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August 31, 2011

Ms. Maura O'Brien
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, Washington 98008-5452

Sent via FedEx Saver

Subject: A Yard Well Installation Workplan
Kinder Morgan Harbor Island Terminal
Seattle, Washington
Antea Group Project No. STKM-001-W.0003
KMLT File No. 29.79.02 (81171)

Dear Ms. O'Brien,

On behalf of Kinder Morgan Liquids Terminals LLC (KMLT), AnteaTM Group is pleased to submit this workplan to install one groundwater monitoring well in the A Yard at the KMLT Harbor Island Terminal located at 2720 13th Avenue Southwest in Seattle, Washington ("the site"). The purpose of this workplan is to respond to EPA's concerns regarding further evaluation of the 13th Avenue Southwest contamination. Specifically, in their 5-Year Review Report, EPA recommended evaluating the extent and potential migration pathway outside the TF-OU2 boundary. The intent of the well installation is to delineate the downgradient hydrocarbon impacts within the 13th Avenue corridor.

SCOPE OF WORK

Antea Group proposes to install one groundwater monitoring well (MW-26) at the location shown on Figure 1. The well will be installed by a professional well driller licensed in the state of Washington using a hydraulic-push probe drill rig. Soil samples will be collected at approximate 5-foot intervals. The well will be constructed of 2-inch diameter, schedule 40, polyvinyl chloride (PVC), and will be approximately 15-feet deep with 10-feet of 0.010-inch slotted screen. The well will be backfilled with sand to 2-feet above the screen, followed by a 1-foot bentonite seal. The groundwater monitoring well will then be backfilled with bentonite grout to 6-inches bgs and will be completed to ground surface using flush-mounted well vaults and lids.

Following installation, the groundwater monitoring well will be developed. Well development is performed to produce representative formation water that is free of drilling fluids, drilling cuttings, or other material potentially introduced during drilling and well construction activities. Development shall be performed through a combination of surging and groundwater pumping.



After development, the groundwater monitoring well will be sampled. A representative sample is assumed to be obtained when pH, temperature, specific conductance and turbidity readings have stabilized (pH within 0.1 standard pH unit, temperature within 0.5 degrees Celsius, conductivity within 10 percent, and turbidity within 0.5 nephelometric turbidity units (NTU) and below 10 NTU).

Soil and groundwater samples selected for chemical analysis will be delivered to Alpha Analytical located in Sparks, Nevada and analyzed within standard holding times. Soil and groundwater samples will be analyzed for the following constituents of concern:

- Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX) by EPA Method 8260;
- Total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method NWTPH-Gx; and
- Total Petroleum Hydrocarbons as diesel (TPH-D) and Total Petroleum Hydrocarbons as oil (TPH-O) by EPA Method NWTPH-Dx with silica gel cleanup.

Antea Group will present the findings of the investigation in a summary report. The report will include a table summarizing analytical data, a site map showing well locations relative to on-site structures, and a discussion of field screening procedures, field data and analytical results.

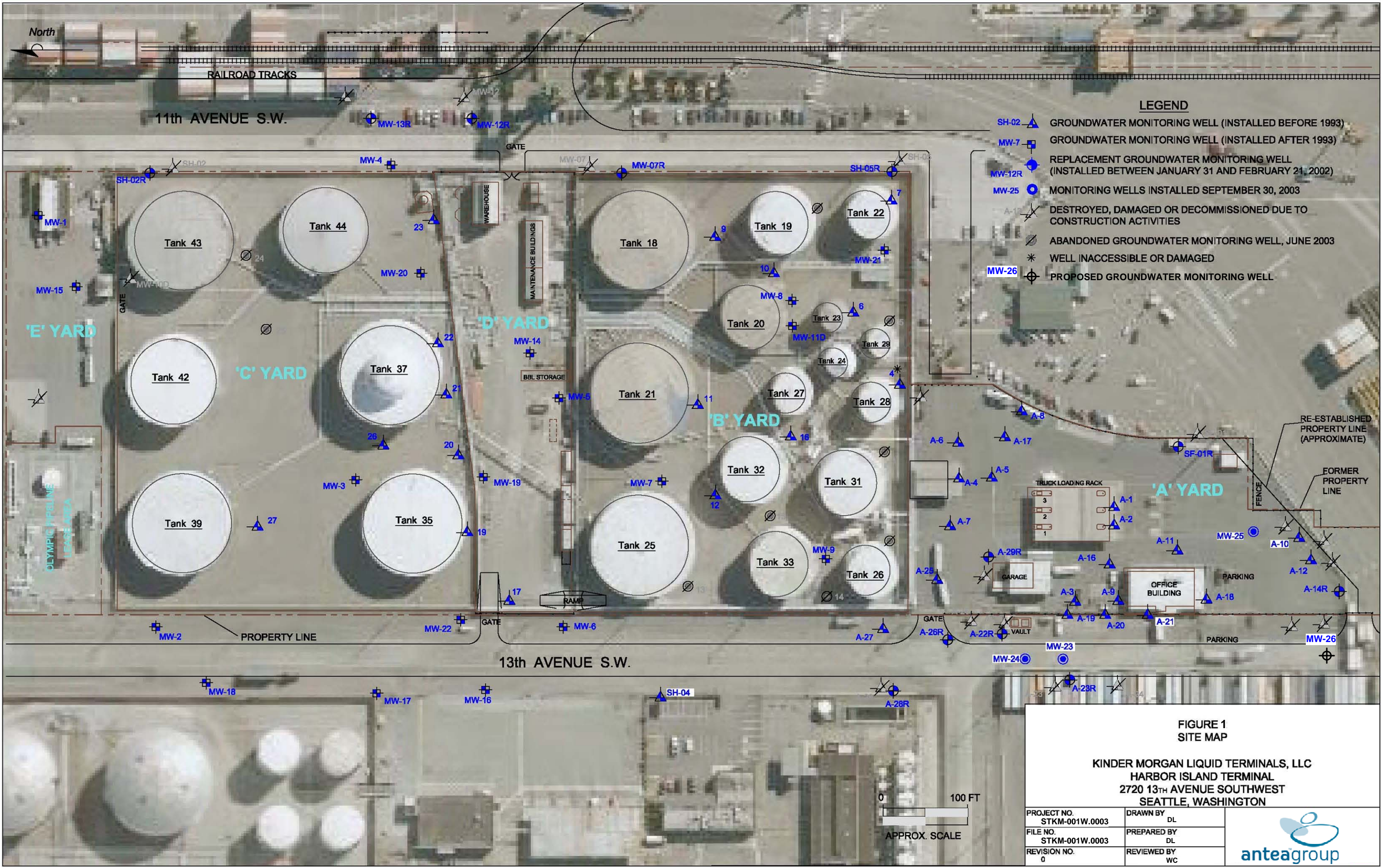
Please call if you have any questions regarding the contents of this letter, or if you would like to discuss any aspect of the proposed confirmation monitoring or well installation plan. Antea Group looks forward to your approval of this workplan.

Thank you,



Dawna Leong
Senior Engineer
ANTEA GROUP

cc: Mr. Chuck Wagner, KMLT, Seattle, WA (CD copy)
Mr. Andrew Holbrook, KMLT, Portland, OR (CD copy)
Mr. Robert Truedinger, c/o Stephanie Randall, KMLT, Orange, CA (CD copy)
Ms. Stephanie Randall, KMLT, Orange, CA (File copy)
File Copy, Antea Group



LEGEND

- SH-02 ▲ GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
- MW-7 ■ GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
- MW-12R ● REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
- MW-25 ● MONITORING WELLS INSTALLED SEPTEMBER 30, 2003
- A-1 ✂ DESTROYED, DAMAGED OR DECOMMISSIONED DUE TO CONSTRUCTION ACTIVITIES
- ABANDONED GROUNDWATER MONITORING WELL, JUNE 2003
- * WELL INACCESSIBLE OR DAMAGED
- MW-26 ⊕ PROPOSED GROUNDWATER MONITORING WELL

**FIGURE 1
SITE MAP**

**KINDER MORGAN LIQUID TERMINALS, LLC
HARBOR ISLAND TERMINAL
2720 13TH AVENUE SOUTHWEST
SEATTLE, WASHINGTON**

PROJECT NO. STKM-001W.0003	DRAWN BY DL
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