

## HGL AGENDA & NOTES

Fort Ord HTW BCT Meeting  
10:00 AM, 17 September 2009  
Monterey, California

### 1. Groundwater Remediation System Update

The Northwest Treatment System (NWTs) has operated without interruption from 25 July through preparation of this meeting agenda (07 September). The injection pump was not operating for an undetermined period between 17 August and 24 August (it was re-started during the weekly O&M inspection). During this period, all treated water was discharged through the northwest infiltration trench.

Despite repeated attempts, extraction well EW-OU1-60-A has not operated since mid-August. The maximum yield from this well has been <3 gallons per minute (gpm) and has trended lower since startup. Pumping has ranged between 0.5 gpm and 1.25 gpm since March 2009 and the well has been unable to consistently function at these rates. TCE mass removal from EW-OU1-60-A would be less than 0.004 lbs per year based on performance data to date. Possible reasons for the cessation of pumping include interference from nearby well EW-OU1-66-A; declining water table in this area triggering automatic shutdown; and pump and/or flow control malfunction. TCE has been consistently detected at this well since July 2008 but has never exceeded 0.95 micrograms per liter ( $\mu\text{g/L}$ ) and typically falls in the 0.8  $\mu\text{g/L}$  to 0.9  $\mu\text{g/L}$  range. Groundwater quality data and groundwater elevations in this area since pumping began in July 2006 suggest that pumping from EW-OU1-66-A (approximately 15 gpm with TCE between 0.8  $\mu\text{g/L}$  and 1.8  $\mu\text{g/L}$ ) and EW-OU1-62-A (approximately 5 gpm; TCE not detected) provide adequate remediation of groundwater. Consequently, EW-OU1-60-A will remain off-line as long as EW-OU1-66-A operates satisfactorily.

The treatment system flow rate averaged 74.4 gallons per minute from 17 August through 07 September. For the year through 07 September, the treatment system has averaged 75.4 gallons per minute. The total volume pumped through 07 September 2009 is 106,224,820 gallons.

Validated TCE concentrations at individual extraction wells are presented in Table 1 for the June 2009 performance monitoring samples. TCE concentrations increased slightly in most wells but the magnitude (ranging from 0.1  $\mu\text{g/L}$  to 1.1  $\mu\text{g/L}$ ) is within the expected range of variation for laboratory results and natural spatial variation within the plume. The ACL was exceeded only at extraction wells EW-OU1-71-A (11  $\mu\text{g/L}$ ) and MW-OU1-87-A (6.9  $\mu\text{g/L}$ ) – this has been the case since July of 2008. TCE was less than 2.4  $\mu\text{g/L}$  at the other six extraction wells and the overall influent concentration was 2.6  $\mu\text{g/L}$ . Through 07 September 2009, the NWTs has removed approximately 3.9 pounds (0.3 gallons) of TCE and 0.34 pounds (0.03 gallons) of cis-1,2-dichloroethene. The next round of performance samples will be collected in September.

### 2. Long-term Monitoring Update

The next long-term monitoring (LTM) sample event is scheduled for the week starting 14 September 2009. The most recent LTM samples taken in March 2009 showed that peak TCE concentrations have continued to decline. The maximum TCE concentration reported in the first quarter 2009 LTM event was 10  $\mu\text{g/L}$  at well EW-OU1-53-A. The first quarter 2009 LTM analytical results are shown in the attached Figure 7 from the First Quarter 2009 Groundwater Monitoring Report.

### 3. Report Submittals

The First Quarter 2008 Groundwater Monitoring Report was submitted on 25 August. Revised cover pages and report titles to convert the Draft Final FONR System Construction Report to the Final version

were submitted on 24 August - there were no comments on the Draft Final version of the report. Table 2 summarizes the status of scheduled reports through 2009.

Final comments from DTSC on the Draft 2008 Annual and Fourth Quarter Groundwater Monitoring Report were received in August. The only comments were concurrence with the recommended groundwater elevation monitoring schedule and revision of the sampling schedule for the two HGL Armstrong Ranch wells (MW-OU1-69-A2 & MW-OU1-70-A). These wells will be sampled at a semi-annual frequency in accordance with the DTSC comment. This report will be finalized after comments are received on the recently submitted First Quarter 2008 Groundwater Monitoring Report.

No comments were received on the First Quarter 2009 Groundwater Monitoring Report (submitted 22 June 2009). Because the comment period ended in August, it is assumed that no comments are forthcoming.

The DTSC comments on the Final Hydraulic Control Pilot Project Construction Report have been resolved. A letter indicating that that no further edits are needed and corrected cover pages will be submitted this month.

#### **4. Other**

No other discussion topics are planned.



**Table 2**  
**Outstanding Deliverables Schedule (2009)**  
**BCT Meeting for Former Fort Ord, Marina CA – September 2009**

Deliverable	Scheduled Submittal	Status / Remarks ( <b>Bold font indicates submittal</b> )
<i>Primary Deliverables</i>		
Final Interim Hydraulic Control Pilot Project Evaluation Report	June-2009	In progress.
Agency Comments	NA	
<b>Draft Final FONR System Construction Report</b>	<b>May-2009</b>	<b>Submitted 28 May 2009</b>
Agency Comments	<b>July-2009</b>	
<b>Final FONR System Construction Report</b>	<b>August-2009</b>	<b>Submitted on 24 August</b>
Agency Comments	NA	
<i>Secondary Deliverables</i>		
Draft 2007 Annual and Fourth Quarter Groundwater Monitoring Report	Sept-2009	In progress.
Agency Comments	November-2009	
Final 2007 Annual and Fourth Quarter Groundwater Monitoring Report	December-2009	
Agency Comments	NA	
<b>First Quarter 2008 Groundwater Monitoring Report</b>	<b>July-2009</b>	<b>Submitted 25<sup>th</sup> August 2009</b>
Agency Comments	Sept-2009	
<b>Third Quarter 2008 Groundwater Monitoring Report</b>	<b>March-2009</b>	<b>Submitted 19 March 2009</b>
Agency Comments	<b>May-2009</b>	<b>No Comment</b>
<b>Draft 2008 Annual and Fourth Quarter Groundwater Monitoring Report</b>	<b>May-2009</b>	<b>Comments received on 2<sup>nd</sup> through 4<sup>th</sup> Quarter reports</b>
Agency Comments	<b>Sept-2009</b>	<b>Received</b>
Final 2008 Annual and Fourth Quarter Groundwater Monitoring Report	November-2009	Awaiting comments on 2009 Q1 Report to finalize Annual Report
Agency Comments	NA	
<b>First Quarter 2009 Groundwater Monitoring Report</b>	<b>June-2009</b>	<b>Submitted 22 June 2009.</b>
Agency Comments	August-2009	No Comment as of 31 August 2009
Draft 2009 Annual and Fourth Quarter Groundwater Monitoring Report	December-2009	Third Quarter samples not yet collected
Agency Comments	February-2010	
Final 2009 Annual and Fourth Quarter Groundwater Monitoring Report	March-2010	
Agency Comments	NA	
Final Rebound Evaluation Report	October-2009	
Agency Comments	NA	



Former Fort Ord Deliverables Schedule  
Sorted by Agency Comments Due

<u>Grouping</u>	<u>Site</u>	<u>Activity</u>	<u>Deliverable</u>	<u>Proposed Issue Date</u>	<u>Issue Date Status</u>	<u>Agency Comments Due</u>
Primary FFA Documents	RI Sites	Soil Activities	Draft RD/RA Work Plan, Site 39 Remediation and OU2 Landfills Area E Construction, Rev C	Oct-15-08	Issued	Dec-22-08
Secondary Documents	OU Carbon Tet Plume	Remedial Investigation	Draft Close Out Report, Pilot Soil Vapor Extraction and Treatment, OUCTP, Rev C	Jan-13-09	Issued	Mar-19-09
Secondary Documents	OU 1, OU 2, Sites 2/12	Treatment System Activities	Draft Final Annual GTS Operation Data Summary Rpt, Jan-Dec 2008, OU2 and 2/12	Jun-05-09	Issued	Jul-06-09
Secondary Documents	Basewide	Miscellaneous	Draft Final Analysis of the 2007 Community Survey Fort Ord	Jul-28-09	Issued	Sep-30-09
Secondary Documents	OU 1	Groundwater Activities	Draft 2007 Annual and Fourth Quarter Groundwater Monitoring Report, OU1	Jul-30-09		Sep-30-09
Secondary Documents	OU 1	Groundwater Activities	First Quarter 2009 Groundwater Monitoring Report, OU1 FAAF Fire Drill Area	Jun-19-09	Issued	Sep-30-09
Secondary Documents	Basewide	Plans and Specifications	Draft Quality Assurance Project Plan CDQMP, Groundwater Monitoring Program, Sites 2/12, OU2, OUCTP	Aug-12-09	Issued	Oct-15-09
Secondary Documents	Basewide	Plans and Specifications	Draft Field Sampling Plan, CDQMP, GW Monitoring Program, Sites 2/12, OU2 and OUCTP	Aug-12-09	Issued	Oct-15-09
Secondary Documents	Basewide	Plans and Specifications	Draft Sampling and Analysis Plan, Sites 2/12, OU2 and OUCTP, Aug 2009	Aug-12-09	Issued	Oct-15-09
Secondary Documents	OU 1	Groundwater Activities	Draft 2008 Annual and Fourth Quarter Groundwater Monitoring Report, OU1	May-06-09	issued	Oct-21-09
Primary FFA Documents	OU 1	Treatment System Activities	Final Interim Hydraulic Control Pilot Project Evaluation Report, OU1 (revised)	Jun-30-09	In Progress	
Primary FFA Documents	OU 2	Landfill Activities	Draft Landfill Closure Report		TBD	
Primary FFA Documents	OU 2	Landfill Activities	Draft Final Landfill Closure Report		TBD	
Primary FFA Documents	OU Carbon Tet Plume	Remedial Action/Remedial Design	Final Remedial Action Work Plan, OUCTP, Rev 0	Aug-28-09	Issued	
Primary FFA Documents	RI Sites	Soil Activities	Final ROD Amendment RI Site 39 (signature process)	Oct-30-09		
Primary FFA Documents	RI Sites	Soil Activities	Draft Final RD/RA Work Plan, Site 39 Remediation and OU2 Landfills Area E Construction, Rev 0		TBD	
Primary FFA Documents	RI Sites	Soil Activities	Draft Confirmation Report, Site 39		TBD	
Primary FFA Documents	RI Sites	Soil Activities	Draft Final Confirmation Report, Site 39		TBD	
Secondary Documents	Basewide	Groundwater Activities	Report of Quarterly Monitoring, Apr-Jun 2009, Basewide Groundwater Monitoring		TBD	

Former Fort Ord Deliverables Schedule  
Sorted by Agency Comments Due

<u>Grouping</u>	<u>Site</u>	<u>Activity</u>	<u>Deliverable</u>	<u>Proposed Issue Date</u>	<u>Issue Date Status</u>	<u>Agency Comments Due</u>
Secondary Documents	Basewide	Groundwater Activities	Draft Annual Report of Quarterly Monitoring, Oct 08 - Sept 09, Basewide Groundwater Monitoring		TBD	
Secondary Documents	Basewide	Groundwater Activities	Final Annual Report of Quarterly Monitoring, Oct 08 - Sept 09, Basewide Groundwater Monitoring		TBD	
Secondary Documents	Basewide	Groundwater Activities	Report of Quarterly Monitoring, Oct-Dec 09, Basewide Groundwater Monitoring		TBD	
Secondary Documents	Basewide	Plans and Specifications	Draft Final Quality Assurance Project Plan CDQMP, GW Monitoring, Sites 2/12, OU2, OUCTP		TBD	
Secondary Documents	Basewide	Plans and Specifications	Draft Final Field Sampling Plan, CDQMP, GW Monitoring, Sites 2/12, OU2 and OUCTP		TBD	
Secondary Documents	Basewide	Plans and Specifications	Draft Final Sampling and Analysis Plan, Sites 2/12, OU2 and OUCTP		TBD	
Secondary Documents	OU 1	Groundwater Activities	Final 2008 Annual and Fourth Quarter Groundwater Monitoring Report, OU1	Nov-30-09		
Secondary Documents	OU 1	Groundwater Activities	Final 2007 Annual and Fourth Quarter Groundwater Monitoring Report, OU1	Oct-30-09		
Secondary Documents	OU 1, OU 2, Sites 2/12	Treatment System Activities	Final Annual GTS Operation Data Summary Rpt, Jan-Dec 2008, OU2 and 2/12		TBD	
Secondary Documents	OU Carbon Tet Plume	Remedial Investigation	Draft Final Close Out Report, Pilot Soil Vapor Extraction and Treatment, OUCTP, Rev 0	May-30-09	(overdue)	

**OPERABLE UNIT 1  
OFF-SITE GROUNDWATER EXTRACTION PILOT STUDY**

**STATUS – September 17, 2009**

**FIELD WORK**

- Well construction complete – December 21, 2007
- Draft Final OU1 Pilot Study Work Plan distributed – April 22, 2008
- Baseline sampling and analysis – June 14, 2008
- System construction completed – July 16, 2008
- Monitoring well (City of Marina) installation – July 28, 2008
- System start-up – August 5, 2008
- Extraction Well EW-OU1-92-A shut off – December 11, 2008
- Field Work Variance (FWV) issued to document system shut-off – February 16, 2009
- Groundwater extraction system shut off and rebound testing initiated – February 17, 2009
- Sampled GAC for waste profiling – March 24, 2009
- System restarted (EW-OU1-93-A operating) – April 7, 2009
- Quarterly sampling of monitoring and extraction wells – September 14, 2009
- Second rebound study initiated – July 13, 2009
- January to March 2009, Quarterly Report being prepared – August 27, 2009.

**SCHEDULE**

- Conduct second rebound testing starting July 13 – GWETS shut off July 13, sampled EW-OU1-93-A every other week. System restarted on August 10. System shut off again on September 11, sampling EW-OU1-93-A monthly.

**DATA (Preliminary)**

- Preliminary data through August 31.

**PROBLEMS/CHANGES**

- Treated groundwater is being discharged to a discharge basin within the MCWD property. An injection well was not installed.
- One monitoring well has been installed in the City of Marina to determine the downgradient extent of the plume.
- Extraction Well EW-OU1-92-A shut off due to concerns of potential impact to OU1 On-Site GWETS plume capture.
- GWETS was shut off and rebound testing initiated because concentrations of TCE in all off-site wells are below Aquifer Cleanup Levels.
- GWETS restarted because TCE concentration in EW-OU1-93-A rebounded to 7.4 µg/L. TCE concentration in all other monitoring wells below detection limit.
- A second round of rebound testing was initiated because concentrations of TCE in all off-site wells are below Aquifer Cleanup Levels.



Summary of Operable Unit 1 Process System  
Trichlorethene Analytical Results

Date	Sample Location				
	Extraction Wells		Granular Activated Carbon Beds		
	OU1PS-EW-92	OU1PS-EW-93	OU1PS-INF	OU1PS-BTW	OU1PS-EFF
August 5, 2008 <sup>a</sup>	1.2 µg/L	14 <sup>b</sup> µg/L			
August 11, 2008 <sup>a</sup>	3.4 µg/L	8.7 <sup>c</sup> µg/L	5.4 µg/L	<0.5 µg/L	<0.5 µg/L
August 18, 2008 <sup>a</sup>	3.7 µg/L	6.1 <sup>d</sup> µg/L	4.7 µg/L	<0.5 µg/L	<0.5 µg/L
August 25, 2008 <sup>a</sup>	3.8 µg/L	not operating	3.6 µg/L	<0.5 µg/L	<0.5 µg/L
September 2, 2008 <sup>a</sup>	3.3 µg/L	6.8 <sup>e</sup> µg/L	4.7 µg/L	<0.5 µg/L	<0.5 µg/L
September 8, 2008 <sup>a</sup>			4.1 µg/L	<0.5 µg/L	<0.5 µg/L
September 15, 2008 <sup>a</sup>	2 µg/L	4.9 <sup>f</sup> µg/L	3.5 µg/L	<0.5 µg/L	<0.5 µg/L
September 22, 2008 <sup>a</sup>	1.4 µg/L	3.4 µg/L	1.3 µg/L	<0.5 µg/L	<0.5 µg/L
September 29, 2008 <sup>a</sup>	1.4 µg/L	3.5 µg/L	1.5 µg/L	<0.5 µg/L	<0.5 µg/L
October 6, 2008 <sup>a</sup>	1.4 µg/L	3.7 µg/L	2.5 µg/L	<0.5 µg/L	<0.5 µg/L
October 13, 2008 <sup>a</sup>	0.98 µg/L	3.7 µg/L	2.0 µg/L	<0.5 µg/L	<0.5 µg/L
October 20, 2008 <sup>a</sup>	0.90 µg/L	2.6 µg/L	1.6 µg/L	<0.5 µg/L	<0.5 µg/L
October 27, 2008	0.68 µg/L	1.9 µg/L	1.2 µg/L	<0.5 µg/L	<0.5 µg/L
November 3, 2008	0.74 µg/L	1.9 µg/L	1.3 µg/L	<0.5 µg/L	<0.5 µg/L
November 10, 2008			1.3 µg/L	<0.5 µg/L	<0.5 <sup>g</sup> µg/L
November 17, 2008			1.1 µg/L	<0.5 µg/L	<0.5 µg/L
November 24, 2008			1.2 µg/L	<0.5 µg/L	<0.5 µg/L
December 1, 2008			1.3 µg/L	<0.5 µg/L	<0.5 µg/L
December 8, 2008	0.62 µg/L	2.1 µg/L	1.3 µg/L	<0.5 µg/L	<0.5 µg/L
December 16, 2008			2.8 µg/L	<0.5 µg/L	<0.5 µg/L
December 22, 2008			2.2 µg/L	<0.5 µg/L	<0.5 µg/L
December 29, 2008			2.2 µg/L	<0.5 µg/L	<0.5 µg/L
January 5, 2009			2.1 µg/L	<0.5 µg/L	<0.5 µg/L
January 12, 2009			2.2 µg/L	<0.5 µg/L	<0.5 µg/L
January 19, 2009			2.1 µg/L	<0.5 µg/L	<0.5 µg/L
January 27, 2009			2.2 µg/L	<0.5 µg/L	<0.5 µg/L
February 3, 2009			2.2 µg/L	<0.5 µg/L	<0.5 µg/L
February 10, 2009			2.0 µg/L	<0.5 µg/L	<0.5 µg/L
February 17, 2009	1.3 µg/L	2.1 µg/L	2.2 µg/L	<0.5 µg/L	<0.5 µg/L
March 16, 2009	1.4 µg/L	7.4 <sup>h</sup> µg/L			
April 14, 2009			4.2 µg/L	<0.5 µg/L	<0.5 µg/L
April 21, 2009			3.0 µg/L	<0.5 µg/L	<0.5 µg/L
April 27, 2009			2.4 µg/L	<0.5 µg/L	<0.5 µg/L
May 5, 2009			2.5 µg/L	<0.5 µg/L	<0.5 µg/L
May 11, 2009 <sup>i</sup>			1.9 µg/L	<0.5 µg/L	<0.5 µg/L
May 20, 2009			1.9 µg/L	<0.5 µg/L	<0.5 µg/L
May 26, 2009			1.7 µg/L	<0.5 µg/L	<0.5 µg/L
June 2, 2009			1.6 µg/L	<0.5 µg/L	<0.5 µg/L
June 9, 2009	1.2 µg/L	1.7 µg/L	1.4 µg/L	<0.5 µg/L	<0.5 µg/L
June 17, 2009			1.5 µg/L	<0.5 µg/L	<0.5 µg/L
June 23, 2009			1.5 µg/L	<0.5 µg/L	<0.5 µg/L
June 30, 2009			1.5 µg/L	<0.5 µg/L	<0.5 µg/L
July 7, 2009			1.5 µg/L	<0.5 µg/L	<0.5 µg/L
July 13, 2009		1.5 µg/L	1.4 µg/L	<0.5 µg/L	<0.5 µg/L
July 27, 2009		1.1 µg/L			
August 10, 2009		1.0 µg/L			
August 17, 2009			3.2 µg/L	<0.5 µg/L	<0.5 µg/L
August 24, 2009			1.9 µg/L	<0.5 µg/L	<0.5 µg/L
August 31, 2009			1.5 µg/L	<0.5 µg/L	<0.5 µg/L

<sup>a</sup> Low level detections of benzene, bromoform, chloromethane, dibromochloromethane, isopropylbenzene and/or acetone in several samples.

<sup>b</sup> additional compound detected: cis-1,2-dichloroethylene - 0.43J µg/L

<sup>c</sup> additional compound detected: cis-1,2-dichloroethylene - 0.31J µg/L

<sup>d</sup> additional compound detected: cis-1,2-dichloroethylene - 0.21J µg/L

<sup>e</sup> additional compound detected: cis-1,2-dichloroethylene - 0.21J µg/L

<sup>f</sup> additional compound detected: cis-1,2-dichloroethylene - 0.26J µg/L

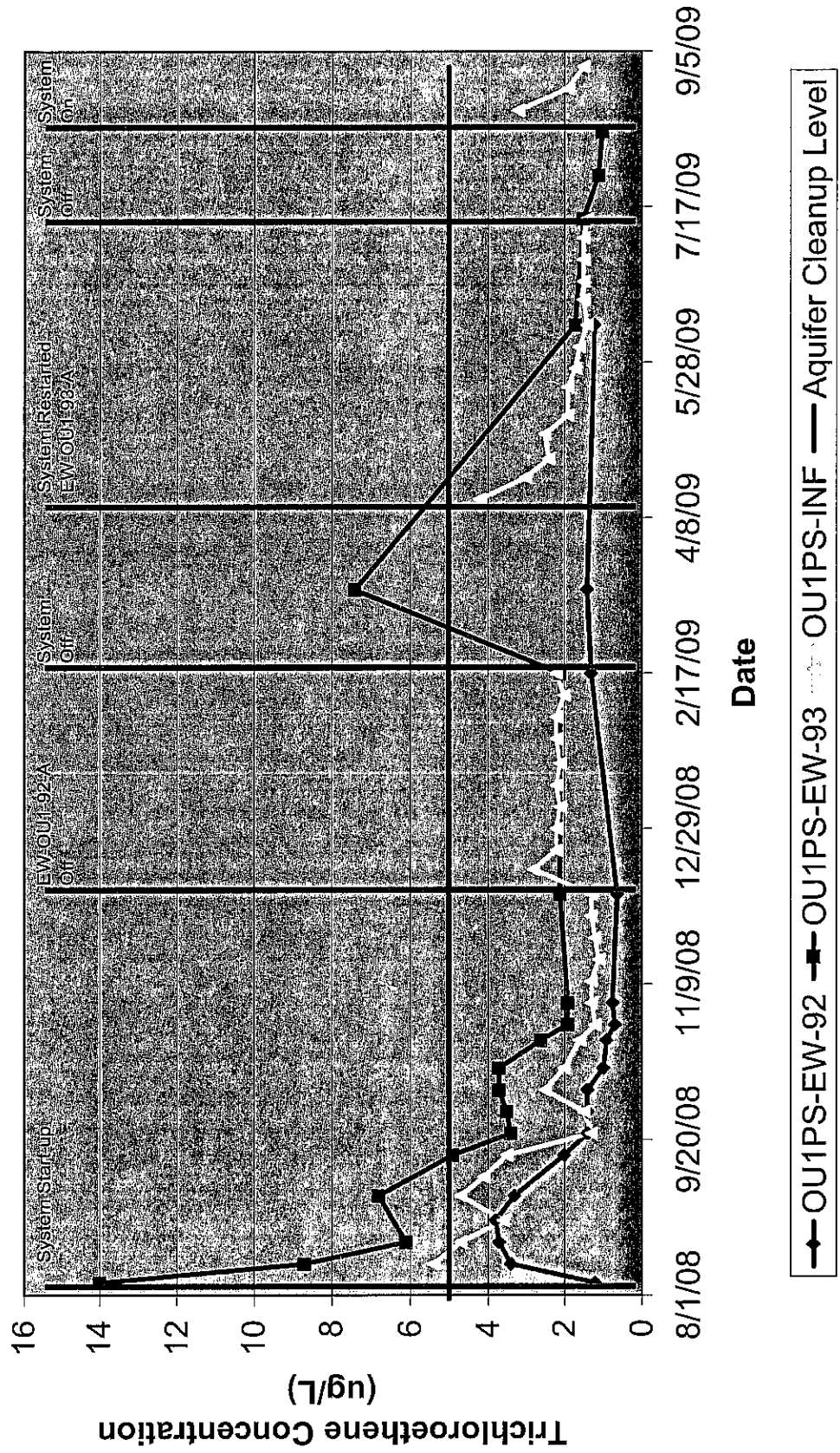
<sup>g</sup> additional compound detected: chloromethane - 0.39J µg/L

<sup>h</sup> additional compound detected: cis-1,2-dichloroethylene - 0.34J µg/L

<sup>i</sup> Low level detections of chloromethane and/or acetone in all samples.

Detections are shown in bold.  
µg/L denotes micrograms per liter.  
Data qualified as "U" is estimated.

# Change in Concentration of Trichloroethene Over Time System Monitoring



## Thermal Treatment Unit Operation Summary

<b>TREATMENT SYSTEM</b>	
Treatment System Start Date:	6/4/2001
TTU Start Date:	4/4/2006
Last Reading Date/Time:	7/2/2009
<b>Historical through 2008:</b>	
Total TTU Hours:	24,048
Total TTU Hours Operated:	9,743
% TTU Operation:	40.5%
Total Pounds of Methane Removed	1,331,230
Total Pounds of VOCs Removed	154
<b>Current Year 2009:</b>	
Total Hours:	5,856
Total Hours Operated:	2,711
% Operation:	46.3%
Pounds of Methane Removed	104,962
<b>Cumulative:</b>	
% TTU Operation (since 4/4/2006):	41.6%
Total Pounds of Methane Removed (since 6/4/2001):	1,436,192

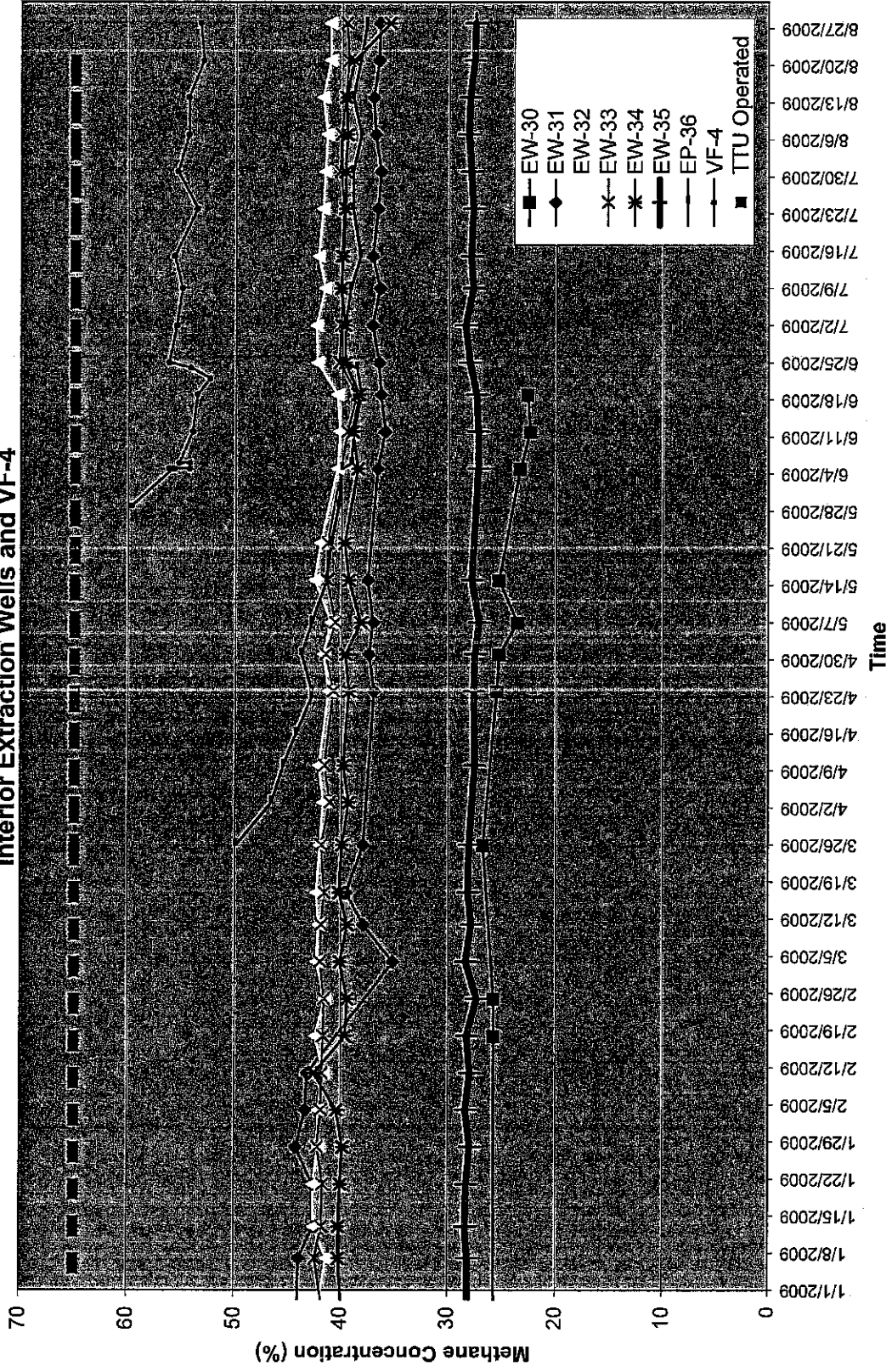
		Pounds/week
Pounds of Methane Removed (2007)	450120	8656
Pounds of Methane Removed (2008)	118155	2272
Pounds of Methane Removed (2009)	104962	3011

<b>EXTRACTION SYSTEM (2009)</b>			
Location	Methane (%) (last instantaneous reading)	Flow Rate (scfm)	% Operational (total for 2009)
<b>MIXED-TTU</b>	<b>38</b>	<b>115</b>	<b>46.3%</b>
<b>Area F</b>			
EW-30	22	0	12.0%
EW-31	36	7	37.5%
EW-32	41	18	43.0%
EW-33	40	21	42.8%
EW-34	36	27	43.0%
VF-4	53	8	21.4%
<b>Area D</b>			
EW-35	27	10	42.1%
<b>Area E</b>			
EP-36	38	26	35.5%

**Notes:**

1. EW-33 was disconnected for vent testing from 6/3 thru 6/9
2. EW-30 off since 6/22 due to higher oxygen

Methane Concentration vs. Time  
(after 01-01-09)  
Interior Extraction Wells and VF-4



## **Property Transfer Update 09-17-09 HTW BCT**

### **FOST 10 deeds:**

1. July 10 – eight of ten deeds and three CRUPs recorded, 594 acres transferred.
2. Deed for Parcel L3.2 (14.52 acres) is on hold pending agreement between York School (recipient), FORA and Monterey County.
3. Parcel L23.5.2 designated for public benefit conveyance to Monterey Peninsula College (FORA not involved in transaction); however, Chartwell School has submitted request to Department of Education for the same property.

### **FOST 11:**

1. Draft in progress (Parcels L2.3, L2.4.1), scheduled for September 30.
2. Parcels L2.3, L2.4.1 within Parker Flats MRA – MEC-related CRUP.
3. Army Environmental Law Division will perform first review.

### **FOSET 2 deed amendments:**

1. Five deed amendments were issued to FOSET 2 property recipients for signature:
  - a. Monterey-Salinas Transit – signed and returned to USACE.
  - b. City of Marina – reviewed by Kutak Rock, comments submitted to USACE.
  - c. City of Seaside – reviewed by Kutak Rock, comments submitted to USACE.
  - d. University of California (UC) – comments submitted to USACE.
  - e. CSUMB – tabled pending completion of FOSET 5 deed.
2. Sixth deed amendment for Parcel L37 is pending.
3. June 30 – USACE submitted revised deed amendment to Kutak Rock with “hold harmless” provision deleted. All deed amendments may be reissued for signature with this change.<sup>1</sup>

### **FOSET 4 deed amendments:**

1. ROD for Del Rey Oaks MRA complete and signed.
2. One deed amendment issuing the CERCLA Warranty drafted, but finalization pending completion of RD/RAWP (LUCIP).

### **FOSET 5 deed amendments:**

1. ROD for Parker Flats MRA complete and signed, Final LUCI and O&M Plan complete.
2. June 11 – three deed amendments issuing the CERCLA Warranty for Parker Flats Munitions Response Area drafted and submitted to USACE and FORA for review.
3. June 24 – USACE HQ legal review complete, forwarded deed amendments to Sacramento District.
4. July 8 – USACE forwarded deed amendments to Kutak Rock.
5. July 31 – Kutak Rock completed review and returned one revised deed amendment (Seaside) to USACE.
6. August 4 – USACE accepted Kutak Rock’s changes to be used as basis for the other two deed amendments (MoCo and MPC).
7. August 12 – Joey Fuller of Kutak Rock referred deed amendments to George Schlossberg of Kutak Rock under the assumption these would be the template for future deed amendments for Fort Ord early transfer property.
8. September 8 – Kutak Rock submitted revised deed amendment to USACE.
9. September 10 – USACE submitted comments on revised deed amendment to Kutak Rock. Kutak Rock is concerned there are not separate legal descriptions for each deed amendment.
10. FORA’s Parker Flats Phase I schedule indicates deed amendments to be complete by October 15, 2009.

<sup>1</sup> Work on FOSET 2 deed amendments postponed pending completion of FOSET 5 deed amendments.

# OPERABLE UNIT CARBON TETRACHLORIDE PLUME A-AQUIFER REMEDIAL ACTION

**STATUS – September 17, 2009**

## **FIELD WORK**

- Final EISB Pilot Study Report complete – August 21.
- Final RA Work Plan/RD (appendix A – A-Aquifer) complete – August 28.
- Installation and development of wells at Areas 1A and 1B complete – January 16
- Installation of process equipment at Area 1A complete – July 10.
- Baseline sampling at Area 1A complete – August 12.
- Start-up testing at Area 1A complete – September 4.
- Installation and development of extraction and injection wells at Area 1C complete - September 4.

## **SCHEDULE**

- Subsequent quarterly monitoring for EISB pilot study conducted under Groundwater Monitoring Program.
- Installation of process equipment at Area 1B ongoing.
- Substrate injection at Area 1A initiated – September 14.

## **DATA (Preliminary)**

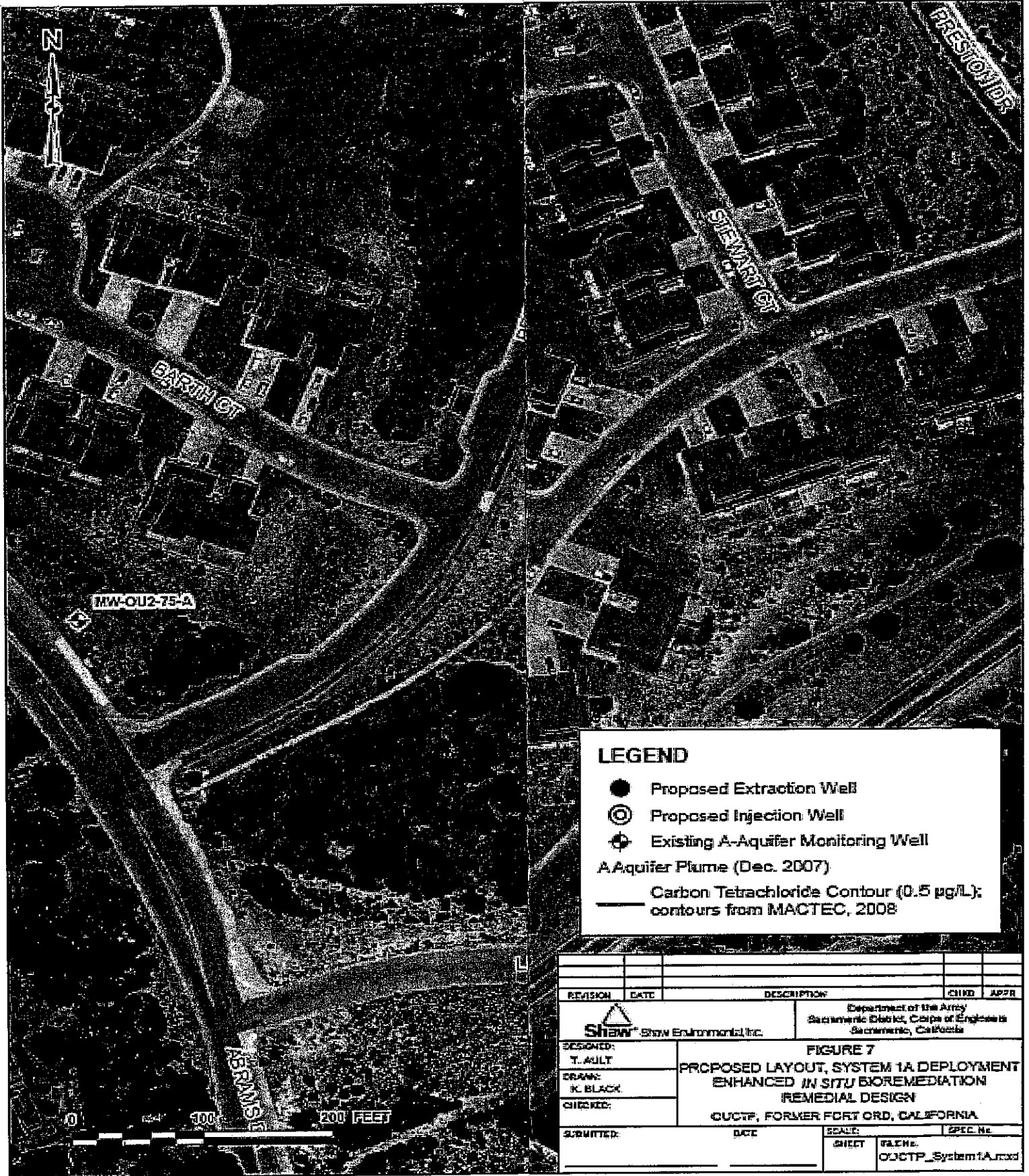
- Preliminary Baseline Data.

## **PROBLEMS/CHANGES**

- Drill casing locked up while installing injection well IW-BW-90-A (Deployment Area 1A). Approximately 60 feet of drill casing was lost in the boring. Boring (with steel casing) was grouted to ground surface. New well was installed adjacent to proposed location.







**LEGEND**

- Proposed Extraction Well
- ⊙ Proposed Injection Well
- ⊕ Existing A-Aquifer Monitoring Well
- A-Aquifer Plume (Dec. 2007)
- Carbon Tetrachloride Contour (0.5 µg/L); contours from MACTEC, 2008

REVISION	DATE	DESCRIPTION	CHKD	APPR
		Department of the Army Sacramento District, Corps of Engineers Sacramento, California		
		<b>FIGURE 7</b>		
DESIGNED: T. AULT		<b>PROPOSED LAYOUT, SYSTEM 1A DEPLOYMENT ENHANCED IN SITU BIOREMEDIATION REMEDIAL DESIGN</b>		
DRAWN: K. BLACK				
CHECKED:				
		<b>CUCTP, FORMER FORT ORD, CALIFORNIA</b>		
SUBMITTED:		DATE	SCALE:	SHEET
				TITLE: CUCTP_System1A.mxd





## Former Fort Ord Groundwater Treatment Systems Operational Data and Status

BCT Meeting, September 17, 2009

**Table 1: OU2 and Sites 2/12 GWTP Treatment Statistics.**

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (lbs.)
<b>OU2</b>				
August 2009	29,436,250	659	100	2.22
Total since October 1995	4.598 billion			632.94
<b>Sites 2/12</b>				
August 2009	10,059,506	225	100	0.86
Total since June 1999	1.238 billion			418.60

**Table 2: OU2 and Sites 2/12 GWTP Calendar of Events.**

Key Events for OU2 and Sites 2/12 for August 2009						
There were 39 USAN Notices transmitted to Ahtna August 1-31, 2009. None of these alerts required the personal attention of the Senior GWTP Operator.						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5 Communications restored	6	7	8
9	10	11	12	13	14	15
16	17 Internet communications down	18	19 Communications restored, problem with AT&T	20	21	22
23/30	24/31	25 No communication to East, West, CSUMB EWs	26	27	28	29

**Table 3: August 2009 - OU2 Analytical Results at TS-OU2-INJ**

COC	Discharge Limit (µg/L)	Sample Date / Analytical Results	
		August 5, 2009	August 20, 2009
1,1-DCA	5.0*	0.18	0.24
1,2-DCA	0.50	ND	ND
1,2-DCP	0.50	ND	ND
Benzene	0.50	ND	ND
Carbon Tetrachloride	0.50	ND	ND
Chloroform	2.0*	ND	ND
cis-1,2-DCE	6.0*	ND	ND
Methylene Chloride	0.50	ND	ND
PCE	0.50	ND	ND
TCE	0.50	ND	ND
Vinyl Chloride	0.10	ND	ND

**Table 4: August 2009 - Sites 2/12 Analytical Results at TS-212-INJ**

COC	Discharge Limit (µg/L)	Sample Date / Analytical Results
		August 5, 2009
1,1-DCE	6.0	ND
1,2-DCA	0.50	0.10
1,3-DCP †	0.50	ND
Chloroform	2.0	ND
cis-1,2 DCE	6.0	0.76
PCE	3.0	ND
TCE	5.0	ND
Vinyl Chloride	0.10	ND

**NOTES:**

ND. The analyte was not detected above MDL.

\* Discharge limits for low carbon affinity compounds were increased to the Aquifer Cleanup Level (ACL).

‡ Discharge limits are the ACLs for injection over the plume.

† The reported value is the sum of both cis- and trans-isomers.

**Table 5: AES Document Submittals - Status Summary**

Document	Submitted	Comments Due
No documents were submitted in August.		



**Table 6: August 2009 OU2 and Sites 2/12 Extraction Well Status.**

Well Identification	% On	Avg. gpm	Total Gallons	% of Total	Comments	TCE (µg/L) 2Q 2009
<b>Site 12 Extraction Wells</b>						
EW-12-05-180M	99.9%	74.1	3,309,886	32.9%		9.2
EW-12-06-180M	99.8%	79.5	3,548,348	35.3%		8.7
EW-12-07-180M	61.3%	9.7	433,782	4.3%		3.2
EW-12-03-180U	0.0%	0.0	0	0.0%	Well offline due to low concentrations	0.14
EW-12-03-180M	99.8%	62.0	2,767,490	27.5%		2.2
EW-12-04-180U	0.0%	0.0	0	0.0%	Well offline due to low concentrations	0.99
EW-12-04-180M	0.0%	0.0	0	0.0%	Non-Op, pump removed, convert to MW	not sampled
<i>Total 2/12 gallons treated:</i>			<i>10,059,506</i>	<i>100.0%</i>		
<b>OU2 Extraction Wells</b>						
<i>Western Network</i>						
EW-OU2-01-A	0.0%	0.0	0	0.0%	Well offline due to low concentrations	not sampled
EW-OU2-02-A	100.0%	54.3	2,423,050	8.2%		0.87
EW-OU2-03-A	0.0%	0.0	0	0.0%	Well offline due to low concentrations	1.0
EW-OU2-04-A	100.0%	50.9	2,270,500	7.7%		1.1
EW-OU2-05-A	100.0%	49.4	2,204,800	7.5%		2.9
EW-OU2-06-A	100.0%	35.9	1,603,560	5.4%		5.1
EW-OU2-01-180	0.0%	0.0	0	0.0%	No pump in well	10
<i>Total gallons extracted:</i>			<i>8,501,910</i>	<i>28.9%</i>		
<i>Eastern Network</i>						
EW-OU2-07-A	0.0%	0	0	0.0%	Well offline due to low concentrations	ND
EW-OU2-08-A	83.8%	16	729,210	2.5%		1.2
EW-OU2-09-A	96.7%	18	795,800	2.7%		3.7
EW-OU2-10-A	0.0%	0	0	0.0%		4.4
EW-OU2-11-A	0.0%	0	0	0.0%	Low yield due to biofouling	3.4
EW-OU2-12-A	67.8%	8	375,840	1.3%	Low yield; running at reduced capacity	8.8
EW-OU2-13-A	98.2%	24.5	1,093,890	3.7%		9.7
EW-OU2-02-180	98.2%	48.2	2,150,700	7.3%		12.6
<i>Total gallons extracted:</i>			<i>5,145,440</i>	<i>17.5%</i>		
<i>Shoppette</i>						
EW-OU2-05-180	68.6%	39	1,730,700	5.9%	Operating at low flow	pending
EW-OU2-06-180	85.4%	78	3,476,400	11.8%		6.8
EW-OU2-16-A	0.0%	0	0	0.0%	Runs in manual only, high drawdown	14.1
<i>Total gallons extracted:</i>			<i>5,207,100</i>	<i>17.7%</i>		
<i>CSUMB</i>						
EW-OU2-14-A	0.1%	0	800	0.0%	Runs in manual, tested- sufficient water	3.9
EW-OU2-15-A	0.0%	0	0	0.0%	Well offline due to low concentrations	not sampled
<i>Total gallons extracted:</i>			<i>800</i>	<i>0.0%</i>		
<i>Landfill</i>						
EW-OU2-03-180	99.6%	191	8,546,000	29.0%		18.3
EW-OU2-04-180	0.0%	0	0	0.0%	Well offline due to low concentrations	0.32
<i>Total gallons extracted:</i>			<i>8,546,000</i>	<i>29.0%</i>		
<i>Bunker Hill</i>						
EW-OU2-07-180	0.0%	0	0	0.0%	No pump in well	5.4
EW-OU2-08-180	88.3%	46	2,035,000	6.9%		0.98
<i>Total gallons extracted:</i>			<i>2,035,000</i>	<i>6.9%</i>		
<i>Total OU2 gallons treated:</i>			<i>29,456,250</i>	<i>100.0%</i>		

**SUBJECT: HTW - BCT Meeting**  
**September 17, 2009**  
**10:00 a.m. BRAC Conference Room**

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