Weiss Associates Environmental and Geologic Services

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August 8, 1997

Scott Seery
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

RE: **Soil Vapor Sample Collection Work Plan**
Former Chevron Service Station #9-5607
5269 Crow Canyon Road
Castro Valley, California
WA Job #4-1129-70

Dear Mr. Seery:

On behalf of Chevron Products Company (Chevron), Weiss Associates (WA) has prepared this soil vapor survey workplan for the above referenced site. The scope of work includes obtaining a drilling permit, notifying the involved parties, field preparation, job coordination, soil vapor sample collection, laboratory sample analysis and reporting the results. **Soil vapor samples will be collected from three sample locations at a depth of approximately 3 feet below ground surface at the proposed locations shown on Figure 1.** The steps involved in this workplan are described below.

Drilling Permit

A drilling permit for the three boring locations will be obtained from Zone 7 Water Agency before the start of field activities.

Notifying Involved Parties

As requested by Alameda County, WA will contact the Forrest Creek Townhomes property management agency **to request a 1 week pause in irrigation activities in the vicinity of the sample locations prior to sample collection**. WA and Chevron are not responsible if the Forrest Creek Townhomes property management agency or the Townhomes residents conduct irrigation activities during the requested pause.

The Forrest Creek Townhomes residents will be notified of sampling activities approximately one week prior to sample collection.

Notes

① preferential pathway evaluation indicates potential for vapor transport through sewer trenches

② amend w.p. to include SVS sample collection from sewer trench backfill

Field Preparation and Job Coordination

WA will mark the street in the vicinity of the sample locations for utility line identification and notify Underground Services Alert prior to drilling activities. WA will mark the three proposed drilling locations and hire a professional line locator service to clear the locations prior to drilling. WA will coordinate drilling activities with a drilling contractor.

Soil Vapor Sample Collection Technique

Soil vapor samples will be collected by advancing a vapor sampling rod to approximately 3 foot depth with a hydraulically powered GeoProbe, inserting post run tubing (PRT) and connecting the tubing to the vapor sample collection assembly (Figure 2). The drilling contractor will operate the GeoProbe equipment and vapor sampling rod and connect the PRT. WA will collect the samples with the vapor sample collection assembly. The vapor sample lines will be purged by opening the collection assembly ball valve and actuating the vacuum pump (hand operated Nalgene Mityvac air pump) to fill a 1-liter Tedlar bag approximately 1/4 full (250 ml). The sample will be collected by closing the ball valve and opening the sample collection valve on the 1 liter Summa canister while monitoring the vacuum gauge. The Summa canister valve is closed after a three-minute sample collection time. After sample collection, the configuration is disconnected and the summa canister is labeled and stored for shipment. Before collecting the next vapor sample, the tubing and tee are replaced, the probe rod assembly is cleaned, the vacuum gauge and ball valve are purged with ambient air and a new Summa canister is connected.

Laboratory Sample Analysis

Soil vapor samples will be sent to Air Toxics Ltd. of Folsom, California and analyzed for benzene, toluene, ethylbenzene and xylenes by EPA method TO-14.

Reporting the Results

WA will prepare a report summarizing the sample collection activities and analytical results. The report will include descriptions of drilling and sampling techniques, a summary of the analytical results, a description of the lithology encountered while drilling, a figure indicating the sample locations and copies of the analytical reports.

Schedule

WA will proceed with the work described above after receiving written approval of this workplan from Alameda County. WA anticipates completing the field work by the end of August 1997 and submitting the report by the end of September 1997.

We trust this workplan satisfies your request. Please call the undersigned at (510) 450-6193 if you have any technical questions about this workplan.

Sincerely,
Weiss Associates

Tim Utterback PE
Senior Staff Engineer

Attachments: Figure 1. Proposed Soil Vapor Survey Sample Locations
Figure 2. Vapor Sample Collection Configuration

cc: Brett Hunter, Chevron USA Products Company, P.O. Box 5004,
San Ramon, CA 94583-0804
Kevin Graves, Regional Water Quality Control Board - San Francisco Bay,
2101 Webster Street, Suite 500, Oakland, California 94612

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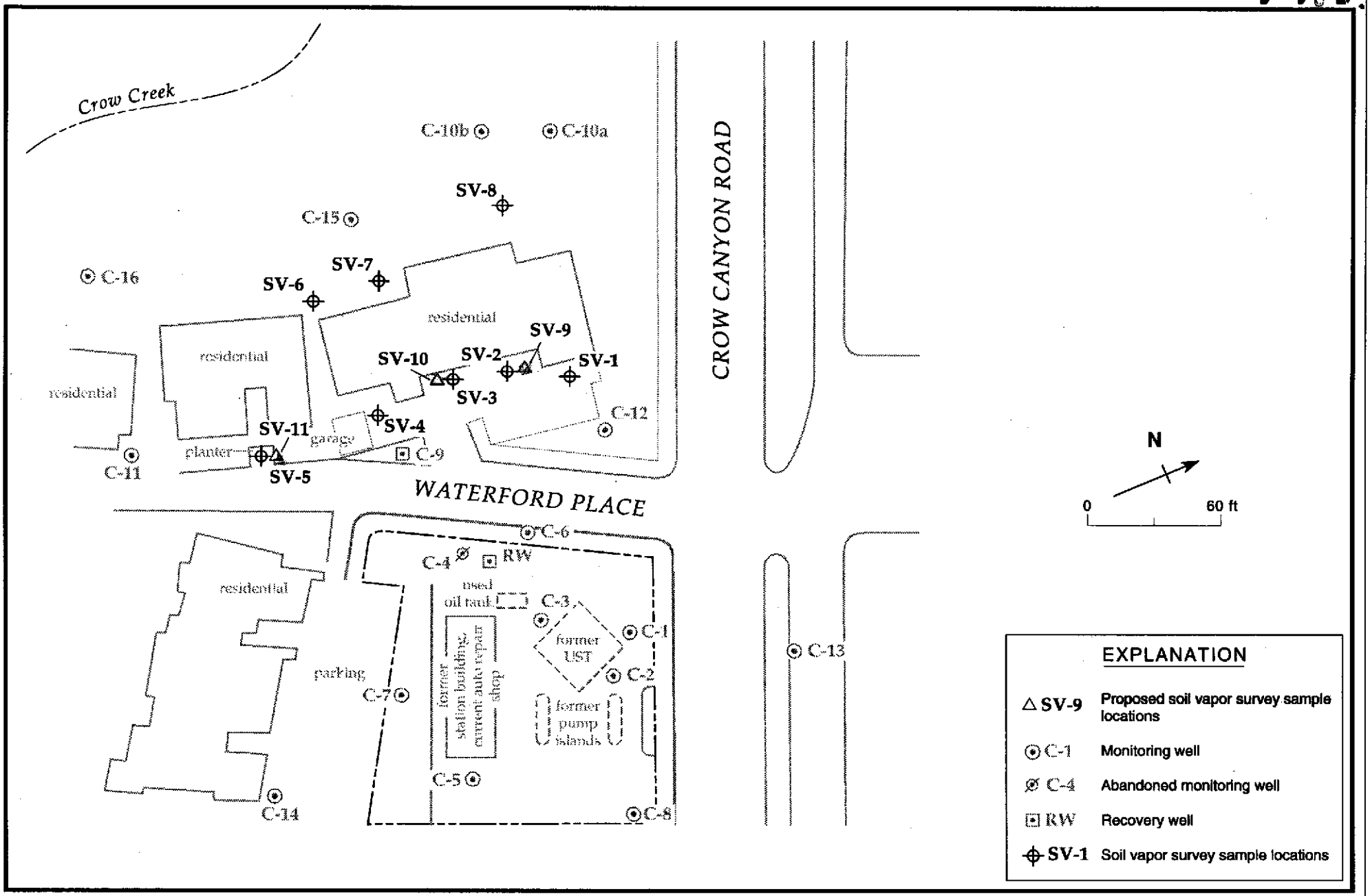

Figure 1. Proposed Soil Vapor Survey Sample Locations - Chevron Station 9-5607, 5269 Crow Canyon Road, Castro Valley, California

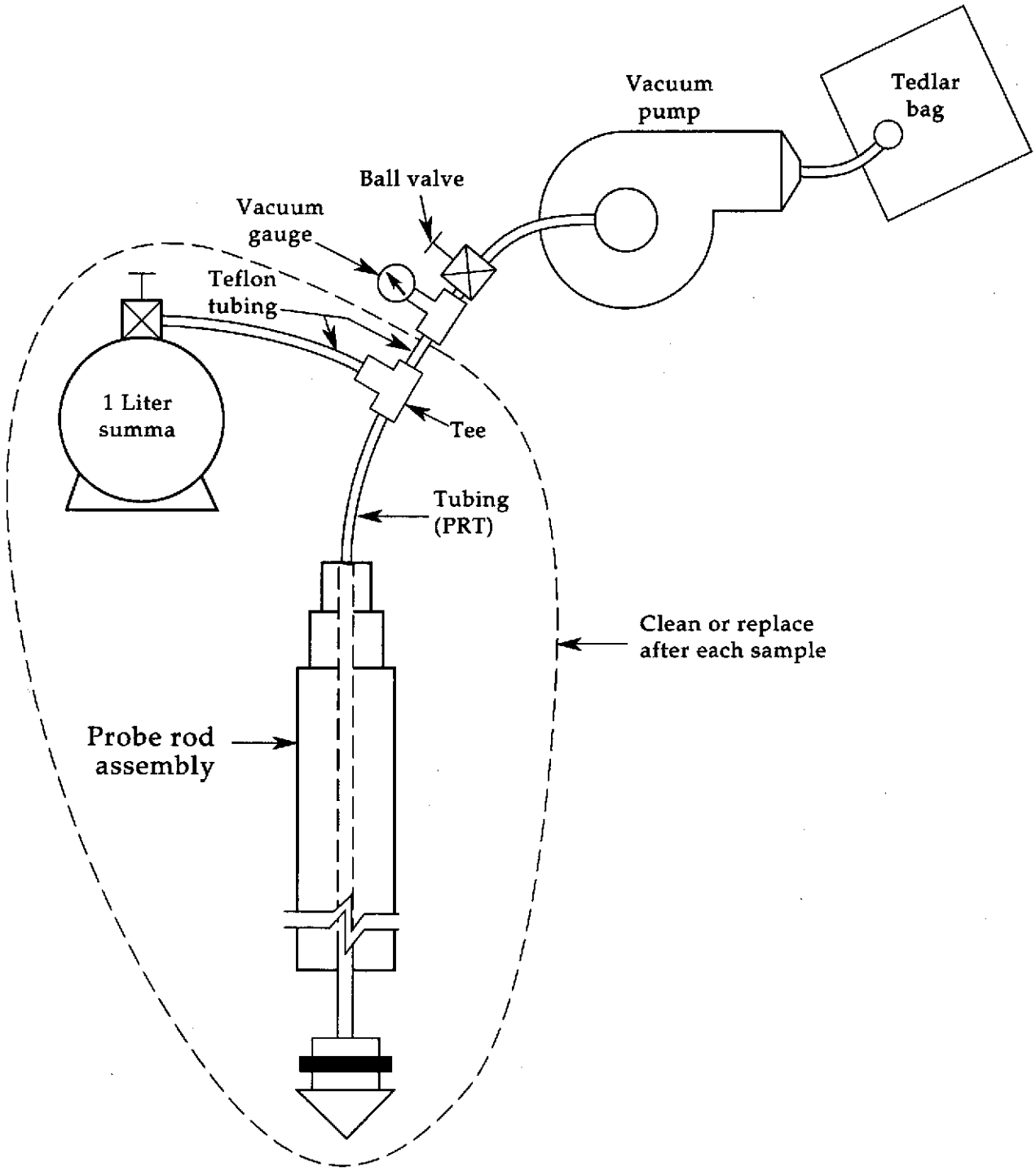

Figure 2. Vapor Sample Collection Configuration - Former Chevron Service Station #9-0260, 21995 Foothill Blvd., Hayward, California