

**SUBJECT: HTW – BCT Meeting**

**April 12, 2005**

**1:00 p.m.**

BRAC Conference Room

Check

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(✓)	Name	Organization	Phone	E-mail address
	Michael Taraszki	MACTEC E&C	415/884-3325	mdtaraski@mactec.com
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Former Fort Ord  
Agency Meeting Agendas  
April 2005

April 12 at 1:00 p.m.  
HTW BCT Meeting  
BRAC Conference Room

April 13 at 1:00 p.m.  
MR BCT Meeting  
BRAC Conference Room

**HTW BCT Meeting  
BRAC Conf. Room**

<b>Item</b>	<b>Action</b>	<b>Comment</b>
<b>OU2 and 2/12 Treatment Systems</b>	<b>Status Update</b>	
<b>FFA and Document Schedules</b>	<b>Status Update</b>	
<b>OU1 Groundwater Remediation</b>	<b>Status Update</b>	
<b>Operable Unit Carbon Tetrachloride RI/FS</b>	<b>Status Update</b>	
<b>Other Issues</b>	<b>Discussion</b>	<ul style="list-style-type: none"> <li>-Quarterly sampling</li> <li>-Comments to GW evaluation tech memo</li> <li>-CAG document review extensions</li> <li>-media interaction</li> </ul>
<b>GW Treatment System Optimization</b>	<b>Status Update</b>	
<b>OU2 Landfill Gas</b>	<b>Status Update</b>	
<b>Basewide Range Assessment</b>	<b>Status Update</b>	
<b>Site 39 Eco Risk Work</b>	<b>Status Update</b>	
<b>Site 3 Eco Risk</b>	<b>Discussion</b>	<b>-work plan schedule</b>
<b>Range 36A Closure Activities</b>	<b>Status Update</b>	
<b>East Garrison Ranges Interim Action</b>	<b>Status Update</b>	
<b>FOST/FOSL/FOSET Issued</b>	<b>Status Update</b>	
<b>Calendar Update</b>	<b>Update</b>	

MR BCT Meeting  
BRAC Conf. Room

<b>Item</b>	<b>Action</b>	<b>Comment</b>
<b>Action Items</b>	<b>Update</b>	
<b>Fieldwork Update</b>	<b>Update</b>	
<b>Fieldwork Variance</b>	<b>Update</b>	
<b>Security Program</b>	<b>Update</b>	
<b>Track 0 Plug-In Approval Memorandum C</b>	<b>Status</b>	
<b>Track 1 Plug-in Approval Memorandum for area south of MRS-6</b>	<b>Update</b>	
<b>Track 2 MR RI/FS report</b>	<b>Update</b>	
<b>FFA Schedule</b>	<b>Update</b>	
<b>Property Transfer</b>	<b>Update</b>	

# Former Fort Ord Groundwater Treatment Systems Operational Data

Project	Status/Update
OU-2	<p><u>O &amp; M</u>      <u>Stats for the month of March (2/26/25-3/25/05)</u></p> <p>Plant operating at 741gpm (avg.) Average influent concentration of 8.3 ppb (TCE) 29.66 million gallons treated.</p> <p><u>Cumulative Stats:</u> 3.045 billion gallons of water treated</p>
Sites 2/12	<p><u>O &amp; M</u>      <u>Stats for the month of March (2/26/05-3/25/05)</u></p> <p>Plant operating at 332gpm (avg.) Average influent concentration of 13 ppb (TCE) 13.41 million gallons treated</p> <p><u>Cumulative Stats:</u> 771 million gallons of water treated</p>

#### Operational Issues:

- 1) Extraction well sampling was conducted on both GWTP systems.
- 2) EW-OU2-02-180 and EW-OU2-15A are both off due to maintenance issues.

#### Document Issues:

- 1) OU2 and 2/12 Annual Reports in progress.
- 2) OU2 and 2/12 O&M Manuals in progress.

**Property Transfer Update – April 12, 2005 HTW BCT Meeting**

<b>Title/Description</b>	<b>Comments</b>
<b>FOSET 4 – Del Rey Oaks 6 Parcels ~ 324 acres</b>	<b>FOSET signed 7/28/04.</b> EPA approval 8/19/04. Governor's concurrence 12/2/04. <b>One CRUP:</b> residential restriction on all six parcels. <b>Issues:</b> City of DRO concerns about deed language.
<b>FOSL 13 – Monterey Horse Park 3 Parcels ~ 340 acres</b>	<b>Not started.</b> <b>Issues:</b> No official request for property yet.
<b>FOSL 14 – Del Rey Oaks/Native Plant Society Habitat Reserve 1 Parcel ~ 5 acres</b>	<b>Not started.</b> <b>Issues:</b> No official request for property yet.
<b>FOST 6 – Track 0 Parcels 95 Parcels ~1,223 acres</b>	<b>FOST signed May 27, 2003.</b> 78 parcels transferred by deed (958 acres). <b>Four CRUPs:</b> three for 92 parcels within "Special Groundwater Protection Zone," one for one parcel restricted from residential use. All have been recorded. <b>Issues:</b> <ul style="list-style-type: none"> <li>• Site 33 – F2.7.2 (already transferred). Interim Action process for cleanup to unrestricted use acceptable to agencies, letter sent to developer.</li> <li>• Site 39A – L23.3.1 trap and skeet range concurrence letter from DTSC (may be signed today).</li> <li>• Tiger salamander affected parcels: E11b.1, E11b.2, E11b.3, E11b.4, L20.10.1.1, L20.10.1.2, L20.10.2, L20.14.1.2, L20.19.2, L20.20, L20.21.1, L20.21.2, L20.22, L23.3.1, L23.3.2.1 (transfer pending).</li> </ul>

<b>Title/Description</b>	<b>Parcels</b>	<b>Comments</b>
<b>FOST 8 Track 0 and Track 0 Plug-in Group B Parcels 30 Parcels ~ 240 acres (V0/December 2004) (V1/March 2005) GOAL: TRANSFER ALL PARCELS BY AUGUST 2005.</b>	E11a.1, E18.2.1, E18.2.2, E18.3, E20c.1.2, E20c.2.2, E29b.3, E29e, E2d.3.1, E5a.2, L20.13.1, L20.13.2, L20.13.3, L20.13.4, L20.7.1, L20.7.2, L20.7.3, L20.7.4, L20.7.5, L3.1, L35.4, L35.5, L5.10.2, S3.2.1, S3.2.2, S4.2.1, S4.2.2, S4.2.3, S4.2.4, S4.3	<b>30-day public comment period started 3/26/05 (ends 4/24/05).</b> <ul style="list-style-type: none"> <li>• Includes parcels with no evidence of military munitions use. Track 0 ROD complete.</li> <li>• Approval Memorandum for Track 0 Plug-in Group B parcels in 30-day public review period (ends 4/23/05).</li> <li>• Five associated CRUPs for Special Groundwater Protection Zone. Draft CRUP submitted to agencies for review 3/3/05, comments requested by 4/6/05 (no comments as of today).</li> </ul> <b>Issues:</b> <ul style="list-style-type: none"> <li>• East Garrison Area 2 parcels (E11b.6.3, E11b.7.2, L20.19.1.2, L23.3.2.2, L23.3.3.2) moved to FOST 9 (site assessment not complete).</li> <li>• Parcels with incidental items (E4.3.1.2, E8a.1.1.2, L20.13.5) moved to FOST 9 to allow completion of Track 0 ESD.</li> </ul>

**Property Transfer Update – April 12, 2005 HTW BCT Meeting**

<b>Title/Description</b>	<b>Parcels</b>	<b>Comments</b>
<p><b>FOST 9</b>  <b>Track 0 Plug-in Group C and Track 1 Parcels</b>  <b>29 Parcels ~1,894 acres</b>            (V0/December 2004)            (V1/April 2005)  <b>GOAL: TRANSFER ALL PARCELS BY SEPTEMBER 2005.</b></p>	<p>E11a, E11b.6.2, E15.2, E20c.2.1, E2a, E4.1.2.1, E4.1.2.2, E4.1.2.3, E4.3.1.2, E4.3.2.1, E4.6.1, E4.6.2, E8a.1.1.2, L20.13.5, L20.14.1.1, L20.14.2, L20.15, L20.6, L23.5.1, L31, L5.6.1, L5.6.2, L9.1.1.2, L9.1.2.2, S3.1.1, S3.1.2, S3.1.3, S3.1.4, S4.1.1</p>	<p><b>FOST in revision based on EPA comments (DTSC comments pending).</b></p> <ul style="list-style-type: none"> <li>Includes parcels where military munitions were suspected to have been used, but none were found. Final Track 1 ROD in April 2005.</li> <li>Approval Memorandum for Track 0 Plug-in C parcels in revision (w/out DTSC comments).</li> <li>Six associated CRUPs for Special Groundwater Protection Zone.</li> </ul> <p><b>Issues:</b></p> <ul style="list-style-type: none"> <li>Comments from DTSC pending, Army has advised DTSC to not comment until the next version is completed for review by Army ELD.</li> <li>Definition of “Track 0.” Revised ESD to the Track 0 ROD submitted to agencies for signature.</li> <li>IA Sites 1 and OF-15 DTSC concurrence letters (may be signed today).</li> <li>IA excavation at HA-80 and HA-85 not complete, parcel L23.3.3.1 dropped from FOST.</li> <li>Area 2 site assessment not complete, parcel L23.3.2.2 dropped from FOST.</li> <li>Format of EPP modified according to model FOST.</li> <li>Site 39A trap and skeet range concurrence letter from DTSC (may be signed today).</li> <li>Rizgar Strip (E4.3.1.2) – DTSC concerns about incidental munitions items.</li> <li>Parcel L23.5 split to remove “Field Battalion Training Area.” Now L23.5.1.</li> <li>Area between MRS-1 and MRS-6 to be included as Track 1 Plug-in (affects parcels E2a, E4.1.2.1, E4.1.2.2).</li> </ul>

<b>Title/Description</b>	<b>Parcel</b>	<b>Comments</b>
<p><b>FOSL 12 – Military Operations on Urbanized Terrain (MOUT) Site</b>  <b>1 Parcel ~ 54 acres</b>            (V0/July 2004)            (V1/January 2005)            (V2/March 2005)</p>	<p>F1.7.2</p>	<p><b>FOSL submitted to agencies 3/7/05, comments requested by 3/21/05. Comments received from EPA.</b></p> <p><b>Issues:</b></p> <ul style="list-style-type: none"> <li>Comments from DTSC pending, may defer to EPA.</li> </ul>



**2004**  
**Annual Operations Summary**  
**OU2 Landfill Gas Treatment System-Extended**  
**Operations**  
**Former Fort Ord, California**  
**Shaw Environmental, Project 783751**

Area F  
Period and Parameters Summary

Total Hours for period (01/01/04 – 12/31/04)	8760
Total Planned Hours for period <sup>1</sup>	2600
Total Hours of Operation (01/01/04 – 12/31/04)	2610
Percent Efficiency (operated/planned)	100%
Percent Utilization (hours operated / Total hours)	29.8%
Average Methane % at the Influent	9.6%
Average Methane All Probes <sup>2</sup>	0.05%
Average Methane in 32 Foot Probes	0.14%
Average Methane in 22 Foot Probes	0.002%
Average Methane in 12 Foot Probes	0.003%
Probe with Highest Methane Level	12F-32 @ 5.5%
Average Temperature of Soil Gas in the Extraction Wells*	82.6 Deg F
Extraction Well With Highest Temp	EW-9 @ 100 Deg F

\*Prior to August 2004 there was a rise in temperature in the extraction wells (especially EW-9, 10, 11). At that time, Field Work Variance (FWV) 90 was issued to document the change in schedule from operating the system one week in two, to one week in three. As presented in Figure 1, this change was successful in stopping the temperature rise, and recent temperatures have dropped from the high point in August 2004.

The current temperatures are expected from moderately productive LFG wells. The observed temperatures are significantly below 131 degrees F, a value that typically indicates a biological activity breakpoint between mesophilic anaerobic bacterial decay and thermophilic aerobic bacterial decay (i.e. composting).

The temperature trends will continue to be monitored.

Volatile Organic Compound Samples Analyzed

VOC Samples in for Analysis	Date Collected	Results Due	Results Received	Comments
OU2EFFK0190	01/09/04	01/28/04	01/28/04	
OU2INFC0189	01/09/04	01/28/04	01/28/04	
OU2EFFK0192	02/06/04	02/23/04	02/23/04	
OU2INFC0191	02/06/04	02/23/04	02/23/04	
OU2EFFK0194	03/12/04	03/30/04	03/30/04	
OU2INFC0193	03/12/04	03/30/04	03/30/04	
OU2EFFK0196	04/23/04	05/11/04	05/11/04	
OU2INFC0195	04/23/04	05/11/04	05/11/04	
OU2EFFK0198	06/08/04	06/24/04	06/24/04	
OU2INFC0197	06/08/04	06/24/04	06/24/04	
OU2EFFK0201	07/16/04	08/02/04	07/30/04	
OU2INFC0199	07/16/04	08/02/04	07/30/04	Primary
OU2INFC0200	07/16/04	08/02/04	07/30/04	Field Duplicate
OU2EFFK0203	08/27/04	09/13/04	09/13/04	
OU2INFC0202	08/27/04	09/13/04	09/13/04	
OU2EFFK0205	10/08/04	10/27/04	10/25/04	
OU2INFC0204	10/08/04	10/27/04	10/25/04	
OU2INFC0206	11/19/04	12/07/04	12/07/04	
OU2MIDC0207	11/19/04	12/07/04	12/07/04	
OU2EFFK0208	12/10/04	12/28/04	12/28/04	

**GAC and Zeolite-KMnO<sub>4</sub> Changeouts**

Change Out Date	GAC (pounds)	Zeolite - KMnO <sub>4</sub> (pounds)
1/14/2004	508	400
2/12/2004	500	400
3/18/2004	550	400
4/29/2004	489	400
6/14/2004	600	400
7/19/2004	600	400
9/2/2004	600	400
10/14/2004	0	400
10/23/2004	600	0
12/15/2004	0	400
<b>Totals:</b>	<b>4447</b>	<b>3600</b>

**Overall Operation Summary**

System Operation Between Zeolite-KMnO <sub>4</sub> Changeouts		
Start of Period	End of Period	Hours of Operation
1/14/2004	2/12/2004	216.5
2/12/2004	3/18/2004	369.5
3/18/2004	4/29/2004	302.0
4/29/2004	6/14/2004	302.0
6/14/2004	7/19/2004	310.0
7/19/2004	9/2/2004	316.5
9/2/2004	10/14/2004	295.5
10/14/2004	12/15/2004	299.0
<i>Average hours of operation between changeouts=</i>		<i>301.4</i>

System Operation Between GAC Changeouts*		
Start of Period	End of Period	Hours of Operation
1/14/2004	2/12/2004	216.5
2/12/2004	3/18/2004	369.5
3/18/2004	4/29/2004	302.0
4/29/2004	6/14/2004	302.0
6/14/2004	7/19/2004	310.0
7/19/2004	9/2/2004	316.5
9/2/2004	10/23/2004	295.5
10/23/2004	*	
<i>Average hours of operation between changeouts=</i>		<i>301.7</i>

\*In November 2004 the treatment system was reconfigured to include a 2,000-pound GAC vessel as the lead bed, replacing the two lead 300-pound vessels. The 2,000-pound vessel had been used in the operation of the soil vapor extraction (SVE) treatment system at Lexington Court, and contained unspent carbon when the SVE was terminated in early November 2004. Field Work Variance (FWV) 90 was implemented to the Draft Landfill Gas Pilot Test Work Plan, CQC Plan, SAP, OU2 Landfill, Former Fort Ord, CA. Rev. C on 11/15/04 to document this change. Since the 2,000-pound vessel was put into use, there have been no GAC changeouts.

Total Hours Since 5/2/02	23360 hours
Total Operating Hours Since 5/2/02 (less 193.2 hrs operation for Area E test during July 2003)	7309 hours
Percent System Utilization Since 5/2/02 (Area F only)	31.3 %

**Summary of VOCs and Methane removed from OU2 Landfill Area F (2003 and 2004)\***

Type	2003 Pounds Removed <sup>3</sup> (01/01/03 to 12/31/03)	2004 Pounds Removed <sup>3</sup> (01/01/04 to 12/31/04)
Volatile Organic Compounds <sup>4</sup>	3.55	3.91
Vinyl chloride	0.57	0.52
Methane	59355	82314

\*Plots of total VOC (Figure 2), vinyl chloride (Figure 3), and methane (Figure 4) concentration versus cumulative operation time are provided as attachments.

The ratio of Vinyl Chloride as a percentage of methane concentration measured at the influent point is presented in Figure 5. This plot indicates that the proportion of vinyl chloride in methane may be reducing in recent samples collected. Further evidence of this is demonstrated in the table above which compares the amounts removed for 2003 and 2004. This table shows increased amounts of methane, and decreased amounts of vinyl chloride removed in 2004.

FIGURES

Figure 1 – Monthly Flow and Select Extraction Well Temperatures vs. Time

Figure 2 – Influent Total VOC Concentration vs. Total Cumulative Hours of Treatment System Operation

Figure 3 – Influent Vinyl Chloride Concentration vs. Total Cumulative Hours of Treatment System Operation

Figure 4 - Pre-Blower Methane Concentration vs. Total Cumulative Operating Hours Treatment System Operation

Figure 5 - Vinyl Chloride / Methane Ratio vs. Time

Notes:

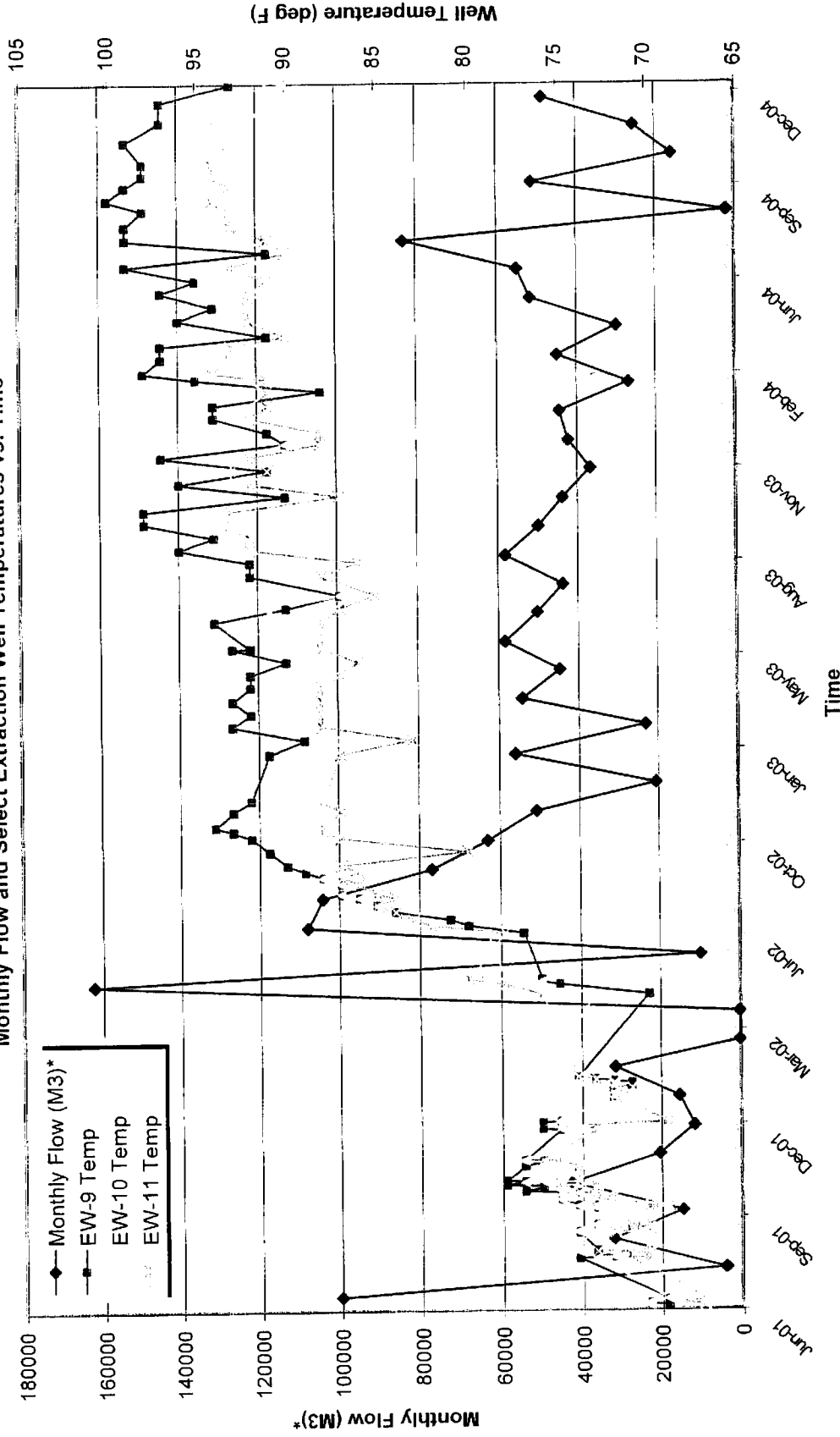
<sup>1</sup>Current planned operation of the system is 100 hours/week every third week.

<sup>2</sup>Probes included in this calculation are from Area F and are as follows: 8F-12, 8F-22, 9F-22, 10F-12, 10F-22, 11F-12, 11F-32, 12F-32, 13F-12, 13F-32, 14F-12, 14F-32, 15F-12, and 15F-32.

<sup>3</sup>Pounds removed for VOCs is calculated by subtracting the effluent concentration from the influent concentration (amount treated by the system). Sample concentrations were assumed to be constant during the operation period from the time of collection until the next sample set was collected. Pounds removed for methane is based upon field measurements made during normal system operation.

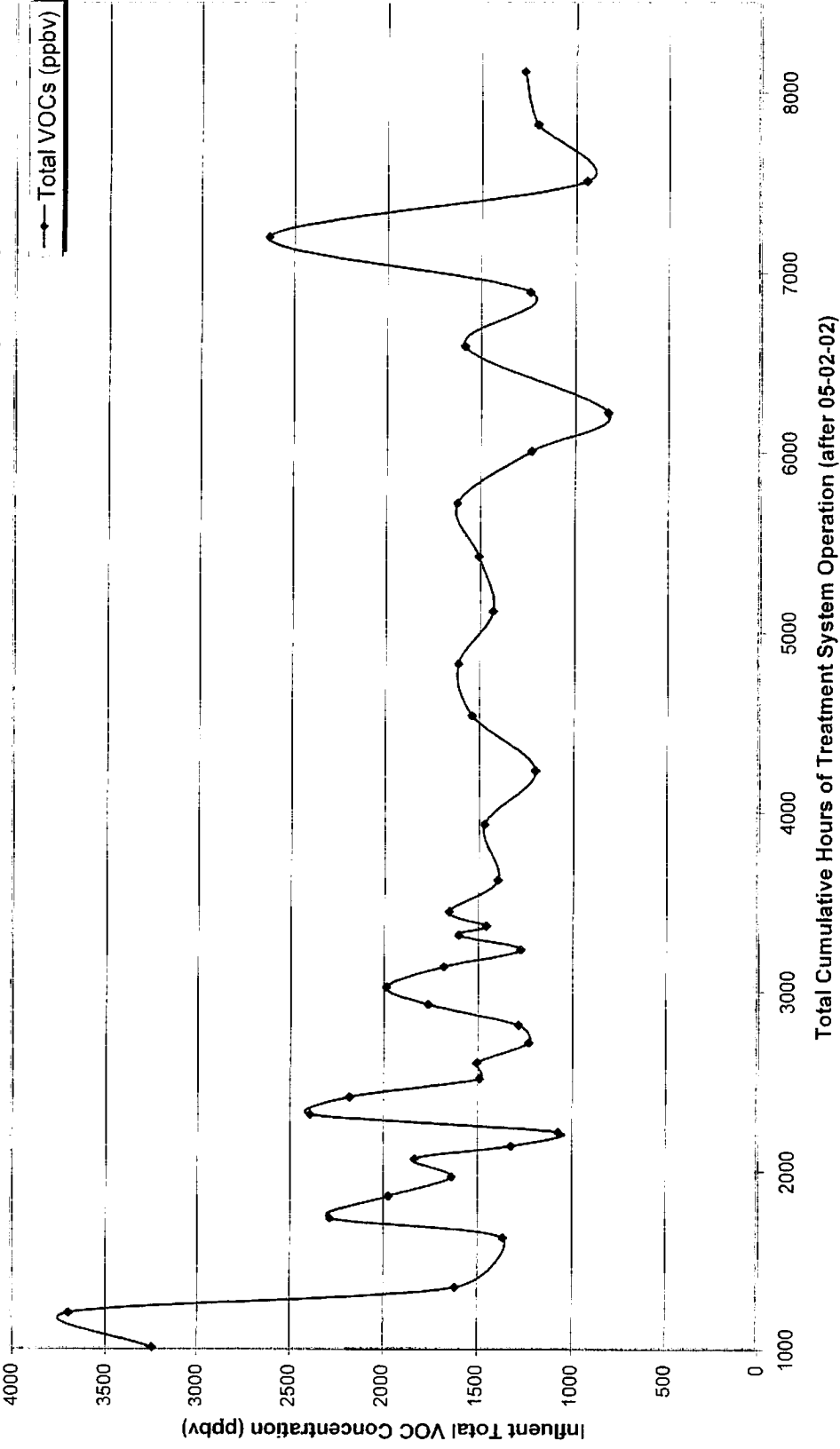
<sup>4</sup>Volatile organic compounds are for all compounds that were measured in the samples collected from the system (excluding methane). These are approximately 60 individual compounds on the standard Air Toxics TO-15 list of analytes.

Figure 1  
Monthly Flow and Select Extraction Well Temperatures vs. Time



\*Since a total flow over a month was graphed a mid-point during the month was used for graphing. The spike in flow observed in May 2002 is when the current system configuration was implemented. At this time the system was operated more frequently than the current operation schedule.

Figure 2  
 Influent Total VOC<sup>1</sup> Concentration vs. Total Cumulative Hours of Treatment System Operation



<sup>1</sup> Total VOCs is calculated by summing the total concentration of all compounds detected in the influent samples (pre-GAC; excluding methane). This plot presents influent concentrations after the implementation of the zeolite/KMnO<sub>4</sub> treatment media (@ approx. 1000 hours of operation, 05-02-02). The spike at approximately 7000 hours of operation was due to high levels of Acetone and Ethanol that were measured in the influent sample at that time.

Figure 3  
Influent Vinyl Chloride Concentration vs. Total Cumulative Hours of Treatment System Operation

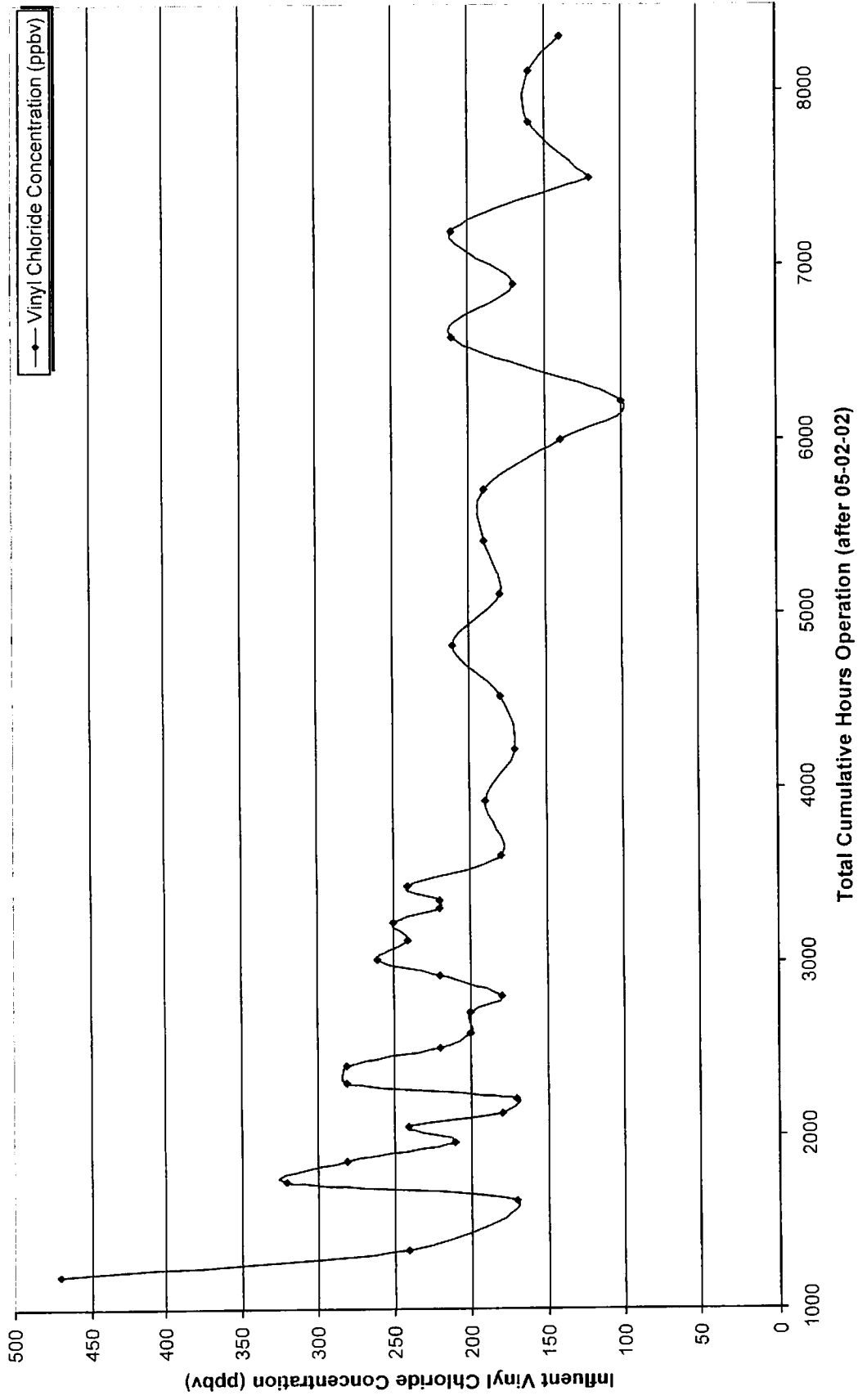


Figure 4  
Pre-Blower Methane Concentration vs. Total Cumulative Operating Hours Treatment System Operation

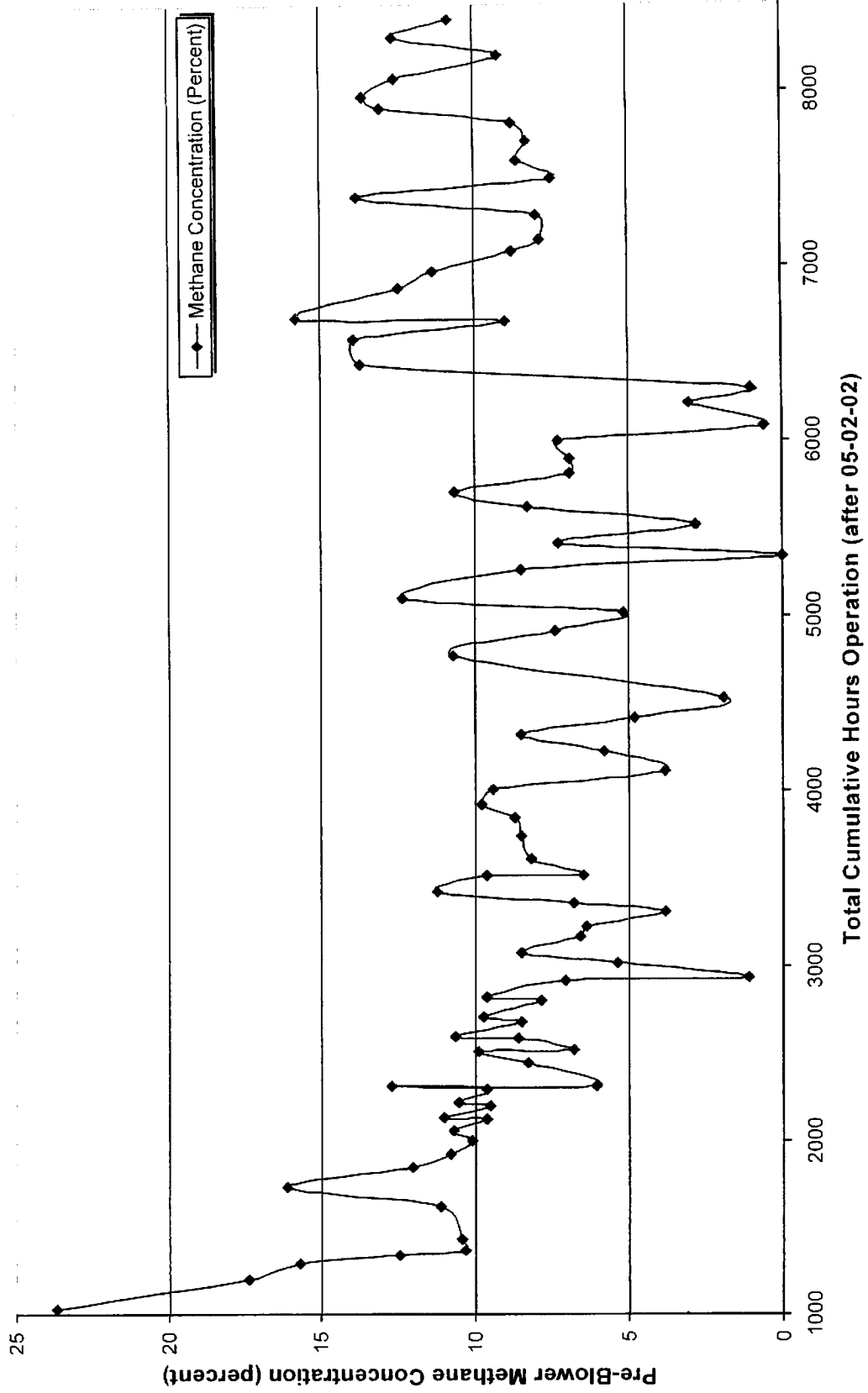
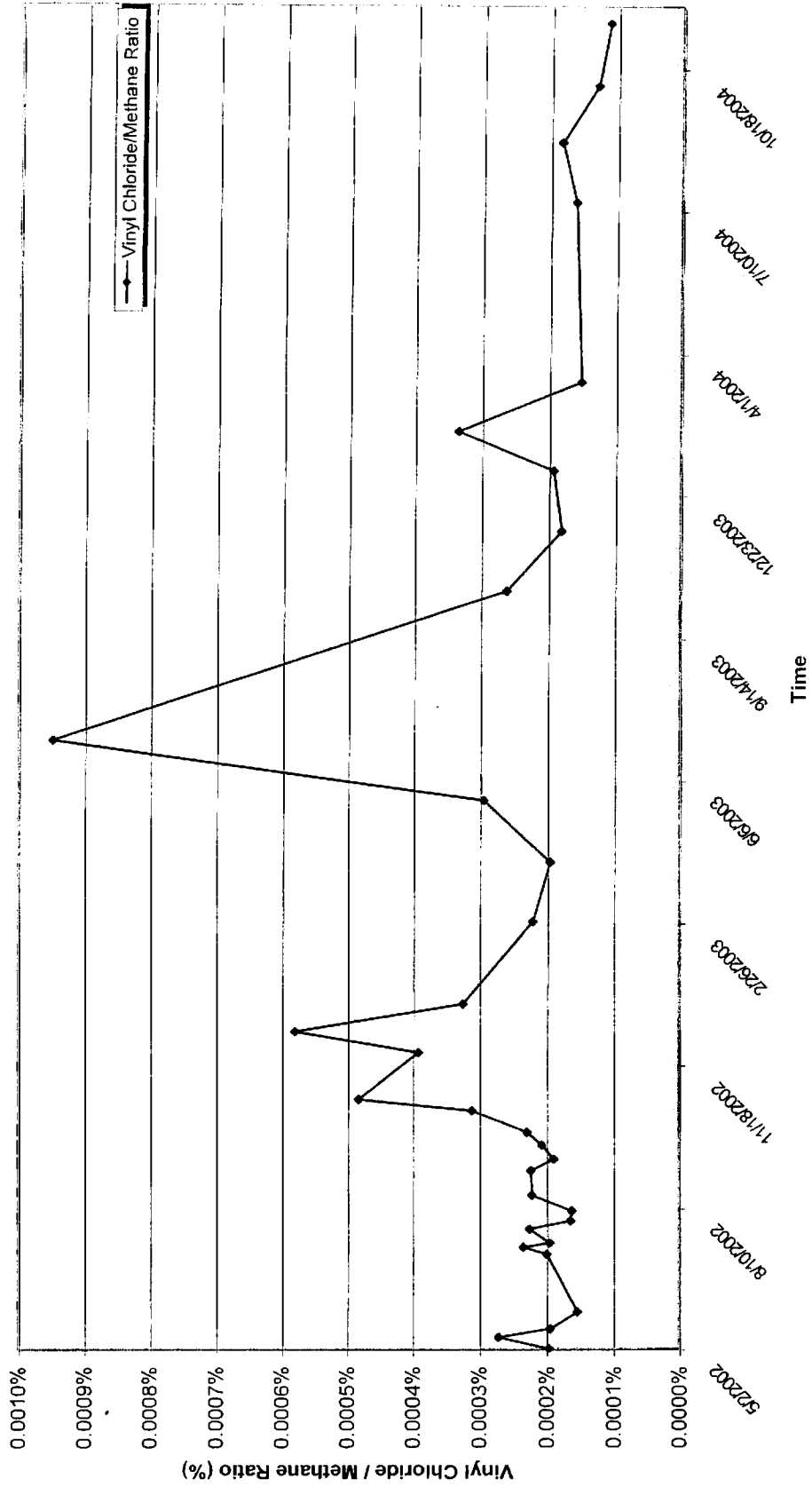


Figure 5  
 Vinyl Chloride / Methane Ratio vs. Time



\* The spike that occurred on 7/4/03 is due to the low concentration of methane measured on that date (1.9%). Vinyl Chloride concentrations were consistent before and after this time (~180 ppbv). The low methane concentration was due to the higher levels of condensate water that were in the system at that time. It has been demonstrated that larger volumes of water in the treatment system will tend to reduce the measured methane concentrations at the influent point.