

SEMI-ANNUAL GROUNDWATER MONITORING REPORT
ORGANIZATIONAL MAINTENANCE SHOP 28
ALABAMA NATIONAL GUARD
1622 SOUTH BROAD STREET
MOBILE, ALABAMA

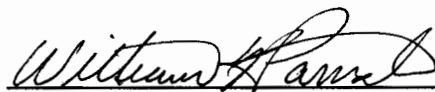
PREPARED FOR:
UNITED STATES ARMY CORP OF ENGINEERS
MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, ALABAMA 36602

PREPARED BY:
Aerostar Environmental Services, Inc.
803 Government Street, Suite A
Mobile, Alabama 36602
(251) 432-2664

November 2006


Emilie A. Wien, Project Manager

11/20/06
Date


William K. Parrish, P.G., Senior Project Geologist

11/20/2006
Date

NATURAL ATTENUATION MONITORING REPORT

Facility Name: OMS 28
 Facility I. D. No.: 14587-097-012257
 Incident No.: UST93-02-05
 Consulting Firm: Aerostar Environmental Services, Inc.

Year: 2006
 Quarter: 3rd
 Reporting Period: Semi-Annual
 Project Manager: Emilie Wien

Section 1 - Site Summary

Purpose of Monitoring:

- Plume Characterization
- Confirmation Monitoring
- Remediation by Natural Attenuation
(Approved Corrective Action Plan)

Site Status:

- Assessment Complete
- ARBCA Evaluation Conducted
- Active UST's
- Site Classification
- Free Product ever present

Number of Groundwater Monitoring Wells:

- Piezometers
- 7 Type II
- Type III
- Other

Number of Water Supply Wells:

- Public (within 1 mile radius of site)
- Private (within 1000 foot radius of site)
- Other (Explain) _____

Status of Waste Water Disposal:

- Quantity (gallons)
- Disposal Method
- Stored On-site
- Disposal Documentation

<p>Comments: On October 18, 2006, Aerostar Environmental Services, Inc. conducted the second Semi-Annual Sampling event for Year 2006. The purpose of the groundwater sampling event is to confirm plume stability and contaminant concentrations. Seven monitoring wells were sampled during this event. There are no public or private supply wells located within a 1/2-mile of the site. A copy of the SSTL's developed during the ARBCA and approved in April 2006, are located on the following page.</p>

ATTACH A BRIEF SUMMARY OF THE ARBCA EVALUATION INCLUDING THE SSTL'S DEVELOPED FOR THE SITE AND THE LOCATION OF THE POINT OF COMPLIANCE.

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Section 2 - Site Maps

Attach site map(s) illustrating all well locations, location of former and/or current UST system(s), utilities, adjacent properties, receptors, current and most likely future land use of site and adjacent properties, Point of Compliance, buildings and other pertinent features. All maps should contain a north arrow and should be to scale.

Section 3 - Well Inventory Tables

Monitoring Wells					
Well ID	Date Installed	Diameter (inches)	Screened Interval (feet bgs)		Depth to Water (feet bgs)
MW-1	10/1/2002	2.00	3.40	13.40	4.02
MW-2	10/1/2002	2.00	3.40	13.40	3.69
MW-3	10/1/2002	2.00	3.30	13.30	3.78
MW-4	10/1/2002	2.00	3.30	13.30	2.49
MW-6	10/1/2002	2.00	2.30	12.30	4.81
MW-7	10/1/2004	2.00	5.00	15.00	2.55
MW-8	10/1/2004	2.00	4.80	14.80	5.83

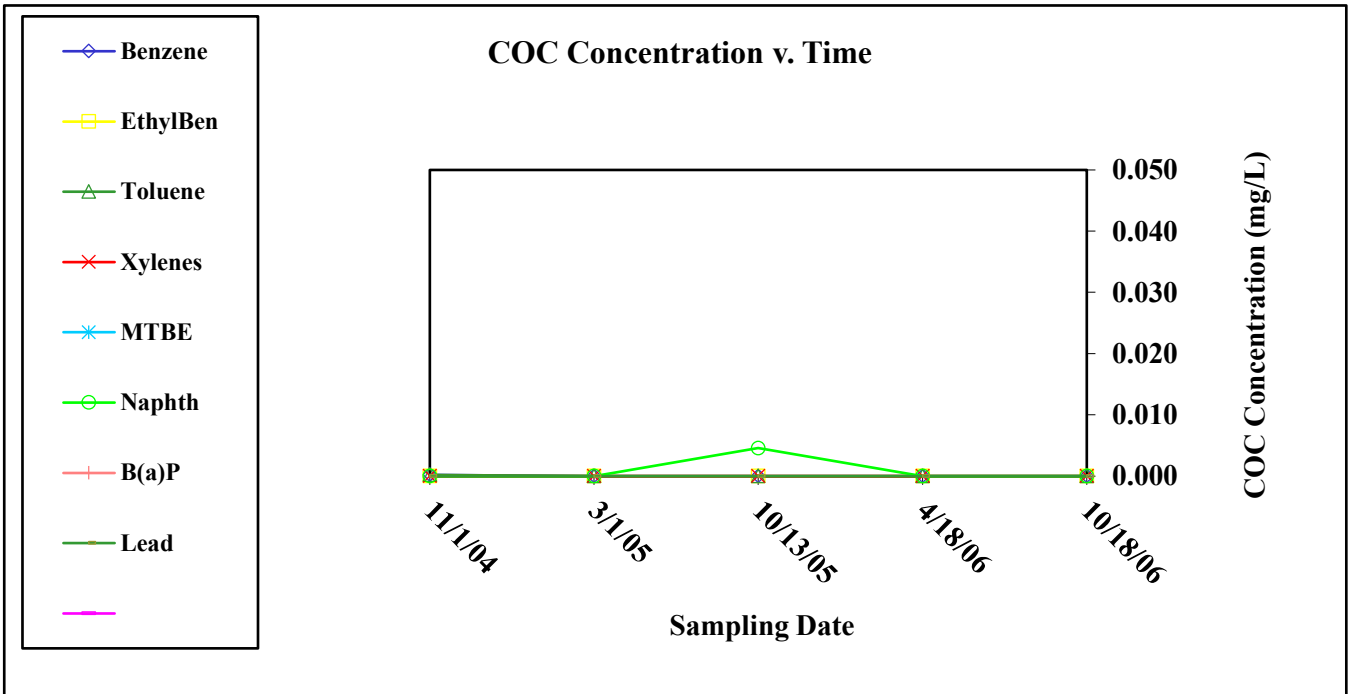
Water Supply Wells						
Well ID	Date Installed	Diameter (inches)	Screened Interval (feet bgs)		Depth to Water (feet bgs)	Well Use

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Section 6 - Historical Monitoring Well Chemicals of Concern Data (mg/L)								
Well ID MW-5								
Historical Chemicals of Concern Data								
DATE	Benzene	EthylBen	Toluene	Xylenes	MTBE	Naphth	B(a)P	Lead
11/1/04	0.000225	0.00233 J	0.000213	0.00352 J		0.00171 J		0.004 JB
3/1/05	<0.00025	<0.00025	<0.00025	<0.000509		<0.00025		0.0044 J
10/13/05	<0.000225	<0.000227	<0.000213	<0.000509		0.00458		NS
4/18/06	<0.000225	0.00233 J	<0.000213	0.00352 J		0.00171 J		NS
10/18/06	<0.000225	0.00272 J	<0.000213	0.00601 J		<0.000304		NS
Well ID MW-5								



ATTACH SITE MAPS FOR THE THREE (3) MOST RECENT MONITORING EVENTS ILLUSTRATING THE DISTRIBUTION OF ALL GROUNDWATER COC DATA.

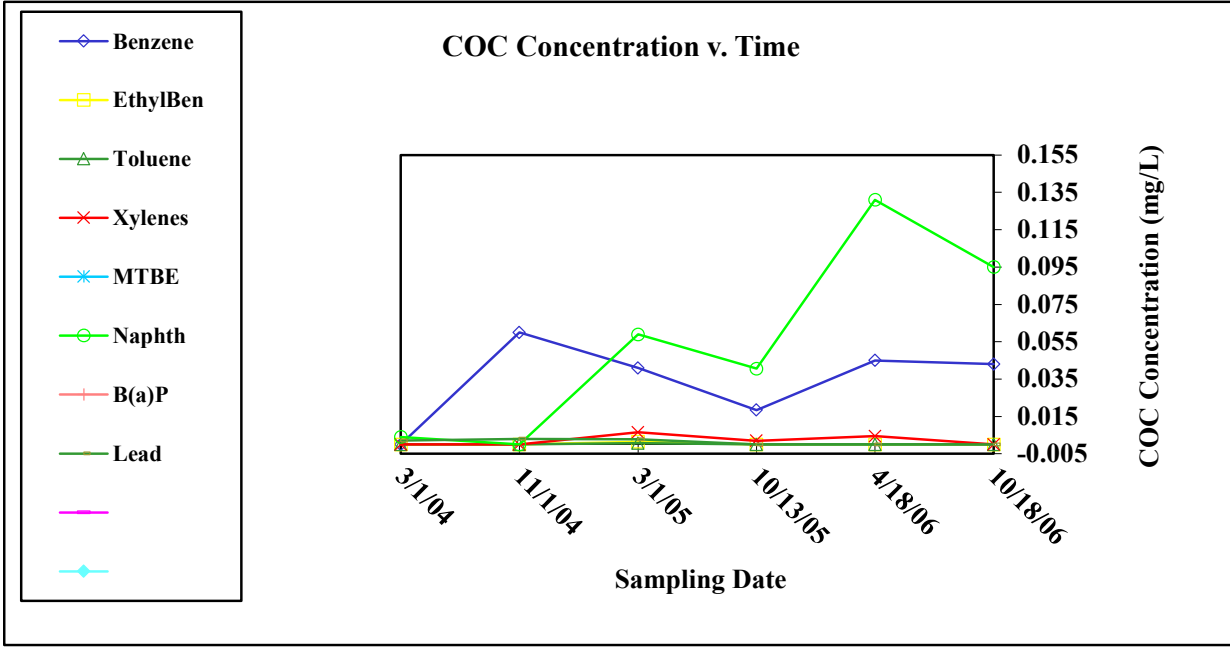
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Section 6 - Historical Monitoring Well Chemicals of Concern Data (mg/L)								
Well ID MW-6								
Historical Chemicals of Concern Data								
DATE	Benzene	EthylBen	Toluene	Xylenes	MTBE	Naphth	B(a)P	Lead
3/1/04	ND	ND	ND	ND		0.004		0.002
11/1/04	0.060	<0.0012	<0.0012	<0.00075		<0.00025		0.003
3/1/05	0.041	0.0015	0.00071	0.0065		0.059		0.003
10/13/05	0.018	<0.000227	<0.000213	0.002		0.0406		NS
4/18/06	0.045	<0.000222	<0.000213	0.004		0.131		NS
10/18/06	0.043	<0.000227	<0.000213	0.00582 J		0.095		NS

Well ID-6



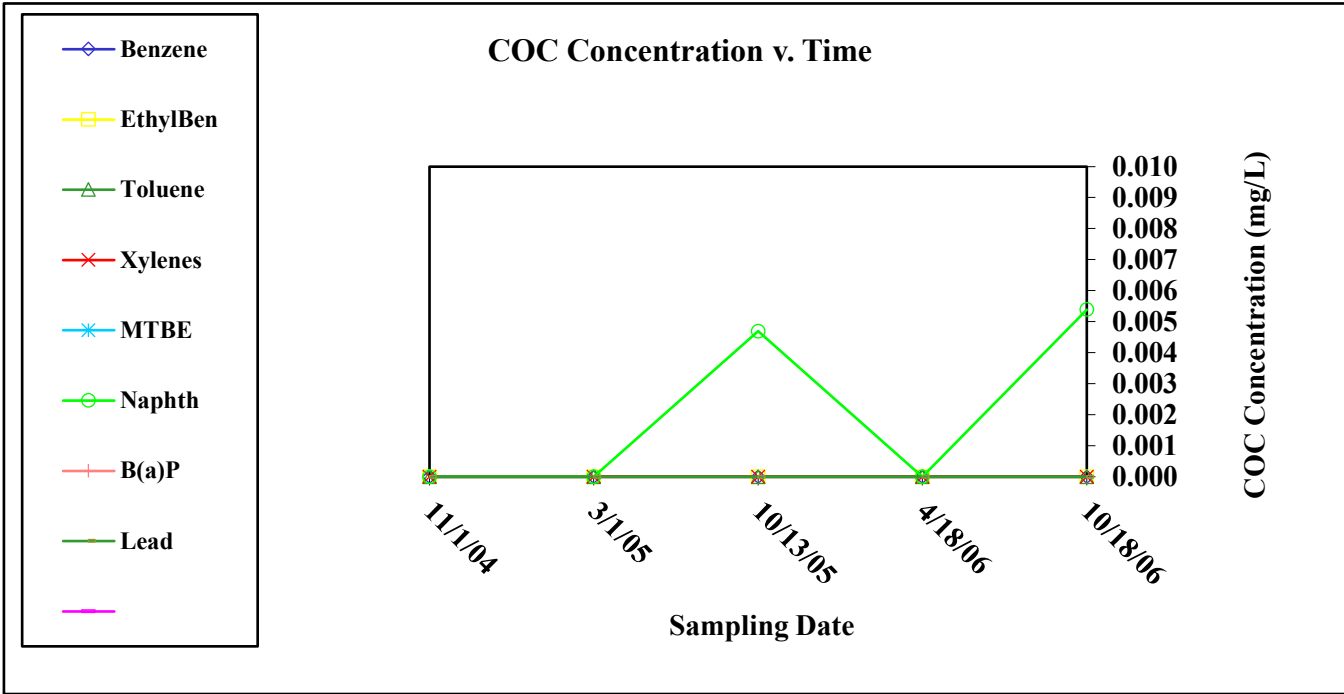
ATTACH SITE MAPS FOR THE THREE (3) MOST RECENT MONITORING EVENTS ILLUSTRATING THE DISTRIBUTION OF ALL GROUNDWATER COC DATA.

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Section 6 - Historical Monitoring Well Chemicals of Concern Data (mg/L)								
Well ID MW-7								
Historical Chemicals of Concern Data								
DATE	Benzene	EthylBen	Toluene	Xylenes	MTBE	Naphth	B(a)P	Lead
11/1/04	<0.00025	<0.00025	<0.00025	<0.00075		<0.00025		0.003 JB
3/1/05	<0.00025	<0.00025	<0.00025	<0.00025		<0.00025		0.0027 J
10/13/05	<0.000225	<0.000227	<0.000213	<0.000509		0.00469		NS
4/18/06	<0.000225	<0.000227	<0.000213	<0.000509		<0.000304		NS
10/18/06	<0.000225	<0.000213	<0.000227	<0.000509		0.00539		NS
Well ID-7								



ATTACH SITE MAPS FOR THE THREE (3) MOST RECENT MONITORING EVENTS ILLUSTRATING THE DISTRIBUTION OF ALL GROUNDWATER COC DATA.

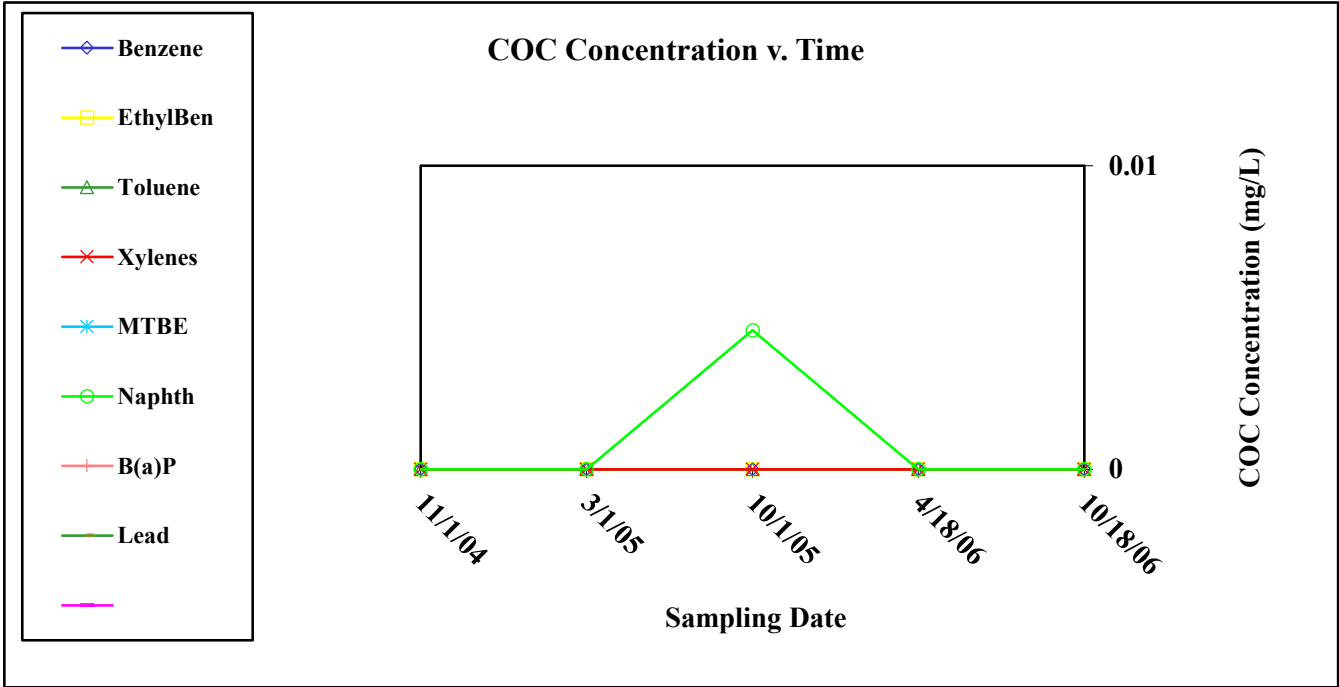
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Section 6 - Historical Monitoring Well Chemicals of Concern Data (mg/L)								
Well ID MW-8								
Historical Chemicals of Concern Data								
DATE	Benzene	EthylBen	Toluene	Xylenes	MTBE	Naphth	B(a)P	Lead
11/1/04	<0.005	<0.005	<0.005	<0.015		<0.005		
3/1/05	<0.0063	<0.0063	<0.0063	<0.0193		<0.0063		
10/1/05	<0.000225	<0.000227	<0.000213	<0.000509		0.00458		
4/18/06	<0.000225	<0.000227	<0.000213	<0.000509		<0.000304		
10/18/06	<0.000225	<0.000227	<0.000213	<0.000509		<0.000304		

Well ID MW-8



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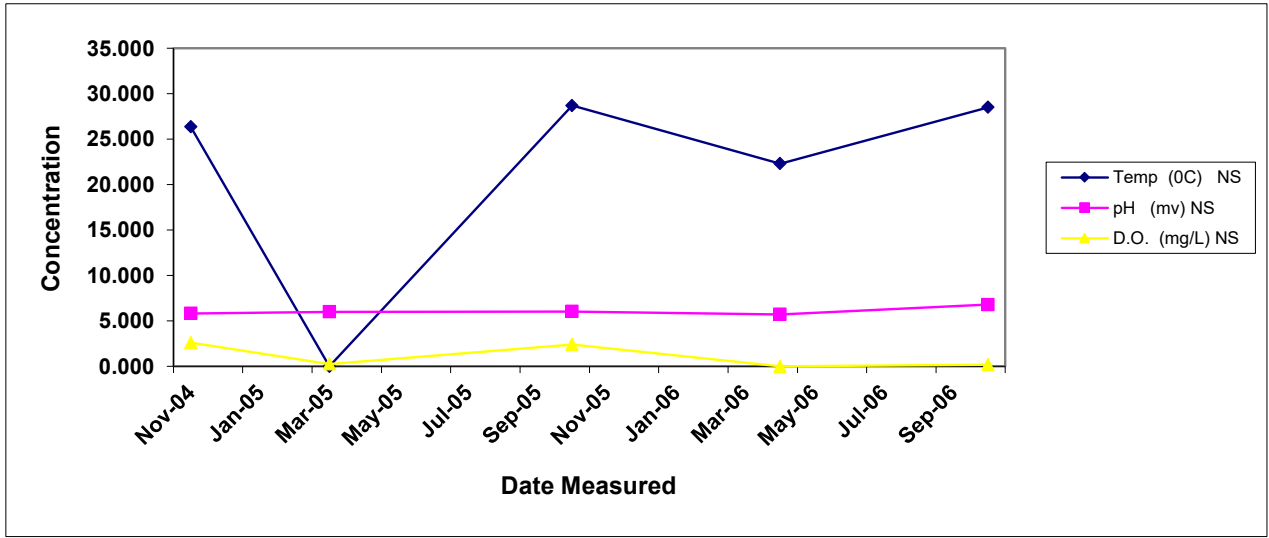
Section 7 - Historical Monitoring Well Intrinsic Groundwater Data

Well ID MW-1

Historical Intrinsic Groundwater Data

DATE	Temp (°C)	pH (mv)	ORP (mv)	D.O. (mg/L)	Nitrate (mg/L)	Fe ⁺² (mg/L)	Sulfate (mg/L)	Methane		
3/1/04	NS	NS	NS	NS	NS	NS	NS	NS		
11/10/04	26.360	5.820	NS	2.590	NS	NS	NS	NS		
3/10/05	NS	5.990	NS	0.250	NS	NS	NS	NS		
10/13/05	28.70	6.030	NS	2.400	NS	NS	NS	NS		
4/18/06	22.30	5.710	NS	0.000	NS	NS	NS	NS		
10/18/06	28.50	6.790	NS	0.200	NS	NS	NS	NS		

Well ID MW-1



ATTACH SITE MAPS FOR THE THREE (3) MOST RECENT MONITORING EVENTS ILLUSTRATING THE DISTRIBUTION OF ALL RELEVANT INTRINSIC GROUNDWATER DATA.

NATURAL ATTENUATION MONITORING REPORT

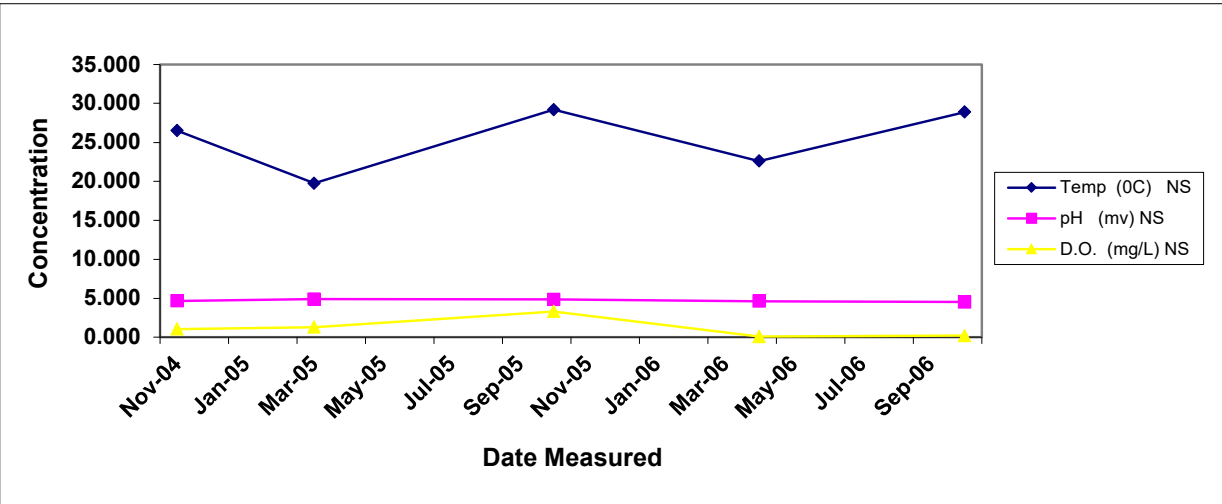
Facility Name: OMS 28
 Facility I. D. No.: 14587-097-012257
 Incident No.: UST93-02-05
 Consulting Firm: Aerostar Environmental Services, Inc.

Year: 2006
 Quarter: 3rd
 Reporting Period: Semi-Annual
 Project Manager: Emilie Wien

Section 7 - Historical Monitoring Well Intrinsic Groundwater Data

Well ID MW-2									
Historical Intrinsic Groundwater Data									
DATE	Temp (°C)	pH (mv)	ORP (mv)	D.O. (mg/L)	Nitrate (mg/L)	Fe ⁺² (mg/L)	Sulfate (mg/L)	Methane	
3/1/04	NS	NS	NS	NS	NS	NS	NS	NS	
11/10/04	26.510	4.650	NS	1.050	NS	NS	NS	NS	
3/9/05	19.750	4.880	NS	1.30	NS	NS	NS	NS	
10/13/05	29.20	4.840	NS	3.300	NS	NS	NS	NS	
4/18/06	22.60	4.630	NS	0.080	NS	NS	NS	NS	
10/18/06	28.90	4.500	NS	0.200	NS	NS	NS	NS	

Well ID MW-2



ATTACH SITE MAPS FOR THE THREE (3) MOST RECENT MONITORING EVENTS ILLUSTRATING THE DISTRIBUTION OF ALL RELEVANT INTRINSIC GROUNDWATER DATA.

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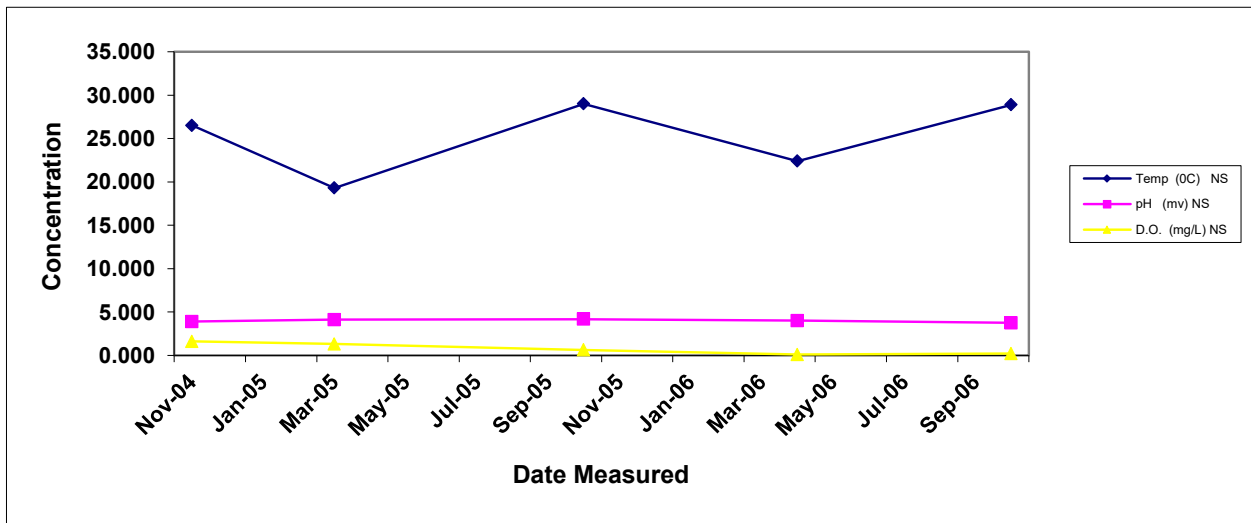
Year: 2006
 Quarter: 3rd
 Reporting Period: Semi-Annual
 Project Manager: Emilie Wien

Section 7 - Historical Monitoring Well Intrinsic Groundwater Data

Well ID MW-3

Historical Intrinsic Groundwater Data										
DATE	Temp (°C)	pH (mv)	ORP (mv)	D.O. (mg/L)	Nitrate (mg/L)	Fe ⁺² (mg/L)	Sulfate (mg/L)	Methane		
3/1/04	NS	NS	NS	NS	NS	NS	NS	NS		
11/10/04	26.520	3.910	NS	1.620	NS	NS	NS	NS		
3/9/05	19.300	4.110	NS	1.320	NS	NS	NS	NS		
10/13/05	29.00	4.180	NS	0.630	NS	NS	NS	NS		
4/18/06	22.40	4.020	NS	0.100	NS	NS	NS	NS		
10/18/06	28.90	3.760	NS	0.200	NS	NS	NS	NS		

Well ID MW-3



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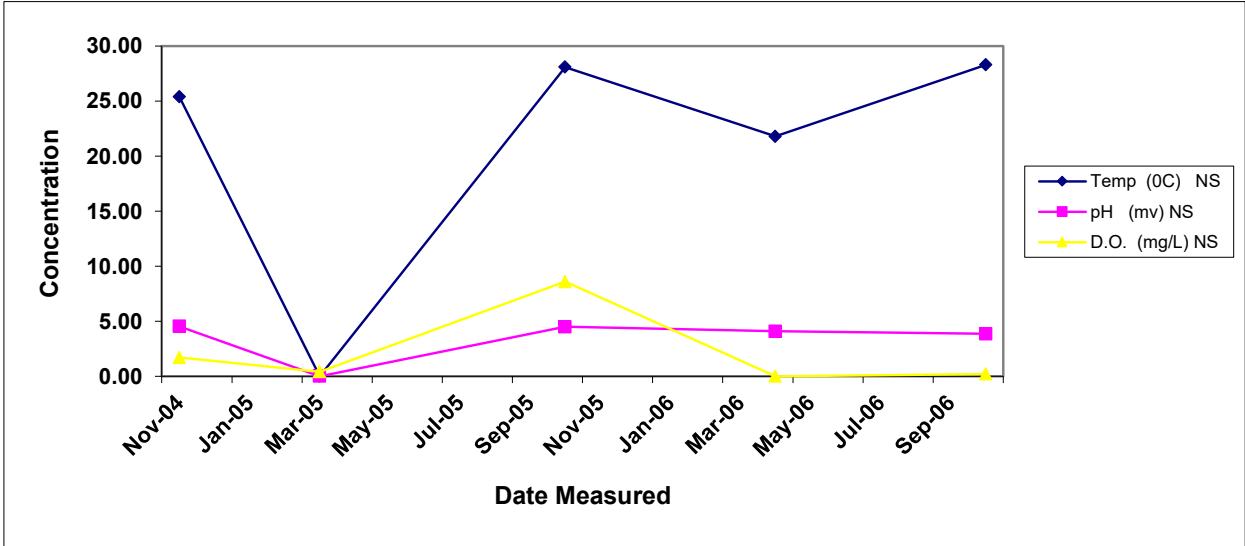
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Year: 2006
 Quarter: 3rd
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Section 7 - Historical Monitoring Well Intrinsic Groundwater Data

Well ID MW-5									
Historical Intrinsic Groundwater Data									
DATE	Temp (°C)	pH (mv)	ORP (mv)	D.O. (mg/L)	Nitrate (mg/L)	Fe ⁺² (mg/L)	Sulfate (mg/L)	Methane	
3/1/04	NS	NS	NS	NS	NS	NS	NS	NS	
11/10/04	25.40	4.540	NS	1.700	NS	NS	NS	NS	
3/1/05	NS	NS	NS	0.410	NS	NS	NS	NS	
10/13/05	28.10	4.490	NS	8.600	NS	NS	NS	NS	
4/18/06	21.80	4.080	NS	0.000	NS	NS	NS	NS	
10/18/06	28.30	3.860	NS	0.200	NS	NS	NS	NS	

Well ID MW-5



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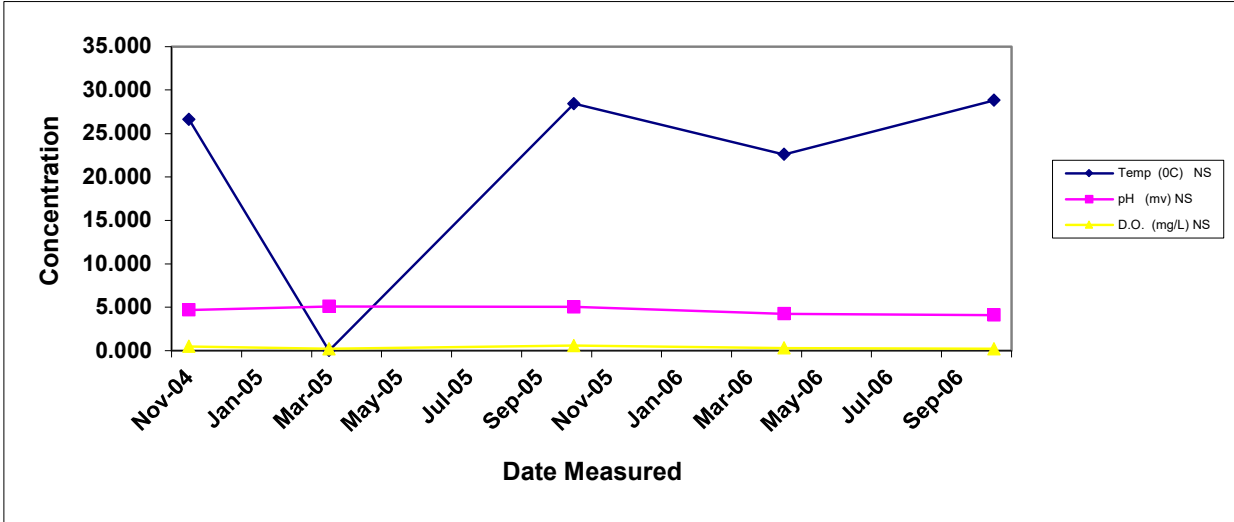
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Section 7 - Historical Monitoring Well Intrinsic Groundwater Data

Well ID MW-6										
Historical Intrinsic Groundwater Data										
DATE	Temp (°C)	pH (mv)	ORP (mv)	D.O. (mg/L)	Nitrate (mg/L)	Fe ⁺² (mg/L)	Sulfate (mg/L)	Methane		
3/1/04	NS	NS	NS	NS	NS	NS	NS	NS		
11/10/04	26.620	4.690	NS	0.480	NS	NS	NS	NS		
3/10/05	NS	5.090	NS	0.200	NS	NS	NS	NS		
10/13/05	28.40	5.040	NS	0.570	NS	NS	NS	NS		
4/18/06	22.60	4.250	NS	0.300	NS	NS	NS	NS		
10/18/06	28.80	4.090	NS	0.200	NS	NS	NS	NS		

Well ID MW-6



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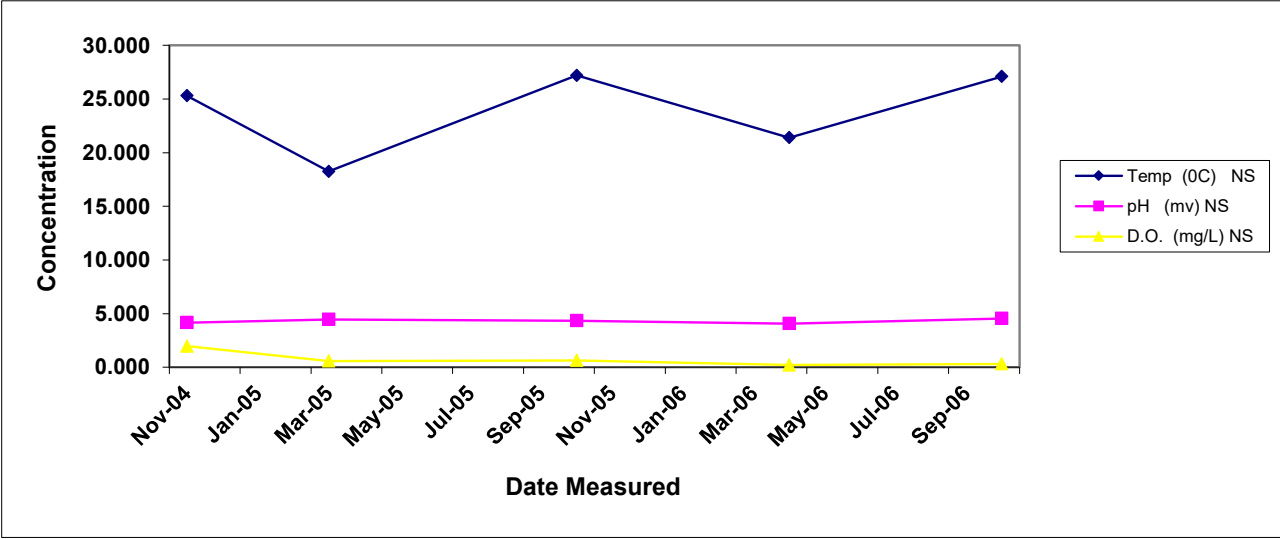
Section 7 - Historical Monitoring Well Intrinsic Groundwater Data

Well ID MW-7

Historical Intrinsic Groundwater Data

DATE	Temp (°C)	pH (mv)	ORP (mv)	D.O. (mg/L)	Nitrate (mg/L)	Fe ⁺² (mg/L)	Sulfate (mg/L)	Methane		
3/1/04	NS	NS	NS	NS	NS	NS	NS	NS		
11/9/04	25.310	4.160	NS	1.960	NS	NS	NS	NS		
3/10/05	18.240	4.450	NS	0.580	NS	NS	NS	NS		
10/13/05	27.20	4.320	NS	0.640	NS	NS	NS	NS		
4/18/06	21.40	4.060	NS	0.200	NS	NS	NS	NS		
10/18/06	27.10	4.530	NS	0.300	NS	NS	NS	NS		

Well ID MW-7



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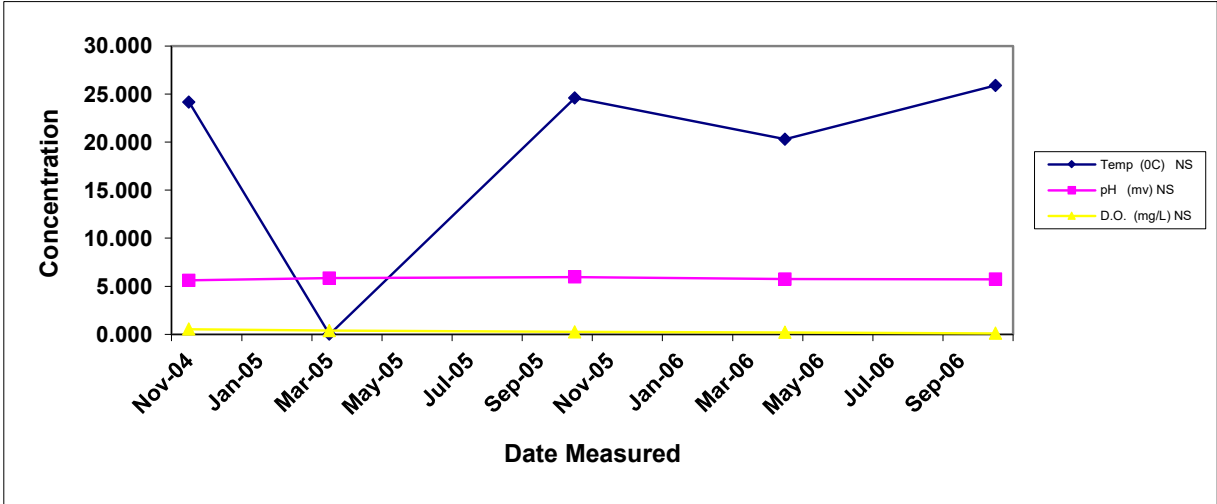
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Section 7 - Historical Monitoring Well Intrinsic Groundwater Data

Well ID MW-8

Historical Intrinsic Groundwater Data										
DATE	Temp (°C)	pH (mv)	ORP (mv)	D.O. (mg/L)	Nitrate (mg/L)	Fe ⁺² (mg/L)	Sulfate (mg/L)	Methane		
3/1/04	NS	NS	NS	NS	NS	NS	NS	NS		
11/19/04	24.180	5.620	NS	0.530	NS	NS	NS	NS		
3/10/05	NS	5.850	NS	0.390	NS	NS	NS	NS		
10/13/05	24.60	5.970	NS	0.250	NS	NS	NS	NS		
4/18/06	20.30	5.740	NS	0.200	NS	NS	NS	NS		
10/18/06	25.90	5.730	NS	0.100	NS	NS	NS	NS		

Well ID MW-8



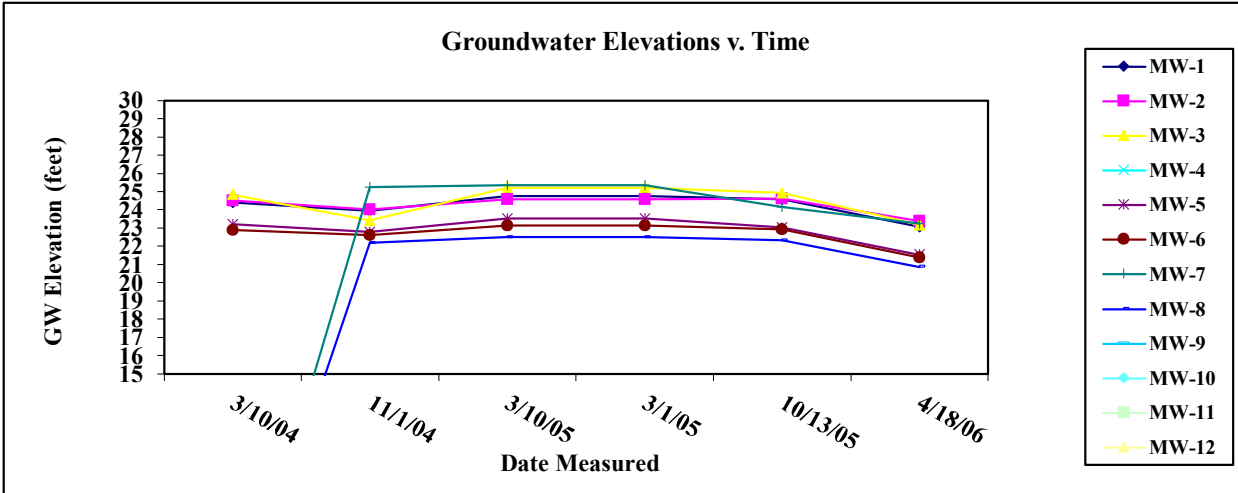
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Section 8 - Groundwater Elevation Data												
DATE	Well ID/Corrected Groundwater Elevation (feet)											
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
3/10/04	24.39	24.52	24.84		23.21	22.9	--	--				
11/1/04	23.94	24.00	23.41		22.77	22.60	25.23	22.19				
3/10/05	24.77	24.57	25.23		23.52	23.14	25.36	22.50				
3/1/05	24.77	24.57	25.23		23.52	23.14	25.36	22.50				
10/13/05	24.57	24.62	24.94		23.04	22.93	24.16	22.33				
4/18/06	23.07	23.39	23.17		21.54	21.39	23.25	20.87				
10/18/06	22.62	22.78	23.23		21.54	21.45	24.65	21.37				



ATTACH THE THREE (3) MOST RECENT GROUNDWATER ELEVATION MAPS INDICATING THE DIRECTION OF GROUNDWATER FLOW. THE GROUNDWATER ELEVATION DATA MUST ALSO BE PRESENTED IN TABULAR FORM AND CORRECTED FOR FREE PRODUCT, IF PRESENT.

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Section 9 - Monitoring Costs v. Time										
Date										
O & M										
Cumulative	0	0	0	0	0	0	0	0	0	0

