

PSC 96

RFI Status Meeting



06/10/96
Teleconference

Type of meeting: Pre-submittal review of the Draft RFI Workplan Approach

Attendees:

- * Stephanie Kruse, NMED
- * Jim Cochran, Philips Semiconductors, EH&S Manager
- * Melanie McKinley, Philips Semiconductors, Environmental Engineer
- * John Kinker, Philips Semiconductors, Environmental Engineer (benchmark)

Ron Kern

Objective:

--- Agenda Topics ---

- | | | |
|----|---|---------------|
| 1. | Introductions | 8:30-8:40 AM |
| 2. | Specific Objectives of the RFI (see attached outline) | 8:40-9:00 AM |
| 3. | List of COCs | 9:00-9:20 AM |
| 4. | Evaluation of Existing Monitor Wells | 9:20-9:40 AM |
| 5. | City of Albuquerque Wells (placement and schedule) | 9:40-10:00 AM |

Other information

Map of Proposed Well Locations (faxed)

Outline and Logic of Phased Approach (faxed)

*** Times are approximations only

feature wells will be close to NMED specifications. - M. McKinley 6/10/96

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To	Stephanie Kruse	From	Melanie McKinley
Co.	NMED	Co.	Philips
Dept.	HRMB	Phone #	822-7634
Fax #	827-1544	Fax #	822-7600

CIRCLED = RFI WALLS

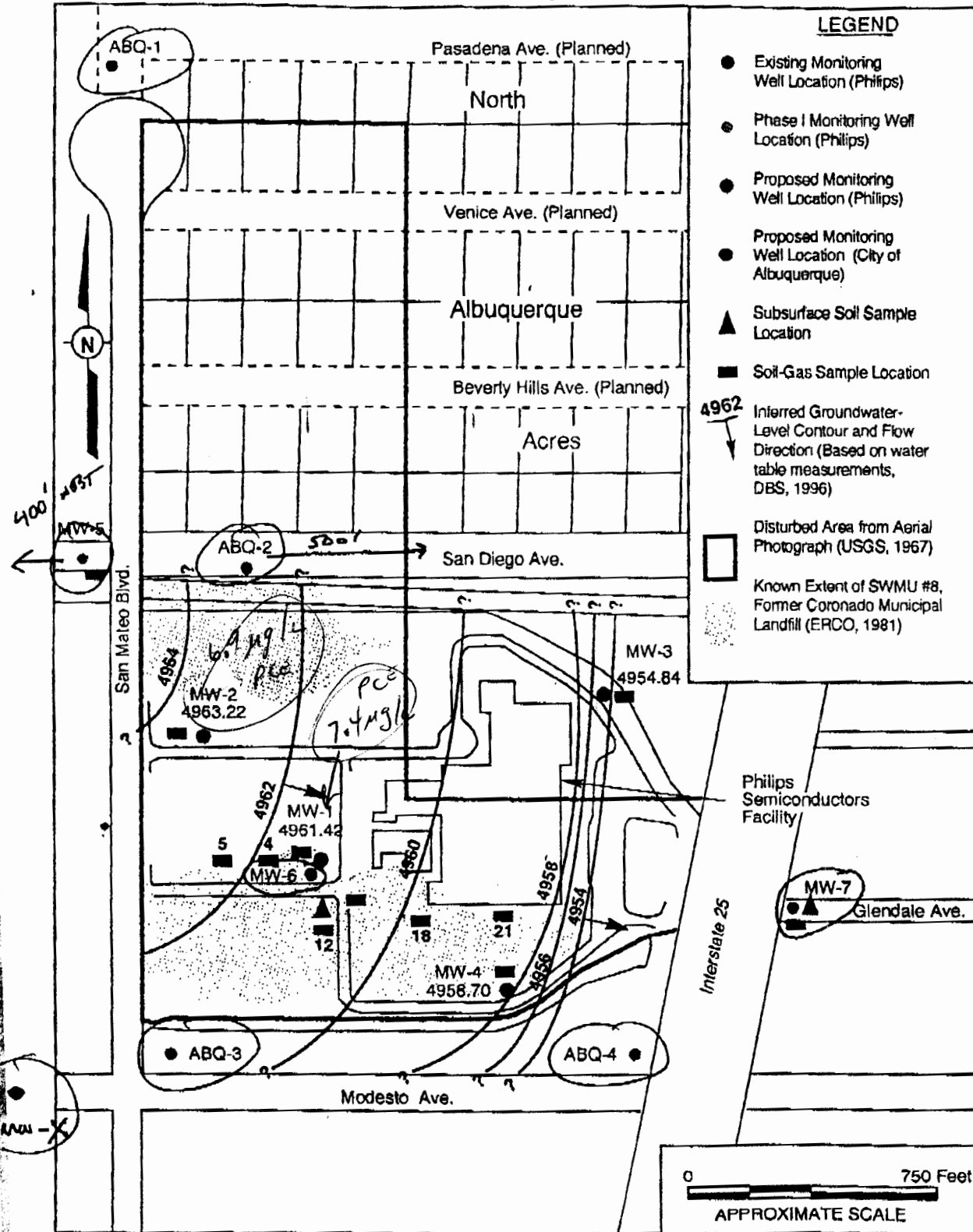


Figure 5-4 Proposed Sampling Locations for Phase II Field Activities at SWMU #8, Former Coronado Municipal Landfill

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Phased RFI Outline

In the interest of both satisfying the requirements of Module IV of the RCRA Permit and proceeding with the RFI in a logical, cost-effective manner, Philips Semiconductors (Philips) proposes to structure the RFI workplan around a three-phased approach. Phasing of field work will allow for a logical progression of data gathering that fills identified data gaps and leads to decision points sequentially.

Each phase will collect enough data to determine whether or not additional data is required to characterize the nature and extent of contamination, or if a determination of No Further Action (NFA) is warranted. Phasing of the investigation will not create significant delays in accomplishing the full scope of work; the only additional time requirements will be two potential mobilizations, two separate sampling and analysis efforts, and interim reporting of Phase I and II results, as appropriate.

Phase I Activities

After reviewing all of the available data from prior studies of the Philips site and considering what is known about the operation of the former Coronado Municipal Landfill (CML), it seems that the primary data need is to establish whether or not the former CML is actually the source of the contamination or if contaminants are migrating onto facility property from an off-site source. The plume characteristics (single specie, low concentration, and decreasing concentration over time) are indicative of a discrete spill event from an upgradient source that is migrating across the monitoring well locations with groundwater flow. Based on the preponderance of data from prior studies showing an absence of the contaminant perchloroethylene (PCE) in local fill and soil gas samples, and given the lack of local upgradient groundwater data, we feel that it is prudent to first install a local upgradient monitoring well prior to proceeding with more extensive characterization efforts.

Therefore, Phase I of the RFI will seek to fill this primary data gap through the installation of at least one upgradient monitoring well in the utility easement north and west of the Philips property on San Diego Avenue. (A second potential location is either due west on the Honeywell property or south of that property in the AMAFCA easement due west of Modesto Ave.) Sampling of a well in this location should determine whether or not the PCE detected in the on-site monitoring wells is originating off-site. Soil samples will be obtained from the boring during well installation and analyzed as well. In addition, two monitoring wells will be installed by the City of Albuquerque (the City), as per their agreements with the NMED and Philips. The City plans to locate these wells as follows: one to the north and west of the Philips site upgradient of the northern extent of the former CML, and one due north of the Philips northwest parking lot on San Diego Avenue.

If sampling of the upgradient well installed by Philips and/or the northern-most City well detects PCE in groundwater, it would be taken as an indication that the PCE plume

Honeywell
(another LF?)
Nye well

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*not necessarily
(Corroborate with
contaminant
sam.) 6/7/96*

is originating offsite, rather than in the former CML. Based on existing data showing that no other contaminants are present in the groundwater, particularly those associated with landfill leachate, Philips would petition for a determination of NFA according to Module IV, Section I (a) of the RCRA Permit, which allows the Permittee to submit an application for Class III modification to terminate the RFI/CMS process for a specific unit. If contamination is not detected in the upgradient well, it would be taken as a confirmation that the contamination is probably originating onsite and, therefore, Phase II would be initiated immediately.

Phase II Activities

The purpose of Phase II activities would be to define the nature, extent, and rate of migration of the groundwater plume, including vertical stratification, and any local soil gas vapor plume(s). Data gathered during this phase would be sufficient to determine if a threat exists to human health or the environment due to a release from the landfill. If initiated, Phase II activities would include installation of four additional monitoring wells; two Philips wells and two City wells, with one deep well to determine the potential for vertical plume stratification. These wells will be situated to determine the areal extent of the PCE plume, with three of the wells located onsite and one downgradient well offsite and to the east of Interstate 25 on Glendale Avenue. Soil samples and soil gas samples will be obtained from the borings during well construction to define the extent of residual soil contamination and the extent of any vapor plume. In addition, soil gas samples will be obtained from the existing methane vents to determine if a PCE source still exists in the fill material. These data will also be used to assist in locating any potential source in the fill so that further sampling and corrective measures may be targeted.

Vapor monitoring wells

4 additional monitoring wells

If the results of the Phase II sampling indicate that there is not a threat to human health or the environment based on the extent and magnitude of contamination and a comparison to the applicable standards for protection of groundwater, or an environmental risk assessment, Philips would submit an application for a Class III modification, as described above. Data suggesting that a potential source area exists within the former CML, or that contaminant concentrations are above levels necessary to protect human health or the environment would be cause to proceed with additional data gathering in Phase III.

Phase III Activities

The purpose of Phase III activities would be to determine the source area(s) in the former CML or the underlying vadose zone by a comprehensive soil gas survey and any other additional sampling deemed necessary based on the prior two phases of the investigation. Uniform grid soil gas sampling would be undertaken over the landfill site to pinpoint the source of PCE so that remedial activities may be targeted at source removal or containment since existing data shows that the majority of the waste fill material is not contributing in any known way to groundwater contamination.

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Proposed COCs

The last item is the limited list of analytes that we will be seeking in this RFI. Philips will propose in the RFI workplan to analyze primarily for PCE and its known environmental degradation products, namely, trichloroethylene, dichloroethylene, vinyl chloride, and their respective isomers. This is appropriate because PCE is the only analyte consistently and repeatedly detected in past and current sampling efforts, including the most recent quarterly monitoring results. In addition, the groundwater quality is very good and not indicative of landfill leachate contamination, as evidenced by other parameters such as total dissolved solids, pH, conductivity, and metals content.

will be determined what appropriate list of COCs 6/7/96

vocs / svocs / metals / organochlorine pesticides / still looking at 1 yr. of quarterly monitoring for detection

Summary

This phased approach has been incorporated into the RFI workplan which we will submit to your office on June 16, according Module IV, Section F.1 of the RCRA Permit. We feel that the phased approach, decision logic for continuation, and use of limited target analytes is consistent with the RFI Guidance (EPA 530/SW-89-031) as well as the 1990 Subpart S standards.

We appreciate your time and assistance in making this planning effort as streamlined as possible.

*PCE
NMWQC - 20 µg/L
MCL - 5 µg/L*