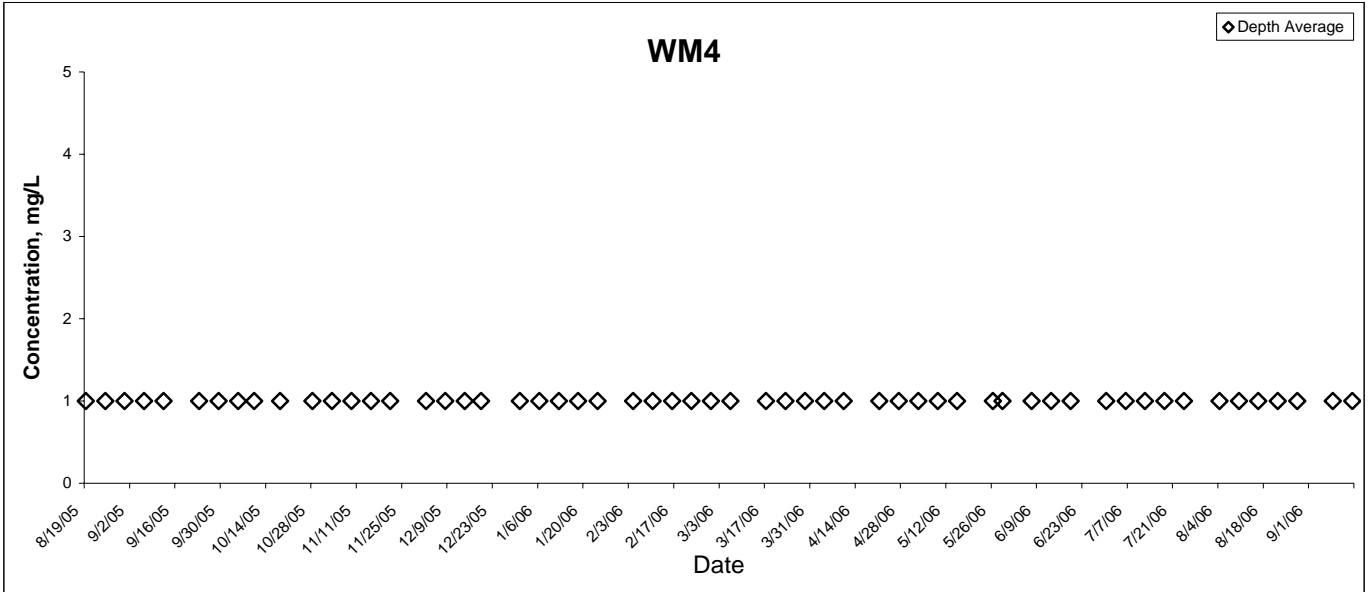
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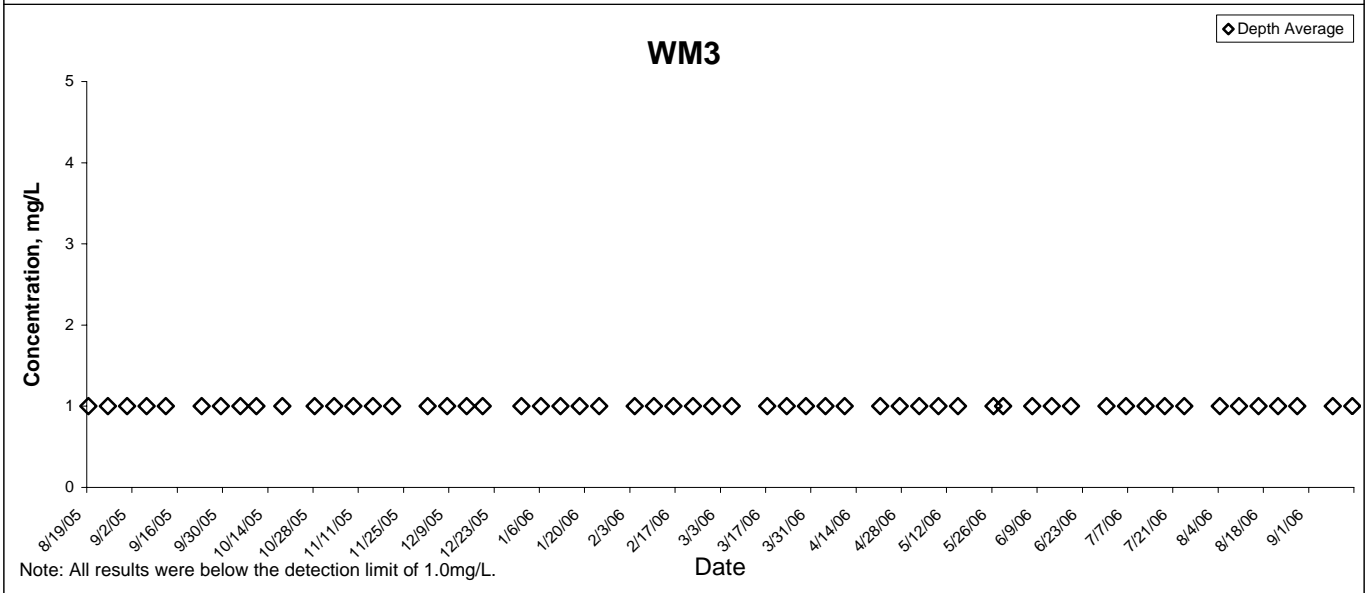
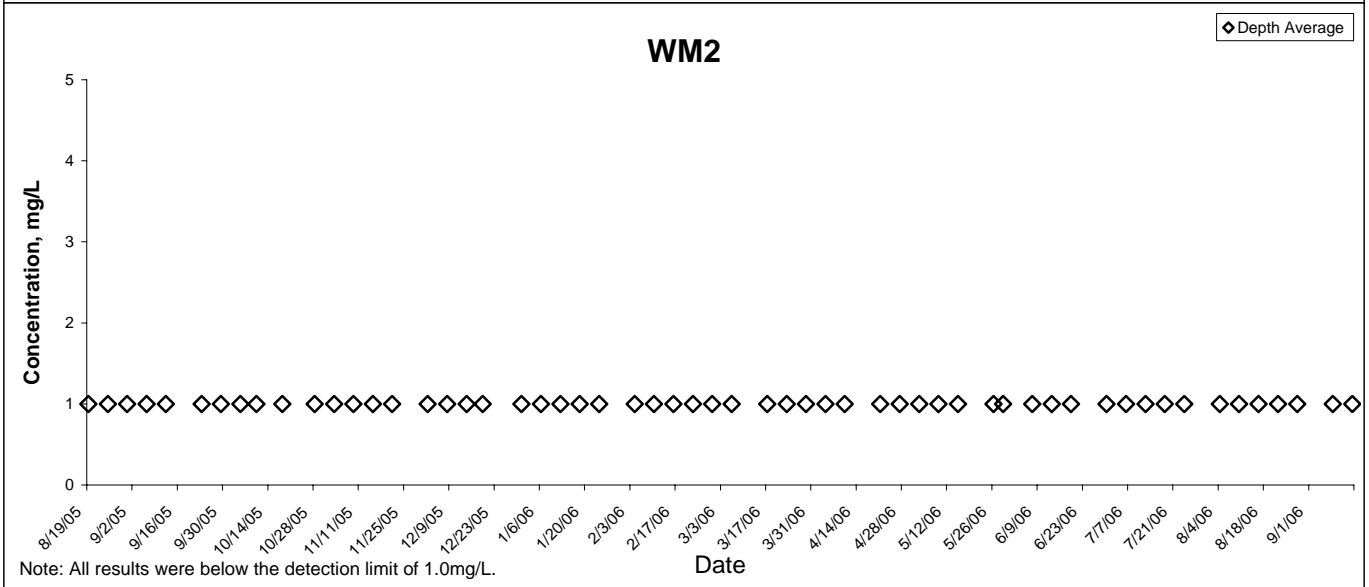
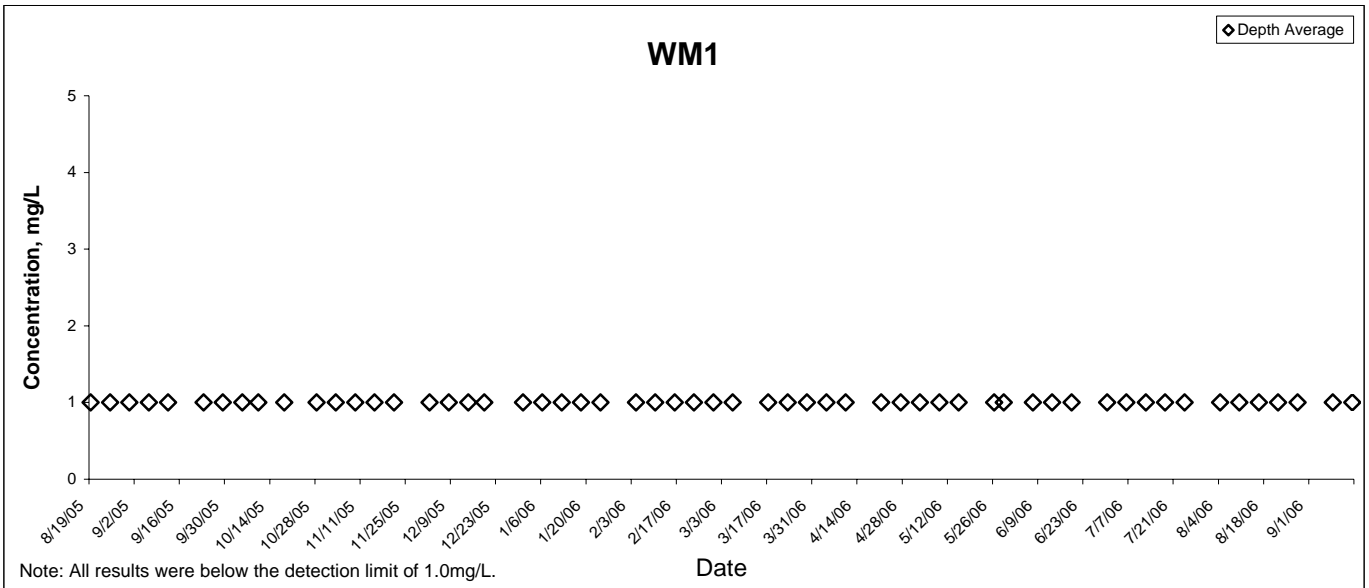
Chromium



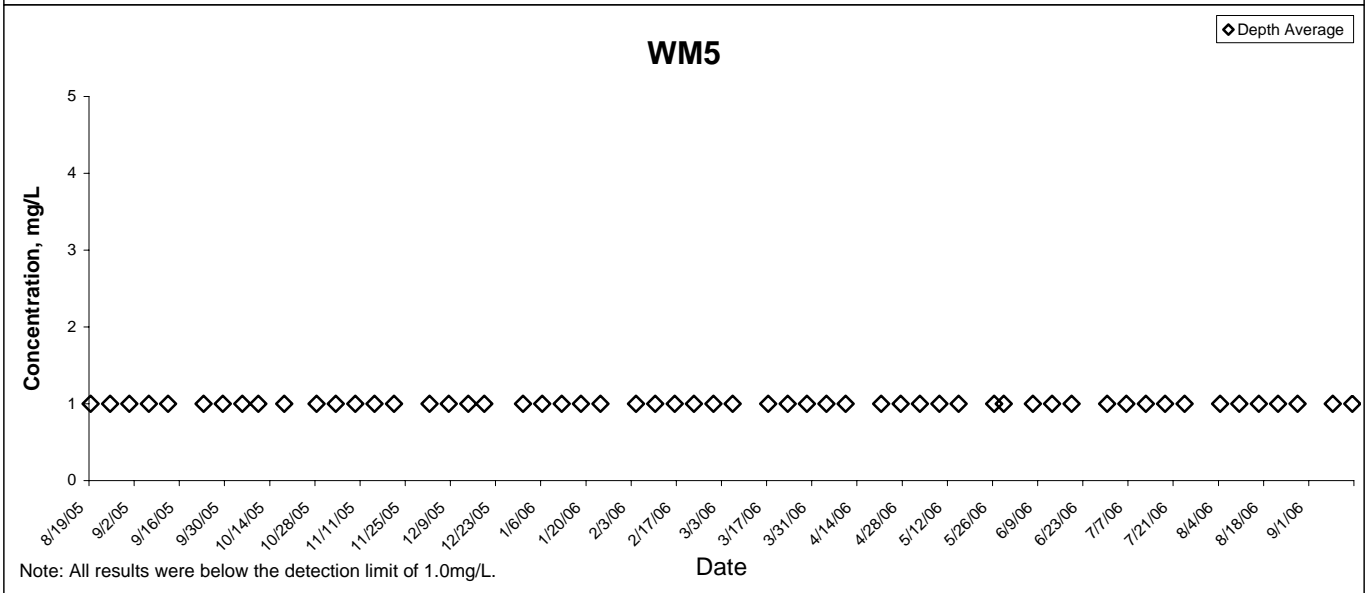
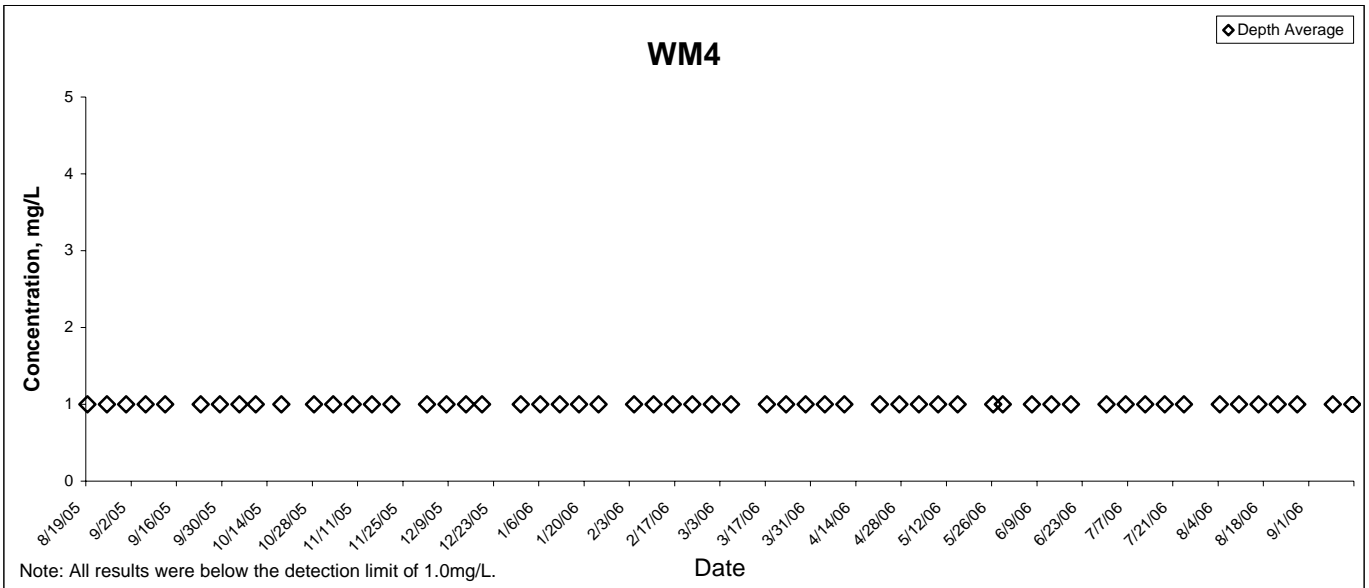
Chromium



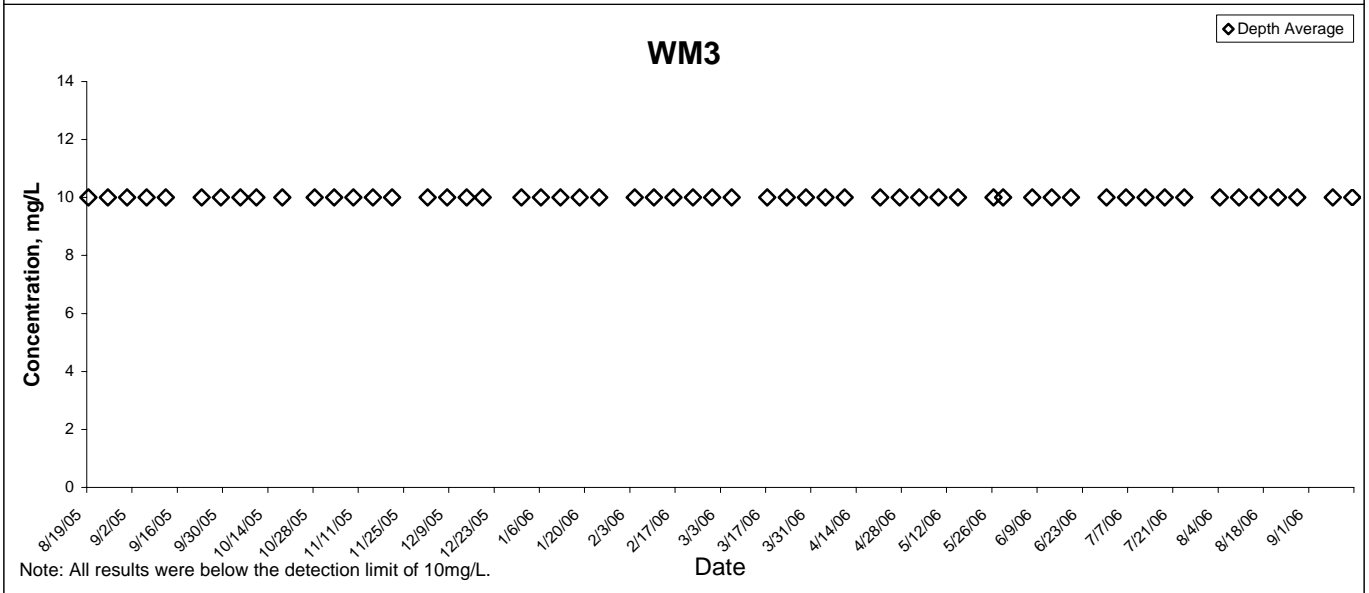
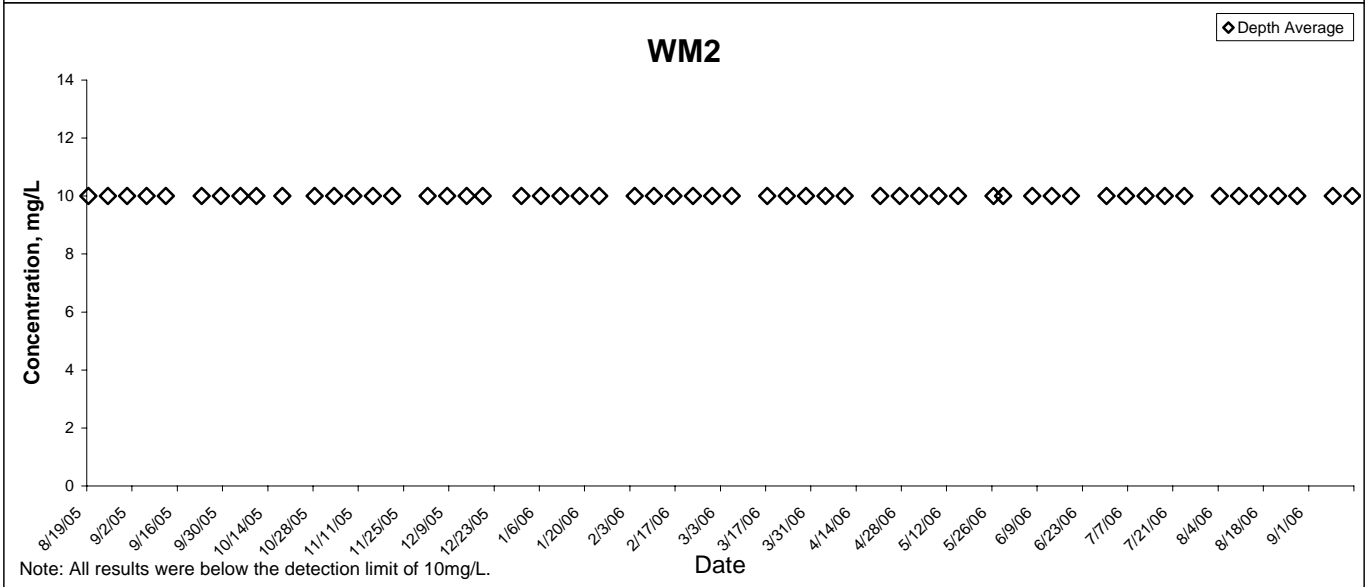
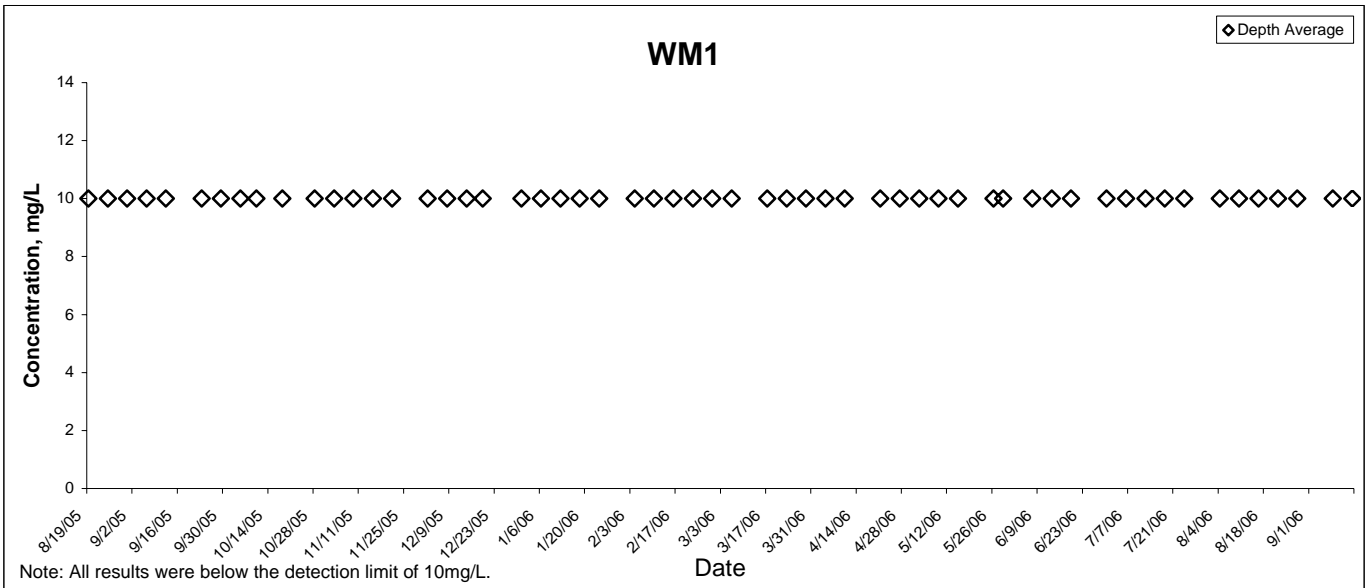
Lead



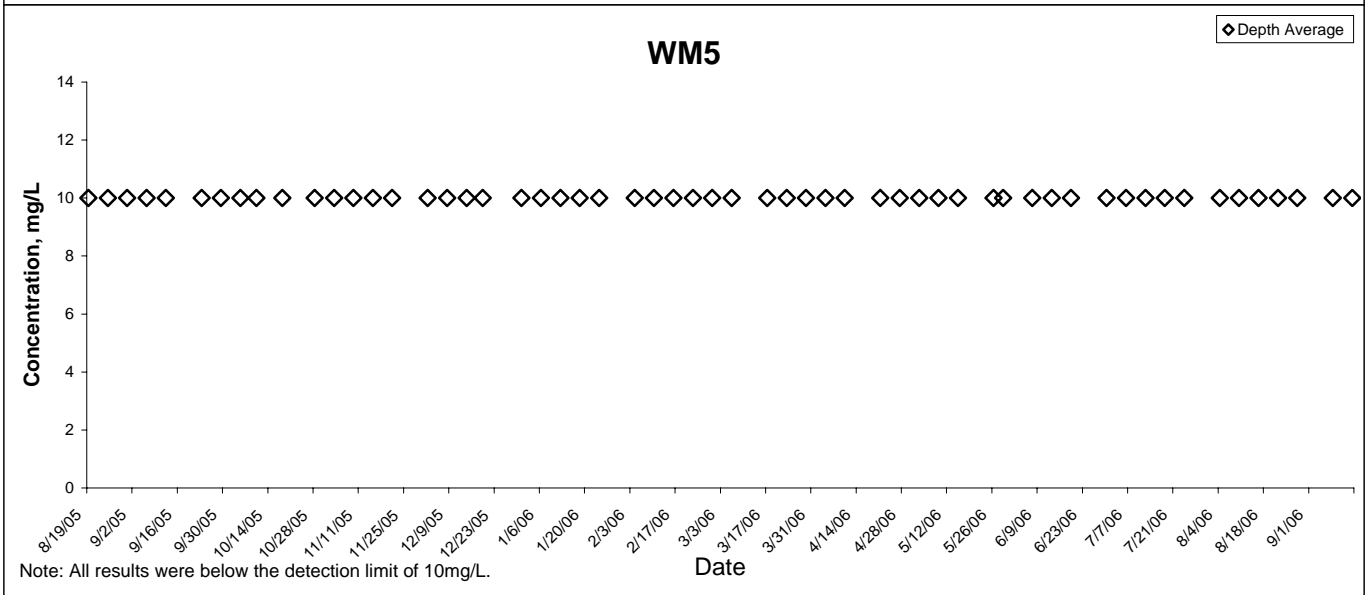
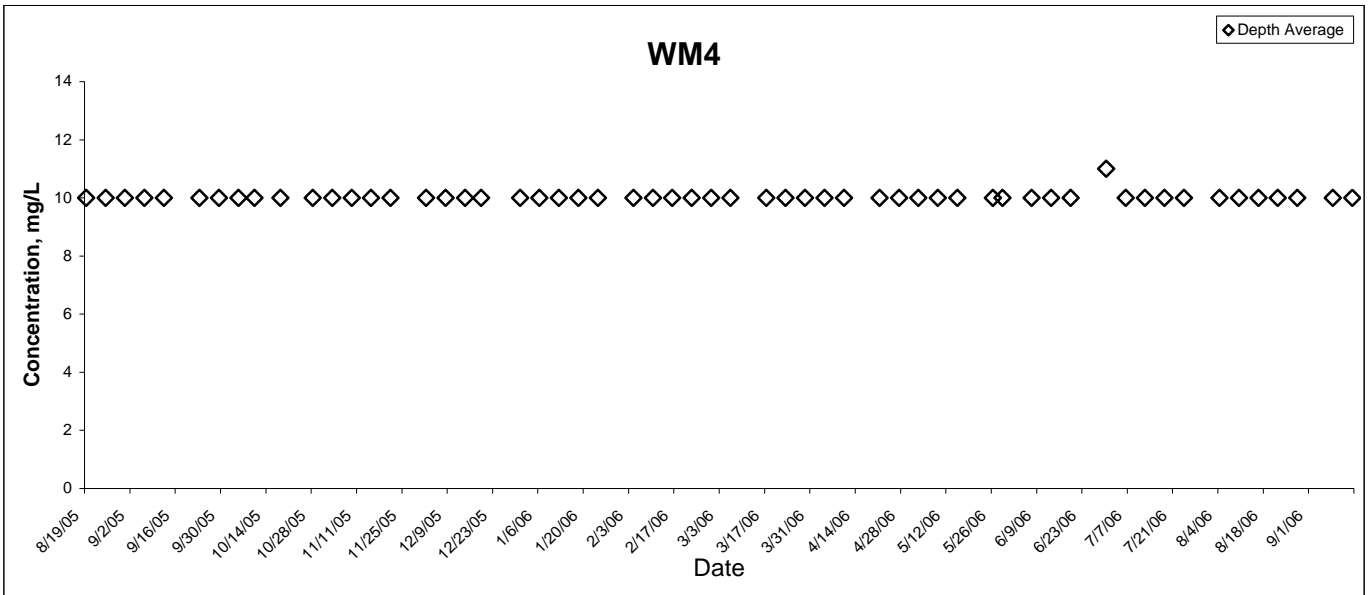
Lead



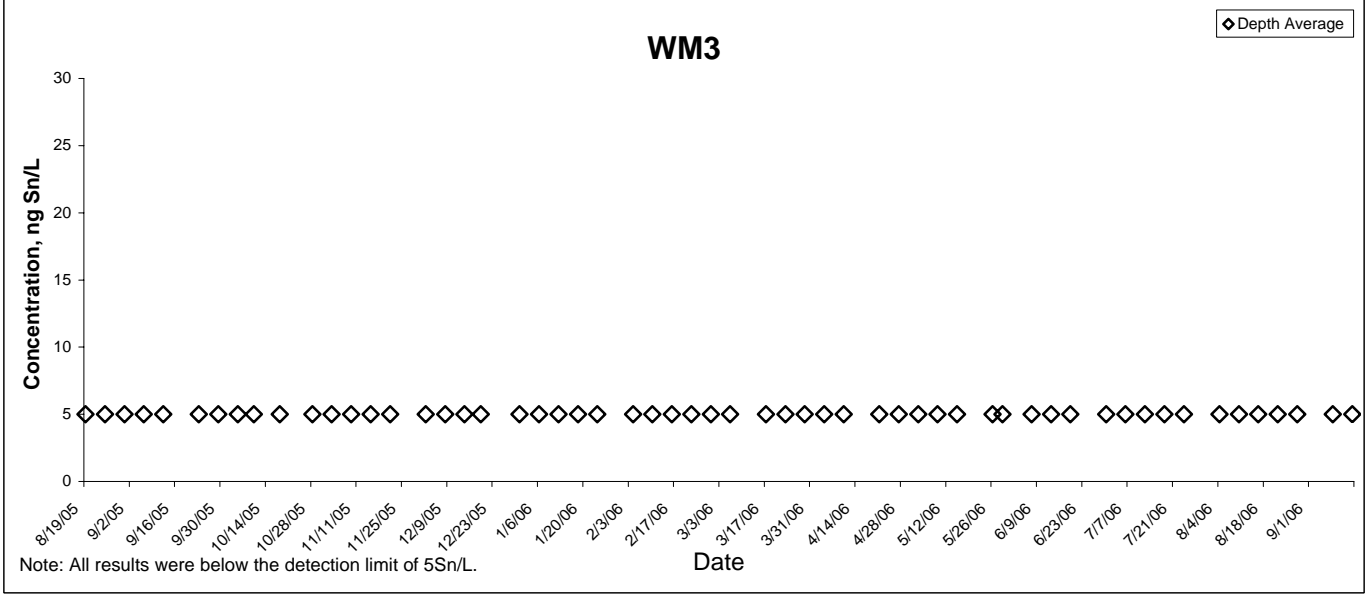
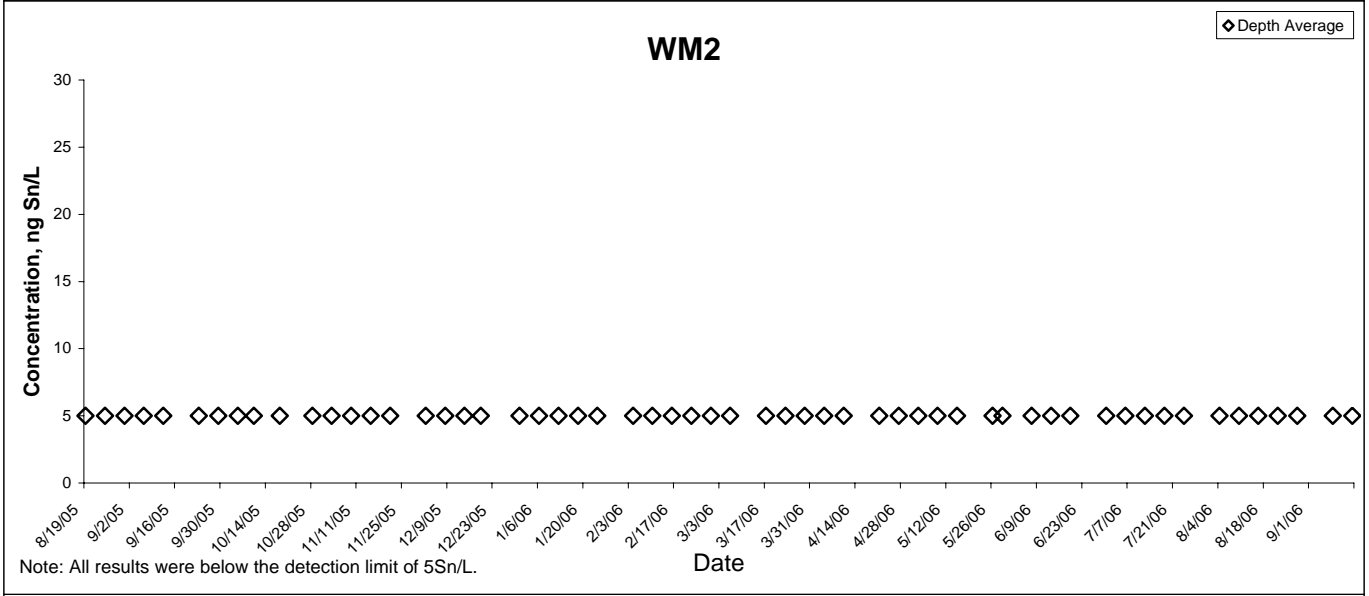
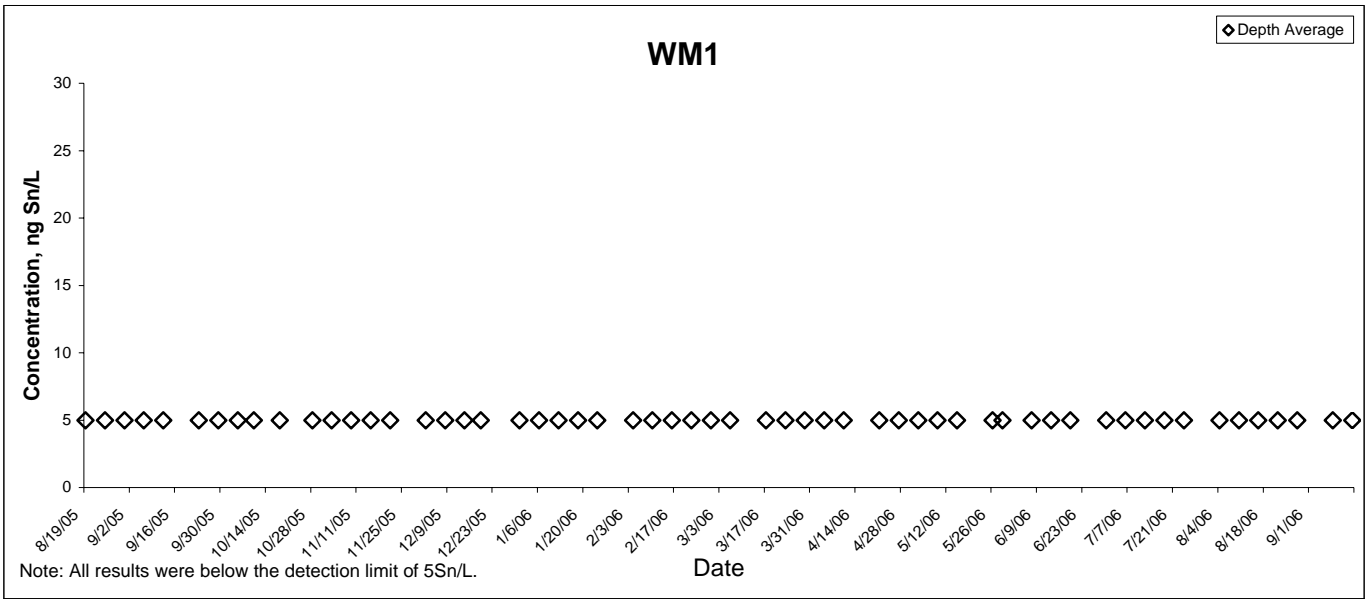
Zinc



Zinc



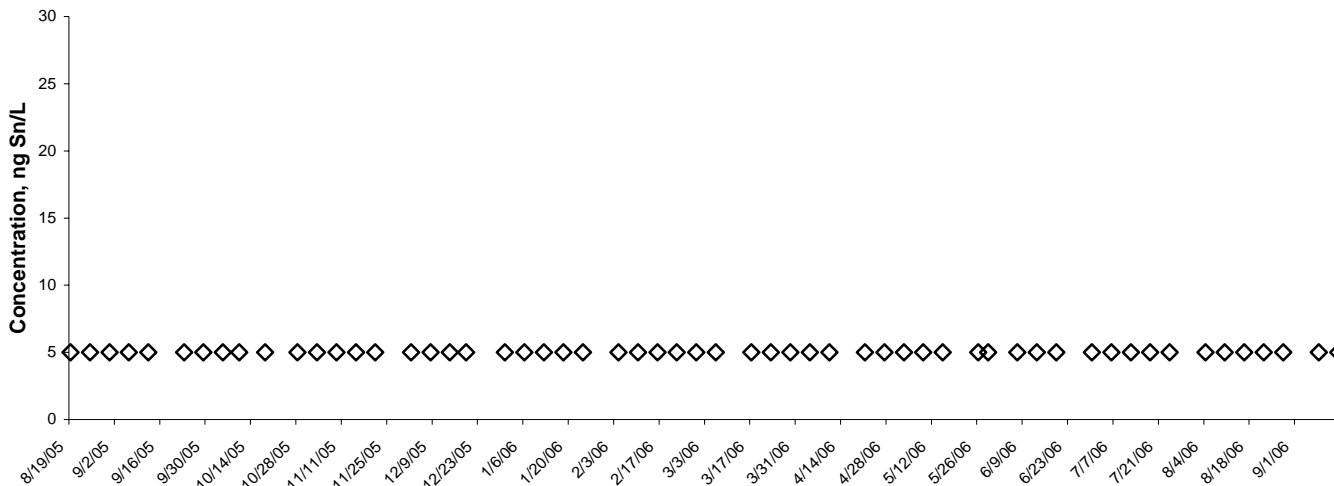
TBT



TBT

WM4

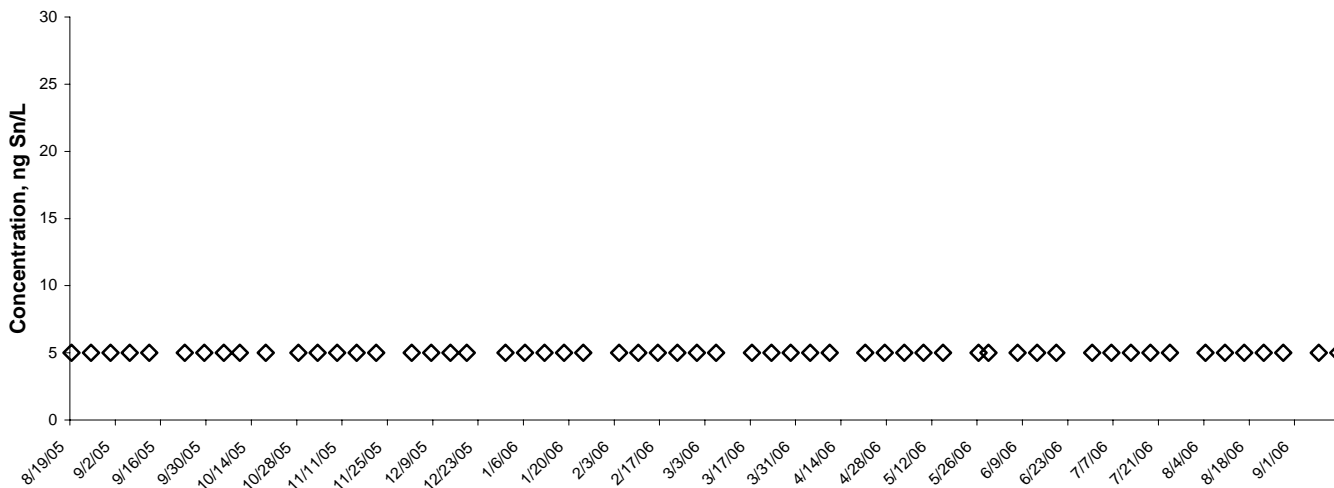
◆ Depth Average



Note: All results were below the detection limit of 5Sn/L.

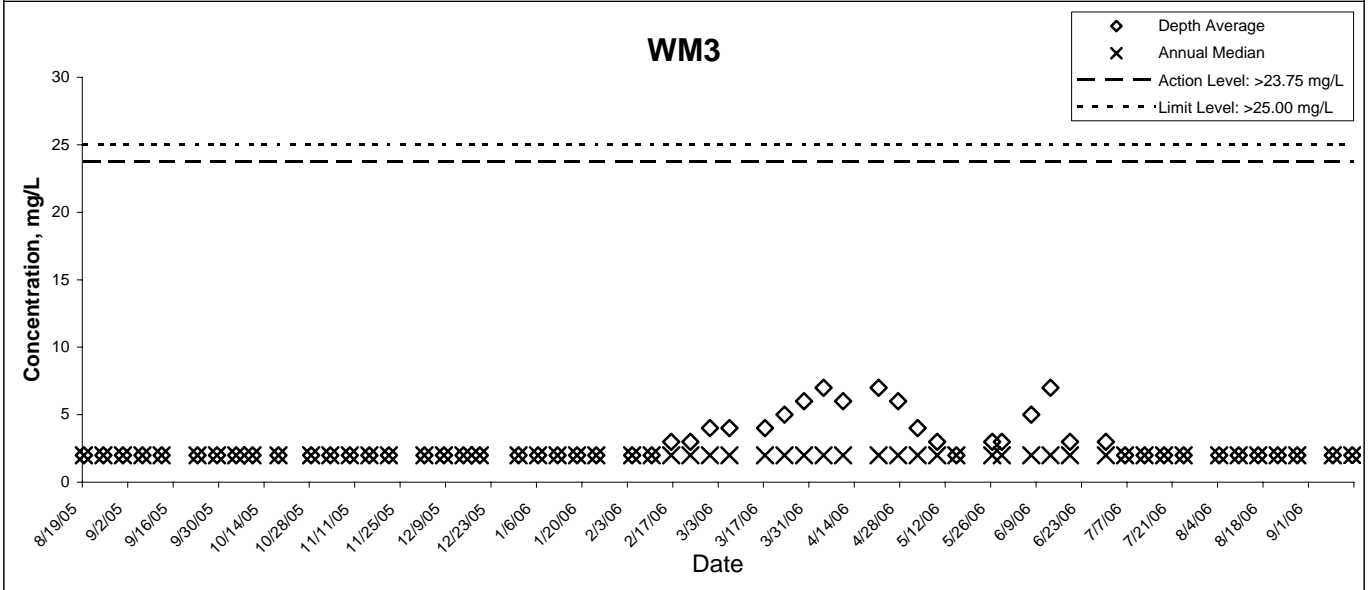
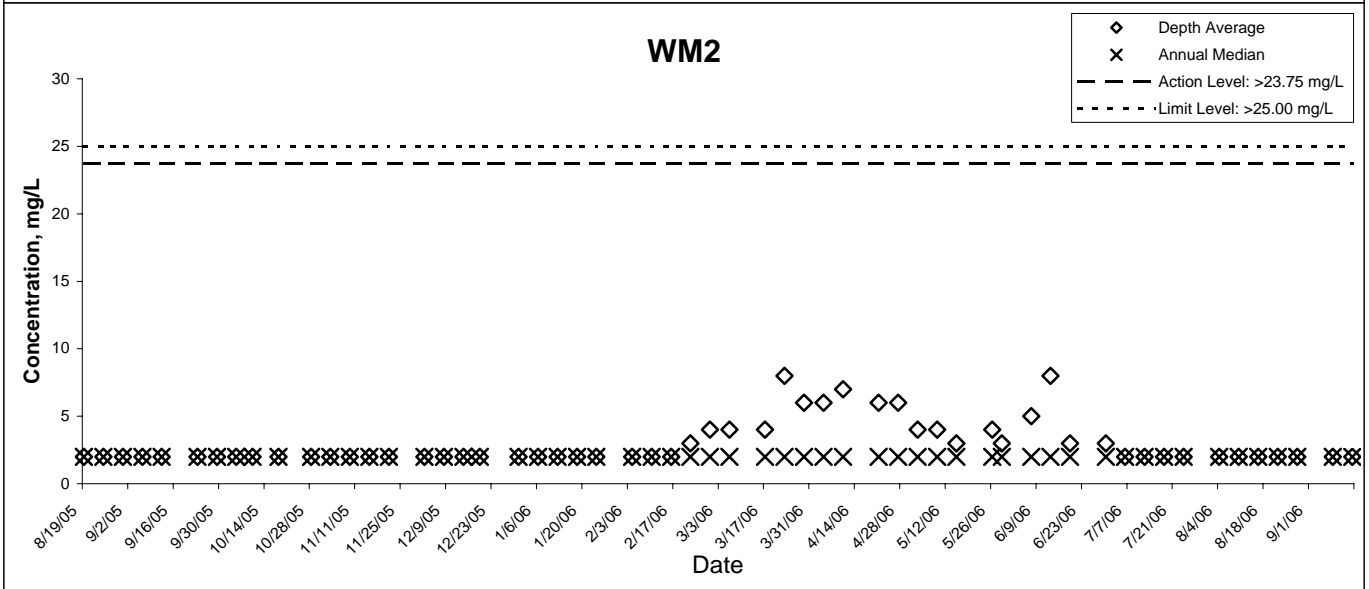
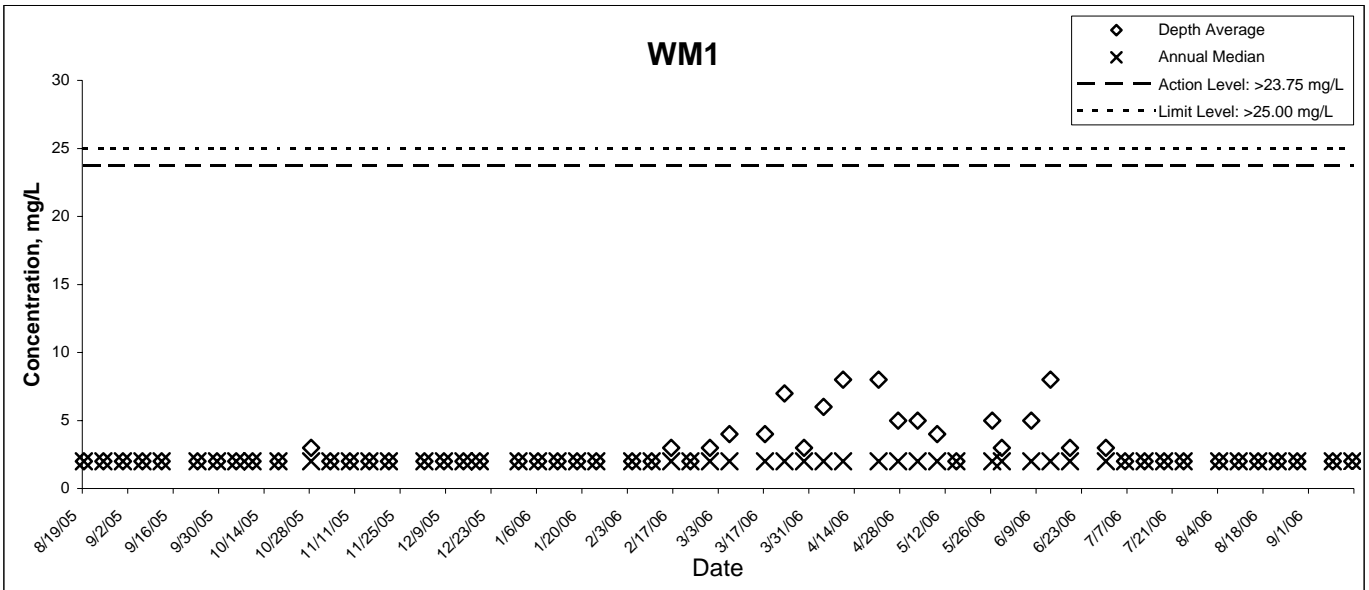
WM5

◆ Depth Average

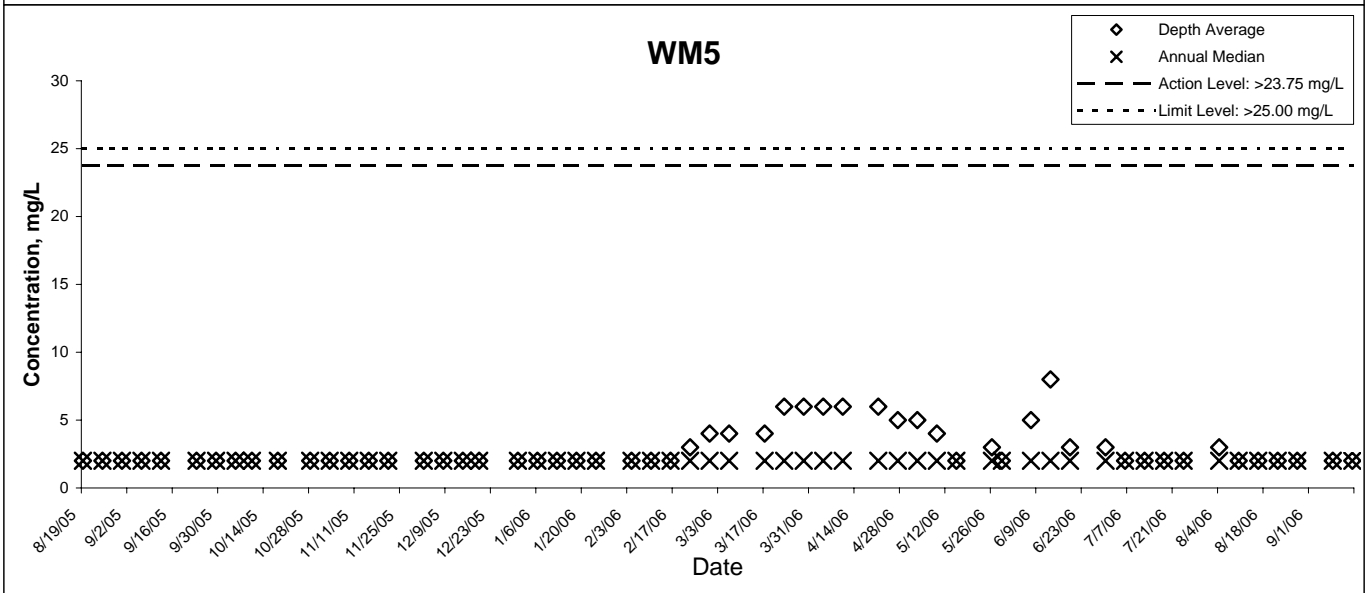
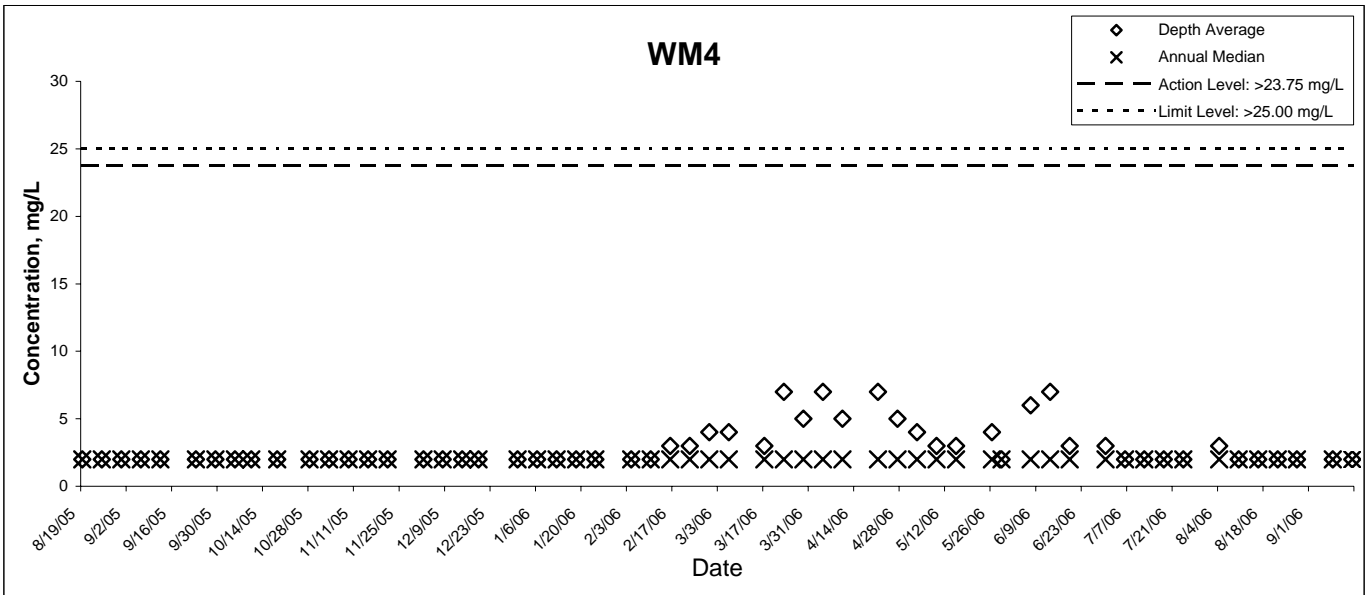


Note: All results were below the detection limit of 5Sn/L.

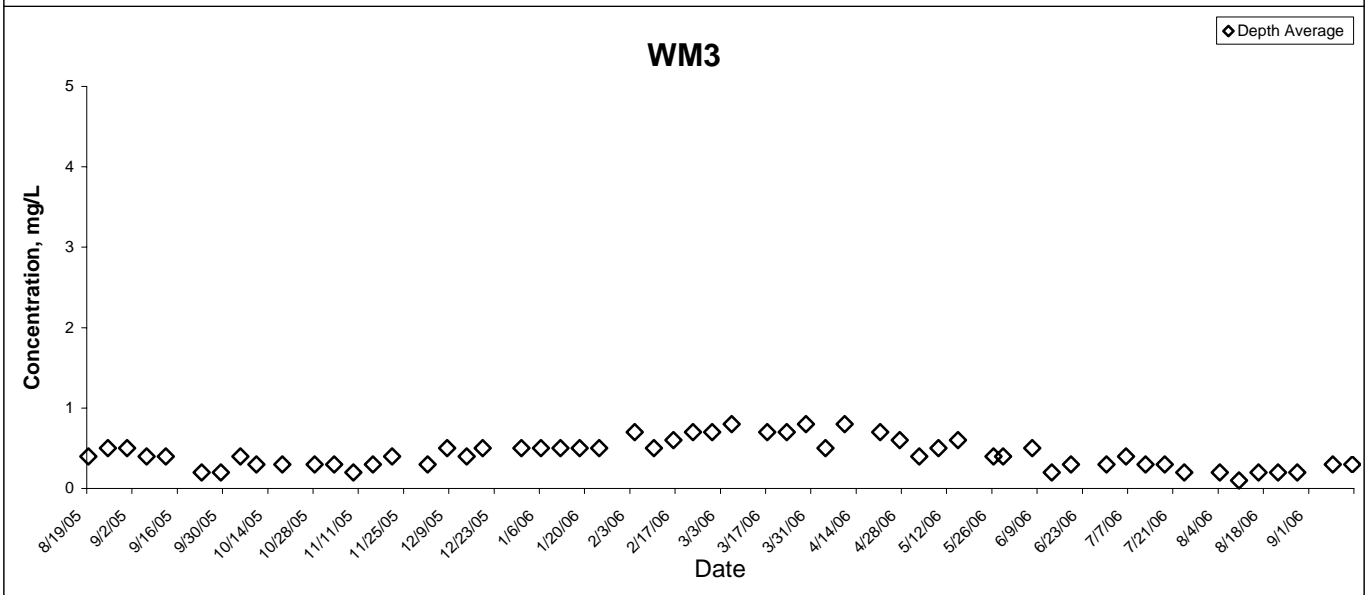
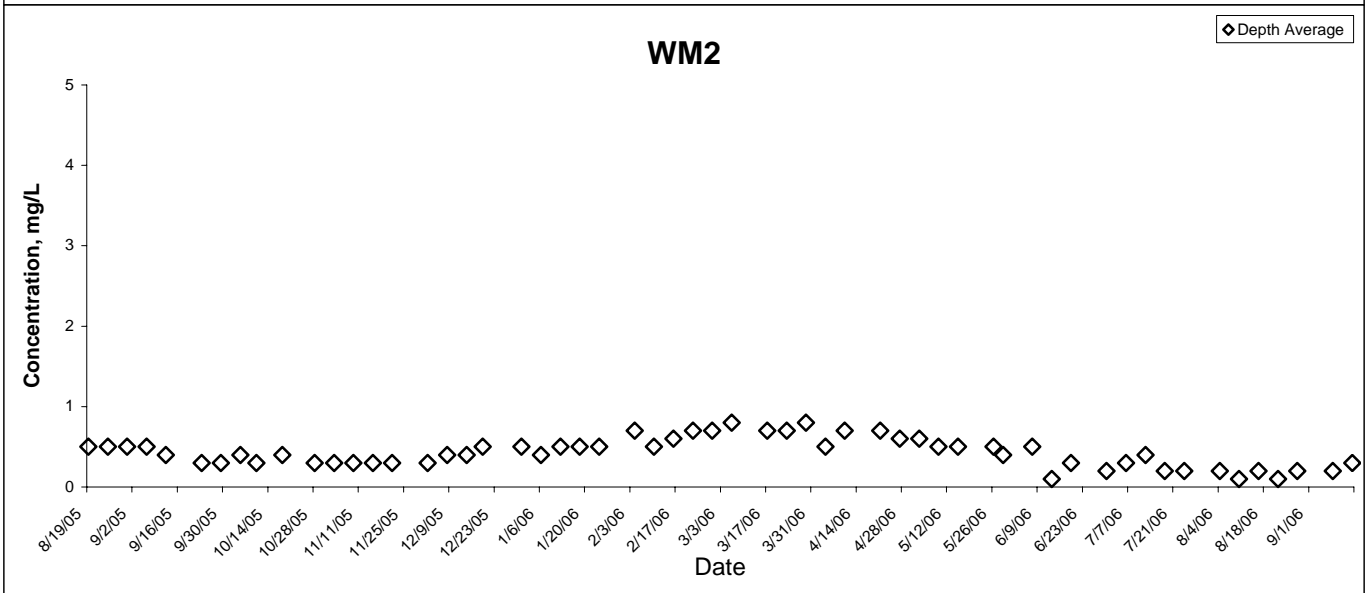
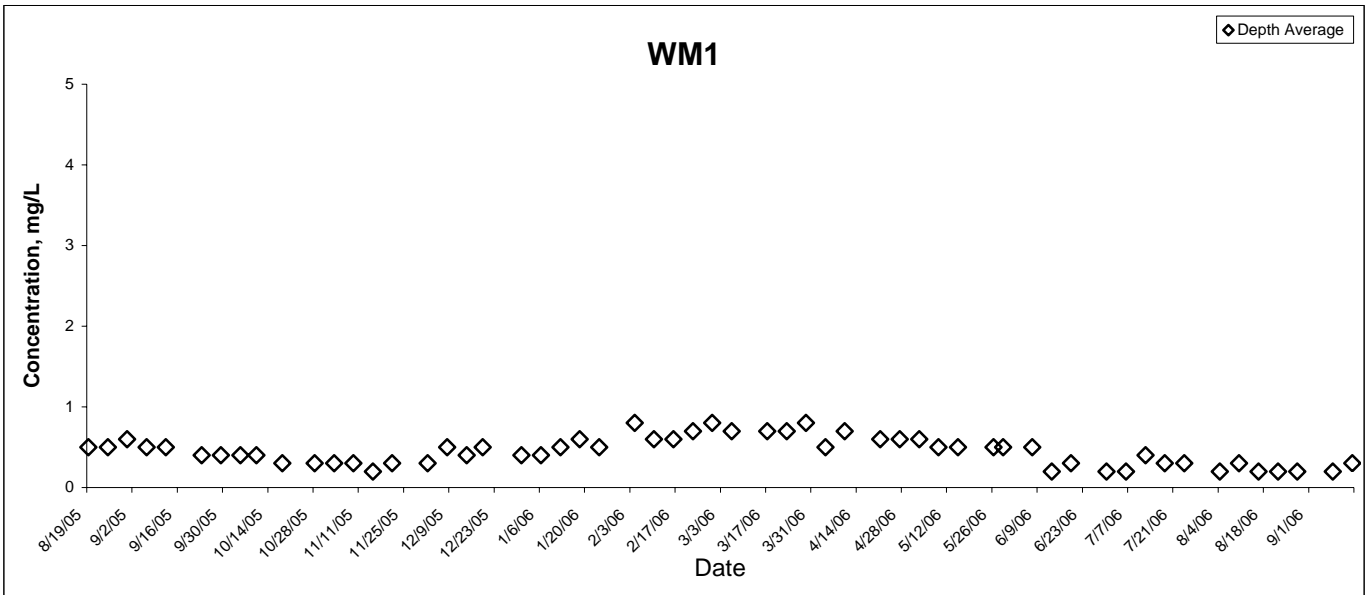
Suspended Solids



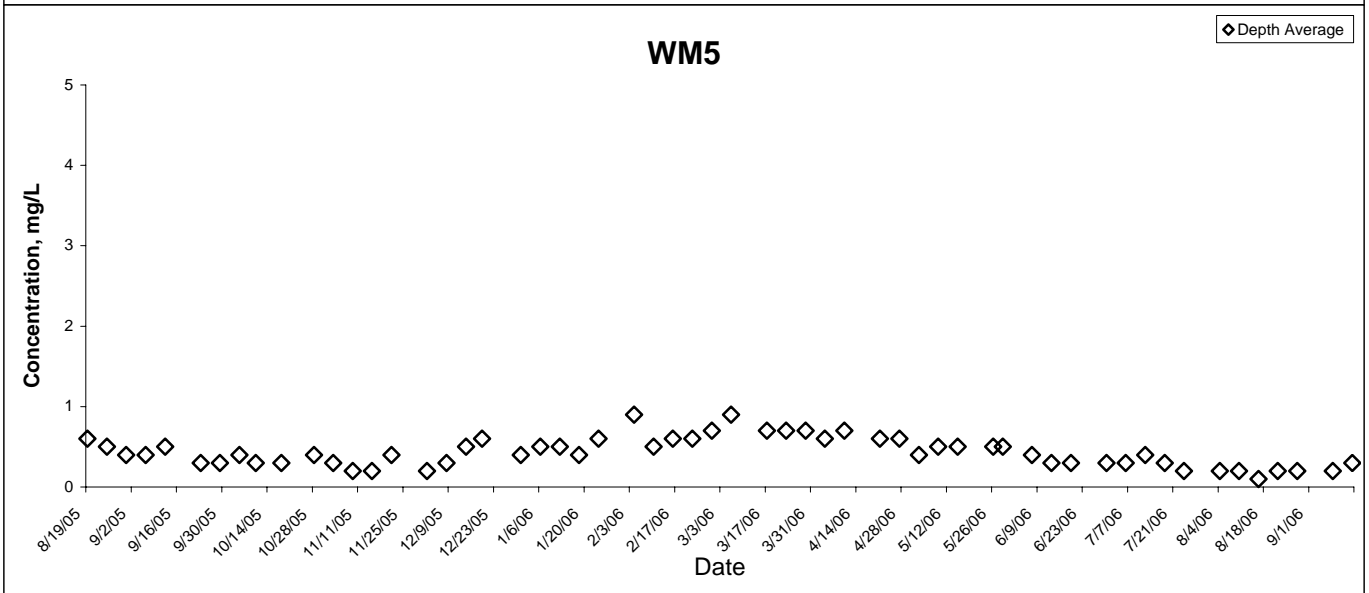
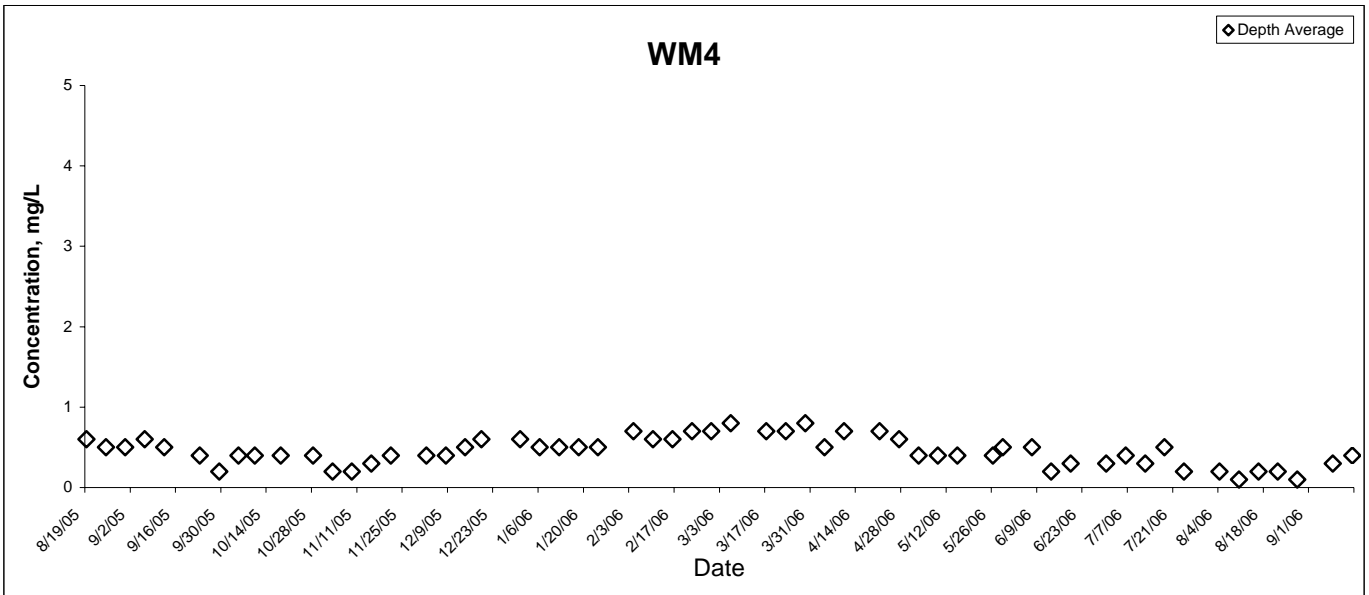
Suspended Solids



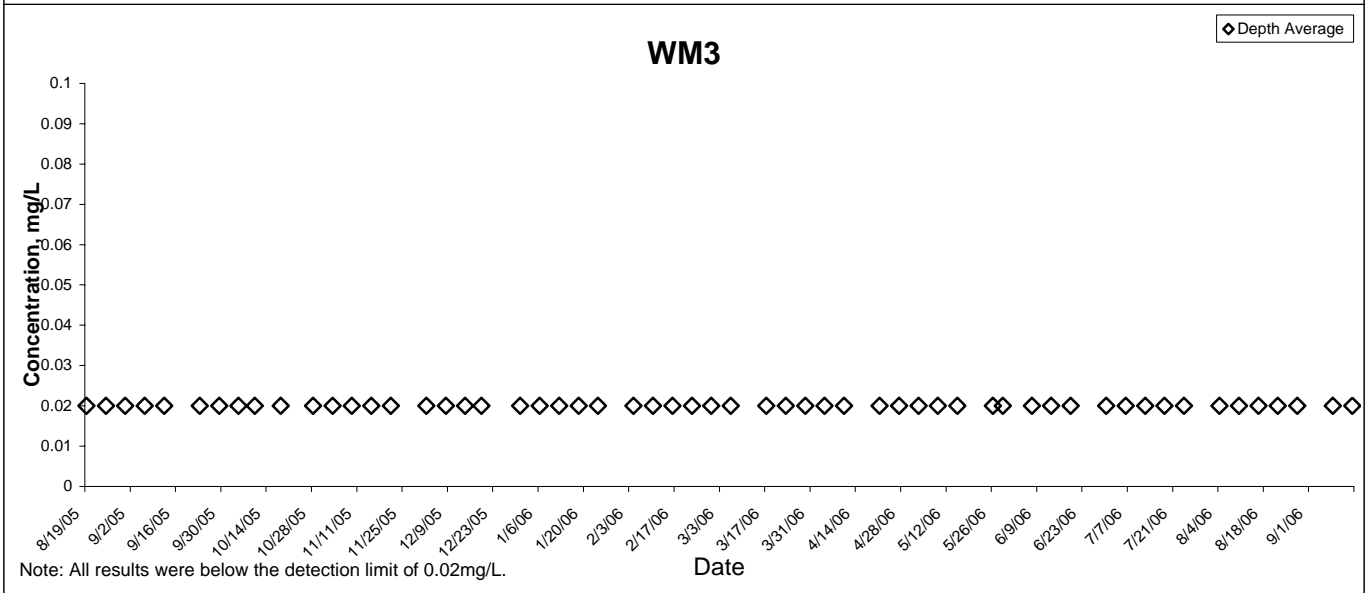
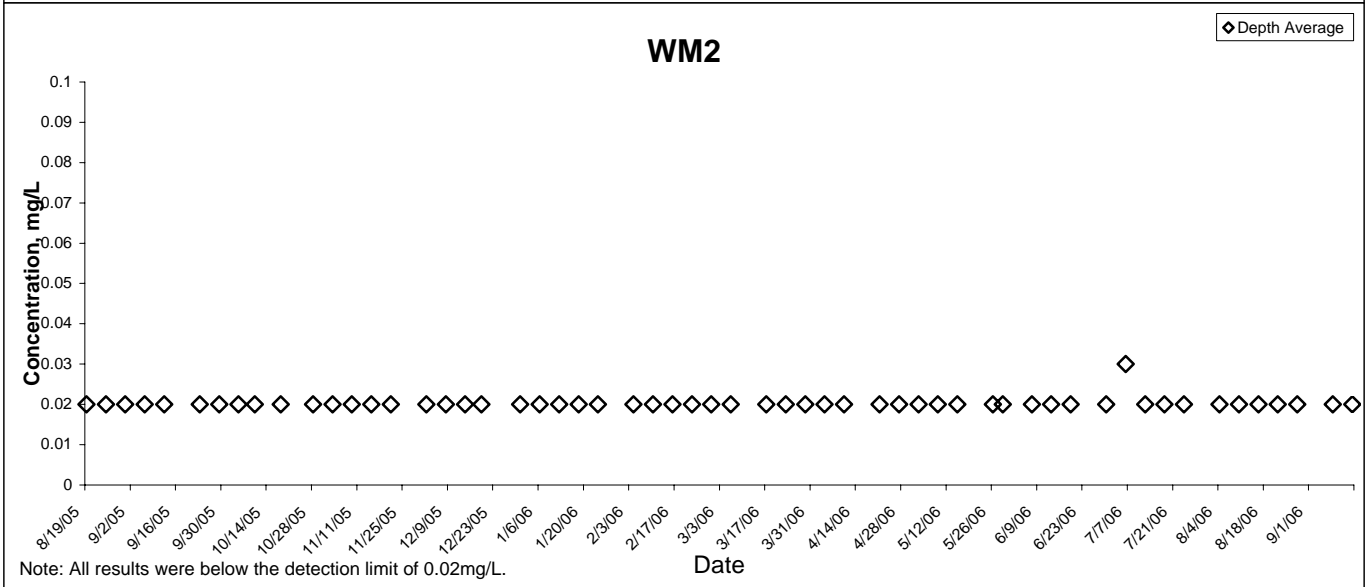
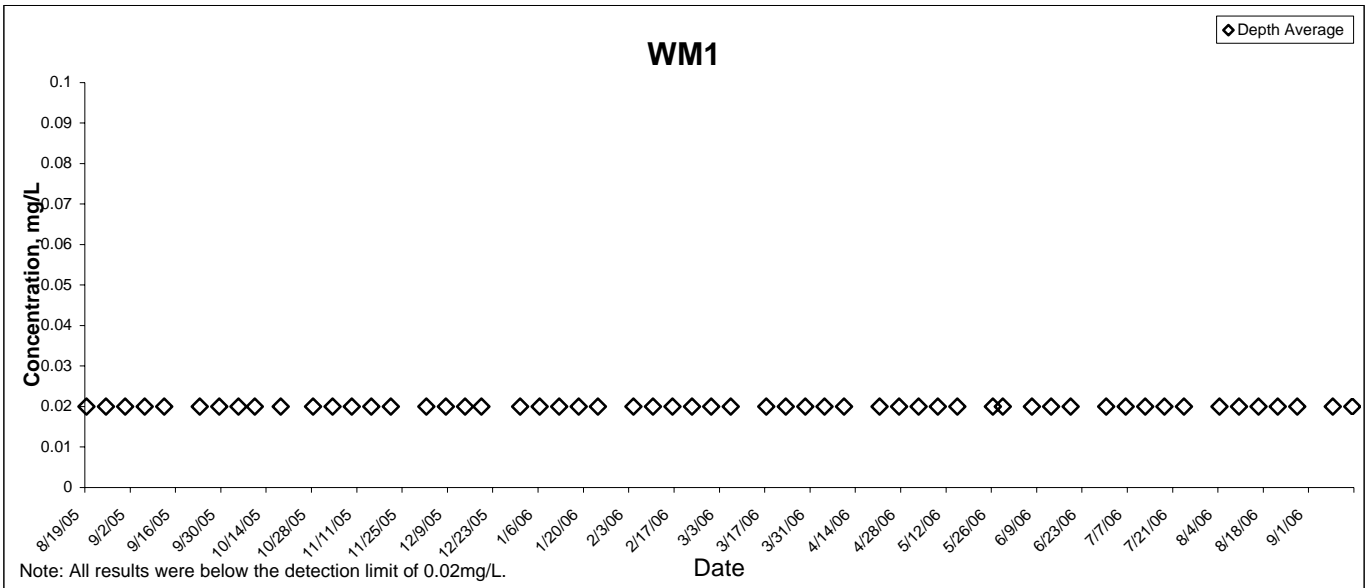
Total Nitrogen



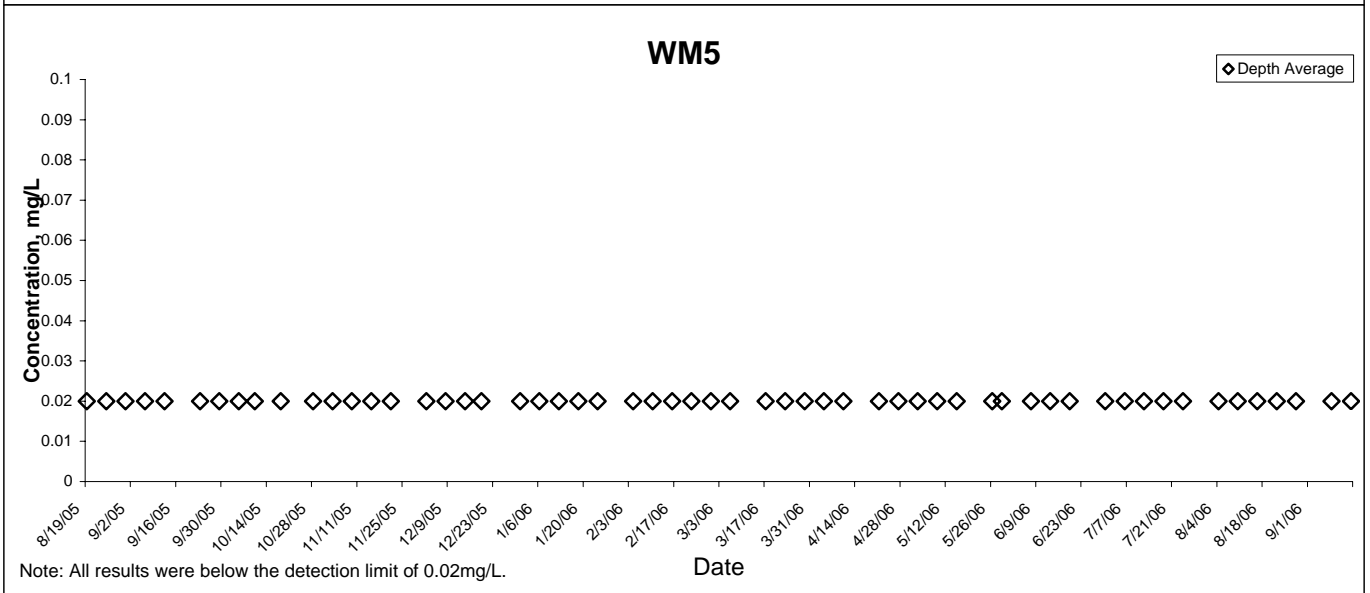
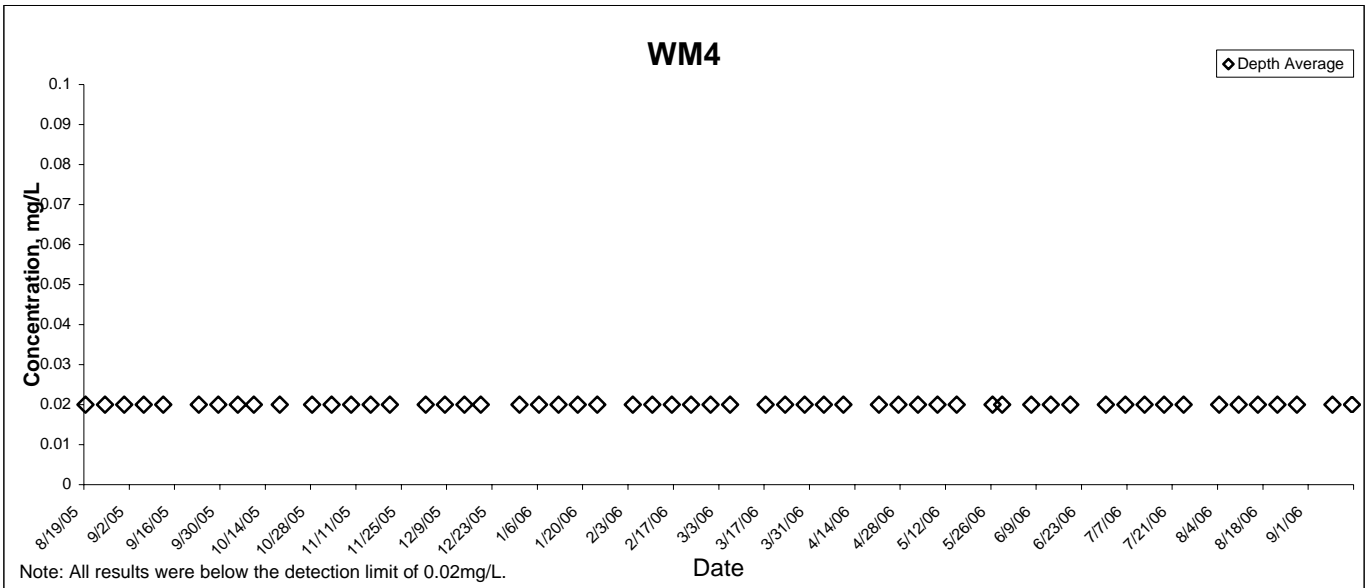
Total Nitrogen



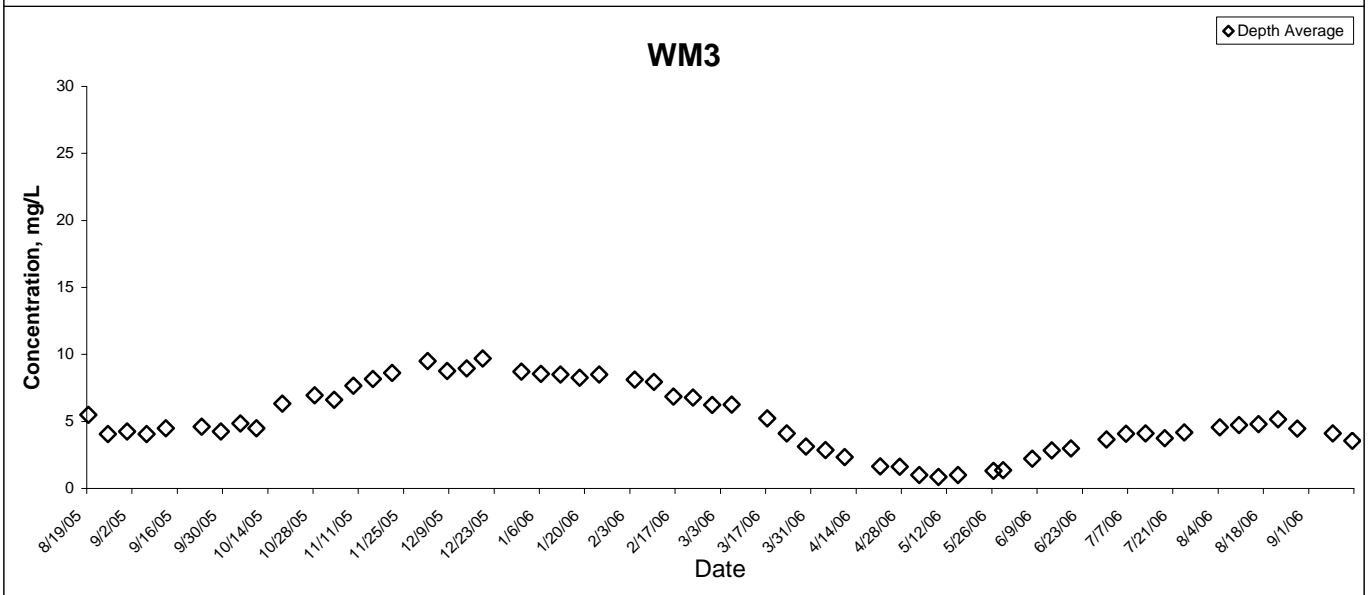
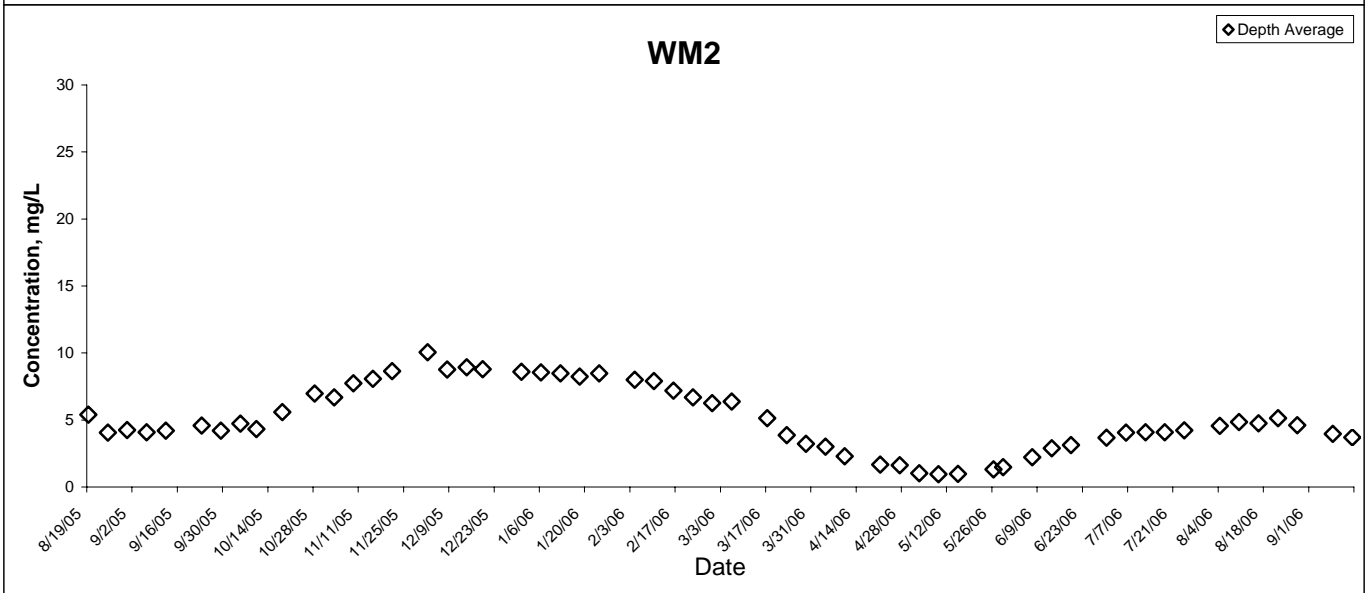
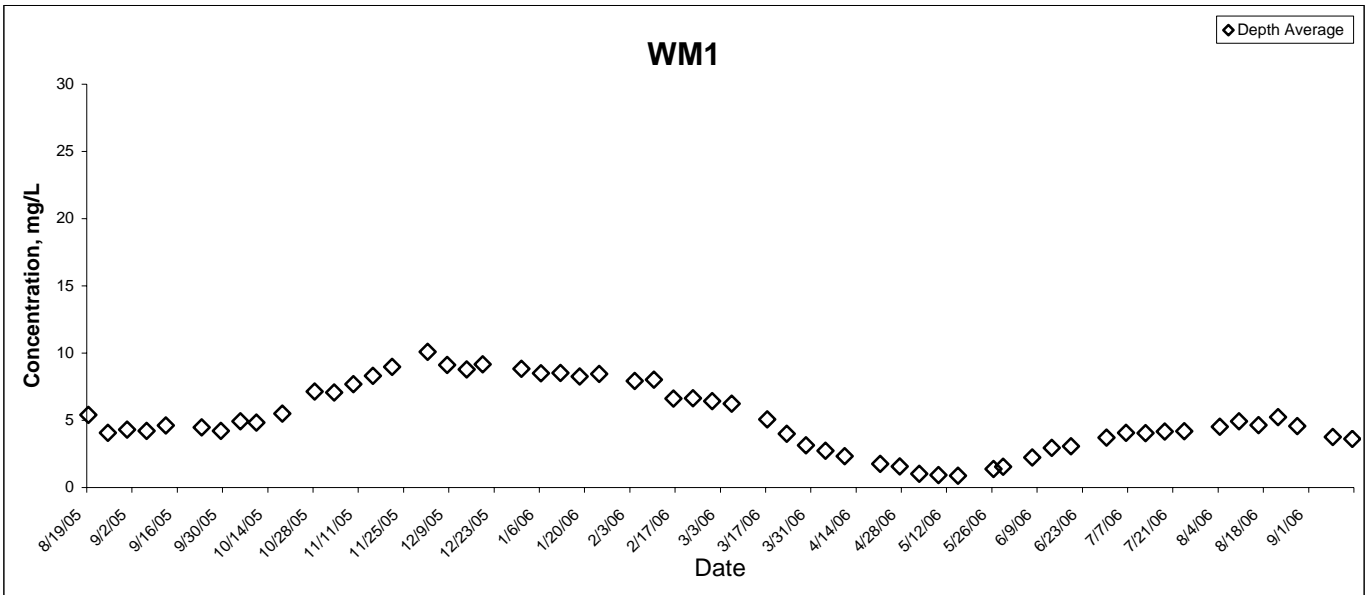
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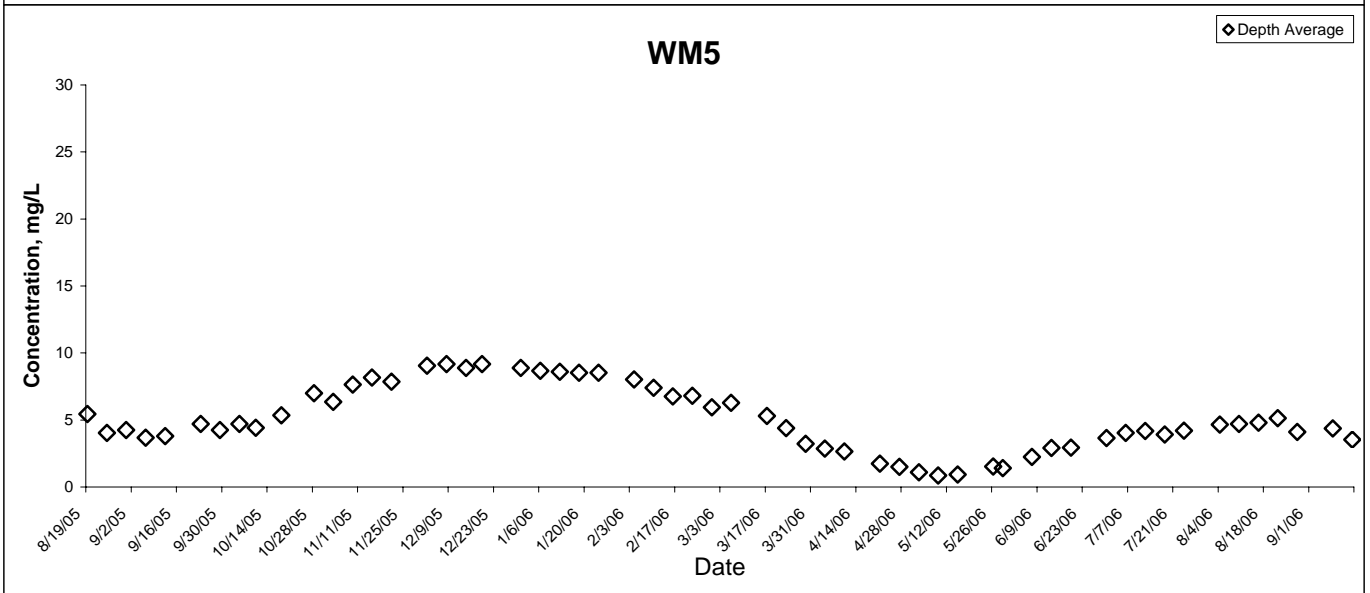
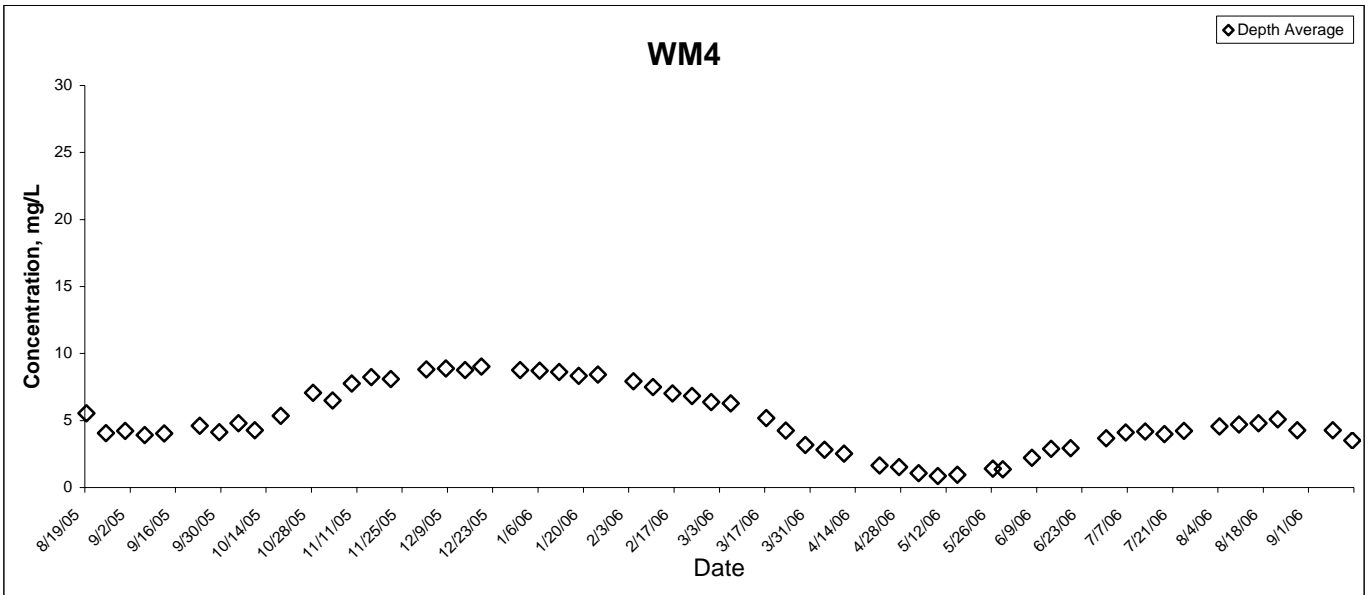
Total Phosphorous



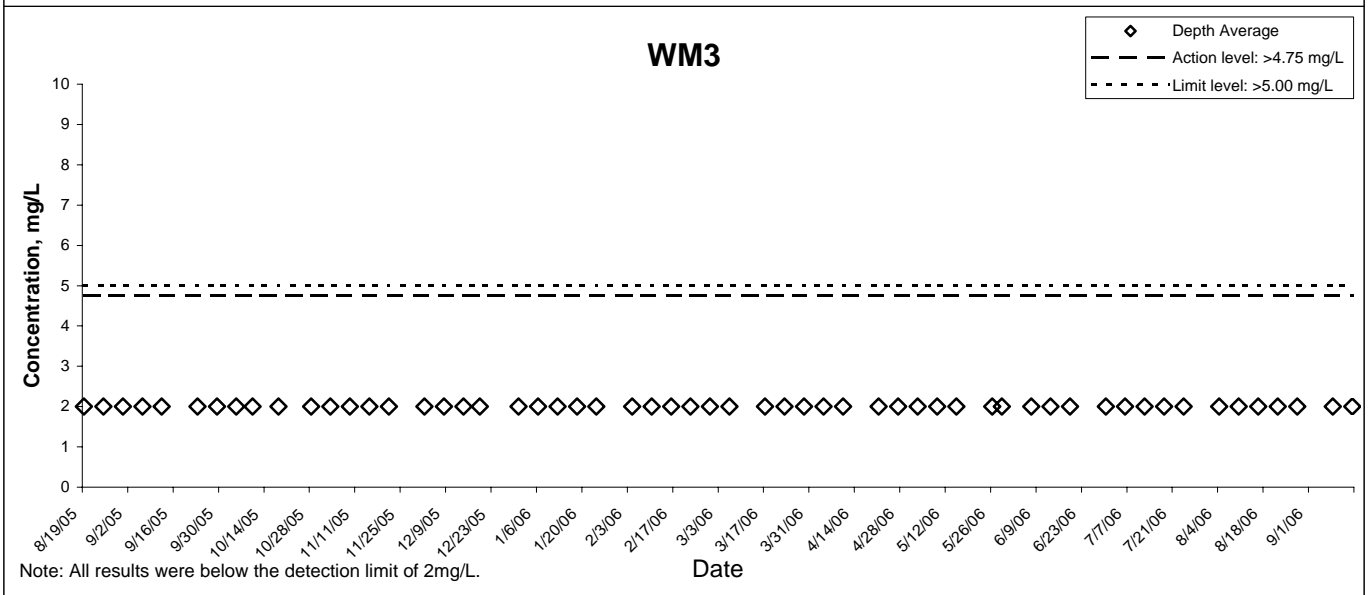
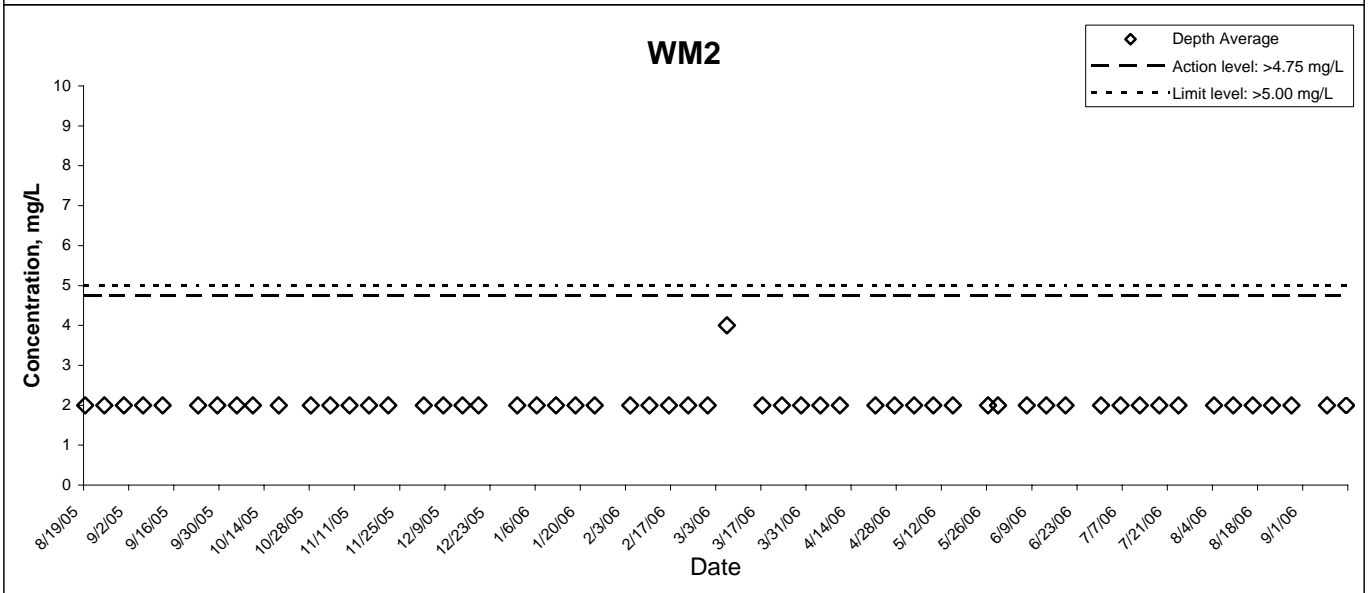
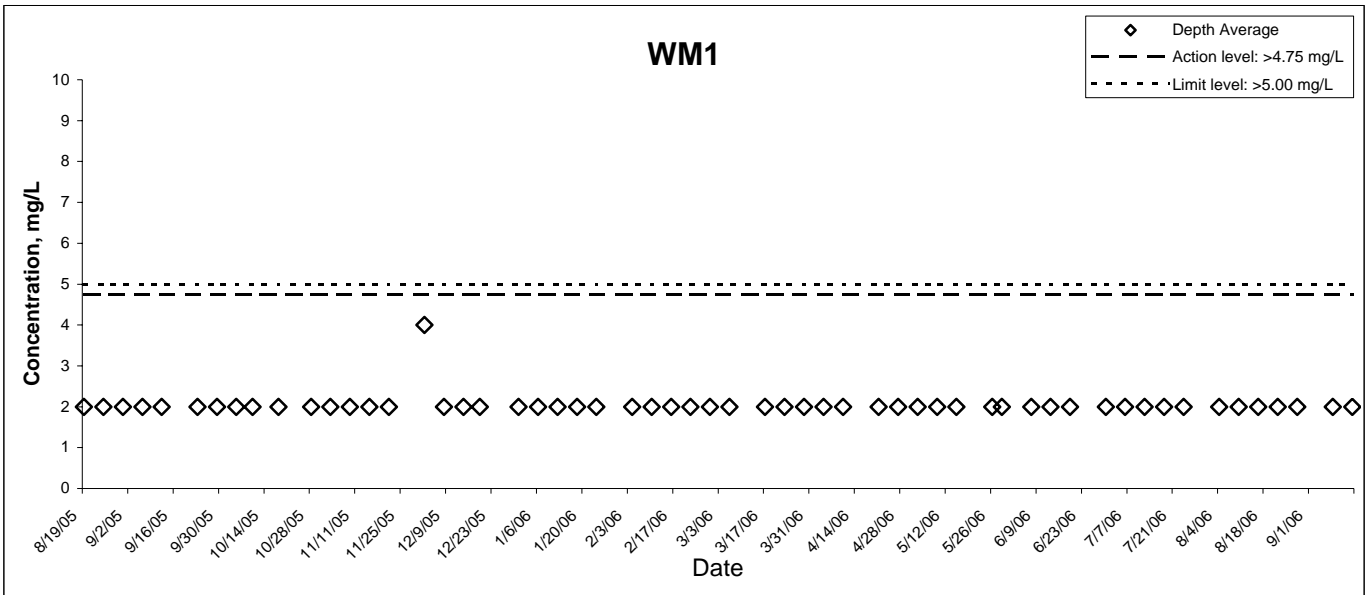
Silica



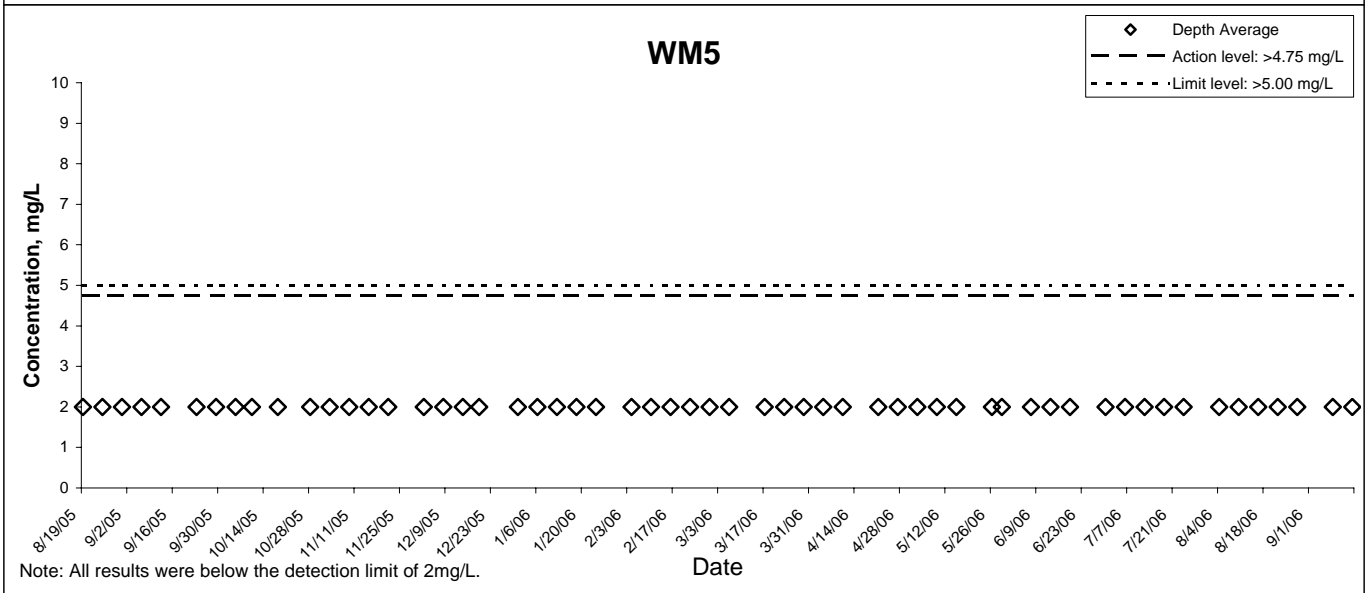
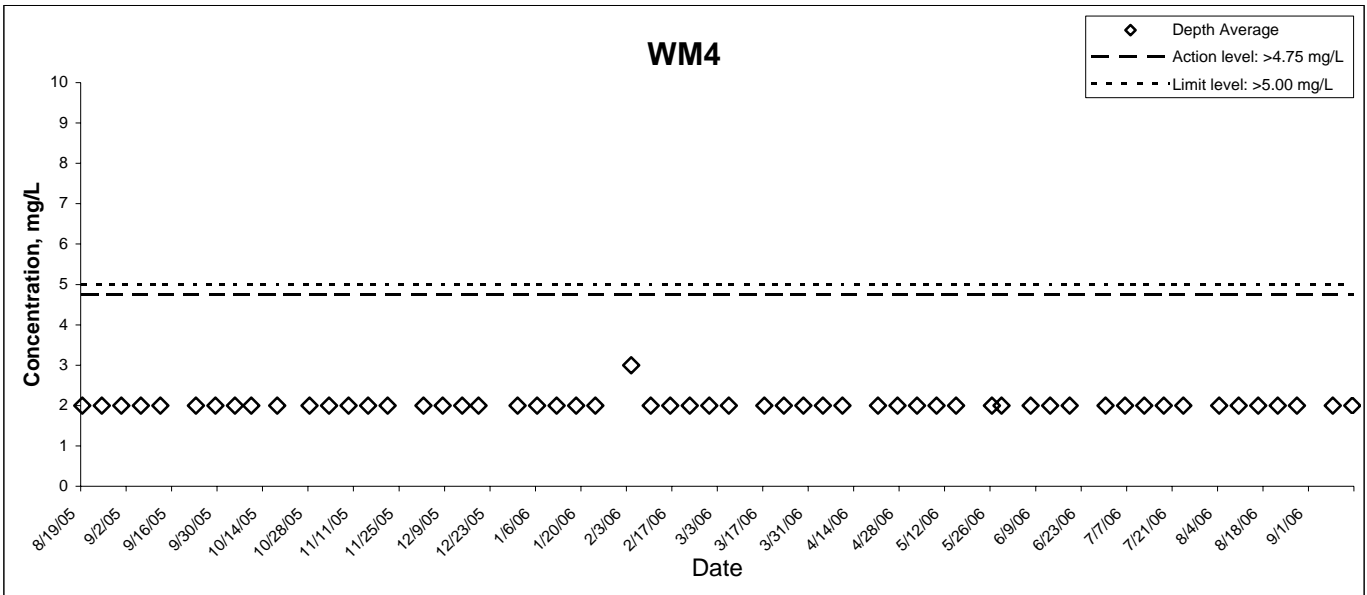
Silica



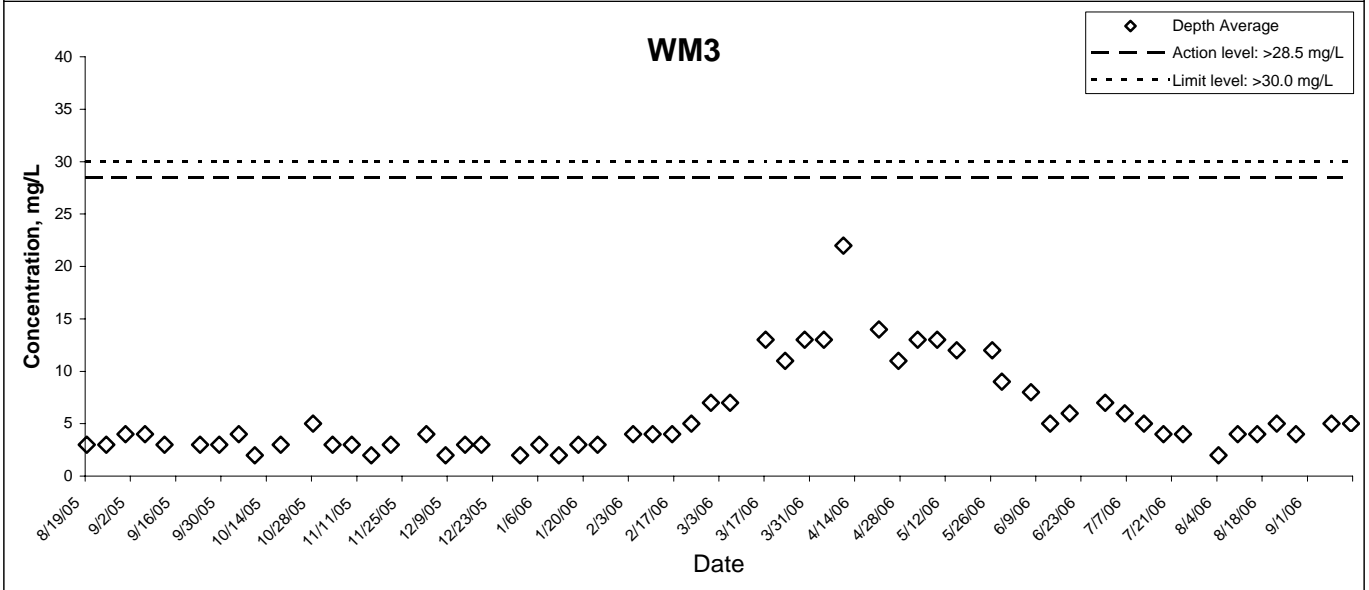
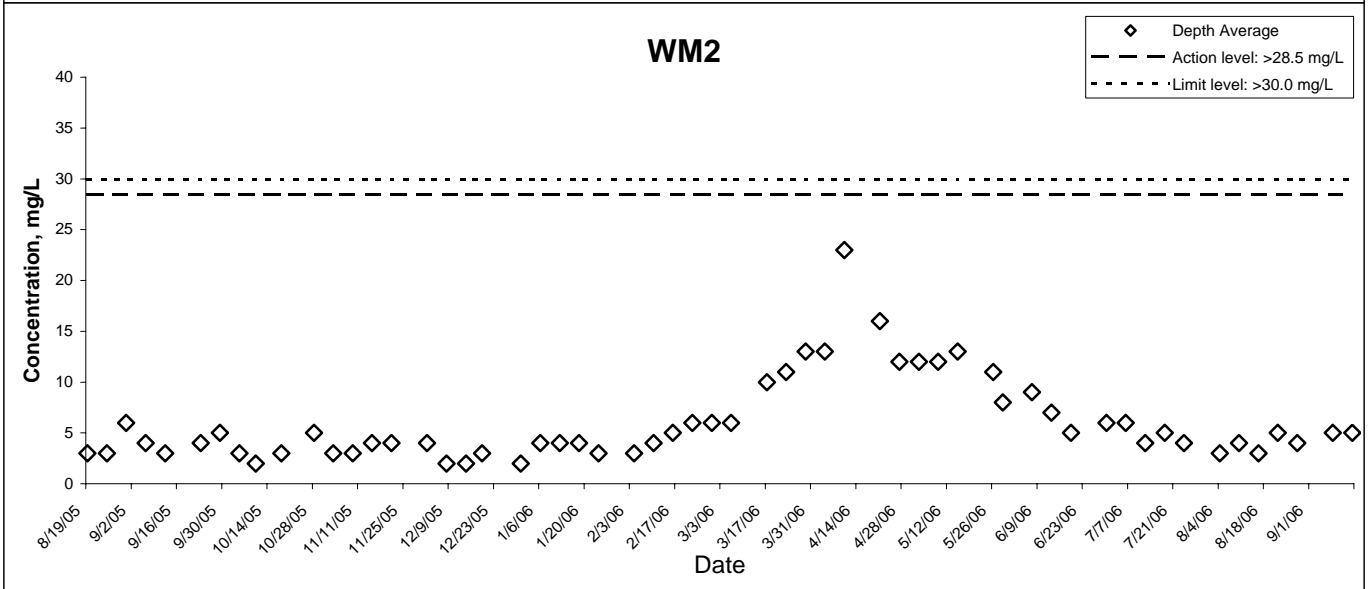
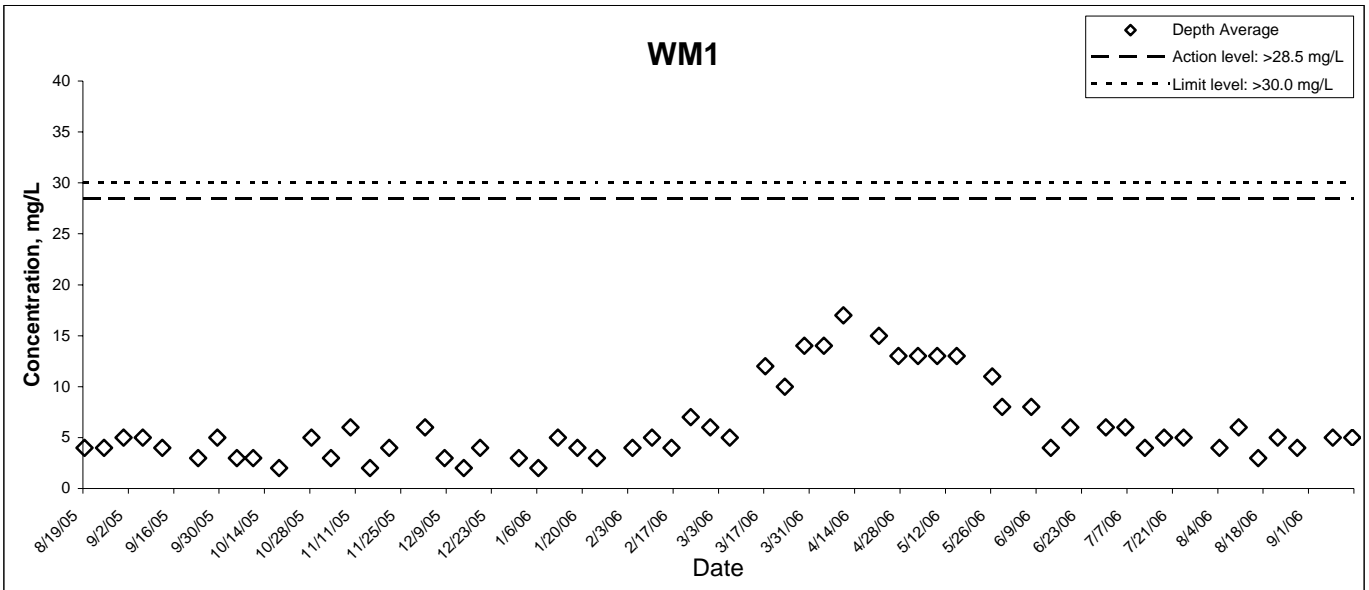
5-day BOD



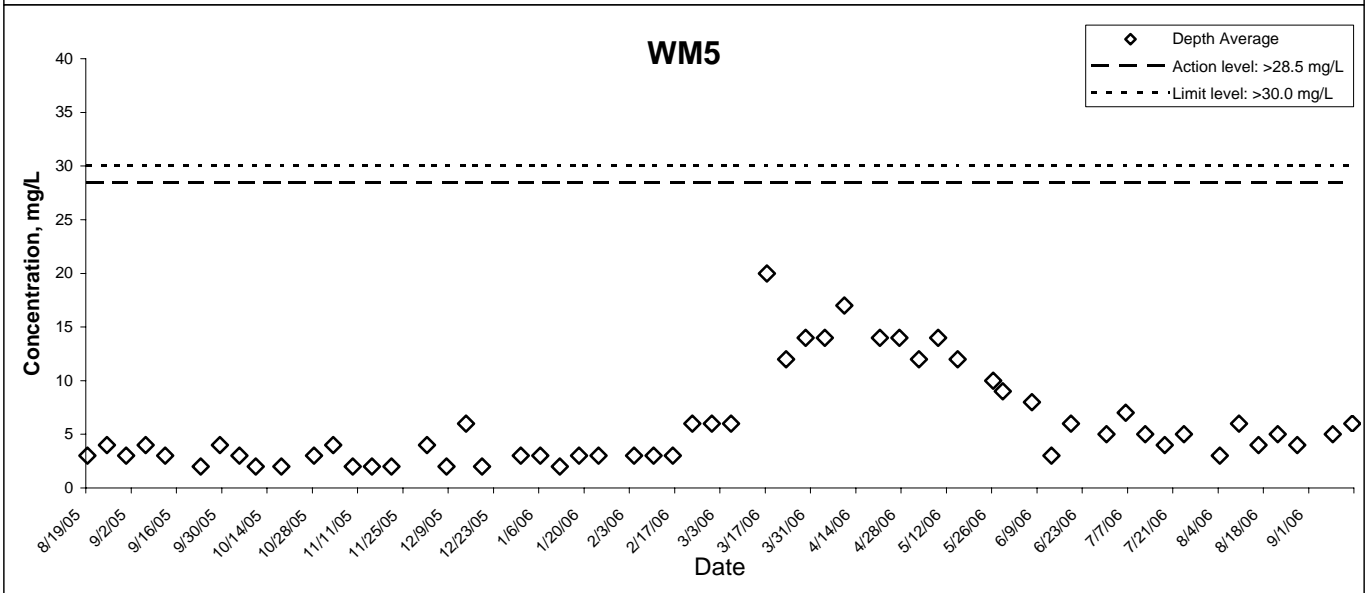
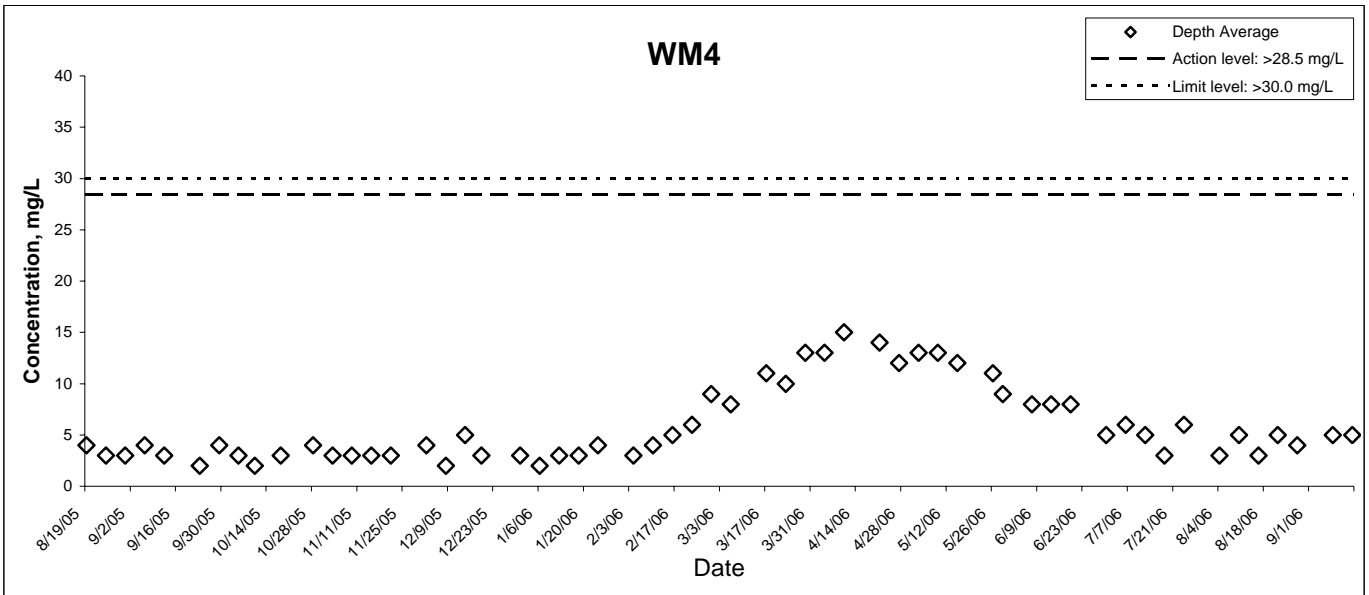
5-day BOD



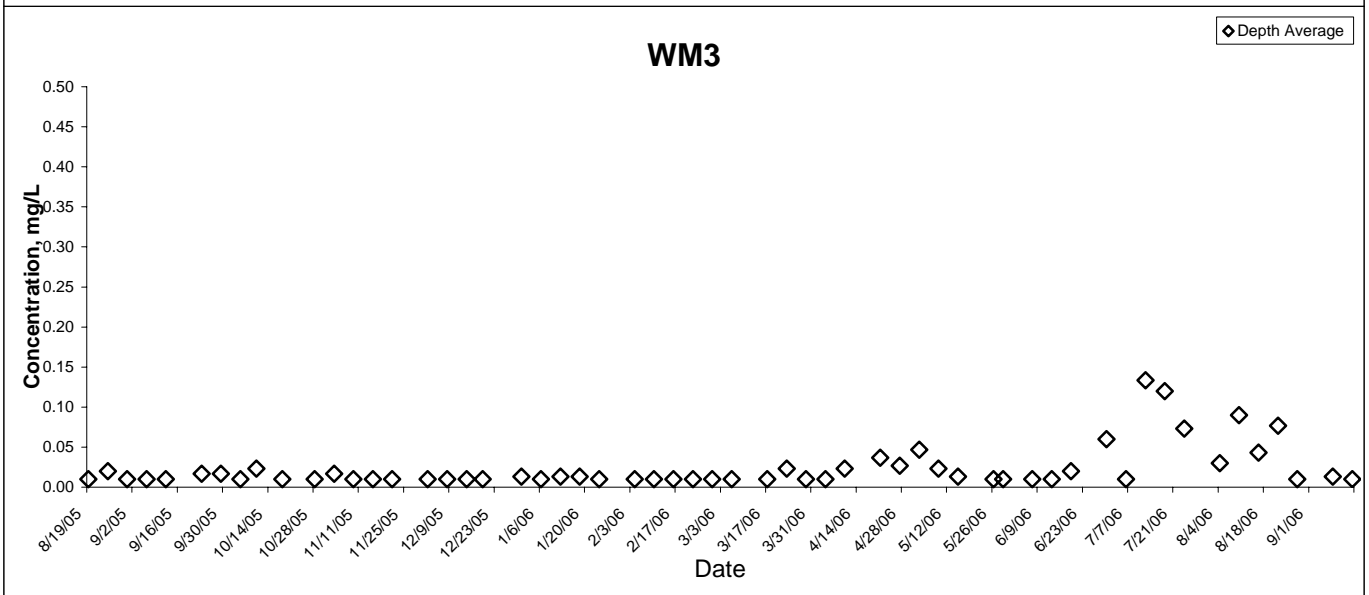
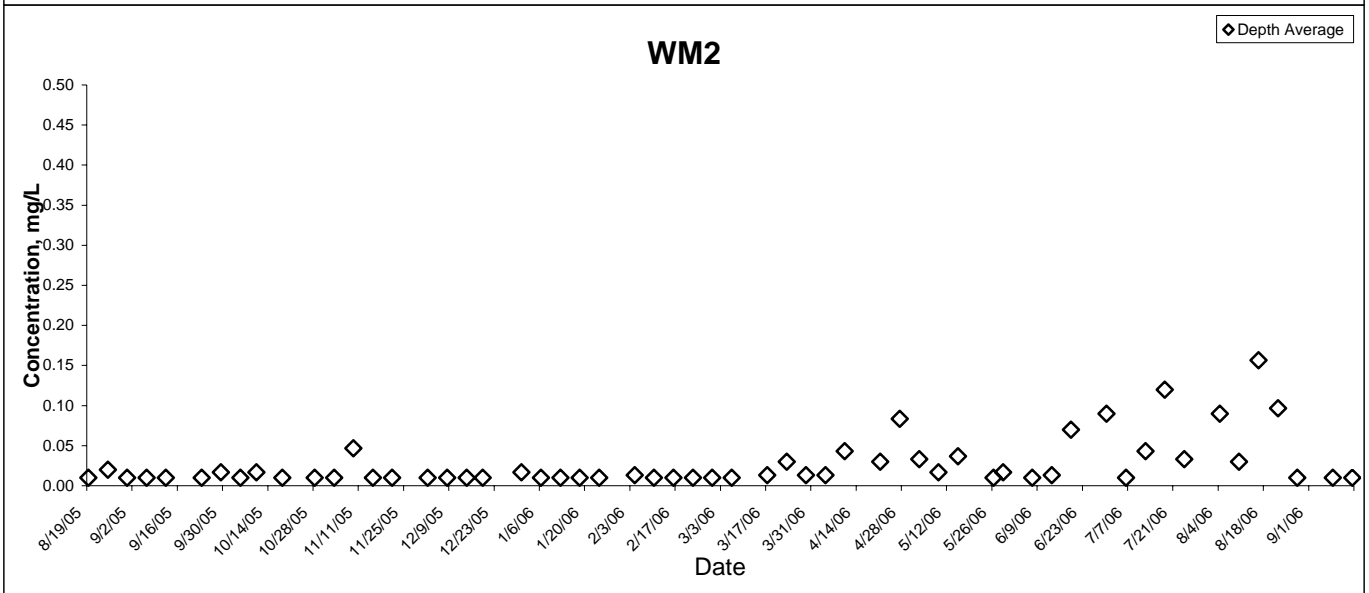
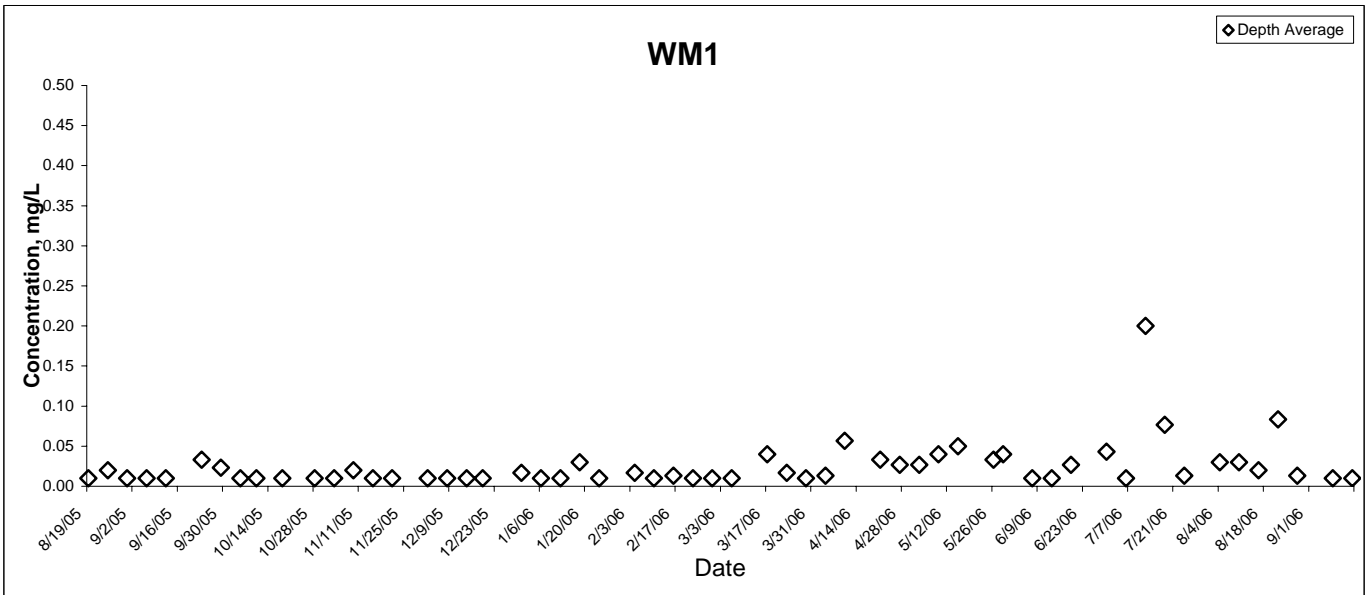
Chemical Oxygen Demand



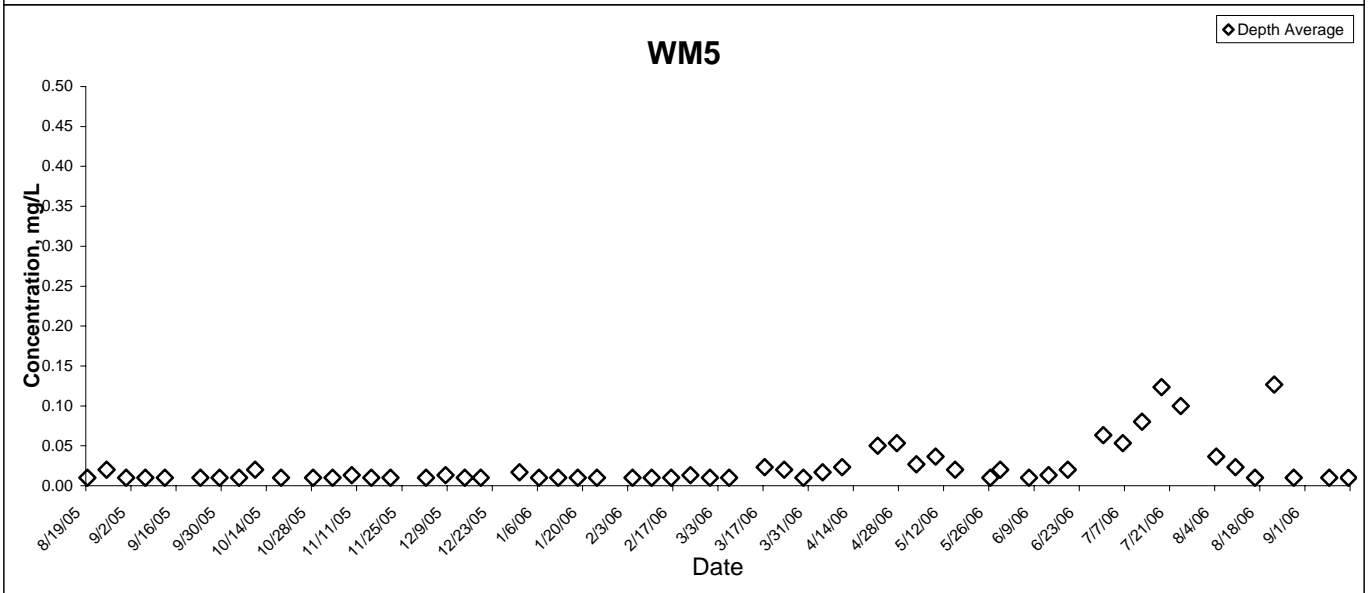
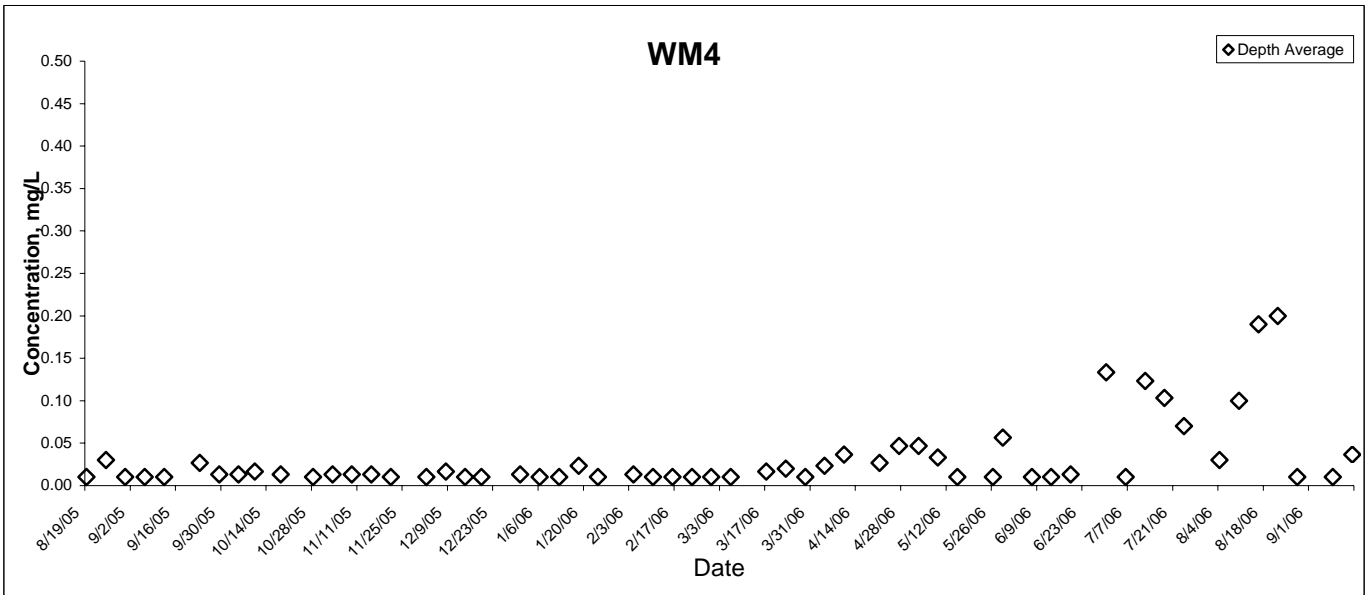
Chemical Oxygen Demand



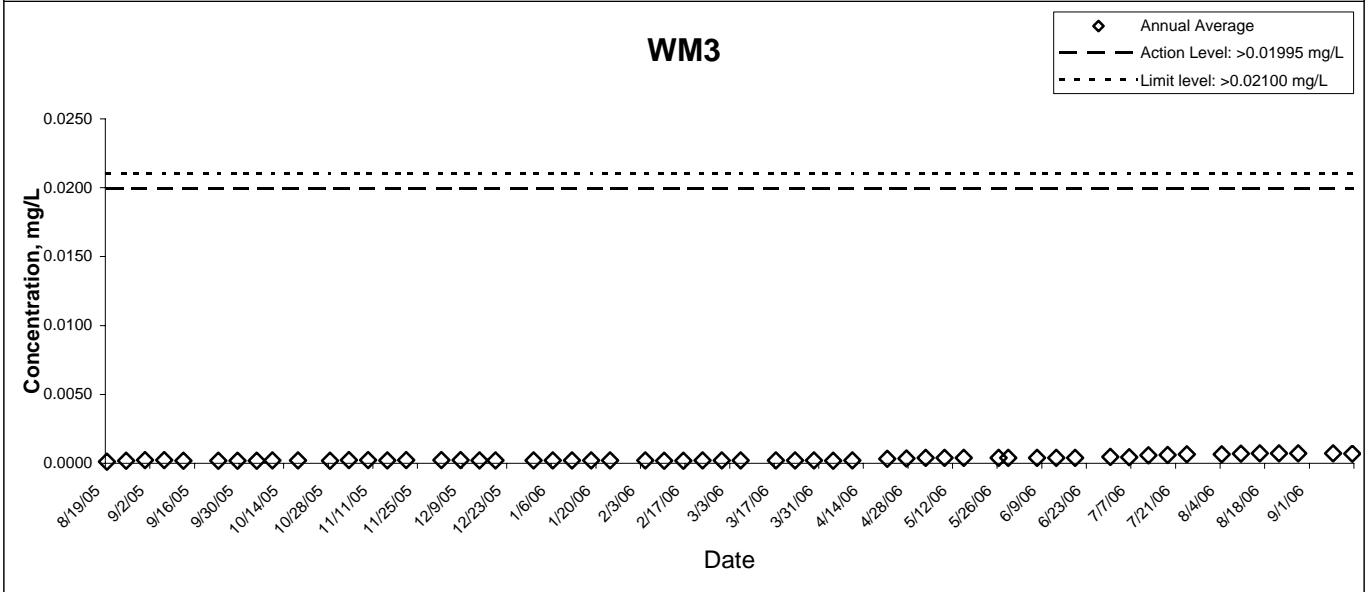
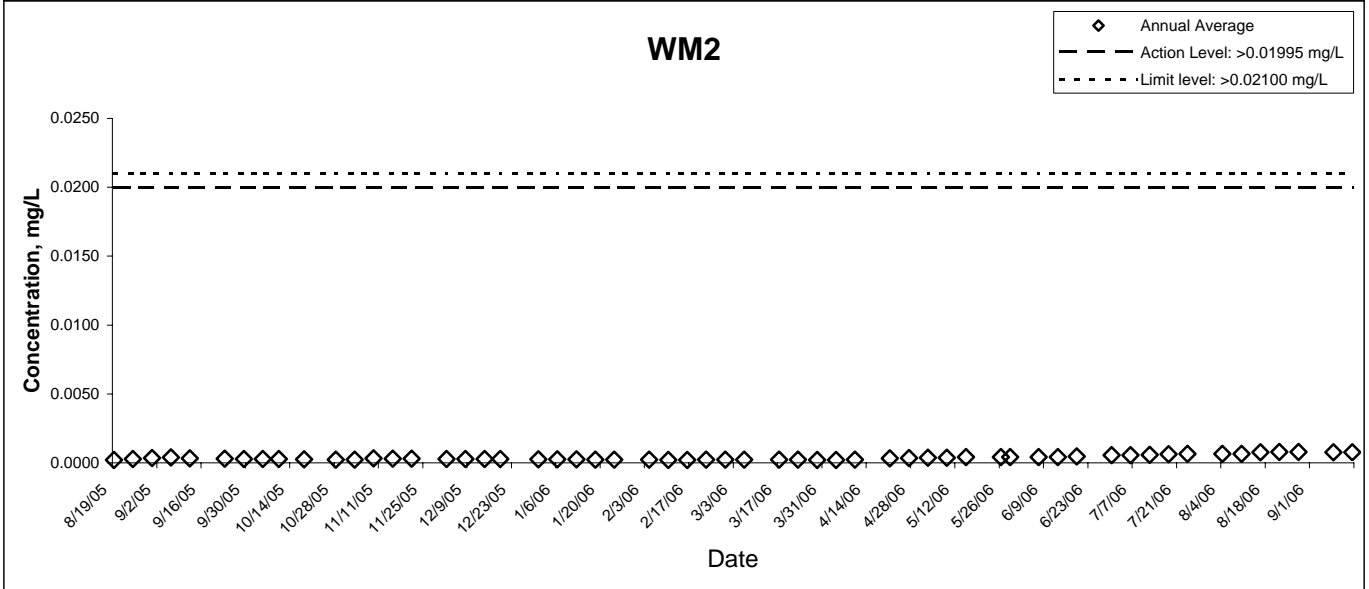
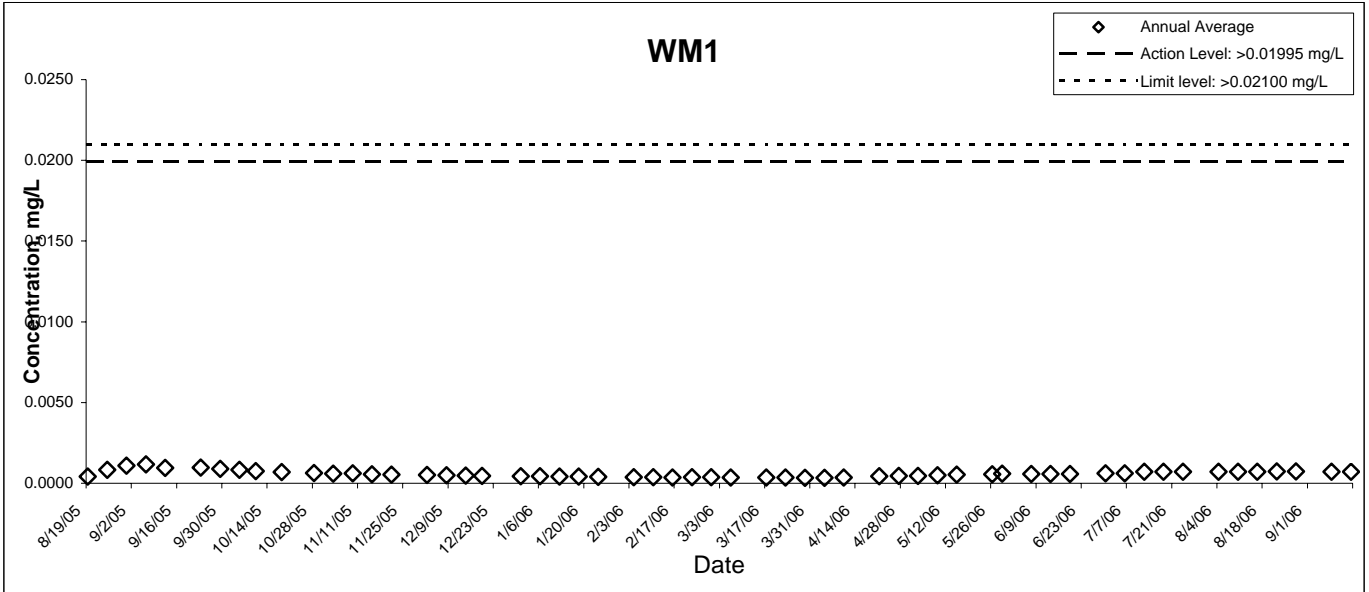
Ammonia Nitrogen



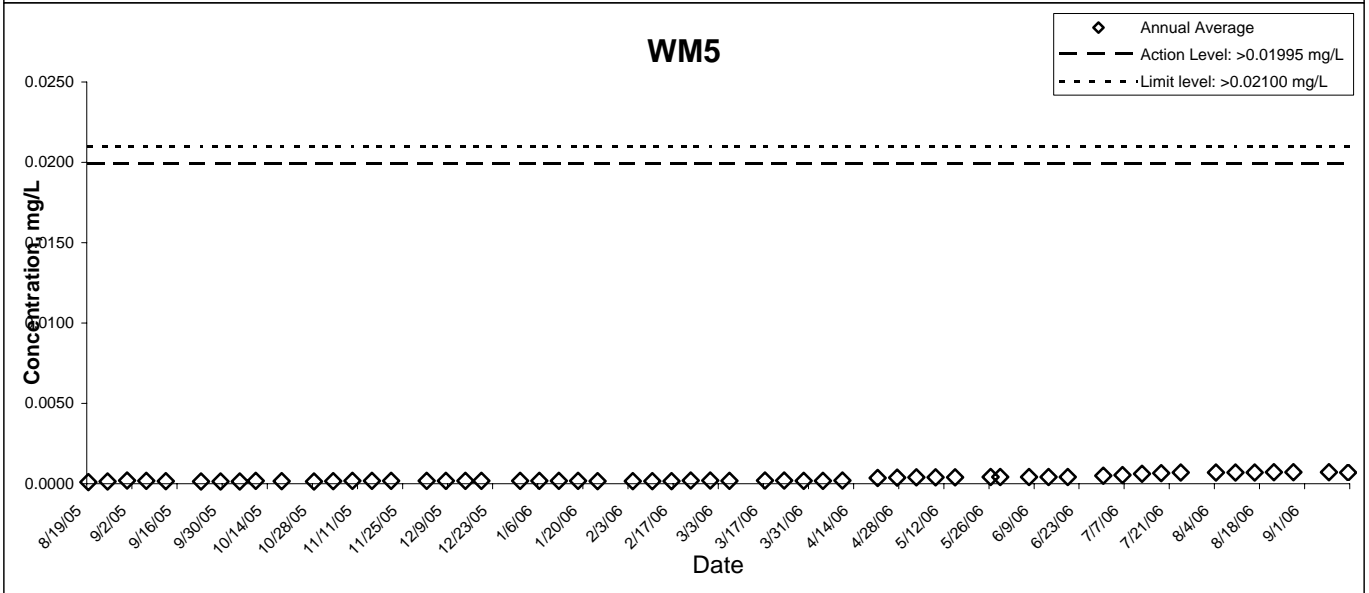
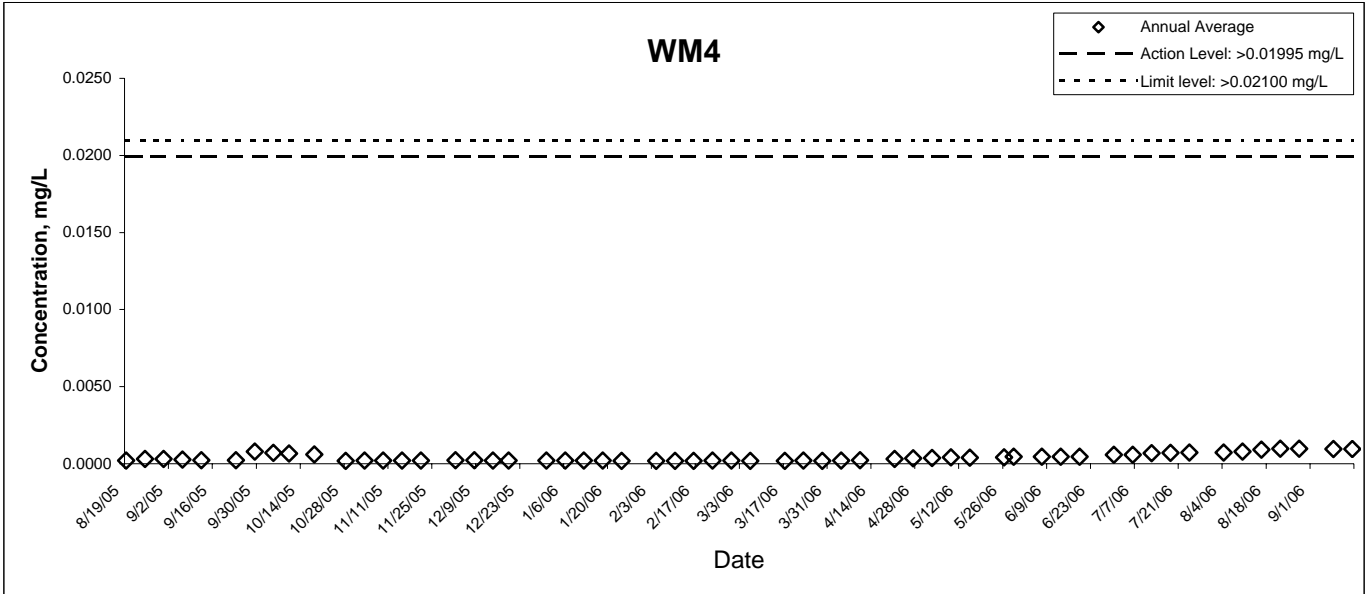
Ammonia Nitrogen



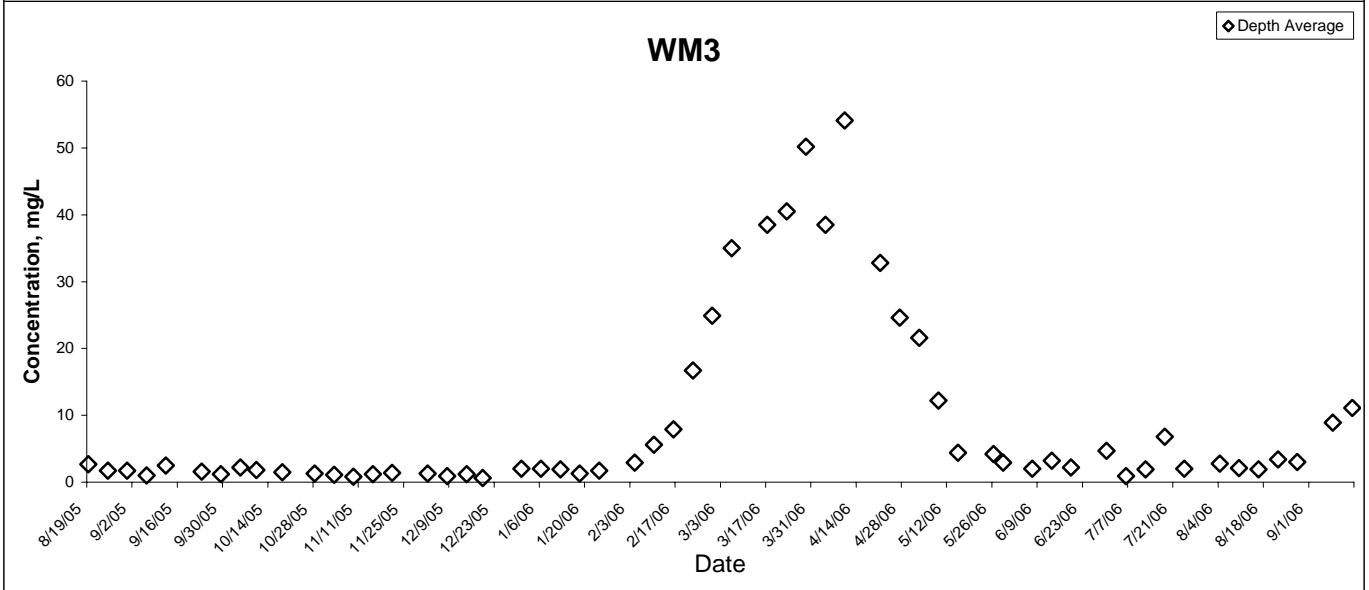
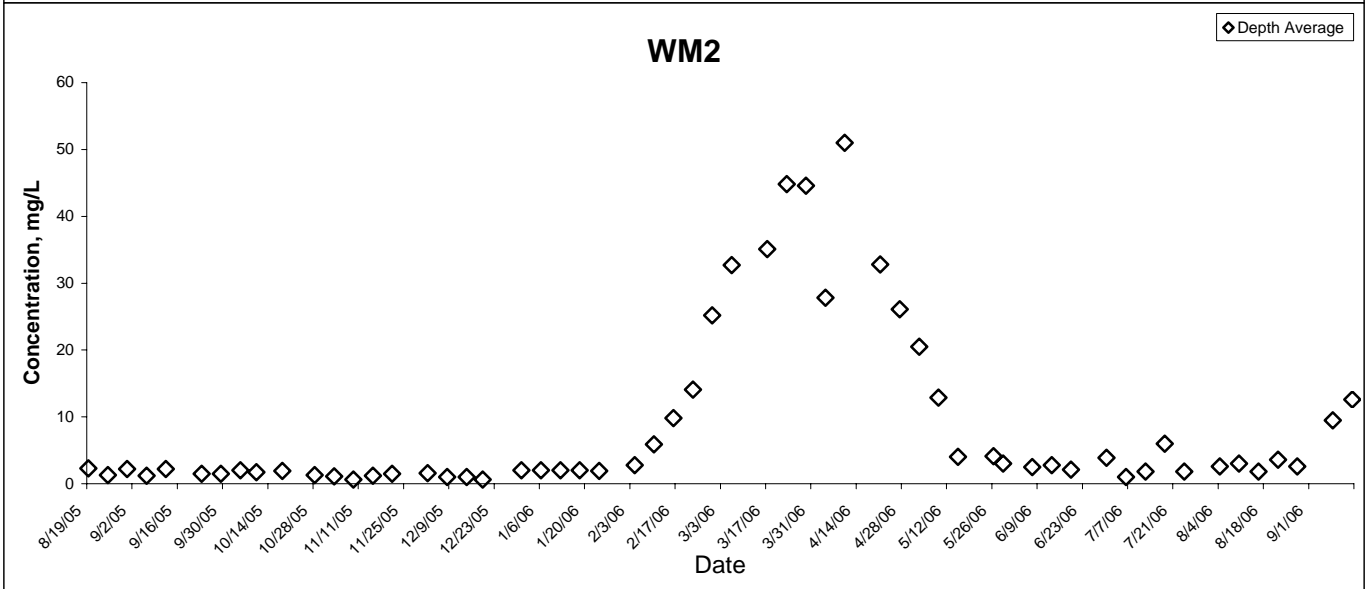
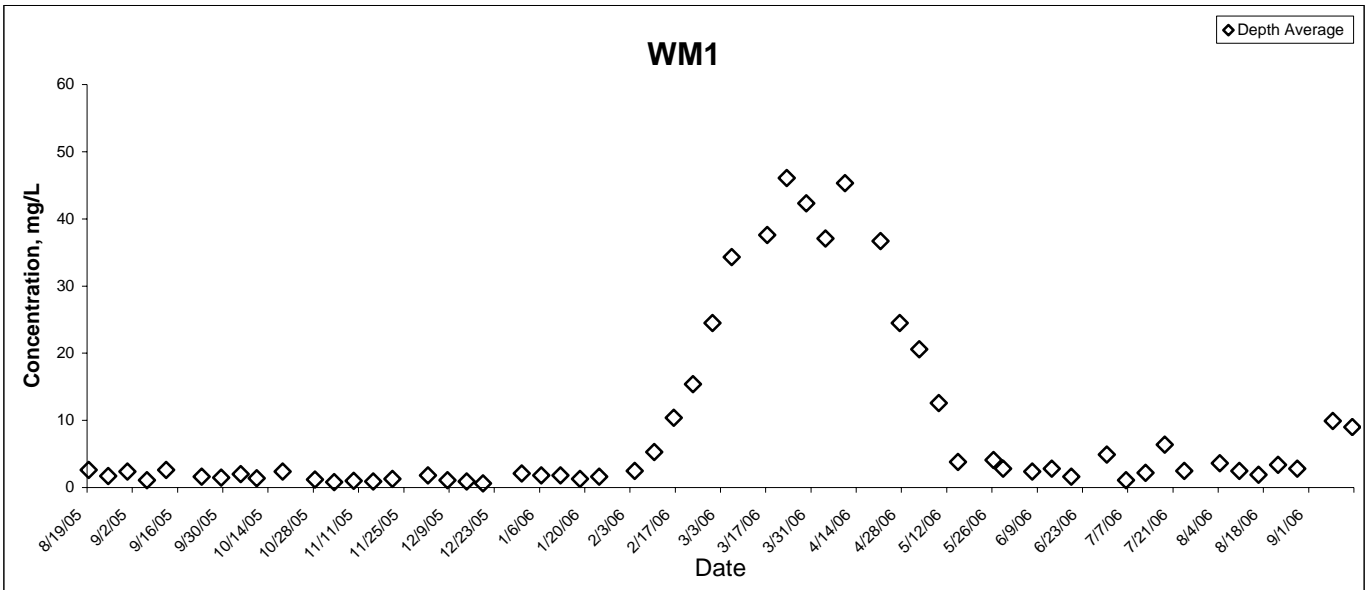
Unionised Nitrogen (Annual Average)



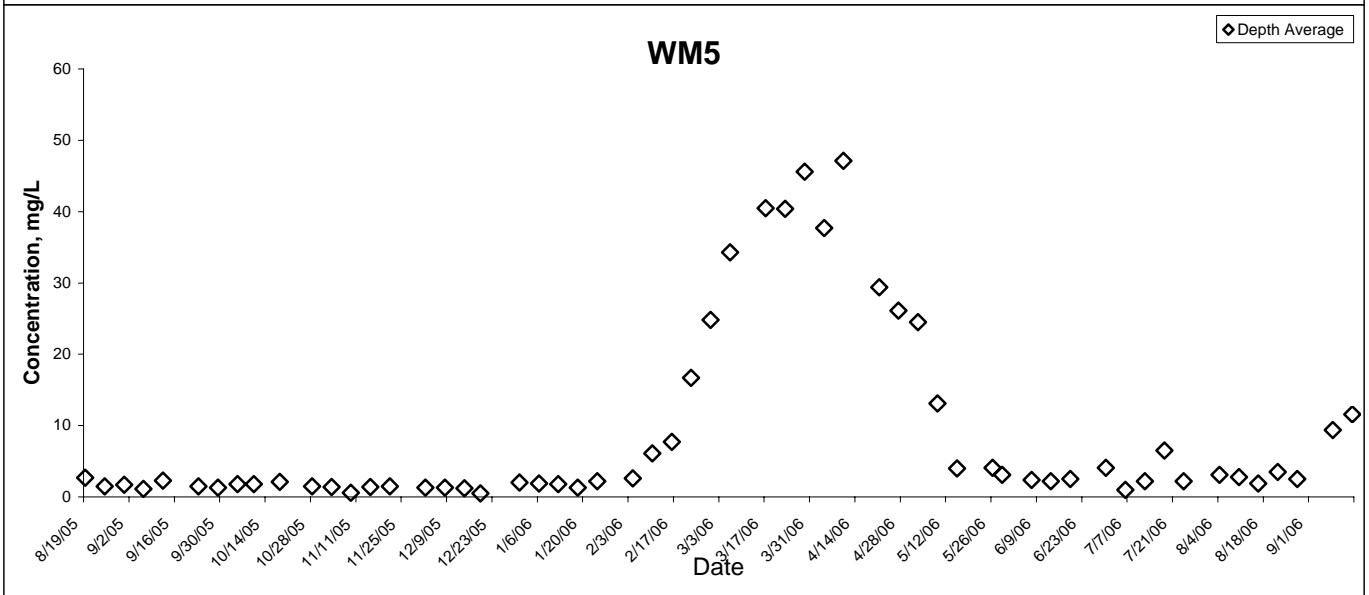
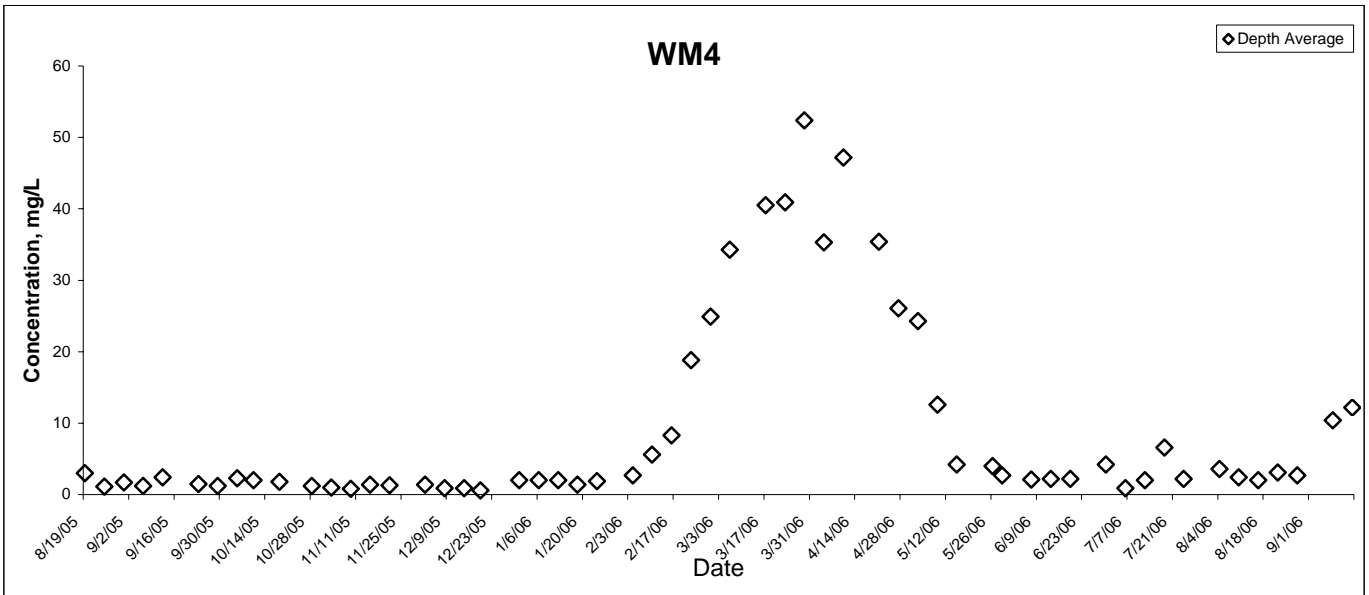
Unionised Nitrogen (Annual Average)



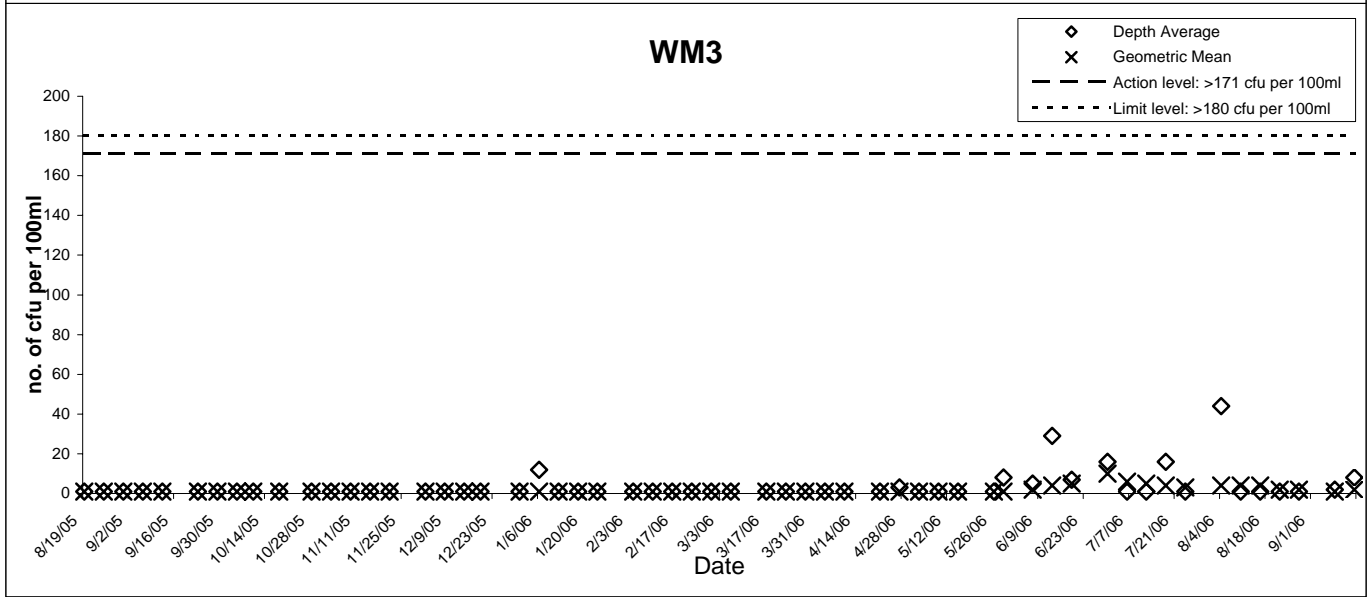
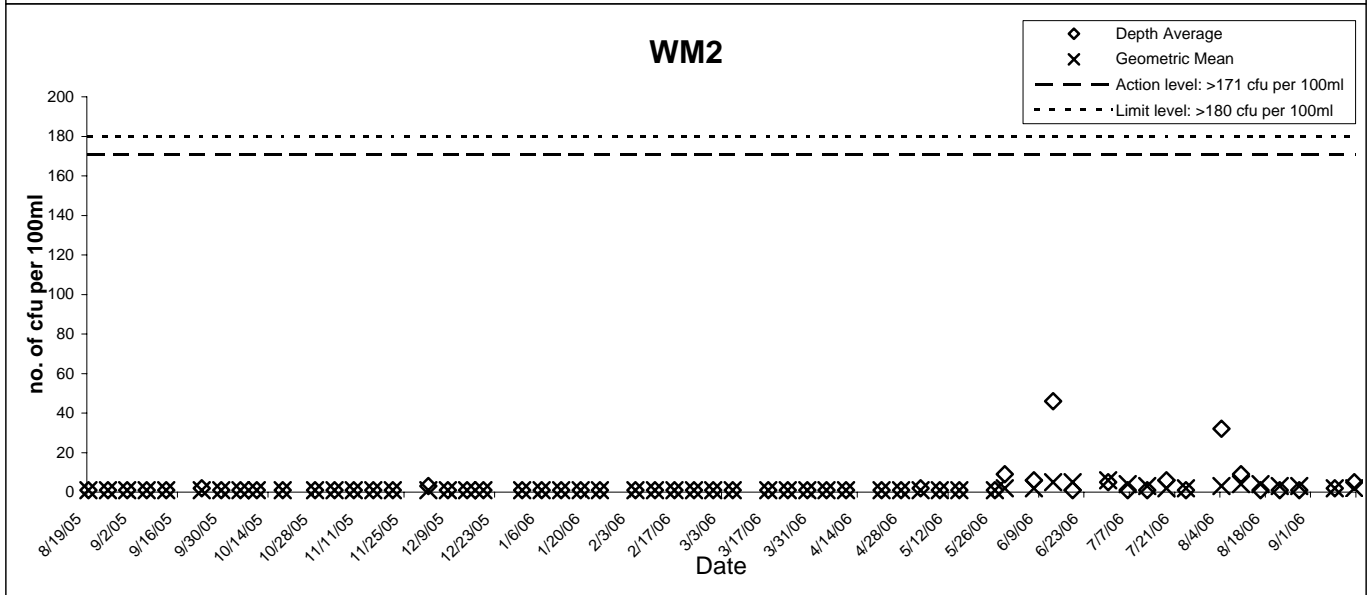
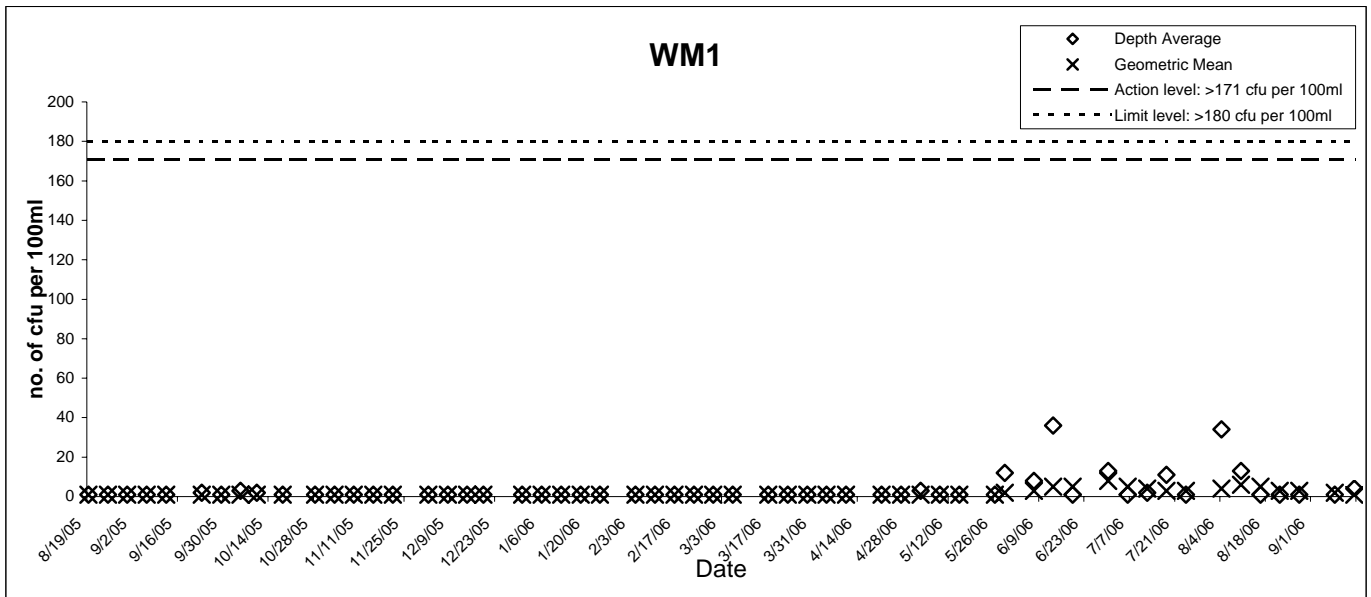
Chlorophyll-a



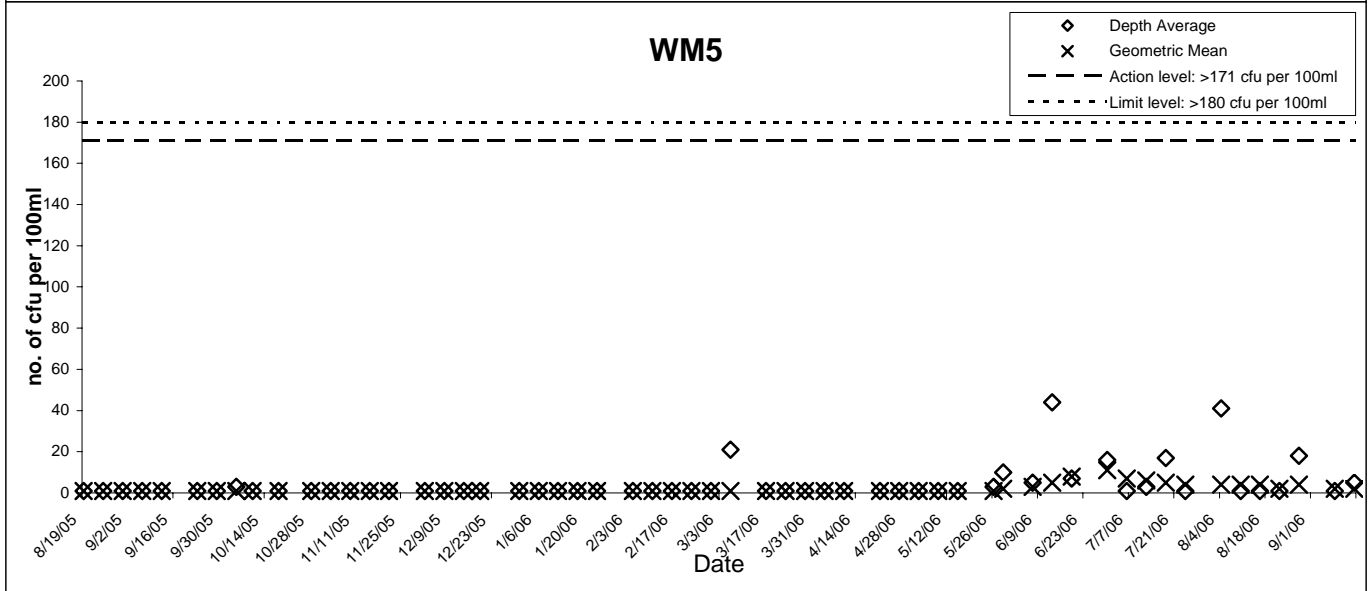
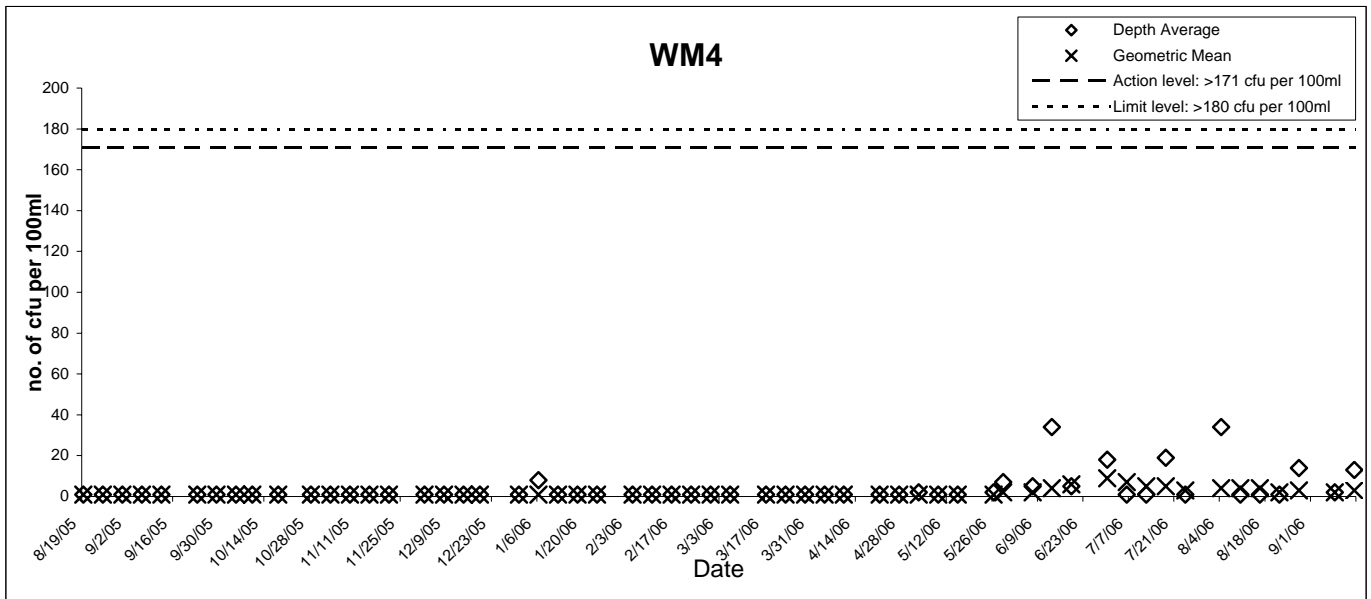
Chlorophyll-a



E.coli



E.coli





CERTIFICATE OF ANALYSIS

Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD	Laboratory : ALS Technichem (HK) Pty Ltd	Page : 1 of 10
Contact : LEMON LAM	Contact : Alice Wong / Ivan Leung	Work Order : HK0602369
Address : 11TH FLOOR TOWER II, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE RD, SHATIN HONG KONG	Address : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T. Hong Kong	
E-mail : lemon.lam@maunsell.aecom.com	E-mail : alice.wong@alsenviro.com	
Telephone : +852 2893 1551	Telephone : +852 2610 1044	
Facsimile : +852 2891 0305	Facsimile : +852 2610 2021	Date received : 16 Aug 2006
Project : S07105	Quote number : ---	Date of issue : 28 Aug 2006
Order number : ---		No. of samples : 15
C-O-C number : ---		Analysed : 15
Site : WATER RECREATION CTR		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0602369 supersedes any previous reports with this reference. The completion date of analysis is 26 Aug 2006. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0602369 : **Fifteen water samples were received in a chilled condition.**
Total Nitrogen is the sum of Total Oxidizable and Total Kjeldahl Nitrogen.
In marine and freshwater samples, chlorophyll b will cause some interference if present.
Project Name: EM&A for WRC at Penny's Bay.

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This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for-
Anh Ngoc Huynh	Senior Chemist	Organics
Fung Lim Chee, Richard	General Manager	Inorganics
Leung Sai Ho, Ivan	Supervisor	Microbiology

ALS Laboratory Group

Trading Name: ALS Technichem (HK) Pty Ltd.
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 A Campbell Brothers Limited Company

Page Number : 2 of 10
 Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD
 Work Order : HK0602369



Analytical Results

Method: Analysis Description	CAS number	LOR	Units	Client Sample ID :	WM1-S	WM1-M	WM1-B	WM2-S	WM2-M
				Laboratory Sample ID :	HK0602369-001	HK0602369-002	HK0602369-003	HK0602369-004	HK0602369-005
Submatrix: WATER				Sample Date / Time :	[16 Aug 2006]	[16 Aug 2006]	[16 Aug 2006]	[16 Aug 2006]	[16 Aug 2006]
EA/ED: Physical and Aggregate Properties									
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm		77	77	78	24	24
EA020: Salinity	----	0.1	g/L		<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	----	2	mg/L		<2	<2	<2	<2	<2
ED/EK: Inorganic Nonmetallic Parameters									
EK053A: Silica	7631-85-9	0.01	mg/L		4.79	4.79	4.34	4.81	4.70
EK055A: Ammonia as N	7664-41-7	0.01	mg/L		<0.01	0.04	<0.01	0.17	0.10
EK059A: Nitrite + Nitrate as N	----	0.1	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1
EK081A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L		0.2	0.3	0.2	0.2	0.1
EK082A: Total Nitrogen as N	----	0.1	mg/L		0.2	0.3	0.2	0.2	0.1
EK067A: Total Phosphorus as P	----	0.02	mg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	----	0.1	mg/L		7.7	11.1	7.6	9.0	6.3
EP: Aggregate Organics									
EP008: Chlorophyll a	----	0.5	µg/L		1.8	1.9	2.0	1.9	1.8
EP026: Chemical Oxygen Demand	----	2	mg/L		3	4	3	3	3
EP030: Biochemical Oxygen Demand	----	2	mg/L		<2	<2	<2	<2	<2
EG: Metals and Major Cations									
EG020: Chromium	7440-47-3	1	µg/L		<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L		<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L		<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L		<10	<10	<10	<10	<10
EP-090: Organotin Compounds									
EP090: Tributyltin	56573-85-4	5	ngSn/L		<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate									
EP090: Tripropyltin	----	0.1	%		71.0	85.0	98.6	Surrogate control limits listed at end of this report	
								96.0	81.7
EM: Microbiological Testing									
EM002: E. coli	----	1	CFU/100 mL		<1	<1	<1	<1	<1



Analytical Results

				Client Sample ID : WM2-B	WM3-S	WM3-M	WM3-B	WM4-S
				Laboratory Sample ID : HK0602369-006	HK0602369-007	HK0602369-008	HK0602369-009	HK0602369-010
				Sample Date / Time : [16 Aug 2006]	[16 Aug 2006]	[16 Aug 2006]	[16 Aug 2006]	[16 Aug 2006]
Method: Analysis Description	CAS number	LOR	Units					
EA/ED: Physical and Aggregate Properties								
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	87	26	24	26	26
EA020: Salinity	----	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	<2	<2	<2
ED/IEK: Inorganic Nonmetallic Parameters								
EK053A: Silica	7631-86-9	0.01	mg/L	4.76	4.86	4.99	4.74	4.80
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.20	0.01	0.11	0.01	0.20
EK059A: Nitrite + Nitrate as N	----	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.2	0.2	0.2	0.2	0.2
EK062A: Total Nitrogen as N	----	0.1	mg/L	0.2	0.2	0.2	0.2	0.2
EK067A: Total Phosphorus as P	----	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	----	0.1	mg/L	9.2	7.2	7.7	6.4	9.7
EP: Aggregate Organics								
EP008: Chlorophyll a	----	0.5	µg/L	1.9	1.7	1.8	1.8	2.1
EP026: Chemical Oxygen Demand	----	2	mg/L	2	3	5	3	5
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	<2	<2	<2	<2
EG: Metals and Major Cations								
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L	<1	1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10
EP-090: Organotin Compounds								
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate								
EP090: Tripropyltin	----	0.1	%	92.8	86.2	95.0	84.0	82.3
Surrogate control limits listed at end of this report								
EM: Microbiological Testing								
EM002: E. coli	----	1	CFU/100 mL	<1	<1	<1	<1	<1



Analytical Results

				Client Sample ID : WM4-M	WM4-B	WM5-S	WM5-M	WM5-B
				Laboratory Sample ID : HK0602369-011	HK0602369-012	HK0602369-013	HK0602369-014	HK0602369-015
				Sample Date / Time : [16 Aug 2006]	[16 Aug 2006]	[16 Aug 2006]	[16 Aug 2006]	[16 Aug 2006]
Method: Analysis Description	CAS number	LOR	Units					
EA/ED: Physical and Aggregate Properties								
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	26	24	23	78	73
EA020: Salinity	----	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	<2	<2	<2
ED/IEK: Inorganic Nonmetallic Parameters								
EK053A: Silica	7631-86-9	0.01	mg/L	4.89	4.76	4.73	4.82	4.81
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.20	0.17	0.01	0.01	<0.01
EK059A: Nitrite + Nitrate as N	----	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.2	0.2	0.1	0.1	<0.1
EK062A: Total Nitrogen as N	----	0.1	mg/L	0.2	0.2	0.1	0.1	<0.1
EK067A: Total Phosphorus as P	----	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	----	0.1	mg/L	7.1	7.9	9.0	8.0	8.0
EP: Aggregate Organics								
EP008: Chlorophyll a	----	0.5	µg/L	2.3	1.8	1.8	1.8	2.0
EP026: Chemical Oxygen Demand	----	2	mg/L	3	4	3	4	3
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	<2	<2	<2	<2
EG: Metals and Major Cations								
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10
EP-090: Organotin Compounds								
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate								
EP090: Tripropyltin	----	0.1	%	72.9	101	94.9	104	77.9
Surrogate control limits listed at end of this report								
EM: Microbiological Testing								
EM002: E. coli	----	1	CFU/100 mL	<1	<1	<1	<1	<1



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 258818)								
HK0602337-001	Anonymous	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	46	46	0.0
HK0602369-004	WM2-S	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	24	24	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 258821)								
HK0602369-014	WM5-M	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	78	76	2.2
EA/ED: Physical and Aggregate Properties (QC Lot: 259018)								
HK0602334-001	Anonymous	EA020: Salinity	---	1.0	g/L	48.5	48.5	0.0
HK0602369-008	WM3-M	EA020: Salinity	---	0.1	g/L	<0.1	<0.1	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 260531)								
HK0602347-001	Anonymous	EA025: Suspended Solids (SS)	---	2	mg/L	8	8	0.0
HK0602347-011	Anonymous	EA025: Suspended Solids (SS)	---	2	mg/L	10	13	31.3
EA/ED: Physical and Aggregate Properties (QC Lot: 280532)								
HK0602369-005	WM2-M	EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	0.0
HK0602369-015	WM5-B	EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	0.0
ED/IE: Inorganic Nonmetallic Parameters (QC Lot: 258786)								
HK0602369-010	WM4-S	EK053A: Silica	7631-86-9	0.01	mg/L	4.80	4.74	1.2
HK0602369-015	WM5-B	EK053A: Silica	7631-86-9	0.01	mg/L	4.81	4.69	2.6
ED/IE: Inorganic Nonmetallic Parameters (QC Lot: 258855)								
HK0602369-002	WM1-M	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.3	0.3	0.0
HK0602369-010	WM4-S	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.2	0.2	0.0
ED/IE: Inorganic Nonmetallic Parameters (QC Lot: 258856)								
HK0602344-010	Anonymous	EK067A: Total Phosphorus as P	---	0.1	mg/L	<0.1	<0.1	0.0
HK0602369-015	WM5-B	EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	0.0
ED/IE: Inorganic Nonmetallic Parameters (QC Lot: 258857)								
HK0602369-015	WM5-B	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	<0.1	<0.1	0.0
ED/IE: Inorganic Nonmetallic Parameters (QC Lot: 259154)								
HK0602273-004	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.09	0.11	17.2
HK0602366-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.86	0.85	2.2
ED/IE: Inorganic Nonmetallic Parameters (QC Lot: 269156)								
HK0602369-009	WM3-B	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.01	<0.01	0.0
HK0602369-015	WM5-B	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.01	0.0
ED/IE: Inorganic Nonmetallic Parameters (QC Lot: 259308)								
HK0602369-010	WM4-S	EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	0.0
HK0602369-015	WM5-B	EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	0.0
EP: Aggregate Organics (QC Lot: 258879)								
HK0602332-001	Anonymous	EP026: Chemical Oxygen Demand	---	2	mg/L	209	211	1.0
HK0602366-002	Anonymous	EP026: Chemical Oxygen Demand	---	2	mg/L	39	38	2.6
EP: Aggregate Organics (QC Lot: 258880)								
HK0602332-002	Anonymous	EP026: Chemical Oxygen Demand	---	2	mg/L	216	219	1.4
EP: Aggregate Organics (QC Lot: 262376)								
HK0602369-010	WM4-S	EP008: Chlorophyll a	---	0.5	mg/m3	2.1	2.2	4.6

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Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EP: Aggregate Organics (QC Lot: 262376) - continued								
HK0602369-015	WM5-B	EP008: Chlorophyll a	---	0.5	mg/m3	2.0	1.8	10.5
EG: Metals and Major Cations (QC Lot: 258759)								
HK0602235-002	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	12	12	0.0
		EG020: Chromium	7440-47-3	1	µg/L	32	32	0.0
		EG020: Copper	7440-50-8	1	µg/L	3	3	0.0
HK0602282-006	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	51	51	0.0
		EG020: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG020: Copper	7440-50-8	1	µg/L	44	44	0.0
EG: Metals and Major Cations (QC Lot: 258762)								
HK0602369-011	WM4-M	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
		EG020: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG020: Copper	7440-50-8	1	µg/L	<1	<1	0.0

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Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Method: Analysis Description		CAS number	Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
			LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
							SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 268818)												
EA010: Electrical Conductivity @ 25°C	---	---	1	µS/cm	<1	146.9 µS/cm	103	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QCLot: 268821)												
EA010: Electrical Conductivity @ 25°C	---	---	1	µS/cm	<1	146.9 µS/cm	99.2	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QCLot: 269018)												
EA020: Salinity	---	---	0.1	g/L	<0.1	30 g/L	101	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QCLot: 260531)												
EA025: Suspended Solids (SS)	---	---	2	mg/L	<2	20 mg/L	98.0	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QCLot: 260532)												
EA025: Suspended Solids (SS)	---	---	2	mg/L	<2	20 mg/L	94.0	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 268786)												
EK053A: Silica	7631-86-9	---	0.01	mg/L	<0.01	0.4 mg/L	97.2	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 268855)												
EK061A: Total Kjeldahl Nitrogen as N	---	---	0.1	mg/L	<0.1	0.5 mg/L	109	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 268856)												
EK067A: Total Phosphorus as P	---	---	0.1	mg/L	<0.1	0.5 mg/L	98.9	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 268857)												
EK061A: Total Kjeldahl Nitrogen as N	---	---	0.1	mg/L	<0.1	0.5 mg/L	112	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 269154)												
EK055A: Ammonia as N	7664-41-7	---	0.01	mg/L	<0.01	0.4 mg/L	111	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 269155)												
EK055A: Ammonia as N	7664-41-7	---	0.01	mg/L	<0.01	0.4 mg/L	97.2	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 269308)												
EK059A: Nitrite + Nitrate as N	---	---	0.01	mg/L	<0.01	0.4 mg/L	106	---	85	115	---	---
EP: Aggregate Organics (QCLot: 268526)												
EP030: Biochemical Oxygen Demand	---	---	2	mg/L	---	198 mg/L	101	---	85	115	---	---
EP: Aggregate Organics (QCLot: 268527)												
EP030: Biochemical Oxygen Demand	---	---	2	mg/L	---	198 mg/L	110	---	85	115	---	---
EP: Aggregate Organics (QCLot: 268879)												
EP026: Chemical Oxygen Demand	---	---	2	mg/L	---	500 mg/L	94.4	---	85	115	---	---
EP: Aggregate Organics (QCLot: 268880)												
EP026: Chemical Oxygen Demand	---	---	2	mg/L	---	500 mg/L	99.6	---	85	115	---	---
EP: Aggregate Organics (QCLot: 262375)												
EP008: Chlorophyll a	---	---	0.1	mg/m3	<0.1	1 mg/m3	105	---	85	115	---	---
EG: Metals and Major Cations (QCLot: 268759)												
EG020: Lead	7439-92-1	---	1	µg/L	<1	100 µg/L	92.3	---	85	115	---	---

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Method: Analysis Description		CAS number	Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
			LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
							SCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QCLot: 268759) - continued												
EG020: Zinc	7440-66-6	---	10	µg/L	<10	100 µg/L	97.3	---	85	115	---	---
EG020: Chromium	7440-47-3	---	1	µg/L	<1	100 µg/L	95.7	---	85	115	---	---
EG020: Copper	7440-50-8	---	1	µg/L	<1	100 µg/L	101	---	85	115	---	---
EG: Metals and Major Cations (QCLot: 268762)												
EG020: Lead	7439-92-1	---	1	µg/L	<1	100 µg/L	90.8	---	85	115	---	---
EG020: Zinc	7440-66-6	---	10	µg/L	<10	100 µg/L	93.9	---	85	115	---	---
EG020: Chromium	7440-47-3	---	1	µg/L	<1	100 µg/L	94.0	---	85	115	---	---
EG020: Copper	7440-50-8	---	1	µg/L	<1	100 µg/L	94.1	---	85	115	---	---
EP-090: Organotin Compounds (QCLot: 261391)												
EP090: Tributyltin	56573-85-4	---	5	ngSn/L	<5	50 ngSn/L	105	---	95	105	---	---

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Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER

Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results					
					Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 258786)										
HK0602369-001	WM1-S	EK053A: Silica	7631-86-9	2.5 mg/L	96.9	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 258856)										
HK0602369-001	WM1-S	EK061A: Total Kjeldahl Nitrogen as N	---	0.5 mg/L	107	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 258856)										
HK0602369-011	WM4-M	EK067A: Total Phosphorus as P	---	0.5 mg/L	107	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 258857)										
HK0602369-011	WM4-M	EK061A: Total Kjeldahl Nitrogen as N	---	0.5 mg/L	100	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 259154)										
HK0602273-001	Anonymous	EK055A: Ammonia as N	7684-41-7	0.5 mg/L	121	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 259155)										
HK0602366-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	121	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 259308)										
HK0602369-001	WM1-S	EK058A: Nitrite + Nitrate as N	---	1.0 mg/L	107	---	75	125	---	---
EP: Aggregate Organics (QCLot: 258879)										
HK0602309-001	Anonymous	EP026: Chemical Oxygen Demand	---	500 mg/L	94.6	---	75	125	---	---
EP: Aggregate Organics (QCLot: 258980)										
HK0602366-001	Anonymous	EP026: Chemical Oxygen Demand	---	50 mg/L	103	---	75	125	---	---
EG: Metals and Major Cations (QCLot: 258759)										
HK0602235-001	Anonymous	EG020: Lead	7439-92-1	100 µg/L	84.9	---	75	125	---	---
		EG020: Zinc	7440-66-6	100 µg/L	85.5	---	75	125	---	---
		EG020: Chromium	7440-47-3	100 µg/L	110	---	75	125	---	---
		EG020: Copper	7440-50-8	100 µg/L	98.2	---	75	125	---	---
EG: Metals and Major Cations (QCLot: 258762)										
HK0602369-010	WM4-S	EG020: Lead	7439-92-1	100 µg/L	90.2	---	75	125	---	---
		EG020: Zinc	7440-66-6	100 µg/L	95.5	---	75	125	---	---
		EG020: Chromium	7440-47-3	100 µg/L	95.7	---	75	125	---	---
		EG020: Copper	7440-50-8	100 µg/L	96.4	---	75	125	---	---



Surrogate Control Limits

Submatrix Type: WATER

Method: Analysis Description	Units	Lower Limit	Upper Limit
EP-090S: Organotin Surrogate			
EP090: Tripropyltin	%	50	130



CERTIFICATE OF ANALYSIS

Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD	Laboratory : ALS Technichem (HK) Pty Ltd	Page : 1 of 9
Contact : LEMON LAM	Contact : Alice Wong / Ivan Leung	Work Order : HK0602599
Address : 11TH FLOOR TOWER II, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE RD, SHATIN HONG KONG	Address : 11/F., Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T. Hong Kong	
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Facsimile : +852 2891 0306	Facsimile : +852 2610 2021	Date received : 21 Aug 2006
Project : S07105	Quote number : —	Date of issue : 1 Sep 2006
Order number : —		No. of samples - Received : 15
C-O-C number : —		Analysed : 15
Site : WRC		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0602599 supersedes any previous reports with this reference. The completion date of analysis is 29 Aug 2006. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0602599 :
Samples analysed on an as received basis for metals.
Fifteen water samples were received in a chilled condition.
Total Nitrogen is the sum of Total Oxidizable and Total Kjeldal Nitrogen.
In marine and freshwater samples, chlorophyll b will cause some interference if present.
Project Name: EM&A for WRC at Penny's Bay.

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This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for-
Anh Ngoc Huynh	Senior Chemist	Organics
Fung Lim Chee, Richard	General Manager	Inorganics
Leung Sai Ho, Ivan	Supervisor	Microbiology

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Page Number : 2 of 9
 Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD
 Work Order : HK0602599



Analytical Results

Client Sample ID	Sample Date / Time	ALS Identification	Analyte :	EA010: Electrical Conductivity @ 25°C	EA020: Salinity	EA025: Suspended Solids (SS)	EK053A: Silica	EK055A: Ammonia as N
			LOR / Units :	1 µS/cm	0.1 g/L	2 mg/L	0.01 mg/L	0.01 mg/L
Submatrix: WATER			Analyte Group :	EA/ED: Physical and Aggregate Properties	EA/ED: Physical and Aggregate Properties	EA/ED: Physical and Aggregate Properties	ED/EK: Inorganic Nonmetallic Parameters	ED/EK: Inorganic Nonmetallic Parameters
WM 1S	[22 Aug 2006]	HK0602599-001		78	<0.1	<2	5.39	0.20
WM 1M	[22 Aug 2006]	HK0602599-002		77	<0.1	<2	5.18	0.02
WM 1B	[22 Aug 2006]	HK0602599-003		78	<0.1	<2	5.17	0.03
WM 2S	[22 Aug 2006]	HK0602599-004		76	<0.1	<2	5.10	0.02
WM 2M	[22 Aug 2006]	HK0602599-005		78	<0.1	<2	5.18	0.17
WM 2B	[22 Aug 2006]	HK0602599-006		76	<0.1	<2	5.10	0.10
WM 3S	[22 Aug 2006]	HK0602599-007		77	<0.1	<2	5.18	0.01
WM 3M	[22 Aug 2006]	HK0602599-008		78	<0.1	<2	5.18	0.20
WM 3B	[22 Aug 2006]	HK0602599-009		75	<0.1	<2	5.15	0.02
WM 4S	[22 Aug 2006]	HK0602599-010		75	<0.1	<2	5.10	0.20
WM 4M	[22 Aug 2006]	HK0602599-011		76	<0.1	<2	5.10	0.20
WM 4B	[22 Aug 2006]	HK0602599-012		76	<0.1	<2	5.08	0.20
WM 5S	[22 Aug 2006]	HK0602599-013		77	<0.1	<2	5.16	0.20
WM 5M	[22 Aug 2006]	HK0602599-014		78	<0.1	<2	5.10	0.17
WM 5B	[22 Aug 2006]	HK0602599-015		78	<0.1	<2	5.12	0.01



Analytical Results

			Analyte :	EK059A: Nitrite + Nitrate as N 0.1 mg/L	EK061A: Total Kjeldahl Nitrogen as N 0.1 mg/L	EK062A: Total Nitrogen as N 0.1 mg/L	EK067A: Total Phosphorus as P 0.02 mg/L	EP025: Dissolved Oxygen 0.1 mg/L
			LOR / Units :					
			Analyte Group :	ED/EK: Inorganic Nonmetallic Parameters	ED/EK: Inorganic Nonmetallic Parameters	ED/EK: Inorganic Nonmetallic Parameters	ED/EK: Inorganic Nonmetallic Parameters	ED/EK: Inorganic Nonmetallic Parameters
Client Sample ID	Sample Date / Time	ALS Identification						
WM 1S	[22 Aug 2006]	HK0602599-001	<0.1	0.2	0.2	<0.02	9.4	
WM 1M	[22 Aug 2006]	HK0602599-002	<0.1	0.2	0.2	<0.02	7.4	
WM 1B	[22 Aug 2006]	HK0602599-003	<0.1	0.2	0.2	<0.02	7.6	
WM 2S	[22 Aug 2006]	HK0602599-004	<0.1	0.1	0.1	<0.02	10.0	
WM 2M	[22 Aug 2006]	HK0602599-005	<0.1	0.2	0.2	<0.02	10.0	
WM 2B	[22 Aug 2006]	HK0602599-006	<0.1	0.1	0.1	<0.02	10.4	
WM 3S	[22 Aug 2006]	HK0602599-007	<0.1	0.2	0.2	<0.02	8.4	
WM 3M	[22 Aug 2006]	HK0602599-008	<0.1	0.3	0.3	<0.02	7.3	
WM 3B	[22 Aug 2006]	HK0602599-009	<0.1	0.2	0.2	<0.02	9.5	
WM 4S	[22 Aug 2006]	HK0602599-010	<0.1	0.2	0.2	<0.02	7.0	
WM 4M	[22 Aug 2006]	HK0602599-011	<0.1	0.2	0.2	<0.02	6.6	
WM 4B	[22 Aug 2006]	HK0602599-012	<0.1	0.2	0.2	<0.02	11.0	
WM 5S	[22 Aug 2006]	HK0602599-013	<0.1	0.2	0.2	<0.02	10.9	
WM 5M	[22 Aug 2006]	HK0602599-014	<0.1	0.2	0.2	<0.02	8.6	
WM 5B	[22 Aug 2006]	HK0602599-015	<0.1	0.2	0.2	<0.02	9.0	



Analytical Results

			Analyte :	EP008 F: Chlorophyll a 0.5 µg/L	EP026: Chemical Oxygen Demand 2 mg/L	EP030: Biochemical Oxygen Demand 2 mg/L	EG020 U A: Chromium 1 µg/L	EG020 U A: Copper 1 µg/L
			LOR / Units :					
			Analyte Group :	EP: Aggregate Organics	EP: Aggregate Organics	EP: Aggregate Organics	EG: Metals and Major Cations	EG: Metals and Major Cations
Client Sample ID	Sample Date / Time	ALS Identification						
WM 1S	[22 Aug 2006]	HK0602599-001	3.7	6	<2	<1	<1	
WM 1M	[22 Aug 2006]	HK0602599-002	3.4	4	<2	<1	<1	
WM 1B	[22 Aug 2006]	HK0602599-003	3.2	6	<2	<1	<1	
WM 2S	[22 Aug 2006]	HK0602599-004	3.3	5	<2	<1	<1	
WM 2M	[22 Aug 2006]	HK0602599-005	3.6	4	<2	<1	<1	
WM 2B	[22 Aug 2006]	HK0602599-006	3.9	5	<2	<1	<1	
WM 3S	[22 Aug 2006]	HK0602599-007	3.5	5	<2	<1	<1	
WM 3M	[22 Aug 2006]	HK0602599-008	3.2	5	<2	<1	<1	
WM 3B	[22 Aug 2006]	HK0602599-009	3.6	6	<2	<1	<1	
WM 4S	[22 Aug 2006]	HK0602599-010	3.2	6	<2	<1	<1	
WM 4M	[22 Aug 2006]	HK0602599-011	3.1	5	<2	<1	<1	
WM 4B	[22 Aug 2006]	HK0602599-012	3.0	5	<2	<1	<1	
WM 5S	[22 Aug 2006]	HK0602599-013	3.3	5	<2	<1	<1	
WM 5M	[22 Aug 2006]	HK0602599-014	3.6	5	<2	<1	<1	
WM 5B	[22 Aug 2006]	HK0602599-015	3.6	5	<2	<1	<1	



Analytical Results

Client Sample ID	Sample Date / Time	ALS Identification	Analyte :	EG020 U A: Lead	EG020 U A: Zinc	EP090: Tributyltin	EM002: E. coli	EP090: Tripropyltin
			LOR / Units :	1 µg/L	10 µg/L	6 ngSn/L	1 CFU/100mL	0.1 %
Submatrix: WATER			Analyte Group :	EG: Metals and Major Cations	EG: Metals and Major Cations	EP-090: Organotin Compounds	EM: Microbiological Testing	EP-090S: Organotin Surrogate
WM 1S	[22 Aug 2006]	HK0602599-001		<1	<10	<5	<1	103
WM 1M	[22 Aug 2006]	HK0602599-002		<1	<10	<5	<1	100
WM 1B	[22 Aug 2006]	HK0602599-003		<1	<10	<5	<1	90.0
WM 2S	[22 Aug 2006]	HK0602599-004		<1	<10	<5	<1	109
WM 2M	[22 Aug 2006]	HK0602599-005		<1	<10	<5	<1	81.6
WM 2B	[22 Aug 2006]	HK0602599-006		<1	<10	<5	<1	100
WM 3S	[22 Aug 2006]	HK0602599-007		<1	<10	<5	<1	97.8
WM 3M	[22 Aug 2006]	HK0602599-008		<1	<10	<5	1	102
WM 3B	[22 Aug 2006]	HK0602599-009		<1	<10	<5	<1	99.4
WM 4S	[22 Aug 2006]	HK0602599-010		<1	<10	<5	<1	95.1
WM 4M	[22 Aug 2006]	HK0602599-011		<1	<10	<5	<1	98.8
WM 4B	[22 Aug 2006]	HK0602599-012		<1	<10	<5	1	97.5
WM 5S	[22 Aug 2006]	HK0602599-013		<1	<10	<5	<1	108
WM 5M	[22 Aug 2006]	HK0602599-014		<1	<10	<5	1	95.9
WM 5B	[22 Aug 2006]	HK0602599-015		<1	<10	<5	<1	93.9



Quality Control - Laboratory Duplicate (DUP) Results

Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Duplicate (DUP) Results				
				LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 261712)								
HK0602599-001	WM 1S	EA020: Salinity	---	0.1	g/L	<0.1	<0.1	0.0
HK0602599-011	WM 4M	EA020: Salinity	---	0.1	g/L	<0.1	<0.1	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 261713)								
HK0602599-001	WM 1S	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	78	79	0.0
HK0602599-011	WM 4M	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	76	75	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 262894)								
HK0602599-004	Anonymous	EA025: Suspended Solids (SS)	---	2	mg/L	2340	2410	2.7
HK0602599-007	WM 3S	EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 261706)								
HK0602599-010	WM 4S	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.2	0.2	0.0
HK0602599-015	WM 5B	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.2	0.2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 261707)								
HK0602599-010	WM 4S	EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	0.0
HK0602599-015	WM 5B	EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 261719)								
HK0602599-015	WM 5B	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.01	0.01	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 262223)								
HK0602599-010	WM 4S	EK053A: Silica	7631-86-9	0.01	mg/L	5.10	5.26	3.0
HK0602599-015	WM 5B	EK053A: Silica	7631-86-9	0.01	mg/L	5.12	5.08	0.8
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 263060)								
HK0602599-010	WM 4S	EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	0.0
HK0602599-015	WM 5B	EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	0.0
EP: Aggregate Organics (QC Lot: 261755)								
HK0602628-001	Anonymous	EP026: Chemical Oxygen Demand	---	2	mg/L	145	154	6.0
EP: Aggregate Organics (QC Lot: 262375)								
HK0602369-010	Anonymous	EP008: Chlorophyll a	---	0.5	mg/m3	2.1	2.2	4.6
HK0602369-015	Anonymous	EP008: Chlorophyll a	---	0.5	mg/m3	2.0	1.8	10.5
EP: Aggregate Organics (QC Lot: 262376)								
HK0602599-010	WM 4S	EP008: Chlorophyll a	---	0.5	mg/m3	3.2	3.4	6.1
HK0602599-015	WM 5B	EP008: Chlorophyll a	---	0.5	mg/m3	3.6	3.8	5.4
EG: Metals and Major Cations (QC Lot: 263328)								
HK0602599-011	WM 4M	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
		EG020: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG020: Copper	7440-50-8	1	µg/L	<1	<1	0.0
HK0602679-002	Anonymous	EG020: Lead	7439-92-1	1	µg/L	3	3	0.0
		EG020: Zinc	7440-66-6	10	µg/L	152	153	1.0
		EG020: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG020: Copper	7440-50-8	1	µg/L	31	31	0.0



Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 261712)											
EA020: Salinity	---	0.1	g/L	<0.1	30 g/L	102	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QCLot: 261713)											
EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	<1	146.9 µS/cm	99.1	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QCLot: 262894)											
EA025: Suspended Solids (SS)	---	2	mg/L	<2	20 mg/L	93.0	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 261706)											
EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	<0.1	0.5 mg/L	91.0	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 261707)											
EK067A: Total Phosphorus as P	---	0.1	mg/L	<0.1	0.5 mg/L	101	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 261719)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.4 mg/L	98.6	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 262223)											
EK053A: Silica	7631-86-9	0.01	mg/L	<0.01	0.4 mg/L	112	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 263060)											
EK059A: Nitrite + Nitrate as N	---	0.01	mg/L	<0.01	0.4 mg/L	90.3	---	85	115	---	---
EP: Aggregate Organics (QCLot: 261766)											
EP026: Chemical Oxygen Demand	---	2	mg/L	---	500 mg/L	95.8	---	85	115	---	---
EP: Aggregate Organics (QCLot: 261766)											
EP030: Biochemical Oxygen Demand	---	2	mg/L	---	198 mg/L	90.9	---	85	115	---	---
EP: Aggregate Organics (QCLot: 262376)											
EP008: Chlorophyll a	---	0.1	mg/m3	<0.1	1 mg/m3	105	---	85	115	---	---
EP: Aggregate Organics (QCLot: 262376)											
EP008: Chlorophyll a	---	0.1	mg/m3	<0.1	1 mg/m3	109	---	85	115	---	---
EG: Metals and Major Cations (QCLot: 263328)											
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	86.1	---	85	115	---	---
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	88.6	---	85	115	---	---
EG020: Chromium	7440-47-3	1	µg/L	<1	100 µg/L	94.5	---	85	115	---	---
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	95.1	---	85	115	---	---
EP-090: Organotin Compounds (QCLot: 263266)											
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	50 ngSn/L	101	---	95	105	---	---



Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 261706)										
HK0602628-001	Anonymous	EK061A: Total Kjeldahl Nitrogen as N	---	5 mg/L	95.4	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 261707)										
HK0602628-001	Anonymous	EK067A: Total Phosphorus as P	---	0.5 mg/L	113	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 261719)										
HK0602599-001	WM 1S	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	89.2	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 262223)										
HK0602599-001	WM 1S	EK053A: Silica	7631-86-9	2.5 mg/L	113	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 263060)										
HK0602599-001	WM 1S	EK059A: Nitrite + Nitrate as N	---	1.0 mg/L	109	---	75	125	---	---



Surrogate Control Limits

Submatrix Type: WATER

Method: Analysis Description	Units	Lower Limit	Upper Limit
EP-090S: Organotin Surrogate			
EP090: Tripropyltin	%	50	130



CERTIFICATE OF ANALYSIS

Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD	Laboratory : ALS Technichem (HK) Pty Ltd	Page : 1 of 8
Contact : LEMON LAM	Contact : Alice Wong / Ivan Leung	Work Order : HK0602866
Address : 11TH FLOOR TOWER II, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE RD, SHATIN HONG KONG	Address : 11/F., Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T. Hong Kong	
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Telephone : +852 2893 1551	Telephone : +852 2610 1044	
Facsimile : +852 2891 0305	Facsimile : +852 2610 2021	Date received : 28 Aug 2006
Project : S07105	Quote number : ---	Date of issue : 6 Sep 2006
Order number : ---		No. of samples - Received : 15
C-O-C number : ---		Analysed : 15
Site : WATER RECREATION CTR		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0602866 supersedes any previous reports with this reference. The completion date of analysis is 31 Aug 2006. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0602866 : **Fifteen water samples were received in a chilled condition.**
Total Nitrogen is the sum of Total Oxidizable and Total Kjeldal Nitrogen.
In marine and freshwater samples, chlorophyll b will cause some interference if present.
Project Name: EM&A for WRC at Penny's Bay.

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Signatory	Position	Authorised results for:-
Anh Ngoc Huynh	Senior Chemist	Organics
Fung Lim Chee, Richard	General Manager	Inorganics
Leung Sai Ho, Ivan	Supervisor	Microbiology

ALS Laboratory Group

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Page Number : 2 of 8
 Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD
 Work Order : HK0602866



Analytical Results

Method/Analysis Description	CAS number	LOR	Units	WM 1S	WM 1M	WM 1B	WM 2S	WM 2M
				Client Sample ID : Laboratory Sample ID : Sample Date / Time :	HK0602866-001 HK0602866-002 [28 Aug 2006]	HK0602866-002 HK0602866-002 [28 Aug 2006]	HK0602866-003 HK0602866-003 [28 Aug 2006]	HK0602866-004 HK0602866-004 [28 Aug 2006]
EA/ED: Physical and Aggregate Properties								
EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	78	76	76	77	77
EA020: Salinity	---	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	<2	<2	<2
ED/EK: Inorganic Nonmetallic Parameters								
EK053A: Silica	7631-86-9	0.01	mg/L	4.60	4.55	4.60	4.65	4.60
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.02	<0.01	0.01	<0.01	0.01
EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.2	0.2	<0.1	0.2	0.2
EK062A: Total Nitrogen as N	---	0.1	mg/L	0.2	0.2	<0.1	0.2	0.2
EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	---	0.1	mg/L	8.3	7.2	8.4	8.5	9.3
EP: Aggregate Organics								
EP008: Chlorophyll a	---	0.5	µg/L	2.9	2.7	2.9	2.7	2.6
EP026: Chemical Oxygen Demand	---	2	mg/L	4	4	4	3	4
EP030: Biochemical Oxygen Demand	---	2	mg/L	<2	<2	<2	<2	<2
EG: Metals and Major Cations								
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10
EP-090: Organotin Compounds								
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate								
EP090: Tripropyltin	---	0.1	%	99.8	108	110	108	106
Surrogate control limits listed at end of this report								
EM: Microbiological Testing								
EM002: E. coli	---	1	CFU/100 mL	<1	<1	<1	<1	<1



Analytical Results

				Client Sample ID : WM 2B	WM 3S	WM 3M	WM 3B	WM 4S
				Laboratory Sample ID : HK0602866-006	HK0602866-007	HK0602866-008	HK0602866-009	HK0602866-010
				Sample Date / Time : [28 Aug 2006]	[28 Aug 2006]	[28 Aug 2006]	[28 Aug 2006]	[28 Aug 2006]
Submatrix: WATER								
Method: Analysis Description	CAS number	LOR	Units					
EA/ED: Physical and Aggregate Properties								
EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	77	77	76	77	76
EA020: Salinity	---	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	<2	<2	<2
ED/EK: Inorganic Nonmetallic Parameters								
EK053A: Silica	7631-86-9	0.01	mg/L	4.60	4.45	4.45	4.50	4.30
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.1	0.2	0.2	0.1	0.1
EK062A: Total Nitrogen as N	---	0.1	mg/L	0.1	0.2	0.2	0.1	0.1
EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	---	0.1	mg/L	8.1	10.1	9.0	8.0	7.5
EP: Aggregate Organics								
EP008: Chlorophyll a	---	0.5	µg/L	2.4	3.2	2.7	3.0	2.6
EP026: Chemical Oxygen Demand	---	2	mg/L	4	4	4	4	4
EP030: Biochemical Oxygen Demand	---	2	mg/L	<2	<2	<2	<2	<2
EG: Metals and Major Cations								
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10
EP-090: Organotin Compounds								
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate								
EP090: Tripropyltin	---	0.1	%	100	106	105	101	110
Surrogate control limits listed at end of this report								
EM: Microbiological Testing								
EM002: E. coli	---	1	CFU/100 mL	<1	<1	<1	<1	23



Analytical Results

				Client Sample ID : WM 4M	WM 4B	WM 5S	WM 5M	WM 5B
				Laboratory Sample ID : HK0602866-011	HK0602866-012	HK0602866-013	HK0602866-014	HK0602866-015
				Sample Date / Time : [28 Aug 2006]	[28 Aug 2006]	[28 Aug 2006]	[28 Aug 2006]	[28 Aug 2006]
Submatrix: WATER								
Method: Analysis Description	CAS number	LOR	Units					
EA/ED: Physical and Aggregate Properties								
EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	76	78	77	77	76
EA020: Salinity	---	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	<2	<2	<2
ED/EK: Inorganic Nonmetallic Parameters								
EK053A: Silica	7631-86-9	0.01	mg/L	4.30	4.20	4.15	4.10	4.10
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.1	0.1	0.2	0.2	0.2
EK062A: Total Nitrogen as N	---	0.1	mg/L	0.1	0.1	0.2	0.2	0.2
EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	---	0.1	mg/L	8.7	8.3	7.2	7.8	7.8
EP: Aggregate Organics								
EP008: Chlorophyll a	---	0.5	µg/L	2.6	2.8	2.6	2.7	2.1
EP026: Chemical Oxygen Demand	---	2	mg/L	4	4	3	3	5
EP030: Biochemical Oxygen Demand	---	2	mg/L	<2	<2	<2	<2	<2
EG: Metals and Major Cations								
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10
EP-090: Organotin Compounds								
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate								
EP090: Tripropyltin	---	0.1	%	106	102	100	103	109
Surrogate control limits listed at end of this report								
EM: Microbiological Testing								
EM002: E. coli	---	1	CFU/100 mL	10	8	20	25	8



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 264565)								
HK0602866-001	WM 1S	EA020: Salinity	---	0.1	g/L	<0.1	<0.1	0.0
HK0602866-011	WM 4M	EA020: Salinity	---	0.1	g/L	<0.1	<0.1	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 264570)								
HK0602866-001	WM 1S	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	78	78	0.0
HK0602866-011	WM 4M	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	76	77	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 265819)								
HK0602866-001	WM 1S	EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	0.0
HK0602866-011	WM 4M	EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 264659)								
HK0602866-011	WM 4M	EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	0.0
HK0602866-015	WM 5B	EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 264748)								
HK0602866-010	WM 4S	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.1	<0.1	0.0
HK0602866-015	WM 5B	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.2	0.2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 264749)								
HK0602866-010	WM 4S	EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	0.0
HK0602866-015	WM 5B	EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 265123)								
HK0602866-010	WM 4S	EK053A: Silica	7631-86-9	0.01	mg/L	4.30	4.55	5.6
HK0602866-015	WM 5B	EK053A: Silica	7631-86-9	0.01	mg/L	4.10	4.15	1.2
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 265466)								
HK0602866-010	WM 4S	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0
HK0602866-015	WM 5B	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0
EP: Aggregate Organics (QC Lot: 265085)								
HK0602866-010	WM 4S	EP008: Chlorophyll a	---	0.5	mg/m3	2.6	2.6	0.0
HK0602866-015	WM 5B	EP008: Chlorophyll a	---	0.5	mg/m3	2.1	1.9	10.0
EG: Metals and Major Cations (QC Lot: 265072)								
HK0602866-002	WM 1M	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
		EG020: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG020: Copper	7440-50-8	1	µg/L	<1	<1	0.0
HK0602866-011	WM 4M	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
		EG020: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG020: Copper	7440-50-8	1	µg/L	<1	<1	0.0



Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER				Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results					
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)		
						SCS	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Properties (QC Lot: 264565)												
EA020: Salinity	---	0.1	g/L	<0.1	10 g/L	107	---	85	115	---	---	
EA/ED: Physical and Aggregate Properties (QC Lot: 264570)												
EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	<1	146.9 µS/cm	99.5	---	85	115	---	---	
EA/ED: Physical and Aggregate Properties (QC Lot: 265819)												
EA025: Suspended Solids (SS)	---	2	mg/L	<2	20 mg/L	94.0	---	85	115	---	---	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 264659)												
EK059A: Nitrite + Nitrate as N	---	0.01	mg/L	<0.01	0.4 mg/L	92.4	---	85	115	---	---	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 264748)												
EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	<0.1	0.5 mg/L	104	---	85	115	---	---	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 264749)												
EK067A: Total Phosphorus as P	---	0.1	mg/L	<0.1	0.5 mg/L	92.9	---	85	115	---	---	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 265123)												
EK053A: Silica	7631-86-9	0.01	mg/L	<0.01	0.4 mg/L	94.2	---	85	115	---	---	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 265466)												
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.4 mg/L	99.9	---	85	115	---	---	
EP: Aggregate Organics (QC Lot: 264630)												
EP030: Biochemical Oxygen Demand	---	2	mg/L	---	198 mg/L	94.4	---	85	115	---	---	
EP: Aggregate Organics (QC Lot: 265069)												
EP026: Chemical Oxygen Demand	---	2	mg/L	---	500 mg/L	93.4	---	85	115	---	---	
EP: Aggregate Organics (QC Lot: 265085)												
EP008: Chlorophyll a	---	0.1	mg/m3	<0.1	9.48 mg/m3	111	---	85	115	---	---	
EG: Metals and Major Cations (QC Lot: 265072)												
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	93.6	---	85	115	---	---	
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	102	---	85	115	---	---	
EG020: Chromium	7440-47-3	1	µg/L	<1	100 µg/L	104	---	85	115	---	---	
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	99.8	---	85	115	---	---	
EP-090: Organotin Compounds (QC Lot: 264629)												
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	50 ngSn/L	100	---	95	105	---	---	



Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER

				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results							
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)		
				Concentration	MS	MSD	Low	High	Value	Control Limit	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 264659)											
HK0602866-001	WM 1S	EK059A: Nitrite + Nitrate as N	---	1.0 mg/L	119	116	75	125	2.6	---	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 264748)											
HK0602866-001	WM 1S	EK061A: Total Kjeldahl Nitrogen as N	---	0.5 mg/L	108	---	75	125	---	---	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 264749)											
HK0602866-001	WM 1S	EK067A: Total Phosphorus as P	---	0.5 mg/L	98.0	---	75	125	---	---	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 265123)											
HK0602866-001	WM 1S	EK053A: Silica	7631-86-9	2.5 mg/L	100	100	75	125	0.0	---	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 265466)											
HK0602866-001	WM 1S	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	92.0	92.0	75	125	0.0	---	
EG: Metals and Major Cations (QCLot: 265072)											
HK0602866-001	WM 1S	EG020: Lead	7439-92-1	100 µg/L	92.8	95.7	75	125	3.1	---	
		EG020: Zinc	7440-66-6	100 µg/L	102	106	75	125	2.9	---	
		EG020: Chromium	7440-47-3	100 µg/L	120	107	75	125	11.6	---	
		EG020: Copper	7440-50-8	100 µg/L	98.4	102	75	125	4.2	---	



Surrogate Control Limits

Submatrix Type: WATER

Method: Analysis Description	Units	Lower Limit	Upper Limit
EP-090S: Organotin Surrogate			
EP090: Tripropyltin	%	50	130



CERTIFICATE OF ANALYSIS

Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD	Laboratory : ALS Technichem (HK) Pty Ltd	Page : 1 of 8
Contact : MS LEMON LAM	Contact : Alice Wong / Ivan Leung	Work Order : HK0603352
Address : 11TH FLOOR TOWER II, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE RD, SHATIN HONG KONG	Address : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T. Hong Kong	
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Project : S07105	Quote number : ---	Date received : 8 Sep 2006
Order number : ---		Date of issue : 19 Sep 2006
C-O-C number : ---		No. of samples - Received : 15
Site : WRC		Analysed : 15

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0603352 supersedes any previous reports with this reference. The completion date of analysis is 18 Sep 2006. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0603352 :
Fifteen water samples were received in a chilled condition.
Total Nitrogen is the sum of Total Oxidizable and Total Kjeldahl Nitrogen.
In marine and freshwater samples, chlorophyll b will cause some interference if present.
Project Name: EM&A for WRC at Penny's Bay.

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Signatory	Position	Authorised results for:-
Anh Ngoc Huynh	Senior Chemist	Organics
Fung Lim Chee, Richard	General Manager	Inorganics
Leung Sai Ho, Ivan	Supervisor	Microbiology

ALS Laboratory Group

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Page Number : 2 of 8
 Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD
 Work Order : HK0603352



Analytical Results

Method: Analysis Description	CAS number	LOR	Units	WM 1S	WM 1M	WM 1B	WM 2S	WM 2M
Client Sample ID : WM 1S				WM 1S	WM 1M	WM 1B	WM 2S	WM 2M
Laboratory Sample ID : HK0603352-001				HK0603352-001	HK0603352-002	HK0603352-003	HK0603352-004	HK0603352-005
Sample Date / Time : [8 Sep 2006]				[8 Sep 2006]	[8 Sep 2006]	[8 Sep 2006]	[8 Sep 2006]	[8 Sep 2006]
Submatrix: WATER								
EA/ED: Physical and Aggregate Properties								
EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	78	80	78	79	78
EA020: Salinity	---	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	<2	<2	<2
ED/EK: Inorganic Nonmetallic Parameters								
EK053A: Silica	7631-86-9	0.01	mg/L	3.80	3.74	3.74	3.75	4.10
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.3	0.2	0.2	0.2	0.2
EK062A: Total Nitrogen as N	---	0.1	mg/L	0.3	0.2	0.2	0.2	0.2
EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	---	0.1	mg/L	7.9	7.0	7.5	7.6	7.5
EP: Aggregate Organics								
EP008: Chlorophyll a	---	0.5	µg/L	8.8	10.8	10.1	10.6	8.2
EP026: Chemical Oxygen Demand	---	2	mg/L	5	5	4	5	5
EP030: Biochemical Oxygen Demand	---	2	mg/L	<2	<2	<2	<2	<2
EG: Metals and Major Cations								
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10
EP-090: Organotin Compounds								
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate								
EP090: Tripropyltin	---	0.1	%	90.6	98.0	101	105	107
EM: Microbiological Testing								
EM002: E. coli	---	1	CFU/100 mL	<1	<1	<1	3	2



Analytical Results

				Client Sample ID :	WM 2B	WM 3S	WM 3M	WM 3B	WM 4S
				Laboratory Sample ID :	HK0603362-006	HK0603362-007	HK0603362-008	HK0603362-009	HK0603362-010
				Sample Date / Time :	[8 Sep 2006]	[8 Sep 2006]	[8 Sep 2006]	[8 Sep 2006]	[8 Sep 2006]
Method: Analysis Description	CAS number	LOR	Units						
EA/ED: Physical and Aggregate Properties									
EA010: Electrical Conductivity @ 25° C	----	1	µS/cm	78	78	78	78	80	
EA020: Salinity	----	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1	
EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	<2	<2	<2	
ED/EK: Inorganic Nonmetallic Parameters									
EK053A: Silica	7631-86-9	0.01	mg/L	4.02	4.00	4.16	4.14	4.16	
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.02	<0.01	<0.01	<0.01	
EK059A: Nitrite + Nitrate as N	----	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.3	0.3	0.4	0.3	0.3	
EK062A: Total Nitrogen as N	----	0.1	mg/L	0.3	0.3	0.4	0.3	0.3	
EK067A: Total Phosphorus as P	----	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
EP025: Dissolved Oxygen	----	0.1	mg/L	7.6	8.1	7.7	7.4	7.1	
EP: Aggregate Organics									
EP008: Chlorophyll a	----	0.5	µg/L	9.8	8.8	8.7	9.3	10.2	
EP026: Chemical Oxygen Demand	----	2	mg/L	6	4	5	5	5	
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	<2	<2	<2	<2	
EG: Metals and Major Cations									
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1	
EG020: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1	
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1	
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10	
EP-090: Organotin Compounds									
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5	
EP-090S: Organotin Surrogate									
EP090: Tripropyltin	----	0.1	%	104	93.0	96.0	93.8	109	Surrogate control limits listed at end of this report.
EM: Microbiological Testing									
EM002: E. coli	----	1	CFU/100 mL	2	3	2	<1	3	



Analytical Results

				Client Sample ID :	WM 4M	WM 4B	WM 5S	WM 5M	WM 5B
				Laboratory Sample ID :	HK0603362-011	HK0603362-012	HK0603362-013	HK0603362-014	HK0603362-015
				Sample Date / Time :	[8 Sep 2006]	[8 Sep 2006]	[8 Sep 2006]	[8 Sep 2006]	[8 Sep 2006]
Method: Analysis Description	CAS number	LOR	Units						
EA/ED: Physical and Aggregate Properties									
EA010: Electrical Conductivity @ 25° C	----	1	µS/cm	80	78	80	78	79	
EA020: Salinity	----	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1	
EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	<2	<2	<2	
ED/EK: Inorganic Nonmetallic Parameters									
EK053A: Silica	7631-86-9	0.01	mg/L	4.37	4.30	4.43	4.51	4.16	
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
EK059A: Nitrite + Nitrate as N	----	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.3	0.3	0.2	0.2	0.3	
EK062A: Total Nitrogen as N	----	0.1	mg/L	0.3	0.3	0.2	0.2	0.3	
EK067A: Total Phosphorus as P	----	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
EP025: Dissolved Oxygen	----	0.1	mg/L	7.8	7.5	8.4	7.4	8.2	
EP: Aggregate Organics									
EP008: Chlorophyll a	----	0.5	µg/L	10.2	10.8	9.8	9.2	9.3	
EP026: Chemical Oxygen Demand	----	2	mg/L	6	6	5	6	5	
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	<2	<2	<2	<2	
EG: Metals and Major Cations									
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1	
EG020: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1	
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1	
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10	
EP-090: Organotin Compounds									
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5	
EP-090S: Organotin Surrogate									
EP090: Tripropyltin	----	0.1	%	100	103	106	97.0	117	Surrogate control limits listed at end of this report.
EM: Microbiological Testing									
EM002: E. coli	----	1	CFU/100 mL	2	1	1	1	1	



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 270926)								
HK0603352-001	WM 1S	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	78	77	0.0
HK0603352-011	WM 4M	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	80	77	2.8
EA/ED: Physical and Aggregate Properties (QC Lot: 271310)								
HK0603352-001	WM 1S	EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	0.0
HK0603352-011	WM 4M	EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 271726)								
HK0603352-001	WM 1S	EA020: Salinity	---	0.1	g/L	<0.1	<0.1	0.0
HK0603352-011	WM 4M	EA020: Salinity	---	0.1	g/L	<0.1	<0.1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 270928)								
HK0603352-010	WM 4S	EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	0.0
HK0603352-015	WM 5B	EK059A: Nitrite + Nitrate as N	---	0.1	mg/L	<0.1	<0.1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 271707)								
HK0603352-010	WM 4S	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0
HK0603352-015	WM 5B	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.02	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 271782)								
HK0603352-010	WM 4S	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.3	0.3	0.0
HK0603352-015	WM 5B	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.3	0.3	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 271783)								
HK0603352-010	WM 4S	EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	0.0
HK0603352-015	WM 5B	EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 272891)								
HK0603352-010	WM 4S	EK053A: Silica	7631-86-9	0.01	mg/L	4.16	3.73	10.8
HK0603352-015	WM 5B	EK053A: Silica	7631-86-9	0.01	mg/L	4.15	4.34	4.6
EP: Aggregate Organics (QC Lot: 275036)								
HK0603352-010	WM 4S	EP008: Chlorophyll a	---	0.5	mg/m3	10.2	10.1	1.0
HK0603352-015	WM 5B	EP008: Chlorophyll a	---	0.5	mg/m3	9.3	10.0	7.2
EG: Metals and Major Cations (QC Lot: 273049)								
HK0603352-002	WM 1M	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
		EG020: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG020: Copper	7440-50-8	1	µg/L	<1	<1	0.0
HK0603352-011	WM 4M	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
		EG020: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG020: Copper	7440-50-8	1	µg/L	<1	<1	0.0



Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER				Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results				
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QC Lot: 270926)											
EA010: Electrical Conductivity	---	1	µS/cm	<1	146.9 µS/cm	98.1	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QC Lot: 271310)											
EA025: Suspended Solids (SS)	---	2	mg/L	<2	20 mg/L	90.5	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QC Lot: 271726)											
EA020: Salinity	---	0.1	g/L	<0.1	10 g/L	101	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 270928)											
EK059A: Nitrite + Nitrate as N	---	0.01	mg/L	<0.01	0.4 mg/L	106	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 271707)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.4 mg/L	98.6	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 271782)											
EK061A: Total Kjeldahl Nitrogen	---	0.1	mg/L	<0.1	0.5 mg/L	106	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 271783)											
EK067A: Total Phosphorus as P	---	0.1	mg/L	<0.1	0.5 mg/L	96.5	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 272891)											
EK053A: Silica	7631-86-9	0.01	mg/L	<0.01	0.4 mg/L	96.4	---	85	115	---	---
EP: Aggregate Organics (QC Lot: 271313)											
EP026: Chemical Oxygen Demand	---	2	mg/L	---	500 mg/L	95.6	---	85	115	---	---
EP: Aggregate Organics (QC Lot: 273297)											
EP030: Biochemical Oxygen Demand	---	2	mg/L	---	198 mg/L	104	---	85	115	---	---
EP: Aggregate Organics (QC Lot: 275036)											
EP008: Chlorophyll a	---	0.1	mg/m3	<0.1	9.29 mg/m3	99.1	---	85	115	---	---
EG: Metals and Major Cations (QC Lot: 273049)											
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	94.3	---	85	115	---	---
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	99.1	---	85	115	---	---
EG020: Chromium	7440-47-3	1	µg/L	<1	100 µg/L	94.9	---	85	115	---	---
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	98.6	---	85	115	---	---
EP-090: Organotin Compounds (QC Lot: 271446)											
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	50 ngSn/L	100	---	95	105	---	---



Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER

Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 270928)										
HK0603352-001	WM 1S	EK059A: Nitrite + Nitrate as N	---	1.0 mg/L	114	114	75	125	0.4	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 271707)										
HK0603352-001	WM 1S	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	97.5	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 271782)										
HK0603352-001	WM 1S	EK061A: Total Kjeldahl Nitrogen as N	---	0.5 mg/L	105	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 271783)										
HK0603352-001	WM 1S	EK067A: Total Phosphorus as P	---	0.5 mg/L	107	---	75	125	---	---
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 272891)										
HK0603352-001	WM 1S	EK053A: Silica	7631-86-9	2.5 mg/L	101	103	75	125	2.2	---
EG: Metals and Major Cations (QCLot: 273049)										
HK0603352-001	WM 1S	EG020: Lead	7439-92-1	100 µg/L	93.6	94.3	75	125	0.7	---
		EG020: Zinc	7440-68-6	100 µg/L	101	100	75	125	1.2	---
		EG020: Chromium	7440-47-3	100 µg/L	98.7	96.5	75	125	3.3	---
		EG020: Copper	7440-50-8	100 µg/L	101	102	75	125	0.6	---



Surrogate Control Limits

Submatrix Type: WATER

Method: Analysis Description	Units	Lower Limit	Upper Limit
EP-090S: Organotin Surrogate			
EP090: Tripropyltin	%	50	130



CERTIFICATE OF ANALYSIS

Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD	Laboratory : ALS Technichem (HK) Pty Ltd	Page : 1 of 8
Contact : MR TERENCE KONG	Contact : Alice Wong / Ivan Leung	Work Order : HK0603583
Address : 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T. Hong Kong	
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Project : S07105	Quote number : ---	
Order number : ---		Date received : 14 Sep 2006
C-O-C number : ---		Date of Issue : 25 Sep 2006
Site : ---		No. of samples - Received : 15
		Analysed : 15

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0603583 supersedes any previous reports with this reference. The completion date of analysis is 22 Sep 2006. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0603583 :
Project Name: EM&A for WRC at Penny's Bay.
Fifteen water samples were received in a chilled condition.
Total Nitrogen is the sum of Total Oxidizable and Total Kjeldal Nitrogen.
In marine and freshwater samples, chlorophyll b will cause some interference if present.

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This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Anh Ngoc Huynh	Senior Chemist	Organics
Fung Lim Chee, Richard	General Manager	Inorganics
Leung Sai Ho, Ivan	Supervisor	Microbiology

ALS Laboratory Group

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PRELIMINARY RESULTS FOR REFERENCE ONLY

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 Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD
 Work Order : HK0603583



Analytical Results

Method: Analysis Description	CAS number	LOR	Units	Client Sample ID :	WM 1S	WM 1M	WM 1B	WM 2S	WM 2M
				Laboratory Sample ID :	HK0603583-001	HK0603583-002	HK0603583-003	HK0603583-004	HK0603583-005
Sample Date / Time :				[14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]
EA/ED: Physical and Aggregate Properties									
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm		76	76	77	76	76
EA020: Salinity	----	0.1	g/L		<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	----	2	mg/L		<2	<2	2	<2	<2
ED/EK: Inorganic Nonmetallic Parameters									
EK053A: Silica	7631-86-9	0.01	mg/L		3.57	3.61	3.64	3.65	3.72
EK055A: Ammonia as N	7664-41-7	0.01	mg/L		0.01	<0.01	<0.01	<0.01	<0.01
EK059A: Nitrite + Nitrate as N	----	0.1	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L		0.3	0.3	0.3	0.4	0.2
EK062A: Total Nitrogen as N	----	0.1	mg/L		0.3	0.3	0.3	0.4	0.2
EK067A: Total Phosphorus as P	----	0.02	mg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	----	0.1	mg/L		8.6	7.8	7.9	7.0	8.1
EP: Aggregate Organics									
EP008: Chlorophyll a	----	0.5	µg/L		9.5	10.0	7.6	13.4	13.5
EP026: Chemical Oxygen Demand	----	2	mg/L		5	4	5	5	4
EP030: Biochemical Oxygen Demand	----	2	mg/L		<2	<2	<2	<2	<2
EG: Metals and Major Cations									
EG020: Chromium	7440-47-3	1	µg/L		<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L		<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L		<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L		<10	<10	<10	<10	<10
EP-090: Organotin Compounds									
EP090: Tributyltin	56573-85-4	5	ngSn/L		<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate									
EP090: Tripropyltin	----	0.1	%		108	109	102	109	98.7
Surrogate control limits listed at end of this report.									
EM: Microbiological Testing									
EM002: E. coli	----	1	CFU/100 mL		4	4	4	6	4

PRELIMINARY RESULTS FOR REFERENCE ONLY

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 Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD
 Work Order : HK0603583



Analytical Results

				Client Sample ID : WM 2B	WM 3S	WM 3M	WM 3B	WM 4S
				Laboratory Sample ID : HK0603583-006	HK0603583-007	HK0603583-008	HK0603583-009	HK0603583-010
				Sample Date / Time : [14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]
Method: Analysis Description	CAS number	LOR	Units					
EA/ED: Physical and Aggregate Properties								
EA010: Electrical Conductivity @ 25° C	----	1	µS/cm	78	77	76	78	78
EA020: Salinity	----	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	<2	<2	<2
ED/EK: Inorganic Nonmetallic Parameters								
EK053A: Silica	7631-86-9	0.01	mg/L	3.73	3.58	3.52	3.59	3.60
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EK059A: Nitrite + Nitrate as N	----	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.3	0.3	0.3	0.3	0.4
EK062A: Total Nitrogen as N	----	0.1	mg/L	0.3	0.3	0.3	0.3	0.4
EK067A: Total Phosphorus as P	----	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	----	0.1	mg/L	8.8	8.1	9.3	8.5	7.7
EP: Aggregate Organics								
EP008: Chlorophyll a	----	0.5	µg/L	10.8	10.6	10.7	12.1	12.7
EP026: Chemical Oxygen Demand	----	2	mg/L	5	5	4	5	4
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	<2	<2	<2	<2
EG: Metals and Major Cations								
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10
EP-090: Organotin Compounds								
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate								
EP090: Tripropyltin	----	0.1	%	94.2	94.6	101	Surrogate control limits listed at end of this report.	
EM: Microbiological Testing								
EM002: E. coli	----	1	CFU/100 mL	4	11	3	70.3	93.4

PRELIMINARY RESULTS FOR REFERENCE ONLY

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 Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD
 Work Order : HK0603583



Analytical Results

				Client Sample ID : WM 4M	WM 4B	WM 5S	WM 5M	WM 5B
				Laboratory Sample ID : HK0603583-011	HK0603583-012	HK0603583-013	HK0603583-014	HK0603583-015
				Sample Date / Time : [14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]	[14 Sep 2006]
Method: Analysis Description	CAS number	LOR	Units					
EA/ED: Physical and Aggregate Properties								
EA010: Electrical Conductivity @ 25° C	----	1	µS/cm	78	76	76	77	76
EA020: Salinity	----	0.1	g/L	<0.1	<0.1	<0.1	<0.1	<0.1
EA025: Suspended Solids (SS)	----	2	mg/L	2	<2	<2	<2	<2
ED/EK: Inorganic Nonmetallic Parameters								
EK053A: Silica	7631-86-9	0.01	mg/L	3.47	3.44	3.45	3.54	3.61
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.03	0.03	<0.01	<0.01	<0.01
EK059A: Nitrite + Nitrate as N	----	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.4	0.3	0.3	0.3	0.3
EK062A: Total Nitrogen as N	----	0.1	mg/L	0.4	0.3	0.3	0.3	0.3
EK067A: Total Phosphorus as P	----	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP025: Dissolved Oxygen	----	0.1	mg/L	7.6	8.4	11.6	8.2	7.9
EP: Aggregate Organics								
EP008: Chlorophyll a	----	0.5	µg/L	12.0	11.9	10.4	12.8	11.6
EP026: Chemical Oxygen Demand	----	2	mg/L	6	6	6	6	5
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	<2	<2	<2	<2
EG: Metals and Major Cations								
EG020: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG020: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10
EP-090: Organotin Compounds								
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	<5	<5	<5	<5
EP-090S: Organotin Surrogate								
EP090: Tripropyltin	----	0.1	%	95.9	97.1	108	Surrogate control limits listed at end of this report.	
EM: Microbiological Testing								
EM002: E. coli	----	1	CFU/100 mL	14	13	3	99.2	103

PRELIMINARY RESULTS FOR REFERENCE ONLY

Page Number : 5 of 8
 Client : MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD
 Work Order : HK0603583



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER

Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Duplicate (DUP) Results		
						Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 277850)								
HK0603583-001	WM 1S	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	76	76	0.0
HK0603583-011	WM 4M	EA010: Electrical Conductivity @ 25°C	---	1	µS/cm	78	78	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 277851)								
HK0603583-001	WM 1S	EA020: Salinity	---	0.1	g/L	<0.1	<0.1	0.0
HK0603583-011	WM 4M	EA020: Salinity	---	0.1	g/L	<0.1	<0.1	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 278505)								
HK0603583-001	WM 1S	EA025: Suspended Solids (SS)	---	2	mg/L	<2	<2	0.0
HK0603583-011	WM 4M	EA025: Suspended Solids (SS)	---	2	mg/L	2	<2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278068)								
HK0603583-010	WM 4S	EK053A: Silica	7631-86-9	0.01	mg/L	3.60	3.58	0.6
HK0603583-015	WM 5B	EK053A: Silica	7631-86-9	0.01	mg/L	3.61	3.77	4.5
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278113)								
HK0603583-010	WM 4S	EK059A: Nitrite + Nitrate as N	---	0.10	mg/L	<0.1	<0.10	0.0
HK0603788-044	Anonymous	EK059A: Nitrite + Nitrate as N	---	0.01	-	Not Authorised	Not Authorised	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278131)								
HK0603583-010	WM 4S	EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	0.0
HK0603583-015	WM 5B	EK067A: Total Phosphorus as P	---	0.02	mg/L	<0.02	<0.02	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278132)								
HK0603583-010	WM 4S	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.4	0.4	0.0
HK0603583-015	WM 5B	EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.3	0.3	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278534)								
HK0603583-010	WM 4S	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.05	0.05	0.0
HK0603583-015	WM 5B	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0
EP: Aggregate Organics (QC Lot: 278130)								
HK0603583-010	WM 4S	EP008: Chlorophyll a	---	0.5	mg/m3	12.7	11.9	6.5
HK0603583-015	WM 5B	EP008: Chlorophyll a	---	0.5	mg/m3	11.6	12.9	10.6
EG: Metals and Major Cations (QC Lot: 277972)								
HK0603583-011	WM 4M	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
		EG020: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG020: Copper	7440-50-8	1	µg/L	<1	<1	0.0
HK0603730-001	Anonymous	EG020: Lead	7439-92-1	---	-	Not Authorised	Not Authorised	---
		EG020: Zinc	7440-66-6	---	-	Not Authorised	Not Authorised	---
		EG020: Chromium	7440-47-3	---	-	Not Authorised	Not Authorised	---
		EG020: Copper	7440-50-8	---	-	Not Authorised	Not Authorised	---
		EG020: Lead	7439-92-1	10	µg/L	<10	<10	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
		EG020: Chromium	7440-47-3	10	µg/L	<10	<10	0.0
		EG020: Copper	7440-50-8	10	µg/L	<10	<10	0.0

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Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER

Method: Analysis Description	CAS number	Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
		LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QC Lot: 277850)											
EA010: Electrical Conductivity	---	1	µS/cm	<1	146.9 µS/cm	99.3	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QC Lot: 277851)											
EA020: Salinity	---	0.1	g/L	<0.1	10 g/L	101	---	85	115	---	---
EA/ED: Physical and Aggregate Properties (QC Lot: 278505)											
EA025: Suspended Solids (SS)	---	2	mg/L	<2	20 mg/L	102	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278068)											
EK053A: Silica	7631-86-9	0.01	mg/L	<0.01	0.4 mg/L	98.5	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278113)											
EK059A: Nitrite + Nitrate as N	---	0.01	mg/L	<0.01	0.4 mg/L	96.3	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278131)											
EK067A: Total Phosphorus as P	---	0.1	mg/L	<0.1	0.5 mg/L	86.5	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278132)											
EK061A: Total Kjeldahl Nitrogen	---	0.1	mg/L	<0.1	0.5 mg/L	98.1	---	85	115	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 278534)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.4 mg/L	91.2	---	85	115	---	---
EP: Aggregate Organics (QC Lot: 277791)											
EP030: Biochemical Oxygen Demand	---	2	mg/L	---	198 mg/L	90.9	---	85	115	---	---
EP: Aggregate Organics (QC Lot: 278130)											
EP008: Chlorophyll a	---	0.1	mg/m3	<0.1	9.29 mg/m3	111	---	85	115	---	---
EP: Aggregate Organics (QC Lot: 278523)											
EP026: Chemical Oxygen Demand	---	2	mg/L	---	500 mg/L	97.4	---	85	115	---	---
EG: Metals and Major Cations (QC Lot: 277972)											
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	90.2	---	85	115	---	---
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	95.1	---	85	115	---	---
EG020: Chromium	7440-47-3	1	µg/L	<1	100 µg/L	86.4	---	85	115	---	---
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	92.0	---	85	115	---	---
EP-090: Organotin Compounds (QC Lot: 274970)											
EP090: Tributyltin	56573-85-4	5	ngSn/L	<5	50 ngSn/L	102	---	95	105	---	---

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Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER

Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
					Spike Recovery (%)		Recovery Limits (%)		RPDs (%)		
					MS	MSD	Low	High	Value	Control Limit	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 278068)											
HK0603583-001	WM 1S	EK053A: Silica	7631-86-9	2.5 mg/L	114	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 278113)											
HK0603583-001	WM 1S	EK059A: Nitrite + Nitrate as N	----	1.0 mg/L	102	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 278131)											
HK0603583-001	WM 1S	EK067A: Total Phosphorus as P	----	0.5 mg/L	106	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 278132)											
HK0603583-001	WM 1S	EK061A: Total Kjeldahl Nitrogen as N	----	0.5 mg/L	99.5	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 278534)											
HK0603583-001	WM 1S	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	95.4	----	75	125	----	----	
EG: Metals and Major Cations (QCLot: 277972)											
HK0603583-001	WM 1S	EG020: Lead	7439-92-1	100 µg/L	91.7	----	75	125	----	----	
		EG020: Zinc	7440-66-6	100 µg/L	116	----	75	125	----	----	
		EG020: Chromium	7440-47-3	100 µg/L	83.7	----	75	125	----	----	
		EG020: Copper	7440-50-8	100 µg/L	93.1	----	75	125	----	----	

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Surrogate Control Limits

Submatrix Type: WATER

Method: Analysis Description	Units	Lower Limit	Upper Limit
EP-090S: Organotin Surrogate			
EP090: Tripropyltin	%	50	130

Appendix G ^{3/4} Summary of Environmental Mitigation Implementation Schedule

Reference	Mitigation Measures	Status
	<i>Water Quality</i>	
EIA Report 5.11.2	<ul style="list-style-type: none"> The lake shall be lined with an impermeable liner. However, as such liners may have a limited life span, beyond which the performance may deteriorates, the liner shall be replaced once the manufacturer's specified lifespan is reached. 	√
EIA Report 5.11.2	<ul style="list-style-type: none"> Stormwater run-off from surrounding hillsides shall pass through silt traps prior to entering the artificial lake to prevent siltation. The silt traps shall be designed to have adequate capacity to retain any silt/sediment contained within the stormwater. The silt traps shall be frequently maintained/cleaned to prevent a deterioration in performance. 	√
EIA Report 5.11.2, EP 3.7	<ul style="list-style-type: none"> Should the quality of the water in the Tai Lam Chung Reservoir deteriorate below the present levels an alternate supply of water, of a quality at least as good as that within the Tai Lam Chung Reservoir, shall be used to 'top up' the water within the lake. 	N/A
EIA Report 5.11.2, EP 3.8, 3.9	<ul style="list-style-type: none"> If it becomes necessary to add an algicide to the lake to control algal growth, the algicide shall be biodegradable with a short half life of three days or less. During use of the algicide discharge of the lake water to the marine waters shall be prohibited, until the algicide has decayed. The algicide shall not be used during periods of heavy rainfall when overflow of the lake is possible. 	N/A
EIA Report 5.11.2, EP 3.6	<ul style="list-style-type: none"> Stormwater from any urban/developed areas shall not be allowed to enter the lake as they may contain pollutants. Sewage effluent from the water recreation centre shall be transported to the sewerage mains for conveyance to the Siu Ho Wan STW. 	√
EIA Report 5.11.2, EP 3.10	<ul style="list-style-type: none"> Any fuel for motorised water sports vessels shall be stored in bunded areas, of at least 110% capacity of the largest fuel storage container to prevent any accidental spills entering the lake. 	N/A
EIA Report 5.11.2	<ul style="list-style-type: none"> Servicing of any water sports vessels shall be undertaken at suitable facilities away from the artificial lake. In the event that fuel or other petroleum products enter the lake, a suitable clean-up plan shall be implemented. The clean-up plan being devised by the operators of the water recreation centre and approved by EPD prior to the commencement of operations at the water sports centre. 	√
	<i>Waste</i>	
EIA Report 5.11.2	<ul style="list-style-type: none"> To minimise the potential adverse impacts to aesthetics and odour impacts, the HKITP should maintain floating refuse collection initiatives at both the coast of the Theme Park and within the artificial lake of the Water Recreation Centre. 	√

Note:

- √ Compliance of mitigation measure
- × Non-compliance of mitigation measures
- Non-compliance but rectified
- N/A Not applicable

Appendix H ³/₄ Event and Action Plans

Event and Action Plan for Water Quality

Exceedance	ETL	HKITP	IEC
Action Level			
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings. 2. Identify the source(s) of impact (e.g. intake water). 3. Inform HKITP and IEC. 4. Check monitoring data, all monitoring equipment and monitoring methods; consider changes of monitoring methods. 5. Discuss mitigation measures with HKITP and IEC. 6. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> 1. Discuss with IEC and ETL on WRC operations or any changes to the operations that may have an impact on the water quality. 2. Rectify unacceptable practice and propose mitigation measures. 3. Make agreement on the mitigation measures to be implemented. 4. Implement the agreed mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with ETL and HKITP on WRC operations or any changes to the operations that may have an impact on the water quality, and discuss possible mitigation measures. 2. Review proposals on mitigation measures by HKITP. 3. Assess the effectiveness of the implemented mitigation measures.
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings. 2. Identify the source(s) of impact (eg intake water). 3. Inform HKITP and IEC. 4. Check monitoring data, all monitoring equipment and monitoring methods; consider changes of monitoring methods 5. Discuss mitigation measures with HKITP and IEC. 6. Ensure mitigation measures are implemented. 7. Prepare to increase monitoring frequency to assess efficacy of remedial measures. 8. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> 1. Discuss with IEC and ETL on WRC operations or any changes to the operations that may have an impact on the water quality. 2. Rectify unacceptable practice and propose mitigation measures. 3. Make agreement on the mitigation measures to be implemented. 4. Implement the agreed mitigation measures 5. Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> 1. Discuss with HKITP and ETL on WRC operations or any changes to the operations that may have an impact on the water quality, and discuss possible mitigation measures. 2. Review proposals on mitigation measures by HKITP. 3. .Assess the effectiveness of the implemented mitigation measures

Exceedance	ETL	HKITP	IEC
Limit Level			
1. Exceedance for one sample	<ol style="list-style-type: none"> Repeat measurement to confirm findings. Identify the source(s) of impact (eg intake water). Inform HKITP and IEC. Check monitoring data, all monitoring equipment and monitoring methods; consider changes of monitoring methods Discuss mitigation measures with HKITP and IEC. Ensure mitigation measures are implemented. Increase monitoring frequency to daily until no exceedance of Limit Level. 	<ol style="list-style-type: none"> Inform EPD of exceedance. Discuss with IEC and ETL on WRC operations or any changes to the operations that may have an impact on the water quality. Rectify unacceptable practice and propose mitigation measures. Make agreement on the mitigation measures to be implemented. Implement the agreed mitigation measures Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> Discuss with HKITP and ETL on WRC operations or any changes to the operations that may have an impact on the water quality, and discuss possible mitigation measures. Review proposals on mitigation measures by HKITP. Assess the effectiveness of the implemented mitigation measures
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Repeat measurement to confirm findings. Identify the source(s) of impact (eg intake water). Inform HKITP and IEC. Check monitoring data, all monitoring equipment and monitoring methods; consider changes of monitoring methods Discuss mitigation measures with HKITP and IEC. Ensure mitigation measures are implemented. Increase monitoring frequency to daily until no exceedance of Limit Level for two consecutive days. 	<ol style="list-style-type: none"> Inform EPD of exceedance. Discuss with IEC and ETL on WRC operations or any changes to the operations that may have an impact on the water quality. Rectify unacceptable practice and propose mitigation measures. Make agreement on the mitigation measures to be implemented. Implement the agreed mitigation measures Assess the effectiveness of the implemented mitigation measures Consider to slow down or to stop all or part of the water-based activities until no exceedance of Limit level. 	<ol style="list-style-type: none"> Discuss with HKITP and ETL on WRC operations or any changes to the operations that may have an impact on the water quality, and discuss possible mitigation measures. Review proposals on mitigation measures by HKITP. Assess the effectiveness of the implemented mitigation measures

