

HTW BCT Meeting
BRAC Conf. Room

Item	Action	Comment
Operable Unit Carbon Tetrachloride Plume	Status Update	
Operable Unit Carbon Tetrachloride Soil Gas	Status Update	
Emergent Chemicals	Status Update	
OU1 Groundwater Remediation	Status Update	
OU2 and 2/12 Treatment Systems	Status Update	
2 nd Avenue Project	Status Update	
FFA Schedule	Update	<ul style="list-style-type: none"> - OU1 Status - BW Status
Site 39 Eco Risk Work	Status Update	
Operable Unit 2 Landfill Gas	Status Update	
Basewide Range Assessment	Status Update	
Range 36A Closure Activities	Status Update	
FOST/FOSL/FOSET Issues	Status Update	
Open House	Update	
Calendar	Update	

SUBJECT: HTW - BCT Meeting
February 20, 2004
1:00 p.m.
 BRAC Conference Room

Check

(✓)

Name	Organization	Phone	E-mail address
<i>RC</i> Roman Racca	DTSC	<i>916-255-6407</i>	<u>Rracca@dtsc.ca.gov</u>
John Christopher	DTSC		<u>JChristo@dtsc.ca.gov</u>
John Chesnut	U.S. EPA	415/972-3005	<u>Chesnut.john@epa.gov</u>
Claire Trombadore	U.S. EPA	415/972-3013	<u>Trombadore.Claire@epa.gov</u>
<i>AGH</i> Grant Himebaugh	RWQCB	805/542-4636	<u>Ghimebau@rb3.swrcb.ca.gov</u>
Gail Youngblood	Fort Ord BRAC	831/242-7918	<u>gail.youngblood@monterey.army.mil</u>
George Siller	COE	916/557-7418	<u>George.L.Siller@usace.army.mil</u>
Glen Mitchell	COE	916/557-7774 or 831/884-9925 ext. 232	<u>Glen.Mitchell@usace.army.mil</u>
<i>PK</i> Peter Kelsall	Shaw E & I, Inc	831/883-5810 ext. 810	<u>Peter.Kelsall@shawgrp.com</u>
<i>DE</i> David Eisen	COE	831/393-9692	<u>David.Eisen@usace.army.mil</u>
<i>DJL</i> Derek Lieberman	Fort Ord BRAC	831/242-4873	<u>Derek.Lieberman@monterey.army.mil</u>
Ed Ticken	MACTEC E&C	415/884-3176	<u>eticken@mactec.com</u>
Carlene Merrey	MACTEC E&C	415/884-3276	<u>cmerrey@mactec.com</u>

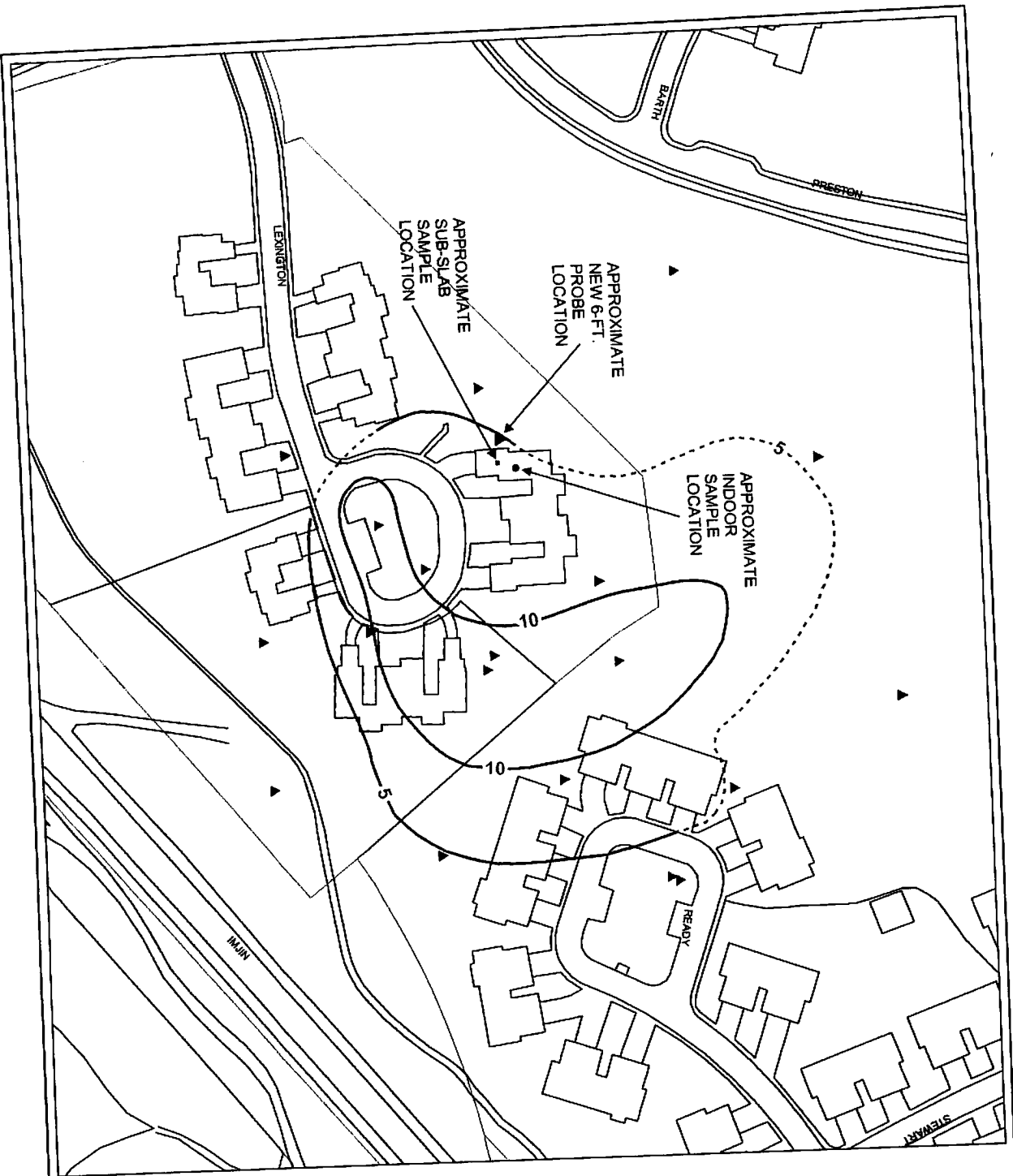
SUBJECT: HTW - BCT Meeting

February 20, 2004

1:00 p.m.

BRAC Conference Room

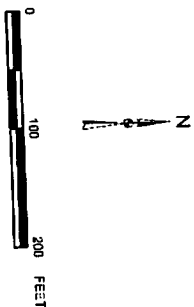
Check	Name	Organization	Phone	E-mail address
(✓)	Marc Edwards	COE	831/884-9925 ext 244	<u>Marc.A.Edwards@usace.army.mil</u>
✓	Michael Taraszki	MACTEC E&C	415/884-3325	<u>mdtaraszi@mactec.com</u>
✓	John Guenza	Ahtna	707/553-1501	<u>jguenza@ahtnagov.com</u>
✓	David Smith	HydroGeologic, Inc	916/614-8770	<u>dsmith@hgl.com</u>
✓	Kris Escarda	DTSC	916/255-3651 6683	<u>kescarda@dtsc.ca.gov</u>
phone	Martin			
phone	Stuart Black	DTSC		



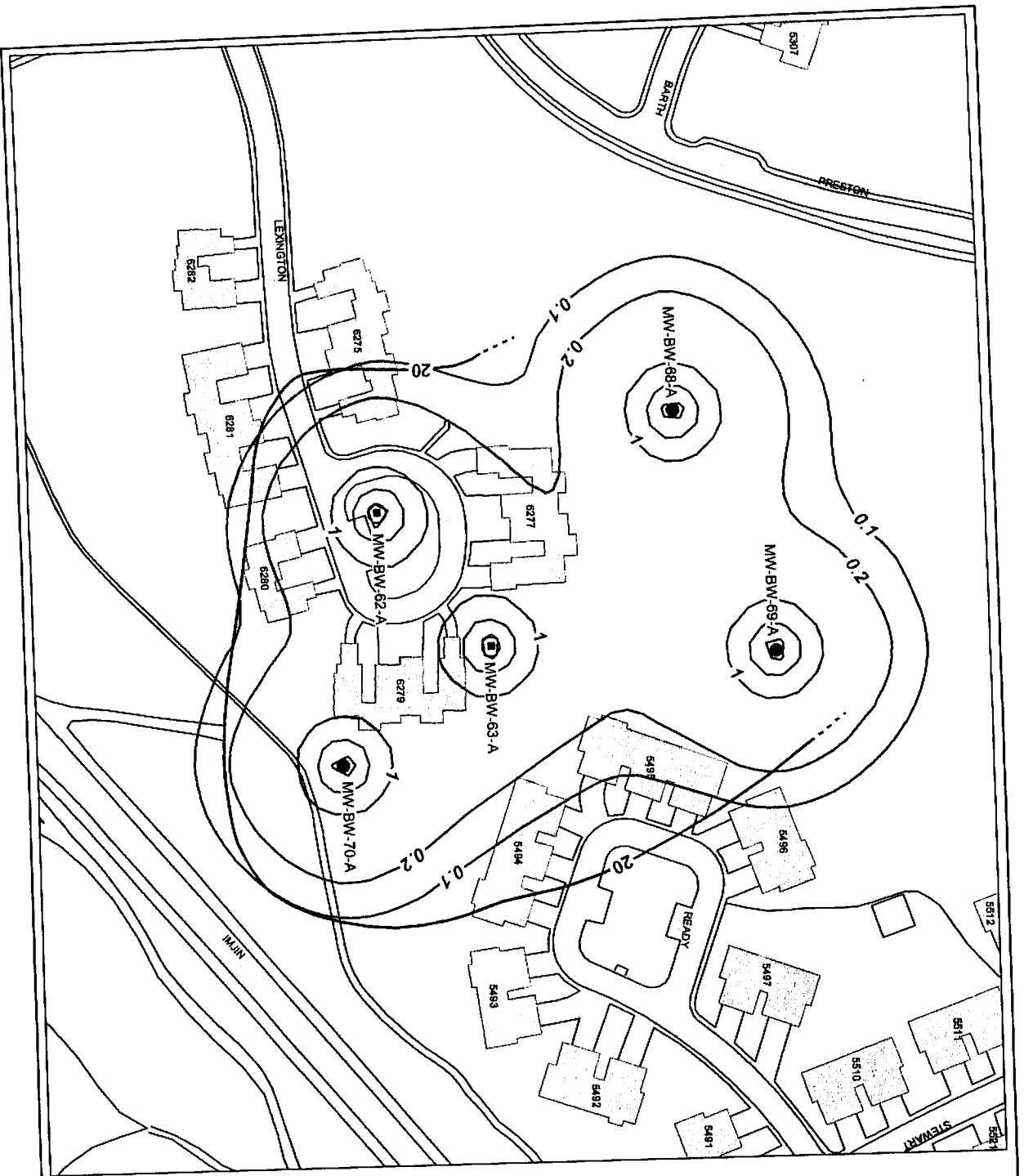
LEGEND

- ▲ EXISTING WELL/PROBE
- ▲ PROPOSED WELL/PROBE
- CARBON TETRACHLORIDE CONCENTRATION CONTOURS (ppmv); DASHED WHERE INFERRED
- PARCEL TRANSFER STATUS
- NOT STARTED
- TRANSFERRED
- BUILDING

NOTE:
 Basemap from C. Shebel, USACE, contours from MACTEC, Carbon Tetrachloride Concentrations in Soil Gas at 6 feet (Sept. 2003)



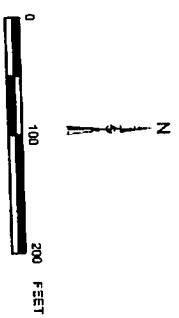
DATE	DESCRIPTION	BY	APP'D
08/11/03	Department of the Army, Supervisory District, California		
<p>Figure 1 INDOOR SAMPLING LOCATION Former Fort Ord, California</p>			
DESIGNED BY	SHAW-WALKER ENGINEERING, INC.	SCALE	AS SHOWN
DRAWN BY	E. SCHWARTZ	DATE	08/11/03
CHECKED BY	K. BLACK	PROJECT NO.	
APPROVED BY	F. K. SALL	DRAWN BY	
CLIENT	USACE	SCALE	AS SHOWN
DATE	08/11/03	PROJECT NO.	
DESIGNED BY	SHAW-WALKER ENGINEERING, INC.	DRAWN BY	
DRAWN BY	E. SCHWARTZ	DATE	08/11/03
CHECKED BY	K. BLACK	PROJECT NO.	
APPROVED BY	F. K. SALL	DRAWN BY	
CLIENT	USACE	SCALE	AS SHOWN
DATE	08/11/03	PROJECT NO.	
DESIGNED BY	SHAW-WALKER ENGINEERING, INC.	DRAWN BY	
DRAWN BY	E. SCHWARTZ	DATE	08/11/03
CHECKED BY	K. BLACK	PROJECT NO.	
APPROVED BY	F. K. SALL	DRAWN BY	
CLIENT	USACE	SCALE	AS SHOWN
DATE	08/11/03	PROJECT NO.	



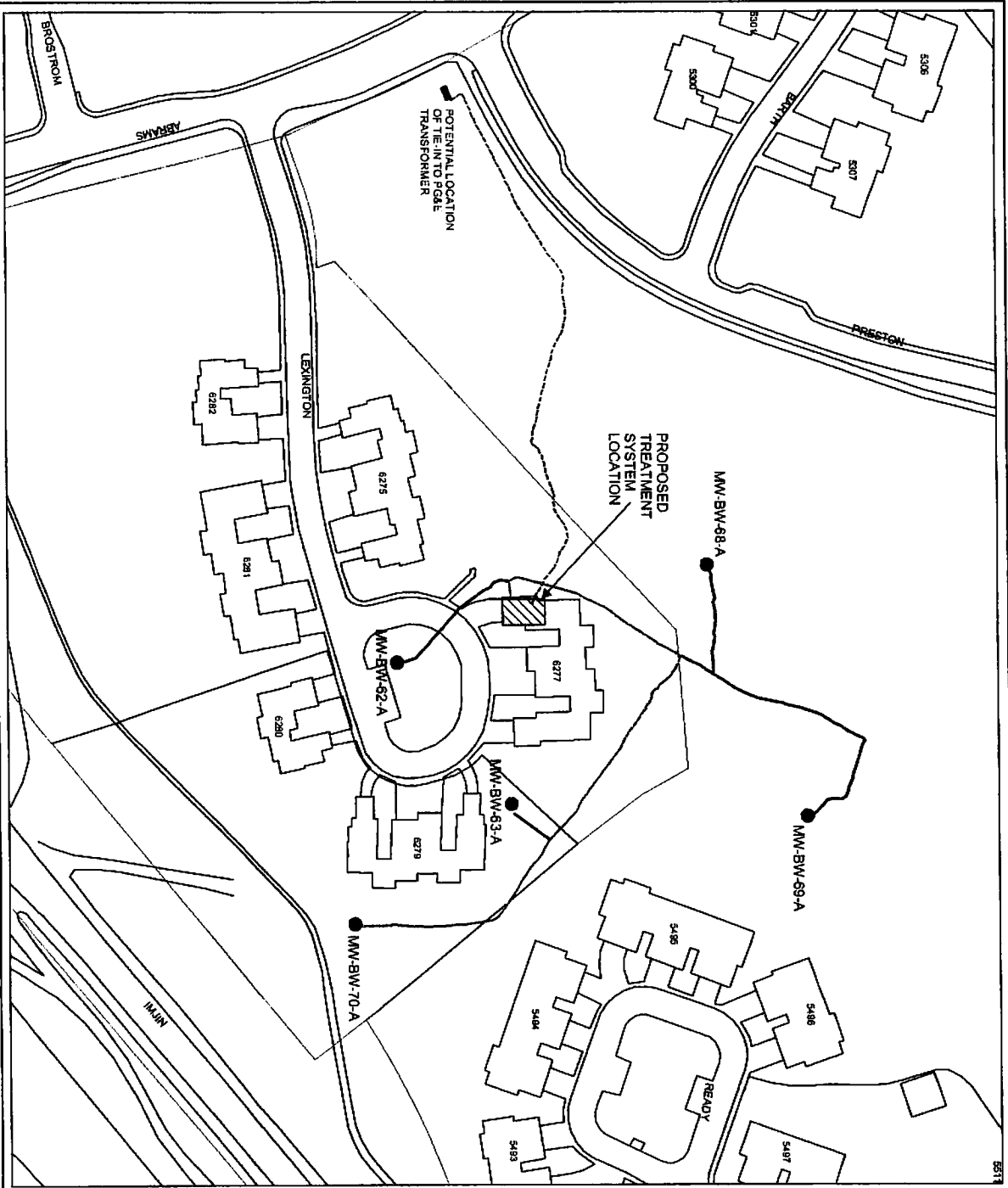
LEGEND

- NEW SVE WELL
- CONVERTED EXISTING WELL
- CARBON TETRACHLORIDE CONCENTRATION CONTOURS (ppbv); DASHED WHERE INFERRED
- RADIUS OF INFLUENCE (VACUUM IN INCHES H₂O AT 75 FT. DEPTH, PREDICTED USING VAPOSE ZONE AIRFLOW MODELING)
- ▭ BUILDING

NOTE:
Carbon tetrachloride concentrations at depths below 68 ft., March to May 2003. Contours from Matchac. See Appendix A for concentrations at shallower depths.

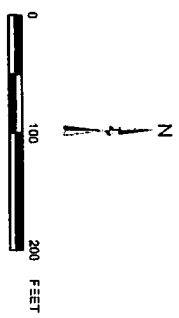


REVISION	DATE	DESCRIPTION	BY	CHKD	APPD
1		SHAW'S Sewer Department, Inc.			
2		CONTRACT			
3		EXTRACTION WELL RADIUS OF INFLUENCE			
4		OPERABLE UNIT CARBON TETRACHLORIDE			
5		PILOT TEST			
6		CONTRACT			
7		FORWARD FOR QTR. CHANGES			
8		REVISION			
9		REVISION			
10		REVISION			



LEGEND

- SOIL VAPOR EXTRACTION WELL
- 4-INCH HDPE PIPE
- 8-INCH HDPE PIPE
- ELECTRICAL CONDUIT
- ▨ TREATMENT SYSTEM
- ▨ PARCEL TRANSFER STATUS
- NOT STARTED
- TRANSFERRED
- BUILDING



REVISION	DATE	DESCRIPTION	BY	CHKD	APPD

SATEM, Steve, Environmental, Inc. Sacramento Office, Office of Engineers Sacramento, California		Department of the Army Sacramento District, Office of Engineers Sacramento, California	
DESIGNED BY	U. J. BERT	FIGURE 2-3	PLATE AND
CHECKED BY	K. BLACK	TREATMENT	SYSTEM LOCATIONS
OPERABLE UNIT	P. KELSALL	SWVE PILOT TEST	OPERABLE UNIT CARBON TETRACHLORIDE
SCALE	AS SHOWN	DATE	SCALE
DATE		DATE	DATE

**Draft FFA Timetable
OU-1, Former Fort Ord**

Primary Documents Deliverable/Event	Current Deadlines (Previous Deadlines)	Deadline Revision Rationale
Draft Plans <ul style="list-style-type: none"> • Sampling and Analysis Plan (SAP) <ul style="list-style-type: none"> ○ Includes LTM SAP and RA SAP • Operation and Maintenance (O&M) Plan Addendum 	2/04	
Comments due	4/04	
Draft Final Plans	5/04	
Draft Remedial System Modification Plan	5/04	<i>See Conceptual System Modification Plan Technical Memorandum and Remedial Action Design Progress Reports under Secondary Documents below.</i>
Comments due	7/04	
Draft Final RSMP	8/04	
Modified Pump & Treat System Construction	8/04 to 12/04	<i>Construct system in Fall 2004, prior to the wet season, to mitigate potential off-site plume migration and potential physical impacts to the UCNRS habitat at OU-1.</i>
Draft Interim Remedial Action (IRA) Report	2/05	
Comments Due	4/05	
Draft Final IRA Report	5/05	
Operational and Functional/Modified Remedy in Place	6/05	
5-Year ROD Review	1/07	
Comments Due	3/07	
Draft Final 5-Yr Review	5/07	
Draft Response Complete Report	3/10	
Comments due	6/10	
Draft Final Response Complete Report	7/10	

Secondary Documents Deliverable/Event	Current Deadlines (Previous Deadlines)	Deadline Revision Rationale
Draft Plans <ul style="list-style-type: none"> • Health and Safety Plan (HSP) • Quality Assurance Management Plan (QAP) • Data Management Plan (DMP) 	2/04	
Comments due	4/04	
Draft Final/Final Plans	5/04	
Conceptual System Modification Plan Technical Memorandum	3/04	<i>Solicit early design input from regulators and other stakeholders (e.g. UCNRS) for discussion at BCT meetings.</i>
Draft Remedy Assessment Report (RAR)	1/07	<i>Remedy Assessment to be conducted between 6/06-12/06 following modified Pump and Treat System evaluation period. (Replaces Focused Feasibility Study [FFS]).</i>
Comments due	3/07	
Draft Final RAR	5/07	
Draft Annual Update to Plans 2005	10/04	
Comments due	12/04	
Draft Final Update to Plans 2005	1/05	
Draft Annual Update to Plans 2006	10/05	
Comments due	12/05	
Draft Final Update to Plans 2006	1/06	
Draft Site Restoration Plan	2/06	
Comments due	4/06	
Draft Final Site Restoration Plan	5/06	
Draft Annual Update to Plans 2007	10/06	
Comments due	12/06	
Draft Final Update to Plans 2007	1/07	

BCT Meeting
OU-1 Agenda, HydroGeoLogic, Inc.
February 20, 2004

OU-1 Groundwater Remediation
Status Update

- **Planning Documents**

The following plans are in preparation:

- Draft Sampling and Analysis Plan
- Draft Site Safety and Health Plan
- Draft Quality Assurance Management Plan
- Draft Data Management Plan
- Draft Operation and Maintenance Plan Addendum

The following plans have been submitted for internal purposes:

- Final Project Management Plan
- Draft GFPR Coordination Plan
- Draft Security Emergency Response Contingency Plan
- Draft Waste Management and Minimization Plan

- **Remedial System Modification**

- **Premise**

Because future modification of the existing remediation system was included in the 1995 OU-1 ROD, modifications needed to capture and treat the entire plume can be categorized as being within the current remedy scope of the ROD.

- HGL is developing a Conceptual System Modification Plan Technical Memorandum to solicit early regulator feedback in order to determine whether or not further regulatory documentation will be required prior to the planning and construction of the modified P&T system.
- HGL is also developing a Natural Resources Plan (Technical Memorandum) to solicit early input from the UCNRS stakeholders to address habitat impact concerns prior to development of more formal design documents.

- **OU-1 GWETS**

HGL assumed the operation and maintenance of the OU-1 system on January 1, 2004. An HGL technician has performed weekly visits since January 14, 2004. A summary report is attached for review of system performance, gauge measurements, and updated volumes of treated water. Samples of influent, intermediate (between GAC vessels), and effluent process water were collected

on 18 February. Analytical results are pending. No problems have been encountered to date.

- LTM
HGL assumed the long term monitoring of OU-1 groundwater on January 1, 2004. The first quarter sampling is scheduled for March 2004. Based on a review of site data, HGL has submitted a Technical Memorandum for regulatory review which requests some changes to the current frequency of sampling and analysis of OU-1 monitoring wells.

FFA Schedule

OU-1

Status Update

- Revised Draft OU-1 FFA schedule attached.

Former Fort Ord Groundwater Treatment Systems Operational Data

Project	Category	Status/Update	Schedule
OU-2			
	<u>O & M</u>	<p><u>Stats for the month of January (1-03-04 to 1-30-04)</u> Plant operating at 665 gpm (avg.) Average influent concentration of 10.1ppb (TCE) 33.983 million gallons treated</p> <p><u>Cumulative Stats:</u> 2.624 billion gallons of water treated</p> <p><i>last 2 weeks O&M @ 800</i></p>	
Sites 2/12			
	<u>O & M</u>	<p><u>Stats for the month of January (1-03-04 to 1-30-04)</u> Plant operating at 250 gpm (avg.) Average influent concentration of 16.5ppb (TCE) 10.04 million gallons treated</p> <p><u>Cumulative Stats:</u> 589.732 million gallons of water treated</p>	

FOST/FOSL/FOSET Status Update

Title/Description	PARCELS	Comments
FOST 1 through FOST 5	Parcels have been or will be incorporated into more recent transfer/lease documents.	Not completed and are now obsolete.
FOST 6 Track 0 Parcels (Version 0/October 2001) (Version 0.1/January 2002) (Version 1/August 2002) (Version 1.1/March 2003) (Version 2.0/May 2003)	E11b.1, E11b.2, E11b.3, E11b.4, E15.1, E2b.1.1.1, E2b.1.1.2, E2b.1.2, E2b.1.3, E2b.1.4, E2b.1.5, E2b.2.1, E2b.2.2, E2b.2.3, E2b.2.4, E2b.2.5, E2b.3.1.1, E2b.3.2, E2c.1, E2c.2, E2c.3.1, E2c.3.2, E2c.3.3, E2c.4.1.1, E2c.4.2.1, E2d.1, E2d.2, E2e.1, E2e.2, E4.5, E8a.1.2, E8a.1.3, E8a.1.4, E8a.1.5, F2.7.2, F7.2, L1.1, L12.2.2, L12.2.3, L12.3, L15.1, L19.2, L19.3, L19.4, L2.2.1, L20.9, L20.10.1.1, L20.10.1.2, L20.10.2, L20.10.3, L20.14.1.2, L20.16.1, L20.16.2, L20.16.3, L20.17.1, L20.19.2, L20.20, L20.21.1, L20.21.2, L20.22, L23.1.1, L23.1.2, L23.1.3, L23.1.4, L23.1.5, L23.3.1, L23.3.2.1, L23.4, L23.6, L27, L32.2.1, L32.2.2, L32.3, L32.4.1.1, L32.4.2, L33.1, L33.2, L35.1, L35.2, L35.3, L35.5, L35.6, L35.7, L35.8, L36, L5.10, L5.8.1, L5.8.2, L7.8, L7.9, S1.3.3, S1.5.1.2, S2.1.4.2, S4.1.2.1, S4.1.2.2, S4.1.3, S4.1.4, S4.1.5	Signed May 27, 2003. Public Notice published and deeds in the process of being recorded. CRUP for parcel F2.7.2 Site 33 was sent to agencies for signature 12/31/03. CRUP for remaining parcels in progress.
FOST 7 Brostrom Park (V.1/October 2002) (V1.2/November 2002) (V2/January 2003)	Parcel L27	Signed January 9, 2003. Deed recorded. Public Notice published 1/31/03. (Parcel extracted from Track 0 FOST after public review period completed. No public comments on Track 0 FOST were received regarding parcel L27.)
FOST 8 (proposed) Track 1 Parcels	E11b.6, E15.2, E2a, E20.c.2.1, E4.1.2.1, E4.1.2.2, E4.1.2.3, E4.3.2.1, E4.6.1, E4.6.2, L20.14.1.1, L20.14.2, L20.15, L20.2.3.2, L20.6, L23.3.3, L23.5, 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, S3.2.1, S3.2.2, S4.1.1	Not drafted yet. Parcels are proposed to be included in the Track 1 ROD process.


FOST/FOSL/FOSET Status Update

Title/Description	PARCELS	Comments
FOSET 1 FAAF Phase II	L5.1.1-10, L5.2, L5.3	FOSET and CRUP signed. Public Notice published 7/2/01. Agencies provided copy.
FOSET 2 Housing Areas and Former Garrison (Category B parcels) (V.1/Oct 25, 1999) (FOSET B March 2000) (Final December 2000) (Final January 2001) (Final Revised August 2001) (Final-Final December 2001)	L2.1, E4.1.1, E4.2, E4.3.1, L2.4.2, L2.4.3.1, L2.4.3.2, L32.4.1.2, L37, S1.3.1, S1.5.2, S1.4, S1.5.1.1, E17, S2.1.3, S2.1.4.1, S2.5.1.1, S2.5.1.2, S2.5.2.1, S2.5.2.2	FOSET signed by TRADOC Dec 3, 2001. FOSET packet approved by EPA 1/4/02. Governor's concurrence received circa 4/23/02. CRUP and deeds being recorded. Public Notice ran in newspapers 7/18/02.
FOSET 3	Parcels have been or will be incorporated into more recent transfer/lease documents.	Not completed and is now obsolete.
FOSET 4 Del Rey Oaks (V.0/Oct 24, 2000) (V.0.1/Jan 2001) (V.0.2/Apr 2001) (V.0.3/Sept 2001) (V.0.4/Nov 2001) (V.0.6/Apr 2003) (V1.0/June 2003)	E29a, E31a, E31b, E31c, E36, E29b.1	FOSET 4 and responses to public comments were revised and resubmitted to DTSC in October per DTSC comments. In Dec '03 a small portion ("Habitat Area") of Parcel E29a was carved out and will be retained by the Army at this time. New portion is now parcel E29a.1

FOST/FOSL/FOSET Status Update

Title/Description	PARCELS	Comments
	Parcels have been or will be incorporated into more recent transfer/lease documents.	Not completed and are now obsolete.
FOSL 3, FOSL 6 and FOSL 7 FOSL 1 Lightfighter Lodge (V.2/Apr 2000)	E17	FOSL signed 6/22/00 Public Notice published 9/29/00. Agencies provided copy. Amendment to Preston Park Housing Lease completed Sept. 2001. E17 see FOSET 2
FOSL 2 Abrams Housing (V.2/May 19, 2000)	E4.3.2.1, E4.3.2.2, Part of E4.3.1	FOSL signed 7/7/00 Public Notice published 9/29/00. Agencies provided copy. Amendment to Preston Park Housing Lease completed Sept 2001. E4.3.2.1 see FOSET 3
FOSL 4 York School (V.0/Aug 7, 2000) (V1.1/Nov 27, 2000) (V2/Dec 21, 2000)	31 acres plus 2.3 acre sliver (not including South Boundary Road)	FOSL signed 3/9/01. Statement of Clearance signed, original on file at DENR Public Notice published 7/2/01. Agencies provided copy. Lease signed 9/14/01.
FOSL 5 Imjin Shoppette (V1.0/Sept 25, 2000) (V2.0/Jan 11, 2001) (V2.1/Feb 2, 2001)	approximately 3 acres, including buildings 6160, 6161, 6165A within a portion of parcels E8a.1 and E4.6.2	FOSL signed 4/30/01. Public Notice published 7/2/01. Agencies provided copy. Lease signed 6/18/01.
FOSL 8 FORA Expansion FOSL (V0/May 2001) (V2/July 2001)	Building 2925 and parking lot within parcel E2b1.1.1, and parcel L35.1	FOSL signed 8/20/01. Agencies provided copy. Public notice published 7/15/02. Amendment to existing FORA Outgrant Lease completed Jan 31, 2002.
FOSL 9 First Tee Youth Golf Course	approximately 120 acres in parcels E20c.1.1.1 and E20c.1.1.2	Preliminary draft in progress.
FOSL 10 Granite Construction Batch Plant	approximately 6 acres near intersection of 8th Street and Gigling	Not drafted yet. Still being considered.
FOSL 11 Veterans Transition Center Phase II Parcels (V0/August 2002) (V1/October 2002) (V2/January 2003)	Buildings 8732 - 8735 in parcel L9.1.2.2 Buildings 8714 - 8719 in parcel L9.1.1.2	FOSL signed 7/29/03. Agencies provided link to PDF online. Public notice published 8/21/03.

**OU CTP RI/FS Update
Former Fort Ord
February 20, 2004**

 **OU CTP Remedial Investigation Update**

➤ **On-going work**

- Soil gas investigation
 - Agreement to sample indoor air and new shallow soil gas probe (Shaw)
 - Summary of previous investigation sent to Shaw for inclusion into SVE Work Plan
 - SVE tentatively scheduled to begin operation in March 2004
- Bio-treatability pilot study
 - Bench-scale/microcosm test results; initial, t=6 weeks, and t=12 weeks sample results indicate that lactate is the most effective electron donor (42% reduction), followed by soybean oil (25% reduction) and molasses (14% reduction). Color change to black in lactate microcosms indicate that anoxic or highly reduced conditions were achieved.
 - Fourth/final sample (t=19 weeks) results under review; indicate that lactate is most effective donor. Total anaerobic heterotrophs counts will also be measured to compare microbial population growth – haven't seen those results yet.
 - Currently anticipating initiating a lactate electron donor field program to begin in March 2004 and continue for at least three months
- Groundwater model and RI/FS reports
 - Groundwater model construction underway (transient, 3D mass transport model); may incorporate vapor data to assist in source term assumptions
 - Due to unknowns concerning duration of the SVE and Bio-Treatability pilot studies, Army will submit the Preliminary Draft RI and FS reports separately (FS to follow); strive to adhere to the FFA schedule (Draft due in 10/04).

➤ Plume Delineation

- A-Aquifer – quarterly data confirm that the CT is present off-site beneath the city of Marina (concentrations of about 2-3 µg/L at MW-BW-49-A and MW-BW-65-A along DeForest Avenue). December data still indicates only low concentrations of CT at the new source area wells (MW-BW-61-A through MW-BW-64-A) although concentrations have increased from ND at MW-BW-62-A (still ND at MW-BW-61-A); 62-A and 63-A will be converted to soil vapor extraction wells (no samples will be collected during SVE testing).
- Upper 180-Foot Aquifer – two narrow plumes emanating from two discrete vertical conduits, confirmed by results from upgradient wells MW-BW-54-180 and MW-BW-55-180. Conduits appear to include MW-B-13-180 and possibly the mini-storage well. Downgradient data indicate that at least the eastern plume commingles with the OU 2 plume at/beneath MW-OU2-61-180
- Lower 180-Foot Aquifer – highest concentrations continue to be defined by the mini-storage well and its immediate vicinity. PCE in December 2003 only present at low concentrations (0.25 ppb) at MP-BW-37-303; not detected in port with initial highest concentrations (7.3 ppb at MP-BW-37-328). Apparently lithology containing PCE was penetrated by drilling but not screened by Westbay port.

MDT\OU CTP update.doc