

PLANS FOR IRP SITE 1 VERIFICATION ACTIVITIES

The following details are proposed for the verification and sampling activities requested at the Explosive Ordnance Disposal (EOD) Range, IRP Site 1. The details are based on field visits conducted with Lynn Hornecker, Dave DeMars (SWDIV RPMs) Scott Kehe (MCAS El Toro ROICC), and Earth Tech representatives (CLEAN II).

Background: The prior groundwater sampling conducted at monitoring well 01MW201 indicated the presence of perchlorate in the groundwater underneath the EOD range. The concentration found, 280 ppb, was above the detection limits as well as the action level for this compound. However, due to the prior use of the EOD range and limited access, well 01MW201 was the only groundwater well that was located in the actual vicinity of the disposal range itself.

The lack of any additional groundwater monitoring points in the vicinity of well 01MW201 prevented the definition of the extent of the perchlorate plume or the potential direction of migration and gradient in the vicinity. In addition, several wells within the vicinity of Site 2 have VOC plumes associated with them.

Purpose: The current work effort is preliminary in nature and is designed to supply additional data from up to six separate locations within the EOD range. The data to be collected will include: lithology of the site subsurface, possibly the depth to bedrock, depth to groundwater, concentrations of perchlorate in the groundwater. Additional groundwater data will be collected from existing Site 2 groundwater wells to help document the presence of VOC and perchlorate in the groundwater..

Methodology: The site lithology will be addressed at approximately six separate locations throughout IRP Site 1. Cone penetrometer testing (CPT) will be used to establish the resistance of the subsurface and the interpreted lithology. In addition, Hydropunch samples will be collected from the groundwater at each location using the CPT rig. The approximate locations were identified by Earth Tech and are shown on Figure 1. Groundwater samples will be collected from approximately six existing groundwater monitoring wells located within Site 1 or Site 2, or immediately downgradient of these sites.

Prior to mobilizing the CPT rig to IRP Site 1, several preparatory steps will be taken:

1. A small bulldozer (Cat D6) will be mobilized to the site to clear and grub access trails to each CPT location. The bulldozer will also be used to clear each site of brush sufficiently to allow the CPT trucks to work without being parked in the tall grasses at the site. This will reduce the fire hazard from the site work, as well as provide a more stable working surface for the large CPT truck. A 500 gallon trailer-mounted water tank will also be mobilized to the site to provide fire protection.

2. Geophysical surveys using only magnetic locators will be performed at each site following the clearing. These surveys should locate any possible near-surface objects such as metal debris or ordnance fragments that might interfere with the CPT work, or possibly unexploded ordnance. If any subsurface obstructions are identified, the CPT location will be marked and moved to an area without any obstructions identified.

The CPT work will be conducted in a similar manner to that performed at IRP Site 24 in conjunction with Bechtel. The procedures will be essentially the same as those identified and described in the Final Field Sampling Plan (Bechtel, 1995) Section 6.3.4, the Draft Final Groundwater Remediation Pilot Test Work Plan (Bechtel 1997) and explained in the Perchlorate Sampling Results - Technical Memorandum (Bechtel, 1998).

Groundwater samples will be collected at each location, so long as the probe reaches groundwater prior to refusal and/or bedrock, and a sufficient quantity of water enters the sample collection device. Sampling will be conducted in accordance with the work that was performed at IRP Site 24, and the Final Field Sampling Plan, Section 6.4.11.

Sample Analysis and Quality Control: Samples will be collected and analyzed in accordance with the attached Sampling Plan. Hydropunch samples will be collected using a small diameter bailer inside of the Hydropunch rod. Samples from groundwater wells will be collected using a submersible, 2-inch Grundfos pump at each well. The pump and associated piping will be decontaminated in accordance with the Final Field Sampling Plan.

Data Evaluation: Following completion of these preliminary verification and sample collection activities, the data will be provided to SWDIV and Earth Tech for use in developing the next phase of plans, if required.

FIELD SAMPLING AND ANALYSIS FOR PERCHLORATE

The following describes the proposed sampling and analysis activities requested at the Explosive Ordnance Disposal (EOD) Range, IRP Site 1. The details of this sampling and analysis methodology are based on the *Draft Final CERCLA Groundwater Monitoring Plan* (BNI, June 1999) and the *Preliminary Draft Chemical Data Acquisition Plan, In-Situ Treatment Systems, Underground Storage Tank Program MCAS El Toro* (OHM, February 1996).

Background: Previous groundwater sampling activities conducted by OHM Remediation Services Corp. (OHM) at Marine Corps Air Station (MCAS) El Toro have not included sampling and analysis for perchlorate.

Purpose: The field sampling and analysis procedures for perchlorate are described below.

Methodology: Two sampling activities will be simultaneously performed at the EOD Range. Hydropunch groundwater samples will be collected at six locations using a cone penetrometer testing (CPT) rig, and groundwater samples will be collected from six existing monitoring wells.

- Groundwater samples will be collected using a stainless steel bailer for the Hydropunch samples and a submersible, 2-inch Grundfos pump for the monitoring well samples.
- The bailer, pump, or any associated piping will be decontaminated prior to use at each location in accordance with Section 6.9.2 in Appendix A (BNI, June 1999).
- Samples containers will be used in accordance with Table 4-2, Sampling Analytical Methods, Containers, Preservatives, and Holding Times in Appendix A (BNI, June 1999).
- Sample handling and chain of custody procedures will be in accordance with OHM standard operating procedures.
- California Department of Health Services Method CLO4.Meth will be used to analyze samples for perchlorate. Perchlorate samples will be sent to Columbia Analytical Services laboratory, which has current certifications for analysis requested.
- Analytical quality control (QC) procedures will be in accordance with *Draft Final CERCLA Groundwater Monitoring Plan* (BNI, June 1999). Field QC procedures include collection of field duplicate samples at a frequency of 10% and collection of an equipment rinsate sample per day. Laboratory QC procedures include analysis of laboratory control samples, method blanks, and matrix spike/matrix spike duplicates.
- Data quality management shall be in accordance with OHM procedures. Data quality management includes analytical data management, data review, and data validation.



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June 23, 1999

Ms. Bozier H. Demaree
Contracting Officer
Naval Facilities Engineering Command
Southwest Division
1220 Pacific Highway
San Diego, CA 92132-5187

Attention: Ms. Lynn Hornecker

**Subject: Plans for Preliminary Site Verification at IRP Sites 1 and 2
Contract N68711-93-D-1459, Delivery Order 075,
IRP Sites 2, 17 and 24, MCAS El Toro, California**

Dear Ms. Hornecker:

As you and Dave DeMars requested, IT/OHM is preparing to conduct preliminary activities at IRP Site 1 at the locations coordinated with Earth Tech. In addition, groundwater samples will be collected from a number of wells down slope within Site 1 and Site 2. These samples will be analyzed for perchlorates to aid in the assessment of the potential plume area for this contaminant. The Site 2 wells will be analyzed additionally for volatile organic compounds. The sampling will be conducted in accordance with the attached procedures and plans.

If you require any additional information or copies of these drawings please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read 'William Sedlak', written in a cursive style.

William Sedlak
Sr. Project Manager

attachments:

cc: L. Holloway, COTR
Dave DeMars
OHM PMO File
Project File, B.01



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OHM TRANSMITTAL/DELIVERABLE RECEIPT

CONTRACT N68711-93-D-1459

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Naval Facilities Engineering Command
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Date: 24-Jun-99

D.O.: 75

Location: MCAS EL TORO

FROM: _____
Stewart Bornhoft, Program Manager


Edwin G. Bond, Contracts Manager

DESCRIPTION Plans for Preliminary Site Verification at IRP Sites 1 and 2, IRPS Sites 2, 17
OF and 24, dated June 23, 1999
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