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January 7, 2019

Ms. Jessica Pao
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

**Re: Soil Reuse Plan Response
Former Chemoil Refinery, 2020 Walnut Avenue, Signal Hill, California 90755
LARWQCB Site Cleanup Program No. 1391, Global ID T10000010213**

Dear Ms. Pao,

Thank you very much for the Water Board's input to Signal Hill XC's proposed Soil Reuse Plan pertaining to the redevelopment of the former ChemOil refinery in Signal Hill. We appreciate your patience as we work to revise our plans to address your concerns. Specific discussion below addresses the concerns brought forth by the Water Board during the meeting of November 19, 2018. We concur that site soils slated for re-use must be properly characterized, and we are preparing a characterization plan that supports a revised cut-and-fill grading strategy that minimizes excavation of on Site soil in the areas with the highest impacts. We plan to submit a formal characterization and monitoring plan under separate cover, upon receipt of the Water Board's input regarding the soil reuse strategy described below.

The Water Board's concerns/comments are shown in underline, with our response immediately following.

1. All soil must be characterized prior to reuse (field PID readings are not sufficient). We understand and concur with this request and are prepared to discuss a characterization plan (with agreed upon sample locations, frequency, and analyte list) with the Water Board.
2. The locations where soil is reused on site must be documented. We understand and concur with this request. As indicated in the closing statement of the Soil Reuse Plan, following site redevelopment, a report will be prepared for submittal to the Water Board which documents the field observations, laboratory results, and final disposition of any excavated soil that is reused on site.
3. Soil may not be reused at the Site if concentrations exceed the final screening levels (SLs), identified in the Response Plan. We are requesting that the Water Board reconsider this requirement. Our soil reuse approach involves treating re-used soil in-situ using the same approach (SVE) had it not been disturbed during redevelopment activities. Refer to Figure 2-5, included in the Response Plan (attached). Based on historical sample collection efforts, the shallow soil throughout much of the western parcel exceeds SLs. Requiring soil that falls above

SLs to be hauled offsite essentially eliminates the ability to reuse soil generated from the Western Parcels. The redevelopment grading plan has been revised to further minimize the disturbance of shallow soil; however, some excavation/replacement of soil will be required for utility installation and removal of subsurface debris. Preliminary estimates indicate that having to dispose of soil offsite from the Western Parcels during site redevelopment will result in approximately \$1,500,000 in soil transportation/disposal/import fill costs and require 1,000 truck trips, which creates a significant CEQA issue. We request that the Water Board consider the following modification to its earlier comment: *Soil may not be reused at the Site if concentrations exceed the final screening levels (SLs), identified in the Response Plan, unless it is being placed in an area with higher concentrations of contaminants that will be treated by SVE. In no circumstance may soil that exceeds SLs be placed on top of soil that is "clean" (i.e., clean being defined as meeting the SLs). In addition, soil that does not meet all of the reuse criteria, identified in item 4 below, may not be reused at the Site.*

4. In the absence of utilizing SLs as reuse criteria, an alternate soil reuse criteria should be utilized. We are proposing that the following soil reuse criteria also be applied to any soil being reused at the Site per Comment 3, above:
 - a. Soil cannot contain evidence of free product;
 - b. Soil concentrations must be less than 1,000 ppmv as measured by a PID in the field;
 - c. Soil concentrations must be below hazardous waste criteria;
 - d. Soils from the Western Parcels may not be moved to the Eastern Parcel;
 - e. Soil may only be placed in an area that already has higher concentrations (i.e., concentrations in reused soil must be less than the concentrations in the receiving areas, and soils above the SLs cannot be placed in areas that are currently below SLs); and
 - f. All soil with concentrations above SLs that is reused onsite must be remediated until cleanup goals are met.
5. A cleanup goal is needed for item 4e, above. Signal Hill XC, LLC proposes the following cleanup goals **for areas where soil is reused onsite** (Soil Reuse Areas). In-situ treatment of Soil Reuse Areas would be required until the cleanup goals are met, unless prior approval is obtained from the Water Board:
 - a. Soil SLs that were included in the Response Plan (Table 4-1). The soil SLs included in the Response Plan considered 1) direct contact ESLs and 2) protection of groundwater based on the 1996 LARWQCB guidance.
 - b. Soil vapor SLs that were included in the Response Plan (Table 4-2).

6. A monitoring plan is required to determine when cleanup goals are met and/or mitigation is no longer necessary. Signal Hill XC, LLC is prepared to submit a revised soil reuse plan identifying a monitoring plan for Soil Reuse Areas until cleanup goals are met. The monitoring plan will be predicated upon the Site having a deed restriction in place as well as a Site Management Plan to protect construction workers who may come into contact with soil. The monitoring plan will consist of:
- a. Real-time soil vapor monitoring during site construction;
 - b. Groundwater monitoring from onsite monitoring wells to address potential leaching concerns;
 - c. Soil vapor monitoring from expanded Soil Vapor Extraction and Air Sparging Systems; and
 - d. All overlying structures will be underlaid with a vapor barrier (such as Liquid Boot, GeoSeal, or Stego) with vertical ventilation pipes that daylight above roofline and away from any air intakes (such as openable windows, doors, terraces, restroom exhausts, etc.). These Building Protection Systems are not intended to remediate soil, but instead, prevent influx of soil vapor into the buildings.

We hope that with the modifications indicated in this letter, the Water Board is prepared to approve our Soil Reuse Plan. Upon receipt of your approval of the approach indicated herein, Signal Hill SC will provide a formal site characterization and monitoring plan under separate cover, as described above, for your further review.

Please let us know if you concur with this approach or if you have further concerns that we have not addressed.

Sincerely,
Apex Companies, LLC



Kirsten Duey
Project Manager
RMD Environmental Solutions, Inc.

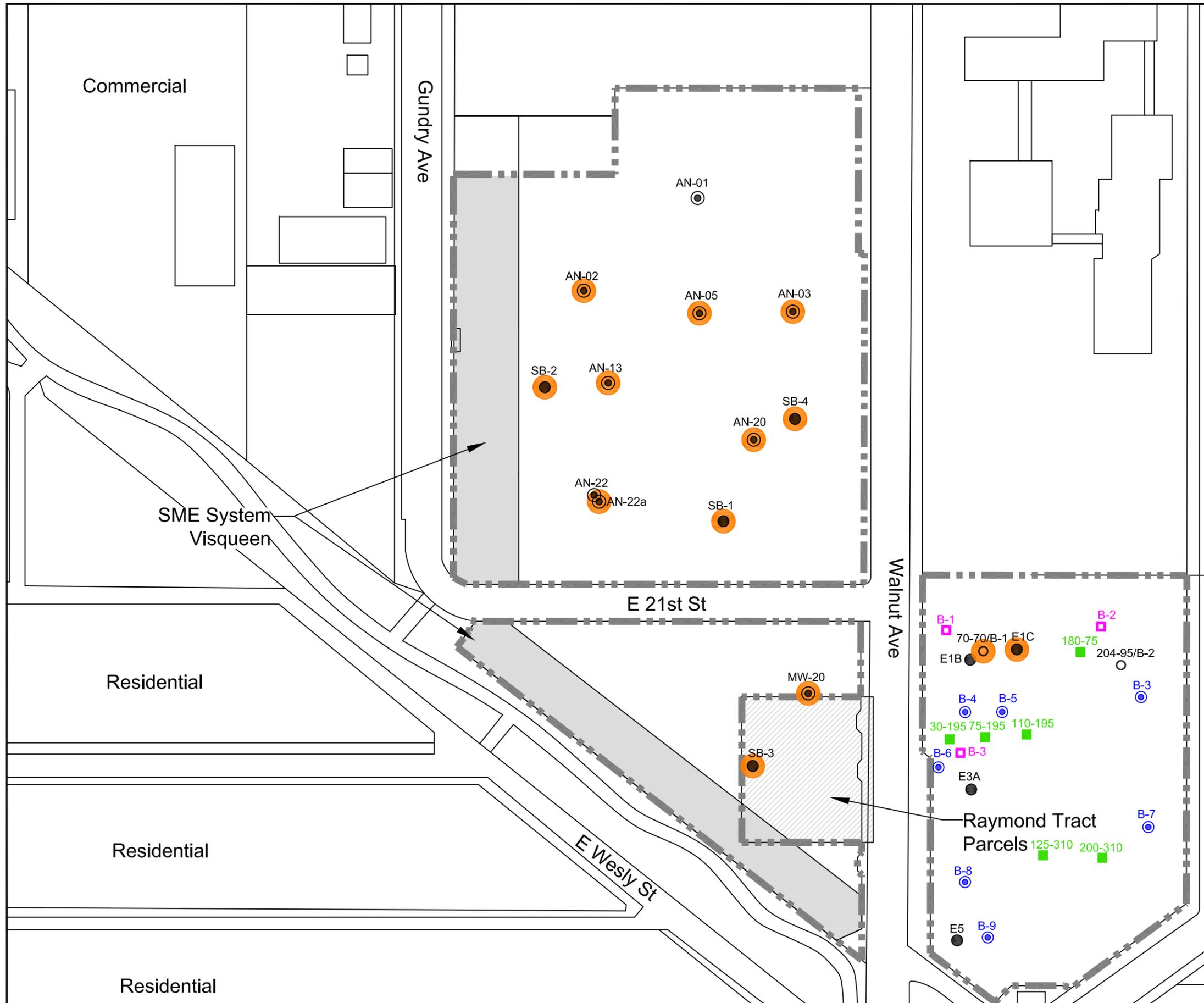


Mark Labrenz, P.G.
Principal Geologist

Attachment: Figure 2-5

cc: Ms. Jillian Ly – Los Angeles Regional Water Quality Control Board
Mr. Arthur Heath – Los Angeles Regional Water Quality Control Board

S:\Clients A - F\ChemOil Refinery\Reports\Response Plan\Figures\Fig.2-5-Summary of Soil COPC Concentrations Above Screening Levels.dwg, 6/12/2017 5:27:58 PM



LEGEND

- Site Boundary
- AN-01 Soil Sample Locations (APEX, 2017)
- SB-4 Soil Sample Locations (Tetrattech, 2006)
- SME Subsurface Metabolism Enhancement
- Orange circle Concentration of any COPC is above its applicable final soil screening level, Commercial/Industrial Scenario
- B-7 TEC Push-Drive Soil Boring (TEC, 2001)
- B-3 Former EEI (1988) Soil Boring (TEC, 2001)
- 200-30 Former TSG (1999) Soil Boring (TEC, 2001)
- 70-70/B1 Combined TSG/TEC Boring Location (TEC, 2001)
- COPC Chemical Of Potential Concern
- BGS Below Ground Surface

SUMMARY OF SOIL COPC CONCENTRATIONS ABOVE SCREENING LEVELS 0 to 40 FEET BGS

FORMER CHEMOIL REFINERY
2020 WALNUT AVENUE
SIGNAL HILL, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
093-CHEMOIL-001	05/30/17	ZA	KD

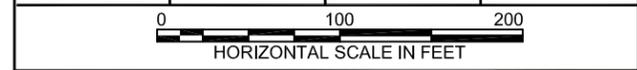







FIGURE 2-5

299 WEST HILLCREST DR., SUITE 220
THOUSAND OAKS, CA 91360