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3 April 2008

Jerry Wickham
Hazardous Materials Specialist
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1131 Harbor Bay Parkway, Suite 250
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Subject: Summary of 12 March 2008 Project Meeting
Tesoro Projects in San Leandro, San Lorenzo, and Livermore, California

Dear Mr. Wickham:

Arctos Environmental (Arctos), on behalf of Tesoro Companies, Inc. (Tesoro), has prepared this letter summarizing the subject project meeting conducted at the Alameda County Environmental Health (ACEH) office and attended by Arctos, Tesoro, and Haley & Aldrich. The objective of the 12 March meeting was to review the status of the three Tesoro sites and plan future work, if required, as described below.

Livermore (Tesoro No. 67076; Former Beacon 3604; ACEH Case No. RO0434)

The site is an active service station located at 1619 1st Street in Livermore, California. As requested in your letter dated 28 December 2007, Arctos prepared an interim remedial action plan (IRAP) to (1) install deep monitoring wells and (2) operate an in situ groundwater remediation system. The deep wells will monitor water quality in the lower interval of the aquifer at and downgradient of the site. One onsite and three downgradient deep monitoring wells were proposed.

The proposed in situ remediation system will consist of an oxygen injection system and a soil vapor extraction (SVE) system. Oxygen will be injected into seven wells installed in the source area to enhance the biodegradation of petroleum hydrocarbons. The wells will be screened in a saturated sand layer that is roughly 40 feet thick. The SVE system will be installed to remediate hydrocarbon-impacted saturated soils exposed during periods of low groundwater levels. The SVE system will assist in groundwater remediation by removing vapor- and sorbed-phase hydrocarbons that contribute to groundwater impact.

Based on the consensus reached in the meeting, the IRAP was submitted to the ACEH on 21 March 2008. Tesoro is planning to install the deep wells and the remediation systems in the second quarter of 2008.

San Lorenzo (Tesoro No. 67107; Former Beacon 3721; ACEH Case No. RO0498)

The site is an active service station located at 44 Lewelling Boulevard in San Lorenzo, California. As requested in your letter dated 27 September 2007, Arctos conducted a constant rate pump test at well MW-3R to analyze the capture zone of the groundwater extraction wells at the site. Based on the recovery data from well MW-3R, an estimated transmissivity of 50 gallons per day per foot was calculated for the site. Based on this low transmissivity and the low groundwater extraction rates of 0.5 to 0.75 gallons per minute, the meeting participants concluded that the groundwater extraction system was not sufficient for reducing concentrations on site and the system was shut down on 12 March.

Arctos also presented a draft geologic cross section for the western property boundary of the site. The draft cross section indicates that extraction well RW-1, screened 5 feet deeper then wells RW-2 and MW-3R, penetrates a gravel zone in the bottom of the screened interval. Petroleum hydrocarbon concentrations at well RW-1 are significantly less then concentrations at wells RW-2 and MW-3R, which could indicate the deeper gravel is a different hydrogeologic zone. Because well RW-1 is screened across multiple zones the meeting participants agreed to evaluate it for abandonment. A scope of work to abandon well RW-1 will be included in the required work plan.

To replace the groundwater extraction system, a passive oxygen injection system was proposed for the western property boundary. The proposed injection system will operate for approximately 6 months to evaluate (1) the correct well spacing and (2) if oxygen injection by diffusion is sufficient to induce aerobic groundwater conditions. If required, additional downgradient injection wells or a different oxygen injection technology will be proposed. As required in your letter dated 31 December 2007, Arctos will provide a detailed work plan by 30 April 2008 that includes the location of the proposed injection wells, monitoring points, and types and frequency of measurements to be used to meet the objectives of the initial 6 months of operation.

San Leandro (Tesoro No. 67106; Former Beacon 3720; ACEH Case No. RO0216)

The site is an active service station located at 1088 Marina Boulevard in San Leandro, California. An existing groundwater treatment system was shut off in May 2006 after analysis of influent samples did not detect petroleum hydrocarbons concentrations for the preceding 10 consecutive months. Quarterly groundwater sampling continued after system shut down. During the January 2008 groundwater sampling, the highest total

petroleum hydrocarbons as gasoline (TPHg), benzene, and methyl tert-butyl ether (MTBE) concentrations were 8,100, 14, and 4.9 micrograms per liter (µg/l), respectively. These concentrations represent a decrease of 94 to 99 percent from the highest concentrations reported at the site.

During the meeting, Arctos provided an update of a large regional chlorinated hydrocarbon plume identified as the San Leandro, or DWA, plume. The northern boundary for this plume is defined by Marina Boulevard, directly downgradient of the site. Because of this plume, the Department of Toxic Substances Control (DTSC) has limited any beneficial use of shallow groundwater in the area. Groundwater remediation of the DWA plume is managed by the DTSC, which is injecting hydrogen release compound (HRC) to remediate downgradient portions of the plume by anaerobic biodegradation.

Based on the decreasing groundwater concentrations at the site and the presence of the downgradient chlorinated hydrocarbon plume, the meeting participants agreed that this site meets requirements for a low-risk closure. Arctos will review the historical soil data and determine if a soil gas survey is warranted. Arctos will also provide a summary of site activities, current groundwater conditions, and soil analytical results in a closure request to the ACEH by 30 April 2008.

If you have questions or comments, please call Mike Purchase at 510/525-2180 or Jeff Gwinn at 562/988-2755.

Very truly yours,

ARCTOS ENVIRONMENTAL

For Michael P. Purchase, P.E.
Senior Project Manager

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