RECEIVED
By Alameda County Environmental Health at 2:12 pm, Feb 26, 2014

February 21, 2014

Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

RE: Ambassador Apartments
3610 Peralta St, Emeryville, California
(formerly 3623 Adeline Street and 1168 36th Street)
Site Conceptual Model - Addendum

Dear Alameda County Environmental Health:

The Ambassador, L.P. recently constructed a new 69-unit multifamily apartment building at the corner of Peralta and 36th Streets in Emeryville, California. Resources for Community Development (RCD) is the developer of the site and The Ambassador, L.P. is the owner. The site was previously owned by the City of Emeryville and was sold to The Ambassador, L.P. in March 2012.

The attached *Site Conceptual Model Addendum* was prepared by Adanta, Inc. ("Adanta"), who we believe to be experienced and qualified to advise us in a technical area that requires a high degree of professional expertise. We have relied on Adanta's assistance, knowledge and expertise in their preparation of the attached Addendum. I am unaware of any material inaccuracy in the information in the report or of any violation of government guidelines that are applicable to the Addendum. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Please feel free to call me at (510) 841 – 4410 x335 should you require additional information or have any questions.

Sincerely,

Jessica Sheldon
Project Manager

2220 Oxford Street • Berkeley, CA 94704 • Phone: (510) 841-4410 • Fax: (510) 548-3502

Adanta, Inc.
828 School Street
Napa, California 94559
Tel. (707) 709-8894

Adanta

February 24, 2014
Project A1185-9

Mr. Mark Detterman
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Site Conceptual Model Addendum
The Ambassador, LP
1168 36th Street
Emeryville, California
Alameda County Case ID: RO 2973
Global ID: T0619717287

This Addendum supplements the Site Conceptual Model prepared by Adanta, Inc., dated November 9, 2013, and was prepared at the request of Alameda County Environmental Health (ACEH) as part of ACEH's review of the Property under the Low Threat Closure Policy.

ANALTYICAL DATA FOR EXTRACTION WELL EW-2

Extraction Well EW-2 was installed at the Property in July 2012 by Adanta at the request of ACEH, and has only been sampled one time on September 5, 2013. Results of analyses for EW-2 have been tabulated on Table A-1 and the laboratory report is included as Appendix A-2. It should be noted that the Adanta field technician referred to the well as EW-1 on the chain of custody, which is how it is reported by the laboratory in Appendix A-2.

RIVETED UST #3

A riveted UST was encountered by Clayton (2005) and shown on Figure 2 of their report concerning the removal of Sump 2. Kleinfelder (2008) was contracted by the City of Emeryville to conduct assessment and remediation work under a US EPA Brownfields Grant. The scope of work included removal of the riveted UST found by Clayton (2005). The following is a summary of the Kleinfelder (2008) investigation.

Kleinfelder (2008) conducted a geophysical survey that encountered an anomaly on the east side of the former Sump 2 excavation. Kleinfelder then excavated and removed a UST at this location (referred to in the Adanta SCM as UST #3 and in the Kleinfelder

report as EUST). The UST was four feet in diameter by eight feet in length, and the top of the UST was nine feet below surface. The diameter and depth of this UST match those identified by Clayton in 2005.

The geophysical survey did not detect an anomaly on the west side of the former Sump 2 excavation. Kleinfelder (2008) concluded the UST they removed was the one encountered by Clayton (2005).

POTENTIAL ONSITE REMAINING SOURCES

Figure A-1 includes locations for all known sumps and USTs, including excavations and borings, monitoring wells, and extraction wells. Table A-2 provides additional data concerning these structures. Appendix A-1 provides well data in the ACEH tabular format, as requested. To the best of our knowledge all observed potential sources of contamination at the Property have been removed.

SHALLOW GROUNDWATER (Preferential Pathway Study)

ACEH has requested: 1) additional data concerning groundwater conditions in the shallow zone; 2) review of preferential pathways to justify regulatory closure under the Low Threat Closure Policy, and 3) potential impact of the underground utilities in conveying contamination offsite.

Attached as Figure A-2 is a map that depicts shallow groundwater flow directions for sites in the general area of the Property. This data was obtained from groundwater monitoring reports found on Geotracker. Adanta's review of this data indicates that shallow groundwater likely flows in a southwesterly direction from the Property.

The highest concentration of benzene reported in shallow groundwater at the Property was 28 µg/L in KB6, which was advanced in the southeast portion of the Property near 36th Street. The highest concentration of MTBE reported in groundwater at the Property was 8.5 µg/L, detected in B9, which is near UST 1 in the northeast portion of the Property.

The highest concentration of TPHd found in groundwater outside the "area of concern" was in KB1 (near the southern boundary) at a concentration of 15,000 µg/L. KB5 was advanced about 20 feet downgradient of KB1; TPHd was reported in KB5 at 490 µg/L, which suggests a stable plume. Both of these concentrations are likely inflated due to not using silica gel cleanup during analyses. The actual TPHd concentrations in groundwater at these two locations are probably lower.

Concentrations of TPHd in groundwater are likely to be further reduced because shallow groundwater was dewatered during construction of onsite subsurface infrastructure. Groundwater was pumped from dewatering wells into onsite storage tanks before being discharged to the storm drain along 36th Street under permit to the EBMUD. Release

occurred over a time period of one month from June 7, 2012 to July 6, 2012. Approximately 23,640 gallons of shallow groundwater water was discharged. KB1 was located less than five feet north of the dewatering trench, and KB5 was located less than five feet south of the dewatering trench. The area of dewatering is depicted on Figure A-1 as well as Figure A-4 (Cross Section D-D').

The primary chemicals of concern in the shallow groundwater at the Property are total petroleum hydrocarbon compounds as diesel (TPHd) and motor oil (TPHmo). The offsite extent of shallow groundwater of these contaminants is not defined downgradient of soil borings C-7, KB-1, and KB-6. Nevertheless, the maximum extent of contamination plumes can be estimated based on Low Threat Closure Policy Technical Justification for Groundwater Plume Lengths (LTCP).

LTCP contaminant plumes are based on concentrations of TPH as gasoline (TPHg), MTBE, and benzene. Neither TPHd or TPHmo are used to describe plume lengths in the LTCP because the hydrocarbons in the TPHd carbon range are of lower solubility and do not migrate downgradient as far when compared to TPHg, MTBE, and benzene. Therefore, the plume lengths based on LTCP are conservative estimates beneath the Property.

The downgradient plume length based on the LTCP is estimated to be less than 250 feet and is based on the Class 2 LTCP scenario of a "moderate" stabilized plume. This scenario is believed to be conservative for the Property. The scenario approximates the average benzene plume length from the cited studies with maximum concentrations of benzene (3,000 ug/l) and MTBE (1,000 ug/l) with no free product as a source. The actual concentration of groundwater contaminants at the Property is considerably less than the assumed values.

As stated above the highest concentration of benzene reported in groundwater at the Property was 28 µg/L in KB6 in the southeast portion of the Property north of the sidewalk on 36th Street. The highest concentration of MTBE reported in groundwater at the Property was 8.5 µg/L, detected in B9, which is near UST 1 in the northeast portion of the Property. Therefore, an estimated plume length of less than 250 feet is appropriate. The LTCP suggests that these residual concentrations are expected to biodegrade/naturally attenuate to Water Quality Objectives within a reasonable time frame.

There are no known active monitoring wells or production wells within 1,000 feet of the Property in a downgradient flow direction. (Please refer to Figure A-2, Maximum Likely Groundwater Plume Map). Kleinfelder (2009) conducted a Preferential Pathway and Potential Receptor Survey and documented that drinking water wells are not found within 2,000 feet of the Property. In addition, one industrial well installed in 1936 is located approximately 300 feet southeast of the Property in a cross-gradient groundwater flow direction. However this well has since been abandoned. The closest known well to the site is located approximately 900 feet southwest of the site and the depth of the well is

approximately 25 feet ((Kleinfelder, 2009). However, the site at which this well had been installed has received regulatory closure and the well has been abandoned.

Storm Drain and Sewer Lines

According to Kava Massih Architects, the architectural firm responsible for design of the Ambassador Apartments, the sewer line beneath the sidewalk adjacent to the Property and 36th Street is a 30-inch diameter line. The outside top of the sewer line at the entrance to the parking structure at the Property is seven feet below surface, so the bottom of the trench would be about 9.5 feet below surface at that location with a slope to the west. The storm drain beneath 36th Street is a 60-inch diameter steel pipe. At the junction box at Peralta and 36th Street, the top of the line is about five feet below surface. So the estimated depth of the bottom of the storm drain would be about 10 feet below surface at that location, and shallower going northeast along 36th Street. As noted above, dewatering at the Property occurred during June 2012. The groundwater at that time was 10 feet below surface. The highest reported depth to shallow groundwater was estimated at 8.5 feet in four soil borings advanced by Clayton in 2003.

Because the depth of the storm drain is likely between 9 and 10 feet along the Property as it trends westward, it is possible that a portion of the shallow groundwater at the Property was exposed to the preferential pathway caused by the storm drain. The distance to San Francisco Bay, where the storm drain releases, is almost 4,300 feet. Any contamination found in the shallow groundwater at the Property, if it exists, would dissipate or attenuate prior to arriving at San Francisco Bay. The sewer line along 36th Street trends west where it intersects with a larger line that trends south along Peralta Street to 4th Street before it enters the main EBMUD wastewater treatment plant. This distance is about 3,900 feet. The flow along this line is treated before it is released into San Francisco Bay. It is highly unlikely that shallow groundwater contamination at the Property could make its way to the treatment plant because of dispersion and attenuation of the contamination. The locations of the storm drain and sewer line are depicted on Figure A-1.

SITE TIMELINE

See Table A2, attached, for a summary of underground structures at the Property and their corresponding ACEH case numbers.

INFRASTRUCTURE STATUS TABLES

Table A2, attached, documents the status of known underground structures at the Property.

RESIDUAL SOIL CONTAMINATION CROSS-SECTIONS

Figures A-3 and A-4 offer revised and additional cross-sections of the Property.

This Addendum addresses the comments and requests for additional information in the email from ACEH staff dated February 7, 2014. Thank you for considering the Ambassador site for regulatory closure under the Low Threat Closure Policy.

Nick Patz
Project Manager

Paul Stoppelmann, PG #6559
Professional Geologist

Attachments

Figures
Figure A-1 – Sample and Structure Location Map
Figure A-2 – Plume Map
Figure A-3 – Cross Sections (revised)
Figure A-4 - Cross Section D-D'

Tables
Table A-1 – EW-2 Groundwater Data
Table A-2 - Infrastructure
Table A-3 – Soil Boring and Well Data

Appendices
Appendix A-1 – Site Well Construction Details Form
Appendix A-2 – Groundwater Laboratory Analytical Report for EW-2