



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132-5190

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Ser OPAE.TM/597
December 9, 2010

Ms. Kelly Dorsey
California Environmental Protection Agency
California Regional Water Quality Control Board
Mitigation & Cleanup Unit
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

Mr. Tayseer Mahmoud
California Environmental Protection Agency
Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
5796 Corporate Avenue
Cypress, CA 90630

Mr. Martin Hausladen
U. S. Environmental Protection Agency
Region IX, Code SFD-8-B
75 Hawthorne Street
San Francisco, CA 94105-3901

Subj: MEETING MINUTES FOR THE 102nd FEDERAL FACILITIES
AGREEMENT (FFA) MEETING DATED NOVEMBER 4th, 2010,
MARINE CORPS BASE CAMP PENDLETON

Dear Ms. Dorsey, Mr. Mahmoud, Mr. Hausladen:

Enclosed are the minutes to the Marine Corps Base, Camp Pendleton Federal Facilities Agreement (FFA) meeting, Number 102, held on November 4th, 2010. Should you have questions, please call me at (619) 532-1502.

Sincerely,

A handwritten signature in purple ink that reads "Theresa Morley".

THERESA MORLEY
Lead Remedial Project Manager
By direction

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Ser OPAE.TM/
December 9, 2010

Enclosures: (1) 102nd FFA Meeting Minutes
(2) 102nd FFA Meeting Agenda
(3) Sign in Sheet
(4) Deliverables/Fieldwork Spreadsheets
(5) Presentation of RI/FS Work Plan for Site 1119
(6) Email on Potential New 1,4-Dioxane Standards

Copy to: CG, MCB Camp Pendleton (Attn: ACOS, Environmental
Security - Mr. Joe Murtaugh)

PROJECT NOTE NO. 51

SUBJECT: Marine Corps Base (MCB) Camp Pendleton Federal Facilities Agreement (FFA) Meeting (No. 102)

DATE HELD: 4 November 2010

Attendees:

Theresa Morley (Naval Facilities Engineering Command, Southwest [NAVFAC SW]), Jennifer Dunaway (NAVFAC SW), Tracy Sahagun (MCB Camp Pendleton), Joseph Murtaugh (MCB Camp Pendleton), Martin Hausladen (United States Environmental Protection Agency [USEPA or EPA]), Bill Mabey (Tech Law), Cheryl Prowell (San Diego Regional Water Quality Control Board [RWQCB or Water Board]), John Odermatt (RWQCB), Kelly Dorsey (RWQCB), Kimberly Day (California [Cal] EPA/Department of Toxic Substances Control [DTSC]), Tayseer Mahmoud (DTSC), Steve Griswold (Parsons), and Josh Sacker (Parsons).

Introduction and Status of Deliverables and Fieldwork

A one-day meeting was held at MCB Camp Pendleton to update the FFA Team (Team) on program status. Refer to attached sign-in sheet and agenda. Following introductions, Ms. Prowell said that since she will be moving to Missouri, Ms. Dorsey will become the primary point-of-contact for the RWQCB for this project. Ms. Morley discussed some of the recent issues raised by FFA Team members, including the need to update the FFA schedule. It was agreed that the FFA schedule will be updated to reflect the site status for the active IR sites. In addition, the Team is in agreement that FFA meetings will be held three times per year, rather than the current four times per year. Ms. Prowell requested site visits for IR Site 1H (Reseeding) and IR Site 7 (PV Solar Panels).

Ms. Morley provided the status of deliverables (refer to the deliverables spreadsheet).

- Item 1, the Sampling and Analysis Plan (SAP) for Groundwater Monitoring at 12 Area Site 13 is final, and one quarter of the monitoring has been conducted. The Department of the Navy (DON) will confirm that all agencies gave the go-ahead for monitoring to proceed.

- For Item 3, the RI/FS for 22/23 Area Groundwater, the agencies are reviewing DON responses to their comments, and the Base will be providing their position on the preferred alternative(s) in the coming weeks.
- For Item 5, the Remedial Action Closure Report (RACR) for Site 1H, responses are being prepared, and the site work for reseeded was completed.
- For Item 7, the design for Gas Collection and Control System (GCCS) for Site 7, the responses to agency comments were just sent out.
- Items 10 and 12, the RACR for Site 1D and the Data Gap Analysis for Site 1D, were assigned to a different Project Manager to expedite completion.

Remedial Goal for 1,2,3-Trichloropropane (TCP) in 22/23 Area Groundwater

Ms. Morley said that DON is proposing to use California Response Level of 0.5 µg/L as the interim remedial goal for 1,2,3-TCP in 22/23 Area Groundwater since no level has been promulgated for California yet. By way of background, Hawaii uses 0.6 µg/L as the state maximum contaminant level (MCL), and New Jersey has a proposed MCL of 0.2 µg/L. Ms. Prowell said that the RWQCB won't block this proposed remedial Goal, but that the RWQCB thinks there may be liability issues down the road. Ms. Morley noted that the interim level can be re-evaluated during five-year reviews.

Ms. Day informed the team that USEPA has new dioxin and 1,4-dioxane standards, and that the guidance says that former sites may need to be looked at, even if closed in the past. MCB Camp Pendleton is mentioned in the article. She will forward this information to the team via email. [The email was subsequently provided by Ms. Day, and is attached to these minutes.]

Mr. Mabey noted that the issue of new standards can be evaluated during the five-year reviews. Ms. Day said she will forward the links for the team's information.

New Operable Units/FFA Schedule

Ms. Prowell said that the list of operable units (OUs) has not been updated since 2000, and that perhaps the current sites should be organized into OUs. Organizationally, sites should be grouped according to schedule. Also, there is a new paradigm at the RWQCB wherein progress is not just measured by numbers of sites being addressed or closed, but by actual reduction in risk to human health and the environment.

Ms. Morley said that she does not agree with the idea that sites must be grouped into OUs, and that being grouped can tend to slow down the process for all the sites in the OU if one of the sites is moving along at a slower pace. She added that she is in agreement that the FFA schedule should be updated, but not that the sites should be grouped in OUs.

Mr. Hausladen said that both he and USEPA management are satisfied with the way the sites are currently being handled by Ms. Morley, and that he does not see a need to group the sites into OUs. Regarding the FFA schedule, he said that Fort Ord updates the schedule at each FFA meeting. Mr. Hausladen indicated that he would forward a copy of the Fort Ord schedule to the Navy. Ms. Morley said that for Camp Pendleton, it may be necessary to send a letter to document schedule changes. Mr. Mahmoud also said that DTSC is happy with the progress of the program.

Ms. Prowell said that another rationale for grouping sites is to categorize them by risk level. In that case, 22/23 Area Groundwater and Site 1119 would be highest on the list. Ms. Morley said that from a risk standpoint, Site 33 would likely be the highest on the list because of vapour intrusion. Ms. Morley said that the schedule could be set up to indicate which sites pose the most risk.

Discussion of Site 1119 Work Plan

Mr. Griswold presented a summary of the main elements that will be included in the draft Work Plan for Site 1119 that is scheduled to be delivered to the FFA Team within the next two weeks. Refer to the attached presentation.

Site 1119 is defined as the area around the two Base wells (26016 and 26018) that have shown recent detections of volatile organic compounds (VOCs). As noted by Ms. Sahagun, well 26016 is not a permanent well, was not permitted as a supply well, and is currently capped.

An overview was provided of the site location, site geology and hydrogeology, and nearby current and past Installation Restoration (IR) and underground storage tank (UST) sites. Mr. Griswold provided an overview of the phased approach of the proposed investigation, which includes obtaining groundwater elevation readings at monitoring wells throughout the 26 Area, determining suitability of existing wells for sampling, sampling of selected monitoring wells, and using passive diffusion bags (PDBs) to obtain a current vertical profile of chemical concentrations in wells 26016 and 26018.

Based on the data obtained from sampling existing groundwater wells, new monitoring wells will be installed using sonic drilling at eight locations, with up to four nested wells at each location.

The proposed locations of new well installations may be adjusted based on results of the initial sampling. In addition, reconnaissance conducted on November 3, 2010 has provided additional information on areas that are accessible for a drill rig, and this information will also be a factor when selecting locations. Mr. Hausladen suggested that the results of the initial phase of the investigation, along with any proposed modifications to the new monitoring well locations, be documented in a brief tech memo (on the order of a page or so, as needed) to the FFA Team. Mr. Griswold agreed with that approach, since the results of the first phase of the investigation may affect the subsequent phase.

Ms. Sahagun commented that the Base was performing a Base-wide groundwater well inventory and this information was being put into the Base Geographic Information System (GIS) system. Mr. Odermatt asked that the Base coordinate with the RWQCB on these inspections. Kelly Dorsey wants to accompany some of these inspections.

Mr. Griswold mentioned the Base has reported a very trace detection of 1,1-dichloroethene (DCE) in well 2602, but is waiting for confirmation of that result. Ms. Sahagun said that detection has not been confirmed, and she is contacting the appropriate individuals to confirm this information.

Ms. Sahagun noted that water from well 2602 was being treated via carbon vessels at well 26018, and that the water was being piped from well 2602 to well 26018.

Mr. Griswold said that the use of electrical logs (e-logs) was considered for the planned new monitoring wells, but that the use of sonic drilling would preclude the use of e-logging except for gamma logging. Mr. Hausladen indicated he would really like to see electrical logs of the new wells to enhance our understanding of the geology in the site vicinity. Mr. Griswold indicated that we could do gamma logs, but also that the sonic drilling method would allow for very detailed logging of the continuous core recovered from each borehole. Mr. Sacker said that e-logs were available for supply wells 26016 and 26018 because these were drilled in uncased holes with a reverse mud drilling technique. Mr. Hausladen indicated that we need to try and utilize every available tool to try to understand in which distinct layers the contamination might be residing, and asked Parsons to seriously consider using e-logs. Mr. Griswold said that gamma logging would probably not be extremely expensive, and would talk to DON about adding it to the field program. Ms. Prowell added that the soil cores obtained during sonic sampling are disturbed, and are therefore not completely representative.

Meeting Wrap-up and Schedule for Next Meeting

The next FFA Meeting is scheduled to be held at Parsons office in Pasadena, CA on January 27, 2011.

**MCB Camp Pendleton
102nd FFA Meeting Agenda**

**Environmental Security Training Room
Bldg. 2282
Camp Pendleton, CA**

November 4th, 2010

- | | |
|--------------------|---|
| 0900 – 0905 | Welcome and Introductions |
| 0905 – 0915 | Project Deliverables Status |
| 0915 – 0920 | Remedial Goal for 1,2,3 -TCP in 22/23 Area Groundwater
(Note: this issue may be resolved prior to the FFA meeting) |
| 0920 – 0950 | New OUs/FFA Schedule |
| 0950 – 1020 | Discussion of Site 1119 (Wells impacted with TCE/TCP) Work
Plan |
| 1020 - 1025 | Meeting Conclusion / Action Items |

AC/S Environmental Security - Training Branch Attendance Roster

Class: FAA 102ND MEETING

Date: 11/4/10

Rank	Last name, First name	Unit	Phone Number	E-mail Address
1	SACKER, JOSHUA	PARSONS CORP	626 440 6191	josh.sacker@parsons.com
2	DUNAWAY, JENNIFER	NAVFACSW	619 532 4819	jennifer.dunaway@navy.mil
3	MOLLEY, THERESA	NAVFACSW	619 532-1502	theresa.molley@navy.mil
4	MURTAUGH, JOSEPH	AC/S ENVIR. SEC	760-725-9744	Joseph.murtaugh@USMAC.mil
5	SABAGUN, TRACY	AC/S ES	760-725-9752	tracy.sabagun@usmc.mil
6	JDERMATTE, JOHN	RWQCB-SD	858-637-5595	jodermatte@waterboards.ca.gov
7	DAY, KIMBERLY	DTSC	916-255-8855	kday@dtsc.ca.gov
8	CHEMEL, PROWELL	RWQCB-SD	858-467-2745	cprowell@waterboards.ca.gov
9	KELLEY, DORSEY	RWQCB-SD	858-467-7980	kdorsey@waterboards.ca.gov
10	STEVE GRISWOLD	PARSONS	626 440 6076	steve.griswold@parsons.com
11	HAUSLADEN, MARTIN	USEPA	(415) 972-3007	hausladen.martin@epa.gov
12	BILL MABEY	TECHLAW	415 281 8730	bmabe@techlaw.com
13	TAYSEER MAHMOUD	DTSC	(714) 484-5419	Tmahmoud@dtsc.ca.gov
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MCB Camp Pendleton Deliverables Spreadsheet

Date: 11/4/10

Item	Document	Contractor	Status	Date Due	Agency Comments	Response Received From:		
				to Agencies	Due By	EPA	DTSC	RWQCB
1	SAP for Groundwater Monitoring at 12 Area Site 13	SDV	FINAL	2/5/10	4/6/10	X	X	X
2	Site Inspection Report for Site 62 (PCB Site in 62 Area)	SeaAlaska	Agencies reviewing RTCs	4/7/10	6/7/10	NC	X	X
3	RI/FS for 22/23 Area Groundwater	SDV/Parsons	Agencies reviewing RTCs	5/14/10	7/13/10	X	X	X
4	Annual Groundwater Monitoring Report - Site 7 Box Canyon	Trevet	Agencies reviewing RTCs	6/15/10	8/16/10	NC	NC	X
5	Remedial Action Closure Report for OU5 Site 1H - Burn Ash Site	SDV	Responding to agency comments	7/6/10	9/6/10	X	X	X
6	Site Inspection Report for Site 1116 - 14 Area Groundwater	Trevet	Responding to agency comments	8/12/10	10/12/10		X	X
7	Design for GCCS - Site 7 Box Canyon	GeoSyntec	Responding to agency comments	8/20/10	10/19/10	NC	X	X
8	SAP for NMOC Sampling at Site 7 - Box Canyon	Trevet/Parsons	Draft SAP with Navy QAO	Nov				
9	Site Inspection Report for Site 1118 - 21/26/52 Area Groundwater	SeaAlaska	Preparing Pre-draft	Nov				
10	Remedial Action Closure Report for OU4 Site 1D for Soil - Burn Ash Site	SDV	Preparing Pre-draft	Dec				
11	RI/FS Work Plan for Site 1119 - 26 Area Groundwater	Parsons	Draft SAP with Navy QAO	Nov				
12	Data Gap Analysis Work Plan for Site 1D - Burn Ash Site	SDV	Preparing Pre-draft					
13	ESD for Site 7 (Box Canyon) 2nd Photovoltaic Panel Project	CH2MHill	Pre-draft in Navy Review					
14	Site Inspection Report for Site 1117 - 15/16 Area Groundwater	ERRG	Draft SAP with Navy QAO					
15	Site Inspection Work Plan for Site 150	SDV/TEC	Preparing Pre-draft					
16	Remedial Investigation Report for Site 1114	Trevet	Working on risk assessment					

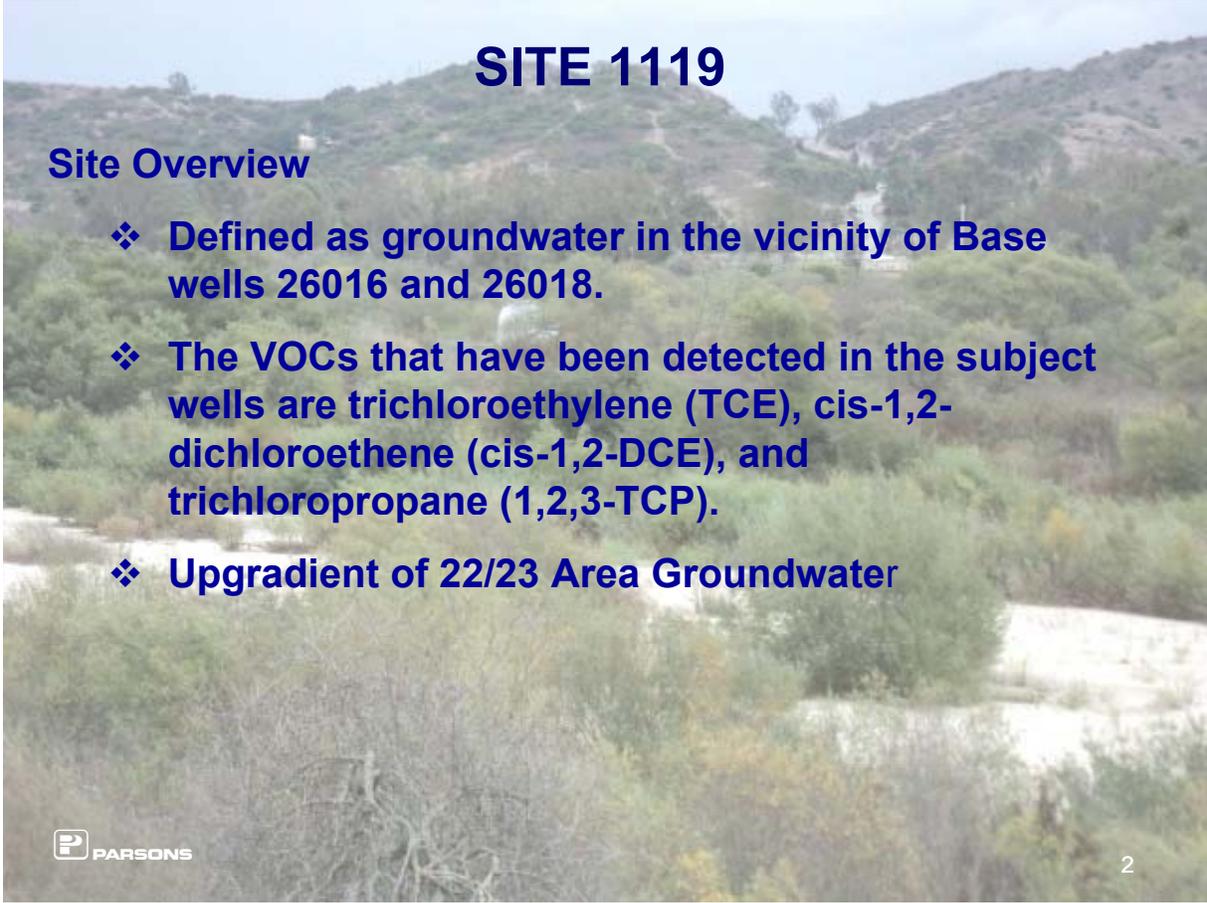
Agencies have commented



MCB CAMP PENDLETON SITE 1119 UPDATE

4 November 2010

102nd FFA Meeting



SITE 1119

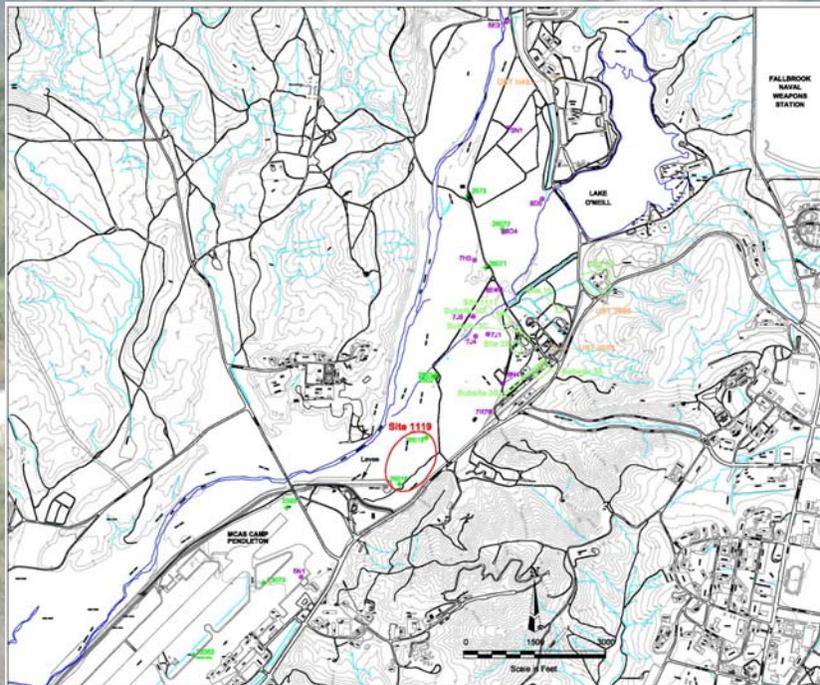
Site Overview

- ❖ Defined as groundwater in the vicinity of Base wells 26016 and 26018.
- ❖ The VOCs that have been detected in the subject wells are trichloroethylene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and trichloropropane (1,2,3-TCP).
- ❖ Upgradient of 22/23 Area Groundwater



SITE 1119

Location



3

SITE 1119

Geology/Hydrogeology

- ❖ Geology in the vicinity of Site 1119 consists primarily of Holocene stream-deposited alluvium overlying bedrock.
- ❖ Site 1119 lies within the Upper Ysidora subbasin of the Lower Santa Margarita River basin.
- ❖ Within the Upper Ysidora subbasin, groundwater flows to southwest (down the valley toward the ocean) at an average gradient of approximately 0.002 ft/ft, with flow direction closely following the path of the Santa Margarita River.
- ❖ Five Base groundwater production wells are located upgradient (2602, 2603, 26071, 26072, and 2673), and two are located downgradient (2393 and 23073) of Site 1119.

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SITE 1119

Previous Groundwater Results

- ❖ 26016
 - During sampling performed following pump testing by CDM in 2008 TCE was detected at 11 µg/kg.
 - In addition, depth-specific sampling was conducted by the USGS in August 2009, and results from the 65-foot deep sample reported TCE at 0.51J µg/kg and *cis*-1,2-DCE at 0.45J µg/kg. In addition, 1,2,3-TCP was reported in the 80 foot sample at 0.0064 µg/kg, which is above the California Notification Level (0.005 µg/L).
- ❖ 26018
 - TCE has been reported up to 2.3 µg/kg.
- ❖ None of the tests conducted in the other Base wells in the vicinity have reported any VOCs, including TCE, *cis*-1,2-DCE or 1,2,3-TCP.

SITE 1119

Past Sites

- ❖ Previous IR Sites:
 - Site 3 - 26 Area Pest Control Wash Rack, soil removal action conducted, NFA in OU 2 ROD.
 - Site 10 - 26 Area Sewage Sludge Composting Yard, NFA in OU 3 ROD
 - Site 24 - 26 Area Morale, Welfare, and Recreation (MWR) Maintenance Facility, NFA in OU 1 ROD
 - Site 28 - 26 Area Trash Haulers Maintenance Area, NFA in OU 2 ROD
 - Site 1111 - 26 Area Ash and Debris Disposal Area, DON implemented a Non-Time Critical Removal Action between November 2006 and July 2008; the site will be included in future NFA ROD.

SITE 1119

Past Sites (continued)

❖ Previous UST Sites:

- H49 - former 1,000-gallon steel UST located in the hospital area was removed in 1994. TPH-gasoline, TPH-diesel, and naphthalene were detected in groundwater. Bioventing remedial alternative was selected, and a bioventing system was installed and operated from 2001 through 2002. H49 closed per RWQCB with NFA letter dated September 2003.
- 2653 - an 800-gallon, single-walled, concrete, waste oil UST and associated piping were removed in June 1994. Since October 2007 less than <0.01 feet of free product was detected in any groundwater monitoring wells. Monitoring continues under UST program, and sampling results indicate the presence of low level TPH and BTEX compounds in groundwater.

SITE 1119

Past Sites (continued)

❖ Previous UST Sites:

- 2666 – tanks removed from location formerly occupied by the MCB Laundry and Dry Cleaning Facility. Final Corrective Action Plan (CAP) prepared in October 2000. Based on the alternative analysis presented in the CAP, the corrective action selected for site remediation was bioventing for soil near the former tank area, biosparging for groundwater on the southeast side of Vandegrift Boulevard, and monitoring natural attenuation for downgradient groundwater on the northwest side of Vandegrift Boulevard.
- 2666 is currently being investigated as part of Site 1118.

SITE 1119

Phased Approach

- ❖ Determine groundwater elevation at all 51 known existing monitoring wells. Also, evaluate suitability of wells for sampling
- ❖ Sample groundwater at 16 existing groundwater monitoring wells to determine current chemical concentrations in site groundwater
- ❖ Sample groundwater at 26016 and 26018 using passive diffusion bags (PDBs) to obtain a current vertical profile of chemical concentrations
- ❖ Based on the data obtained from sampling existing groundwater wells and 26016 and 26018, determine placement of new wells, either near a known source area if VOCs are found, or placed to define lateral and vertical contaminant distribution in the Santa Margarita River aquifer upgradient of Site 1119
- ❖ Install and develop new monitoring wells at eight locations, with up to four nested wells at each location, and collect geotechnical soil data from the well boreholes to fill data gaps that currently exist with the existing network of monitoring wells
- ❖ Sample and analyze groundwater at the new groundwater monitoring wells

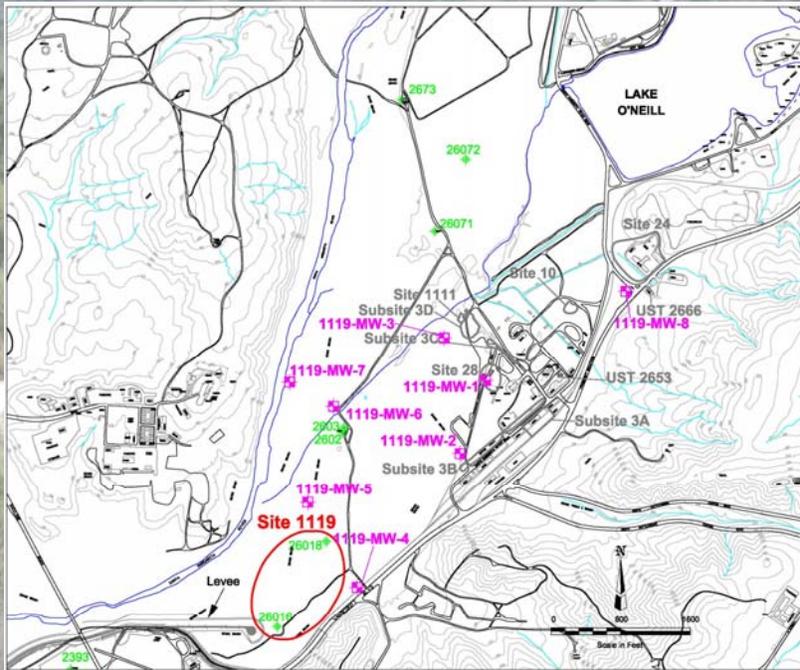
SITE 1119

Use of Passive Diffusion Bag Sampling

- ❖ Groundwater samples will be collected at wells 26016 and 26018 at multiple depths using passive diffusion bags (PDBs) to obtain a vertical profile of chemical distribution.
- ❖ Although these wells have been sampled by both the Base and by the USGS previously, the PDB method will provide more current data. A more current vertical profile will be helpful in identifying stratigraphic layers that may be contributing detectable chemical concentrations to the wells.

SITE 1119

Proposed Wells if No Other Sources Identified







Griswold, Steve

From: Kimberly Day [kday@dtsc.ca.gov]
Sent: Thursday, November 04, 2010 2:36 PM
To: jodermatt@ca.gov; Tayseer Mahmoud; hausladen.martin@epa.gov; theresa.morley@navy.mil; Griswold, Steve; bmabey@techlawinc.com; joseph.murtaugh@usmc.mil; tracy.sahagun@usmc.mil; cpowell@waterboards.ca.gov; kdorsey@waterboards.ca.gov
Subject: Potentially new dioxin and 1,4-dioxane standards from USEPA
Follow Up Flag: Follow up
Flag Status: Flagged

Below are three links, one to the new article and two links to USEPA's website that talks about the new USEPA dioxin toxicity analysis/standards that is in draft form. I have not had a chance to review this yet and will look into it. These are the links I mentioned in today's FFA Meeting. I also included the new toxicity assessment for 1,4-dioxane.

If I have left anyone off the list please forward on, I am sending this from the airport and don't have full access to everything.

Thanks,
Kim

Dioxin:

http://health.yahoo.net/news/s/ap/us_dioxin_duel

<http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=57036#Download>

<http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=222203>

1,4-Dioxane:

<http://www.epa.gov/ncea/iris/subst/0326.htm>

http://cfpub.epa.gov/ncea/iris_drafts/recordisplay.cfm?deid=122848

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