PORT OF OAKLAND

January 6, 2006

Mr. Barney M. Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda CA 94502-6577

Subject: **Response to Comments**
Berths 60-63 Redevelopment Project
1395 Middle Harbor Rd., Oakland CA 94607
RO0000470

Dear Barney:

Attached please find a Memorandum dated January 6, 2006 prepared by ETIC Engineering, Inc (ETIC), the consultant to the Port of Oakland (Port) on the above referenced project. The Memorandum summarizes the Port's preliminary responses to your comments outlined in your letter dated November 14, 2005.

As you know, the Port will be initiating its redevelopment activities later this year and we are interested in discussing the environmental concerns you've referenced in your comments and the Port's related responses. To this end, we'd greatly appreciate a meeting with you this month to more specifically present the proposed project and our plan to address known and unknown contamination during the project. Based on our schedule, we are envisioning a meeting during the week of January 23, 2006. I will call you to follow up regarding your availability for a meeting.

Sincerely,

John Prall

John Prall, P.G.
Port Associate Environmental Scientist
Environmental Health & Safety Department

Cc: Michele Heffes, Port of Oakland
Chris Noma, Wendel Rosen Black & Dean
Deborah Ballati, Farella Braun & Martel
Joe Whalen, Farella Braun & Martel
Philip King, Meckler Bulger & Tilson
Al Notary, Brown and Caldwell

ETIC ENGINEERING

January 6, 2006

MEMORANDUM

To: John Prall
Environmental Health and Safety Compliance (EH&SC)
Port of Oakland (Port)

From: Matthew Janowiak, Katherine Brandt, and Mehrdad Javaherian
ETIC Engineering, Inc. (ETIC)

Re: **Response to Comments from Alameda County Health Services – Environmental Protection dated November 14, 2005**
APL Terminal, Berths 60-63 Yard and Gate Redevelopment Project
Oakland, California

On behalf of the Port, ETIC has prepared this memorandum responding to the November 14, 2005, comment letter from the Alameda County Health Care Services Agency (ACHCS). Specifically, this memorandum outlines responses to comments regarding the state of soil and groundwater contamination and the requests for additional work and/or evaluation of data prior to the initiation of redevelopment activities at Berths 60-63. This response will be followed by two additional documents prior to initiation of construction; a Grading Contingency Plan (GCP) in support of the proposed redevelopment activities and a separate pre-construction memorandum currently under preparation. The GCP will provide details of the overall field approach for identifying, delineating, excavating, stockpiling, sampling, and disposing of impacted soils encountered during the redevelopment project. The forthcoming pre-construction memoranda will specifically address ACHCS' comments regarding the exceedances of environmental screening levels (ESLs) reported in Treadwell and Rollo, 2 May, 2005 for several areas of environmental concern at Berths 60-63.

Lastly, another report is under preparation and is planned to be submitted to the Regional Water Quality Control Board San Francisco Bay Region (RWQCB) as the lead agency for the Municipal Debris Fill Area. This memorandum will outline the feasibility of remediating the limited Bunker C product and dissolved plumes at this location. The ACHCS will be copied on this memorandum upon submitting it to the RWQCB.

RESPONSE TO COMMENTS

In general and to the extent possible, the Port intends on addressing the ACHCS' environmental concerns through activities prior to and/or during the proposed redevelopment activities, slated to begin in March/April of 2006. This intent stems from the desire to minimize construction delays during redevelopment, minimize costs related to remediation and redevelopment, and to limit interference with terminal operations following redevelopment. Addressing these issues prior to and/or during the

redevelopment should achieve these goals while providing the needed information to assess the need for any focused investigations following redevelopment.

Accordingly, the responses documented herein focus on evaluating existing data, determining the potential significance (if any) of observed impacts, and determining an approved course of action based on risk-based decision making, planned redevelopment activities, and future use/configuration of the terminal. An integral part of this process will be the Grading Contingency Plan (GCP), which will outline a plan, to be approved by the ACHCS (before construction begins), to address known and unknown subsurface impacts during redevelopment activities. Briefly, the Port intends to oversee all excavation work to ensure contaminated soils and retained water are properly characterized and disposed in a streamlined fashion and with minimal delays to the redevelopment process. This plan will address observed impacts at areas of known contamination, such as those commented on by the ACHCS. In addition, the plan will also detail protocols for other, currently unknown areas should impacted materials be encountered during redevelopment activities. On the Port's behalf, ETIC is in the process of preparing the GCP and will submit it for review/approval by the ACHCS prior to initiation of redevelopment activities.

Below, ETIC provides a response to each of the County's specific comments in their letter dated November 14, 2005. For clarity, each ACHCS comment is presented prior to ETIC's response.

ACHCS Comment 1: "Well Decommissioning – we approve the decommissioning of wells MW1-MW3 installed for the investigation of former USTs, EF6-9."

Response: The Port will decommission the wells prior to redevelopment activities. Permits will be obtained prior to conducting this work and we will follow standard abandonment protocols. As requested by ACHCS, the Port will submit the requested technical report within 30 days of completing the well decommissioning.

ACHCS Comment 2: "UST Area EF6-9 – This UST area will require additional investigation post-development. The lateral and vertical extent of petroleum in soil and groundwater should be investigated, particularly in the direction of building E-221, which will be accessible after this building is demolished. Replacement wells will also be necessary to demonstrate plume stability. The significance of HVOCs detected in soil will also need investigation. Please provide a work plan for soil and groundwater investigation and replacement wells as requested below. We concur with the referenced report, ie no building should be built above this area without County concurrence."

Response: Based on a review of historical data, including chemical concentration trends in groundwater downgradient of the subject building, characterization of soil and groundwater via additional borings/wells directly within the footprint of this building prior to redevelopment appears unnecessary; however, to the extent that the proposed redevelopment plans for this portion of the site include removal of the building and re-grading of soil to an approximate depth of 2 feet, field observations and related responses to these observations to be outlined in the GCP will ensure that soils visibly impacted within the building footprint will be removed. The rationale behind this conclusion is summarized below.

The underground storage tanks (USTs) at the Tanks EF6-9 Area were installed as described below:

- EF6 was installed in 1966 or 1969. The initial permit application was dated 1966; however, a subsequently filed operating permit indicates EF6 was installed in 1969.

- EF7 - operating permit indicates this tank was installed in 1969
- EF8 - operating permit indicates this tank was installed in 1969
- EF9 - operating permit indicates this tank was installed in 1969

All these tanks were removed in January 1992. During UST removal, holes were noted in the waste oil tank. Three groundwater monitoring wells (MW1 through MW3) were installed to characterize groundwater quality. These wells exhibit a declining trend in dissolved hydrocarbon concentrations over the 3.5-year period of record. As an example, the latest round of sampling (June 2005) included non-detect levels for all chemicals of potential concern (COPCs), with the exception of total petroleum hydrocarbons (TPH) as diesel (TPH-d) in MW2 and MW3, which were reported at 100 µg/L and 99 µg/L, respectively. These detections are well below the highly conservative RWQCB ESLs for commercial/industrial (640 ug/L) and ecological (i.e., aquatic impacts-640 ug/L) exposure and are considered insignificant.

To the extent that the observed hydrocarbons are predominantly heavier, less mobile, and less toxic hydrocarbons (i.e., TPH-d and TPH as motor oil (TPH-mo)) characterized by residual and declining concentrations, the observed hydrocarbon plume appears stable and declining through biodegradation and natural attenuation. Moreover, while soil and groundwater data directly from the footprint of Building E-221 are unavailable, groundwater quality downgradient of this building has been monitored at wells MW2 and MW3. The results indicate the absence of a source and the presence of a stable/declining plume (see enclosed Figures 3 and 4 from Treadwell and Rollo (2 May 2005)).

Regarding the HVOCs detected in soils within the EF6-9 area, the detected compounds are petroleum hydrocarbons, found in raw and refined petroleum. Specifically, isopropyl benzene, naphthalene, propylbenzene, and 1,2,4-trimethylbenzene are common components of refined petroleum fuels. Detection of these compounds in soil samples collected in the EF6-9 area is consistent with a past fuel release from the former storage tanks. Given that these compounds are fuel hydrocarbons, the TPH risk-based screening levels should be applied to soils in the EF6-9 area. The TPH concentrations were evaluated in the ETIC/SAIC Construction Worker Risk Assessment, and the risks associated with TPH and the HVOCs that make up the TPH were found to be insignificant or mitigated through implementation of a Site Health and Safety Plan. A minor detection of vinyl chloride has also been encountered in monitoring well MW-3; however, this well had no prior detection of this or other chlorinated solvents.

For the above reasons, the Port requests that ACHCS assess the need for replacement wells after the redevelopment is completed in this area, at which time the data generated during the excavation phase can be reviewed and a determination made regarding the need for replacement wells in this area. Should it be determined that replacement wells are needed, the Port will submit a work plan to install these wells within the timeframe requested by ACHCS.

ACHCS Comment 3: "UST Area EF-11 through EF-13 – The presence of TPHd and TPHmo contamination, which increases with depth should be investigated and explained. Please provide your response in the work plan requested below."

Response: The migration of petroleum hydrocarbons over time away from a release point above the water table is expected to produce a concentration profile with highest concentrations at or near the water table, and lower concentrations in the shallower soils. Fluctuating groundwater levels will further smear the floating hydrocarbons through a thicker soil column. In these cases, there will be higher

concentrations of petroleum hydrocarbons in the "smear zone" when compared to the overlying shallower soil horizons.

Port records indicate that EF11 was installed in 1973 and EF12 and EF 13 were installed in 1975. All three USTs were removed in 1990.

At UST Area EF11-EF13, Treadwell and Rollo advanced soil borings to depths of 15 feet bgs at this location. Soil samples from depths of 4 and 6 feet bgs were collected and analyzed. Groundwater depths range on average from 6 to 10 feet bgs, placing the 6-foot bgs soil samples within the "smear zone", at times beneath the water table and at times within the capillary fringe. The shallower samples contain lower concentrations of TPH-d (<1 to 110 mg/kg) and TPH-mo (<5 to 360 mg/kg) than the 6-foot soil samples (TPH-d ranges from <1 to 1,200 mg/kg and TPH-mo ranges from <5 to 1,200 mg/kg), while TPH levels were not detected in groundwater at these same locations (see enclosed Figure 6 from Treadwell and Rollo (2 May 2005)). This phenomenon is not uncommon at sites where heavier-range hydrocarbons have been historically released and over time have become essentially immobilized (i.e., adsorbed onto the soils) within the "smear zone". Specifically, the observed concentration profile reflects a historic release from a nearby UST, where the heavy-end hydrocarbon mass in the vadose zone has been essentially depleted, leaving an insoluble mass within the smear zone and with no threat of hydrocarbon migration in the dissolved phase.

The data collected by Treadwell and Rollo (2 May 2005) were incorporated into the ETIC/SAIC Construction Work Risk Assessment, and no significant construction worker risks were identified (ETIC/SAIC, 21 March 2005).

Further characterization of TPH levels in the "smear zone" does not appear warranted at this time. As before, any field observations reflecting visible impacts to soils during redevelopment activities in this area will be addressed via the protocols outlined in the forthcoming GCP.

ACHCS Comment 4: "UST Area EF-14: We concur that no further work appears necessary for this former UST."

Response: Based on ACHCS comment, the Port will not conduct any predevelopment work at the UST Area EF-14. Please note that if any contaminated materials are encountered during the redevelopment work, they will be managed according to the GCP.

ACHCS Comment 5: "Other impacted areas – The listed reports identify other impacted areas within the planned redevelopment including the Municipal Debris Fill Area to the west, the Diesel Spill/Railyard Area to the north, the B20 Area, named for the impacted boring in an area believed impacted by historic industrial use and the General Area, representing the rest of the site, which has also been impacted by historic uses. Within these areas, sample locations exceeding ESLs have been identified. These areas should be evaluated for remediation or additional investigation and any work should be performed prior to the proposed redevelopment. Areas of free product should be remediated to the extent possible. Groundwater impact should be determined and monitoring wells should be considered in significantly impacted areas. The threat of contamination to the nearby surface water should be evaluated. Provide your investigation work plan as requested below."

Response: Multiple areas of environmental concern at the terminal are addressed by this comment and include areas of free phase product and ESL exceedances. With the exception of a single observation of

diesel product within the Diesel Spill/Railyard Area, the only other known occurrence of free product is that associated with the Municipal Debris Fill area. ETIC, on behalf of the Port, is in the process of completing a Feasibility Study (FS) report to be submitted to the RWQCB. The report evaluates the feasibility of remediating the Bunker C free product plumes and the limited dissolved plume in the Municipal Debris Fill Area. Based on the findings of the FS, ETIC has concluded that the Bunker C product plumes and limited dissolved plumes do not warrant active remediation. This conclusion is largely based on an evaluation of the physical/toxicological properties, the limited extent, and the age of the Bunker C product plumes, together with the stability of the dissolved-phase plume and practicable limitations of various remedial alternatives for addressing Bunker C. Once completed, ETIC's feasibility study will be submitted to the RWQCB, with the ACHCS copied on the report.

As discussed earlier, a second pre-construction memorandum will be prepared to address the ESL exceedances and the only other detection of free product (Diesel Spill/Railyard Area) referenced in ACHCS' comment. In addressing the ESL exceedances, it is important to recognize that the commercial/industrial ESLs cited by Treadwell & Rollo were used only as a screening tool and the exceedances were not further evaluated. The exceedances do not necessarily reflect actual exposure pathways present at the site. Nor do they reflect other key factors, such as plume stability, typical background levels for metals, target risk/hazard levels used, and other related factors.

For example, in the Diesel Spill/Railyard Area, arsenic in soil exceeds the commercial/industrial ESL. Arsenic detections ranged from 4.2 mg/kg to 38 mg/kg; however, the Lawrence Berkeley National Laboratory has documented typical background concentrations for arsenic in Bay Area soils approximating 19.1 mg/kg (based on 95% upper confidence limit of the mean background concentration), with observed arsenic background concentrations ranging from 0.28 mg/kg to 63 mg/kg. Hence, although they exceed commercial/industrial ESLs, the observed arsenic levels at the site are within the typical background range for Bay Area soils and do not warrant active remediation. Arsenic and chromium concentrations in the Boring B-20 Area are also within the range of background concentrations typical of Bay Area soils.

For the above reasons and to properly evaluate the significance of the observed concentrations of chemicals in the "other impacted areas", the forthcoming memorandum will outline complete/incomplete exposure pathways for Commercial/Industrial workers under the post-development land use/site configuration scenario, and will further evaluate potential groundwater impacts to the Oakland Harbor. This technical memo will calculate hazard quotient and incremental cancer risks for the polycyclic aromatic hydrocarbons (PAHs) and other chemicals exceeding ESLs, as well as provide additional information on the Port's administrative controls for daily site occupants. We intend on discussing the technical contents to be outlined in these memoranda with the ACHCS during our recommended meeting in January.

Also worth noting is that earlier this year, ETIC performed a comprehensive data evaluation for the entire terminal and prepared a Construction Worker Risk Assessment in support of the proposed redevelopment activities. This document was included in the package of reports previously submitted to ACHCS, based on the reference list in the subject comment letter. This risk was quantitatively evaluated, deemed to be insignificant, and otherwise addressable via risk management and health and safety measures prior to and during construction activities. Importantly, given the proposed future use of the terminal, the primary potential for human exposure to the observed levels of contamination in these areas is limited to construction/maintenance workers.

Lastly, as with other areas of known contamination, the Port intends to address any visible impacts to soils by implementing the procedures in the GCP.

ACHCS Comment 6: "Preferential Pathways – Storm drains have been identified as potential preferential pathways. In addition, new utilities associated with the development may encounter impacted soils. A recent release from Kinder Morgan pipeline is suspected of impacting a storm drain running north-south through the General Area. The threat of these releases and their impact to the estuary should be evaluated prior to redevelopment."

Response: The Port has reviewed available data regarding the known and suspected extent of mobile, separate-phase hydrocarbons in the areas subject to redevelopment. Figure 3 of ETIC/SAIC (2005) (attached) depicts the proposed future storm drains across the terminal and the existing storm drain these new drains will connect to. The storm drains noted in the attached figure are shallow strip drains that will be locally tied into the existing deeper drains. The digging anticipated for the strip drains will be into the pavement section and minimal invasion into the deeper underlying (existing) fill soils. The deeper existing drains that outfall into the bay will not be improved. These deeper drains were inspected during the design process and found to be structurally sound and functional. Figure 13 from Treadwell and Rollo, 30 March 2005, is attached to illustrate the existing storm drain configuration in the Berths 60-63 redevelopment area.

For the above reasons, while sporadic detections of PAHs and other chemicals occur in groundwater beneath many of the various areas of environmental concern, there is no evidence of contiguous plumes or existing lines which may be preferentially transporting such plumes. Hence, based on existing information, the Port does not believe there are indications that existing or future storm drains are/will act as preferential pathways for migration within the Berths 60-63 redevelopment area.

The Kinder Morgan pipeline spill was responded to and investigated under the purview of the USEPA. Test pits were dug along the sewer lines near the spill to assess the potential for continued migration of product into and along the adjacent storm drains. Storm drains were lined and leaks were repaired, separate-phase hydrocarbons were recovered from a French drain, storm drains, and surface waters. USEPA installed 16 monitoring wells, and dug seven test pits. USEPA concluded that there was no ongoing migration of the spilled product via the storm drains (personal communication with Brett Moxley, on-scene coordinator with the EPA). For additional reference, EPA's related Pollution Reports are attached herein.

The Port will address the potential for creating preferential pathways during construction of new storm drains in the GCP. This plan will also address the potential for leaving drains in place without creating preferential pathways (Figure 3, from ETIC and SAIC, March 21, 2005). Moreover, the Port anticipates that the GCP will include procedures and criteria for overexcavation of impacted soils that may be encountered. Where overexcavation is not feasible, the plan will identify other mitigation measures for storm drain construction similar to those implemented at the UP Roundhouse area (e.g., concrete collars across trenches to prevent fluid migration; Geomatrix, 11 April, 2005, NFI Response).

ACHCS Comment 7: "Co-ordination with other agencies – Please identify the nearby and neighboring sites, which may have some impact on the proposed development area and provide the name of the overseeing agency and their contact information. We will copy them with correspondences and hope they will reciprocate. Provide this information as requested below."

Response: Figure 3 of ETIC/SAIC (2005) shows the area proposed for redevelopment and the locations of parcels under the purview of the RWQCB and ACHCS. Note that the UP Roundhouse parcel and the Municipal Debris Landfill areas lie partially within the redevelopment area and also are "neighboring sites".

The contact information for the RWQCB is:

East Side of the APL Terminal, the Roundhouse Area
Max Shahbazian
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612
(510) 622-4824

West Side of APL Terminal, Berths 57, 58 & 59 Area
Roger Papler
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612
(510) 622-2435

This is the same contact information provided to ACHCS by email from the Port on December 2, 2005.

ACHCS Comment 8: "Provide a schedule for the Re-development – As soon as possible, please provide a schedule for the development."

Response: A roll-up schedule of major activities is attached. This is the same schedule submitted by the Port via email on December 2, 2005. Please note the target start date of April 30, 2006. The overall duration of the project is currently anticipated to run 30 months.

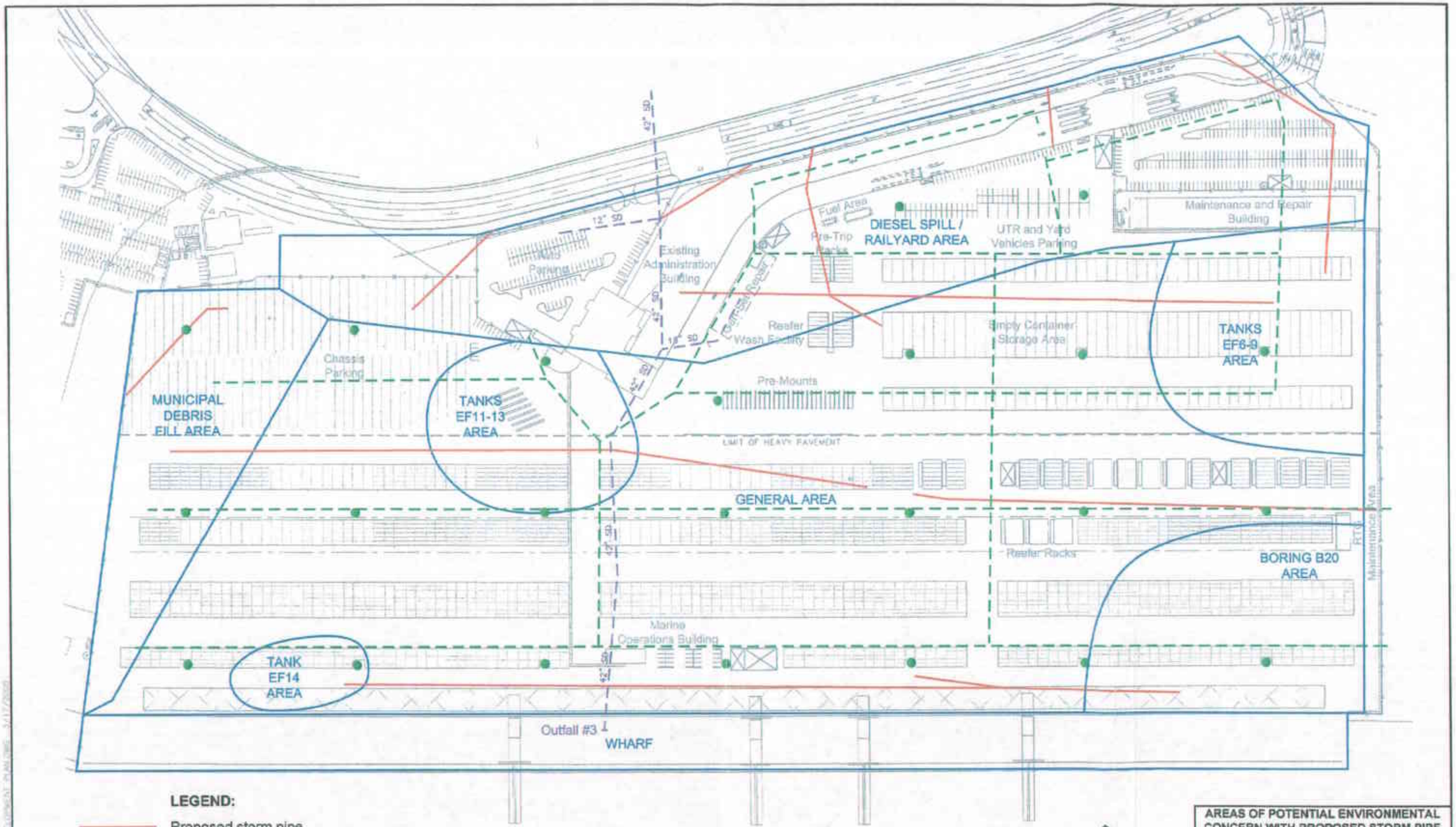
ACHCS Comment 9: "Geotracker EDF Submittals – A review of the case file and the State Water Resource Control Board's (SWRCB) Geotracker website indicate that electronic copies of analytical data have not been submitted for your site. Pursuant to CCR Sections 2729 and 2729.1, beginning September 1, 2001, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the LUFT program, must be transmitted electronically to the SWRCB Geotracker website via the internet. Additionally, beginning January 1, 2002, all permanent monitoring points utilized to collect groundwater samples (i.e., monitoring wells) and submitted in a report to a regulatory agency, must be surveyed (top of casing) to mean sea level and latitude and longitude accurate to within 1-meter accuracy, using NAD 83, and transmitted electronically to the SWRCB Geotracker website. Beginning July 1, 2005, electronic submittal of a complete copy of all reports is required in Geotracker (in PDF format).

In order to remain in regulatory compliance, please upload all LUFT analytical data (collected on or after September 1, 2001, to the SWRCB's Geotracker database website in accordance with the above-cited regulation. Please perform the electronic submittals for applicable data and submit verification to this Agency by December 15, 2005."

Response: The Port will upload the requested data and reports to the Geotracker database website and notify ACHCS when this is completed. At this time, the data and electronic versions of the reports have not been submitted to the Port. The consultants who performed this work have been notified to provide all relevant data and reports to the Port for submittal to the Geotracker database.

CLOSING

ETIC looks forward to the opportunity to discuss the above comments and responses in a joint meeting with the Port and ACHC. We would like this meeting to occur prior to January 15th, 2006, if at all possible. In the meantime, should you have any questions regarding the above responses to comments, please do not hesitate to contact Mr. Matthew Janowiak (mjanowiak@eticeng.com) or Dr. Mehrdad Javaherian (mjavaherian@eticeng.com) at 510-208-1600 extensions 14 and 25, respectively.



LEGEND:

- Proposed storm pipe
- Existing Stormdrain
- Electrical layout
- High mast light

N

0 100 200

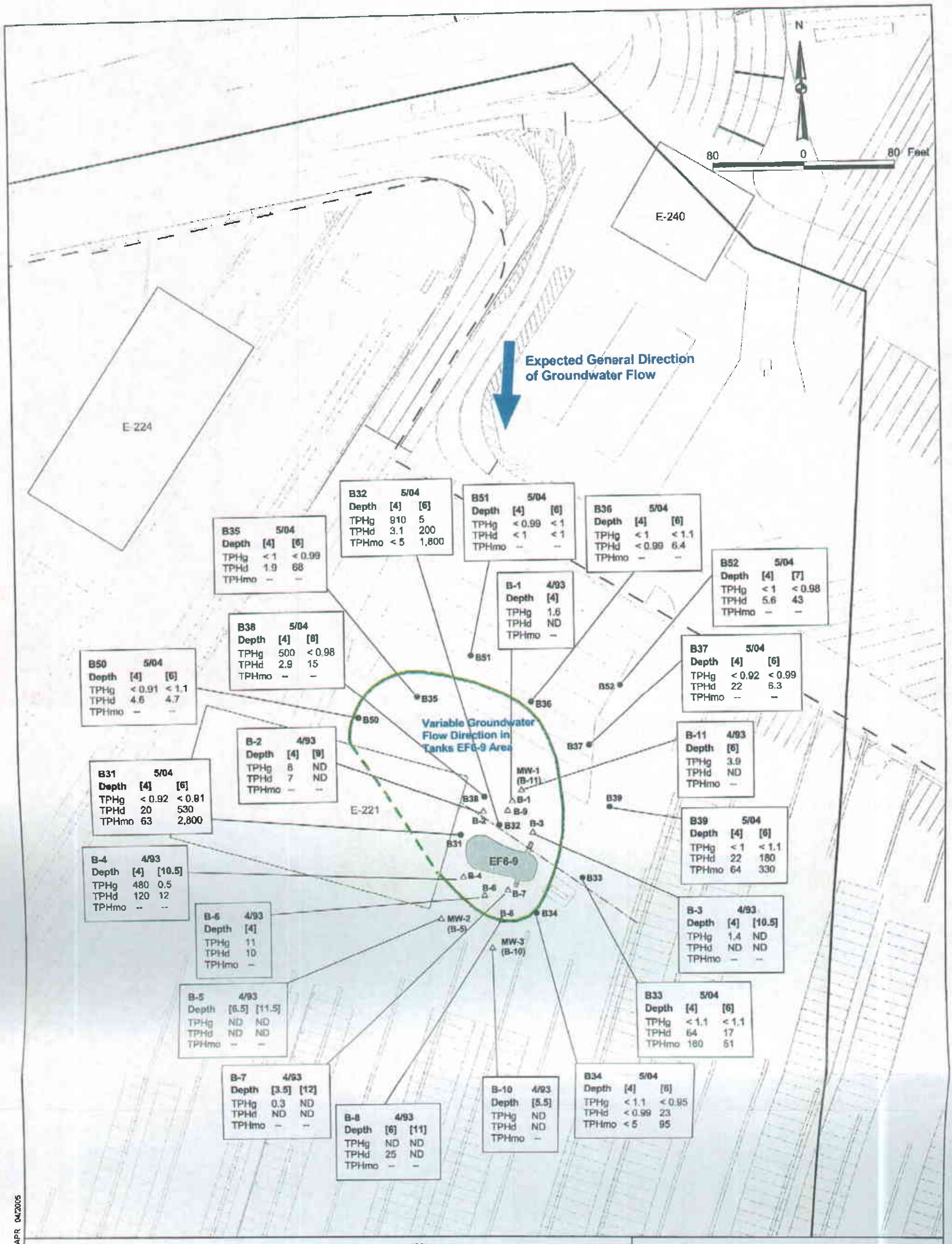
Scale (feet)

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN WITH PROPOSED STORM PIPE AND ELECTRICAL LAYOUT

PORT OF OAKLAND - BERTH 60-63
OAKLAND, CALIFORNIA

Date: 2/9/2005 | File: | Figure: 3

ETIC ENGINEERING | SAIC



LEGEND

- ● B31 T&R
- ^ B-6 Geomatrix, 1993
- Apparent Maximum Extent of UST-Related Soil Impacts
- Former Fence
- Current Property Boundary
- EF6-9 Former Underground Storage Tanks Excavation Area (Geomatrix, 1993)
- E-221 Existing Building (to be demolished)
- Redevelopment Site Boundary

Notes:

Excavation sidewall sampling results (Geomatrix, 1992) not shown due to space constraints on figure.

Results reported in milligrams/kilogram (mg/kg).

TPH - Total Petroleum Hydrocarbons
- g - as Gasoline
- d - as Diesel
- mo - as Motor Oil

[4] : Sample depth in feet

ND : Not Detected

-- : Not analyzed

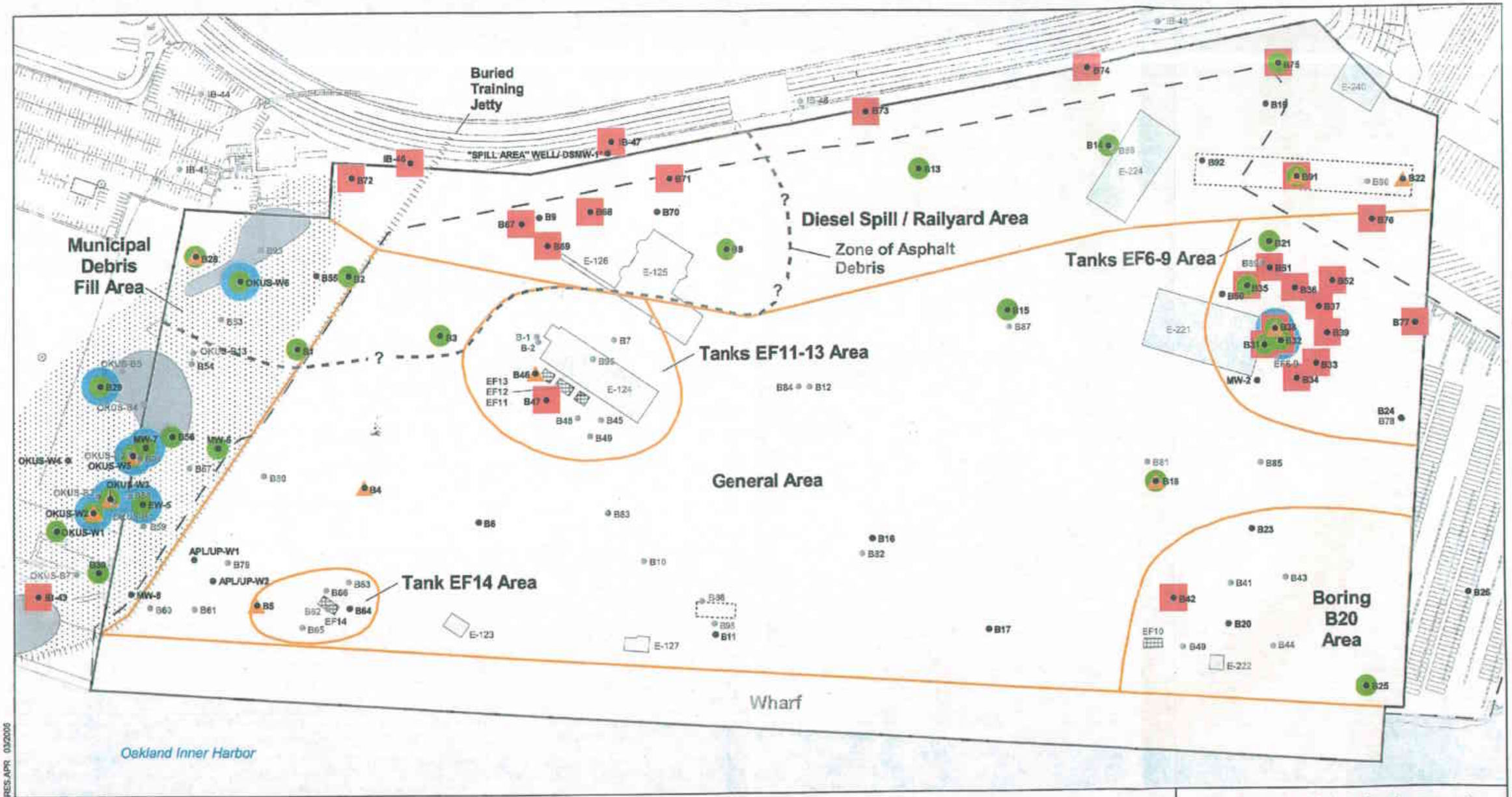
Underground Storage Tank Assessment
Berths 60-63
Port of Oakland

TANKS EF6-9 AREA
SOIL ANALYTICAL RESULTS

Date 05/02/05	Project No. 4000.04	Figure 3

Treadwell&Rollo

Treadwell & Rollo C:\GIS\4000.04\UST_REPORT APR 04/2005



LEGEND

- B64 Soil Boring with Data
- B63 Soil Boring with No Data
- METALS Exceeding Screening Criteria
- TPH Exceeding Screening Criteria
- PAH or SVOC Exceeding Screening Criteria
- VOC Exceeding Screening Criteria
- Preliminary Areas of Concern
- Current Site Boundaries
- Zone of Asphalt Debris (2-4 feet bgs)
- Redevelopment Site Outline
- Proposed Building
- E-124 Existing Building (only building E-125 will remain after redevelopment)
- EF12 Former Underground Storage Tanks (UST)
- Extent of Free Product (HLA, 2000 defined by closely spaced borings and IRIS, 2002. Free Product observed during drilling by T&R at B56 and B75)
- Approximate extent of Municipal Debris (IRIS, 2002 with modifications)

N

200 0 200 Feet

Environmental Subsurface Assessment
Berths 60-63 Yard and Gate Redevelopment
Port of Oakland

GROUNDWATER EXCEEDANCES

Date 3/30/05	Project No. 4000.04	Figure 9

Treadwell&Rollo

Treadwell & Rollo C:\GIS\4000_04\REPORT_FIGURES.APR 03/2006

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
EMERGENCY RESPONSE PROGRAM

POLLUTION REPORT

Date: February 17, 2005

From: Bret Moxley, On-Scene Coordinator

To: Distribution List

Subject: Oakland Estuary Pipeline Spill
Latitude: Longitude:

POLREP No.: 1 **Response Authority:** OPA
Reporting Period: February 15 to 16, 2005 **Site ID No.:** Z9A
Start Date: February 4, 2005
Completion Date: TBD **Task Order No.:** N/A
FPN: A05016

I. BACKGROUND:

A. This spill was first discovered on Friday 2/4/05 in the Oakland Estuary near the American Presidents Line dock. Boom was deployed in the Oakland estuary and recovery efforts began.

B. The source was traced to a 10 " Kinder Morgan Jet "A" Fuel Pipeline which operated at 700+ psi and serve the Oakland Airport. Discharge to the estuary was through the storm drain system adjacent to the jet fuel line. The storm drain outfall is ordinarily underwater except at minus tides. A Unified Command including USCG, Kinder Morgan and California Department of Fish and Game assembled.

C. Using helium tracer gas, the failure point in the line was located. This section of line was cut out and replaced. The fuel line was pressure tested and is back in service.

D. On Sunday night 2/13/05 the command post was relocated from Coast Guard Island in Alameda to the Levine Fricke Offices in Emeryville CA. USCG transferred FOSC Incident Command to U.S. EPA at 0800 hrs on Tuesday 2/15/05. At that time USCG FOSC issued a 10 and Final POLREP for USCG. The response continues with EPA OSC Moxley in a unified command with Kinder Morgan.

E. To date 16 birds have been recovered; 5 have been cleaned; 2 were DOA; and, 9 have been euthanized.

II. ACTIONS TAKEN DURING REPORTING PERIOD - 0800 2/15/05 to 0800 2/17/05:

A. Prepare IAP for operational period from 0800 hrs. 2/16/05 to 0800 hrs. 2/18/05 with the change to an operational period of 48 hours.

B Continued hard boom and absorbent boom tending and maintenance at the storm drain outfall. Currently there are two layers of dedicated hard boom in the water each with a string of absorbent boom immediately inside the hard boom. There is a total of 2200' feet of hard boom on site with less than half of that amount currently in water. The balance is available as needed;.

C. Continued sheen collection where feasible both within the hard boom and outside the hard boom if necessary (note that no sheen has been present outside the hard boom for several operational periods).

D. Continued jetting jet fuel impacted storm drains.

E. Continued vacuum truck collection of free product in effected storm drain segments.

F. Continued video camera reconnaissance of impacted storm drains where this can be done consistent with the site safety plan. The camera is intrinsically safe, but the light does generate some heat, so the line is jetted clean and then camera is put in the pipe. If any free product is observed, then the light is shut off and the camera is removed immediately.

G. Continued maintaining plugs in storm drain segments where free jet fuel was weeping into the storm drain through cracks and pipe segment joints.

H. Continued surface water management during rain events around closed segments of storm drain which contain free product. Originally retained surface water was collected with vacuum trucks. When an unusually severe rain event almost lead to flooding of the ground floor of a nearby building, vacuum trucks were abandoned and dedicated 6" trash pumps were brought in and now route surface water around the plugged section of storm drain.

I. Prepared a subsurface investigation and jet fuel plume delineation plan, drilling is scheduled to begin at 1200 hrs on 2/17/05.

J. Prepared a storm drain in-situ lining plan and post installation evaluation plan.

K. Moved the boom in the estuary up under the APL dock to allow docking of several ocean cargo ships.

III. **PLANS:**

A. Begin drilling monitoring wells, on Thursday 2/17/05, around the point of release to begin delineating the extent and thickness of the free phase layer on the water table. The first phase of drilling will include 16 monitoring wells. The main objective of these first 16 wells is to determine the extent and thickness of free phase jet fuel on the water table.

B. Prepare to install a cure-in-place resin impregnated fiberglass liner, on Friday 2/18/05, within the first 260 foot segment of storm drain where free phase jet fuel is expressing through cracks and seems in the storm drain. Additional segments of affected storm drain will be lined on Monday 2/21/05. All sections of storm drain where free phase fuel is intruding have been isolated with plugs. This lining process involves the custom manufacture of a woven fiberglass sleeve impregnated with poly ester resin, catalyst, and inhibitor. This sleeve which is custom made to fit this specific section of storm drain is made in Canada and is currently being driven to the site in a refrigerated truck because it is not legal for airline transport. This sleeve is winched into the concrete pipe; the ends are sealed and the sleeve is inflated with air to form a mechanical seal with the annulus of the storm drain. When the fit is sufficient, steam in injected thus raising the temperature and overwhelming the catalytic inhibitor. The sleeve cures to a resin hardness in several hours. The formulation of this sleeve and the respective resins have been selected to withstand long-term exposure to jet fuel.

C. Currently the UC has decided to proceed with a monitoring and maintenance approach over the weekend of 2/19/05 to 2/20/05. Absent any unusual findings, the remaining drilling and storm drain lining will be completed on 2/21/05.

D. It is possible that the emergency phase of this response will conclude sometime next week. At that time Kinder Morgan and EPA will proceed with the removal action without the formal ICS infrastructure.

IV. **KEY ISSUES:**

E. Access to complete Port of Oakland utility maps, well maps and relevant environmental investigation reports. This material has been especially useful in determining the extent of tidal influence on water table fluctuations, and has been important in the design of the subsurface investigation.

F. Decision to demobilize the ICS infrastructure. This will happen when the UC objective to open the storm drain system with no threat to the estuary from jet fuel release has been achieved. Ongoing investigation and free phase subsurface recovery efforts will continue in a conventional removal format without the ICS infrastructure and formal ICS planning cycles. Overall the ICS approach has been very useful and constructive to the OSC.

G. Ensure ongoing operations do not adversely impact, Port operations either at the APL dock or traffic circulation through the Port facility.

H. Develop monitoring criteria to determine the effectiveness of in-situ storm drain lining relative to the objective of returning the storm drain to normal operation without an imminent threat to the estuary.

I. There is no current media interest whatsoever.

V. ESTIMATED COSTS

A. Authorized OSLTF ceiling for this case is $500,000.

B. USCG intramural cost to date are approximately $71,000.

C. USCG contractor costs to date are approximately $200,000.

D. EPA costs to date, both intramural and contractor costs are unknown but are less than $20,000.

E. Kinder Morgan costs are currently unknown.

VI. DISPOSITION OF WASTES:

A. Recovered oil/water is being staged on site in baker tanks and then trucked to a Kinder Morgan terminal facility in Brisbane for storage in an empty tank pending characterization and disposal. So far 5,411 gallons of jet fuel has been recovered and separated from a total 209,239 gallons of recovered oily liquids.

B. Oily solids and debris are being staged, pending disposal, at the site in one 20 yard roll-off box which is approximately 3/4 full as of 2/15/05.

C. Approximately seven 20 yard roll off boxes of soil from excavations has been collected. All excavations are being backfilled with clean sand. Excavation spoils have been found to contain high lead levels which necessitate soil disposal at Kettleman Hills Hazardous Waste Landfill.

VII. CONTACT INFORMATION:

Bret Moxley
415-972-3114

End

********For Information Only*******

This page is to remind you of the Removal Start and Completion definitions for POLREPs.

Removal Starts - NPL and Non-NPL

Fund-Financed Start: The date the on-site work by the ERRS contractor begins is the Start Date for the removal action.

RP-Financed Start: The date the RP's contractor begins actual on-site work in compliance with the UAO or AOC.

Removal Completions - NPL and Non-NPL Sites

Fund Financed Completion: Completions are counted when the actions specified on the action memo are completed and no additional ERRS expenditures are anticipated.

RP-Financed Completion: Completions are counted when the OSC has certified that the RPs or their contractors have completed a removal action and fully met the terms of the order.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
EMERGENCY RESPONSE PROGRAM

POLLUTION REPORT

Date: March 1, 2005

From: Bret Moxley, On-Scene Coordinator

To: Distribution List

Subject: Oakland Estuary Pipeline Spill

POLREP No.: 2 **Response Authority:** OPA
Reporting Period: February 17 to 20, 2005 **Site ID No.:** Z9A
Start Date: February 4, 2005
Completion Date: TBD **Task Order No.:** N/A
FPN: A05016

I. BACKGROUND:

A. This spill was first discovered on Friday 2/4/05 in the Oakland Estuary near the American Presidents Line dock. Boom was deployed in the Oakland estuary and recovery efforts began.

B. The source was traced to a 10 " Kinder Morgan Jet "A" Fuel Pipeline which operated at 700+ psi and serve the Oakland Airport. Discharge to the estuary was through the storm drain system adjacent to the jet fuel line. The storm drain outfall is ordinarily underwater except at minus tides. A Unified Command including USCG, Kinder Morgan and California Department of Fish and Game assembled.

C. Using helium tracer gas, the failure point in the line was located. This section of line was cut out and replaced. The fuel line was pressure tested and is back in service.

D. On Sunday night 2/13/05 the command post was relocated from Coast Guard Island in Alameda to the Levine Fricke Offices in Emeryville CA. USCG transferred FOSC Incident Command to U.S. EPA at 0800 hrs on Tuesday 2/15/05. At that time USCG FOSC issued a 10 and Final POLREP for USCG. The response continues with EPA in a unified command with Kinder Morgan.

E. To date 16 birds have been recovered; 5 have been cleaned; 2 were DOA; and, 9 have been euthanized.

II. ACTIONS TAKEN DURING REPORTING PERIOD - 0800 2/17/05 to 0800 2/20/05:

A. Continued hard boom and absorbent boom tending and maintenance at the storm drain outfall. Currently there are two layers of dedicated hard boom in the water each with a string of absorbent boom immediately inside the hard boom. There is a total of 2200' feet of hard boom on site with less than half of that amount currently in water. The balance is available as needed. Due to ship traffic unloading at the APL dock, all the boom was moved under the APL dock. Consequently the boom was approximately 50 feet out from the storm drain outfall;

B. Continued sheen collection where feasible both within the hard boom and outside the hard boom if necessary (note that no sheen has been present outside the hard boom for several operational periods). The UC has directed on water contractors to collect any sheen observed within at least 1/4 mile in any direction from the storm drain outfall.

C. Continued jetting jet fuel impacted storm drains.

D. Continued vacuum truck collection of free product in effected storm drain segments.

E. Continued video camera reconnaissance of impacted storm drains where this can be done consistent with the site safety plan. The camera is intrinsically safe, but the light does generate some heat, so the line is jetted clean and then camera is put in the pipe. If any free product is observed, then the light is shut off and the camera is removed immediately.

F. Continued maintaining plugs in storm drain segments where free jet fuel was weeping into the storm drain through cracks and pipe segment joints.

G. Continued surface water management during rain events around closed segments of storm drain which contain free product. Originally retained surface water was collected with vacuum trucks. When an unusually severe rain event almost lead to flooding of the ground floor of a nearby building, vacuum trucks were abandoned and dedicated 6" trash pumps were brought in and now route surface water around the plugged section of storm drain.

H. Prepared a subsurface investigation and jet fuel plume delineation plan, drilling is scheduled to begin at 1200 hrs on 2/17/05.

I. Began implementing the storm drain in-situ lining plan and post installation evaluation plan. As of Friday 2/18/05 one segment of impacted storm drain was

successfully lined. Additional liner material has been ordered from the factory in Canada and should be on site this week. The lining contractor will the re-mobilize to line all the remaining segments of storm drain which require lining. The segment lined on Friday was evaluated with a video camera and the liner placed was found to be successful.

J. As appropriate some equipment has been demobilized and in the next week the foot print of operations will decrease significantly as the large baker tanks are cleaned and de-mobilized.

K. On Friday 2/18/05 the first bore hole for monitoring wells was drilled around the point of release to begin delineating the extent and thickness of the free phase layer on the water table. The first phase of drilling will include 16 monitoring wells. The main objective of these first 16 wells is to determine the extent and thickness of free phase jet fuel on the water table.. The UC encountered surprising difficulty obtaining an encroachment permit from the City of Oakland for the additional bore holes which will be placed in the City street. The UC already has an encroachment permit in the exact same area for all of the storm drain and excavation work, but bore holes in this area apparently are a vastly different matter due to the City's requirement that an applicant wait 48 hours prior to commencing work after a permit is granted. By the close of business Friday the director of the permitting group within the City had agreed to waive the waiting period and dispatch an inspector on Monday 2/21/05, a holiday, to allow the UC to proceed with drilling. Drilling should conclude on 2/22/05 or 2/23/05.

L. On Friday 2/18/05 OSC Moxley was interview by Channel 2 regarding the response. This segment aired on the evening news.

M. On 2/18/05 OSC Moxley met with the Port of Oakland personnel to answer any questions about the response.

III. PLANS:

A. Complete drilling monitoring wells.

B. Continue to install a cure-in-place resin impregnated fiberglass liner within storm drain segments where free phase jet fuel is expressing through cracks and seems in the storm drain. All sections of storm drain where free phase fuel is intruding have been isolated with plugs. This lining process involves the custom manufacture of a woven fiberglass sleeve impregnated with poly ester resin, catalyst, and inhibitor. This sleeve which is custom made to fit this specific section of storm drain is made in Canada and is currently being driven to the site in a refrigerated truck because it is not legal for airline transport. This sleeve is winched into the concrete pipe; the ends are sealed and the sleeve is inflated with

air to form a mechanical seal with the annulus of the storm drain. When the fit is sufficient, steam in injected thus raising the temperature and overwhelming the catalytic inhibitor. The sleeve cures to a resin hardness in several hours. The formulation of this sleeve and the respective resins have been selected to withstand long-term exposure to jet fuel.

C. EPA OSC Allen will serve as the FOSC for the period from 0800 2/21/05 until 0800 2/28/05. OSC Moxley will resume the FOSC role at 0800 on 2/28/05.

IV. KEY ISSUES:

D. Access to complete Port of Oakland utility maps, well maps and relevant environmental investigation reports. This material has been especially useful in determining the extent of tidal influence on water table fluctuations, and has been important in the design of the subsurface investigation.

E. Decision to demobilize the ICS infrastructure. This will happen when the UC objective to open the storm drain system with no threat to the estuary from jet fuel release has been achieved. Ongoing investigation and free phase subsurface recovery efforts will continue in a conventional removal format without the ICS infrastructure and formal ICS planning cycles. Overall the ICS approach has been very useful and constructive to the OSC.

F. Ensure ongoing operations do not adversely impact, Port operations either at the APL dock or traffic circulation through the Port facility.

G. Develop monitoring criteria to determine the effectiveness of in-situ storm drain lining relative to the objective of returning the storm drain to normal operation without an imminent threat to the estuary.

V. ESTIMATED COSTS

A. Authorized OSLTF ceiling for this case is $500,000.

B. USCG intramural cost to date are approximately $71,000.

C. USCG contractor costs to date are approximately $200,000.

D. EPA costs to date, both intramural and contractor costs are unknown but are less than $20,000.

E. Kinder Morgan costs are currently unknown.

VI. DISPOSITION OF WASTES:

A. Recovered oil/water is being staged on site in baker tanks and then trucked to a

Kinder Morgan terminal facility in Brisbane for storage in an empty tank pending characterization and disposal. So far over 6000 gallons of jet fuel has been recovered and separated from a total 209,239 gallons of recovered oily liquids.

B. Oily solids and debris are being staged, pending disposal, at the site in one 20 yard roll-off box which is approximately 3/4 full as of 2/15/05.

C. Approximately seven 20 yard roll off boxes of soil from excavations has been collected. All excavations are being backfilled with clean sand. Excavation spoils have been found to contain high lead levels which necessitate soil disposal at Kettleman Hills Hazardous Waste Landfill.

VII. CONTACT INFORMATION:

Bret Moxley, EPA FOSC
415-972-3114

Harry Allen, FOSC
415-218-7406

End

********For Information Only*******

This page is to remind you of the Removal Start and Completion definitions for POLREPs.

Removal Starts - NPL and Non-NPL

Fund-Financed Start: The date the on-site work by the ERRS contractor begins is the Start Date for the removal action.

RP-Financed Start: The date the RP's contractor begins actual on-site work in compliance with the UAO or AOC.

Removal Completions - NPL and Non-NPL Sites

Fund Financed Completion: Completions are counted when the actions specified on the action memo are completed and no additional ERRS expenditures are anticipated.

RP-Financed Completion: Completions are counted when the OSC has certified that the RPs or their contractors have completed a removal action and fully met the terms of the order.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
EMERGENCY RESPONSE PROGRAM

POLLUTION REPORT

Date: March 1, 2005

From: Bret Moxley, On-Scene Coordinator

To: Distribution List

Subject: Oakland Estuary Pipeline Spill
Lattitude: 37 47' 48.5" N **Longitude:** 122 18' 08.2" W

POLREP No.: 4
Reporting Period: February 28 to March 1, 2005
Start Date: February 4, 2005 **Site ID No.:** Z9A
Completion Date: TBD **Task Order No.:** N/A
FPN: A05016 **Response Authority:** OPA

I. BACKGROUND:

A. See previous POLREPs.

II. ACTIONS TAKEN DURING REPORTING PERIOD - 0800 2/28/05 to 0800 3/1/05:

A. Continued hard boom and absorbent boom tending and maintenance at the storm drain outfall. Currently there are two layers of dedicated hard boom in the water each with a string of absorbent boom immediately inside the hard boom. Due to ship traffic unloading at the APL dock, all the boom was moved under the APL dock. Consequently the boom was approximately 50 feet out from the storm drain outfall.

B. Continued sheen collection where feasible both within the hard boom and outside the hard boom if necessary (note that no sheen has been present at the storm drain outfall for several days). On water contractors will continue to collect any sheen observed within at least 1/4 mile in any direction from the storm drain outfall.

C. Continued vacuum truck collection of free product in the french drain constructed in the immediate area of the pipeline release. Currently the jet fuel in this area is approximately 12 to 15 inches thick.

D. On Monday, 2/28/05, removed all plugs in storm drain segments

where free jet fuel was weeping into the storm drain through cracks and pipe segment joints prior to the installation of the liners. This should allow the storm drain system to function as originally intended.

E. As appropriate equipment has been cleaned and de-mobilized.

F. There has been no recent media interest.

G. As of 0800 on 2/28/05, the use of formal ICS planning cycles (including the generation of IAP's for the respective planning cycles) has been replaced by a one month operations and monitoring plan agreed to by the FOSC and Kinder Morgan.

III. **PLANS:**

A. Evaluate the extent of jet fuel plume migration using the 17 monitoring wells, installed at 30 foot intervals, surrounding the pipeline release site.

B. Evaluate the cure-in-place resin impregnated fiberglass liner within storm drain segments where free phase jet fuel had been observed expressing through cracks and seems in the storm drain. As of midnight on Friday 2/25/05 all impacted segments of storm drain had been lined and the ends of the sleeves had been sealed to the host concrete storm pipe to prevent jet fuel from expressing at the end of lined segments.

C. Evaluate the overall effectiveness of the response during minus tides and storm events over the next several weeks. Response crews will monitor the storm drain outfall and surrounding layers of hard boom during and after minus tides from Saturday, March 5 to Thursday, March 10.

IV. KEY ISSUES:

A. Ongoing investigation and free phase subsurface recovery efforts will continue in a conventional removal format without the ICS infrastructure and formal ICS planning cycles. Overall the ICS approach was very useful and constructive to the OSC.

B. Ensure ongoing operations do not adversely impact, Port operations either at the APL dock or traffic circulation through the Port facility.

V. ESTIMATED COSTS

A. Authorized OSLTF ceiling for this case is $500,000.

B. USCG intramural cost to date are approximately $71,000.

C. USCG contractor costs to date are approximately $200,000.

D. EPA costs to date, both intramural and contractor costs are unknown but are less than $30,000.

E. Kinder Morgan costs are currently unknown.

VI. DISPOSITION OF WASTES:

A. Recovered oil/water was staged on site in baker tanks and then trucked to a Kinder Morgan terminal facility in Brisbane for storage in an empty tank pending characterization and disposal. So far over 9000 gallons of jet fuel has been recovered and separated from approximately 250,000 gallons of recovered oily liquids. Separated water will be sent to the East Bay Municipal Utility District waste water treatment plant for final treatment.

B. Approximately one 20 yard roll-off box of oily solids and debris and seven 20 yard roll off boxes of soil from excavations have been collected. All excavations were backfilled with clean sand. Excavation spoils have been found to contain high lead levels which necessitate disposal as California Hazardous Waste at Kettleman Hills Landfill.

VII. CONTACT INFORMATION:

Bret Moxley, EPA FOSC
415-972-3114

Harry Allen, EPA FOSC
415-218-7406

End

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
EMERGENCY RESPONSE PROGRAM

POLLUTION REPORT

Date: March 3, 2005

From: Harry Allen, On-Scene Coordinator

To: Distribution List

Subject: Oakland Estuary Pipeline Spill

POLREP No.: 3 **Response Authority:** OPA
Reporting Period: February 21 to 28, 2005 **Site ID No.:** Z9A
Start Date: February 4, 2005
Completion Date: TBD **Task Order No.:** N/A
FPN: A05016

I. BACKGROUND:

A. See Polreps 1 & 2.

II. ACTIONS TAKEN DURING REPORTING PERIOD - 0800 2/21/05 to 0800 2/28/05:

A. Continued hard boom and absorbent boom tending and maintenance at the storm drain outfall. Two layers of hard boom remained in the water throughout the reporting period. Absorbent boom and sweep were monitored and replaced by Marine Spill Response Corp. (MSRC) personnel as necessary. MSRC remained on standby. Boom was re-secured beneath the dock prior to ship arrivals on 2/22/2005. It remained in that configuration. The outfall was monitored at low tides. Minimal sheen was noted inside of containment during the reporting period. This was confirmed by a Shoreline Cleanup Assessment Team (SCAT) assessment on Wednesday 2/23.

B. Crews continued jetting jet fuel impacted storm drains. This included the 48" water main as well. The 48" water main was cleared of debris by hand; this activity required confined space entry.

C. Vacuum truck collection of free product occurred daily at a French drain. The drain was constructed at the release point and consisted of three vertical points and a horizontal drain with a sump at either end. The

street was also repaved and painted around the French drain.

D. Other affected storm drain segments were vacuumed as deemed necessary.

E. Video camera reconnaissance of impacted storm drains was conducted and tapes were reviewed by START and consultants to the RP.

F. Continued maintaining plugs in storm drain segments where free jet fuel was weeping into the storm drain through cracks and pipe segment joints.

G. Continued surface water management during rain events around closed segments of storm drain which contain free product. Retained surface water was collected with vacuum trucks. Overflows were handled by trash pumps and water diversion (see previous Polrep).

H. Implementation of the subsurface investigation and jet fuel plume delineation plan began on 2/21/2005. Seventeen groundwater monitoring wells were installed along Middle Harbor Way between 2/21 and 2/25, to determine the extent and thickness of free phase jet fuel on the water table. A soil sample was collected from each well at groundwater level. Well monitoring using an oil-water interface probe began on 2/22. Monitoring included the collection of water samples as well. As much as 1 foot of product thickness was routinely observed in the drain. A sheen was observed in one other monitoring well.

I. A city inspector visited the Site on several occasions to ensure compliance with the permit (well installation).

J. Implementation of the storm drain in-situ lining plan and post installation evaluation plan. Liners were installed in segments W7 to W3, W6 to W3, W3 to W2, and W2 to W1. Activities were completed on Friday, 2/25. Liner endings were patched in each manway as well. Lined segments were evaluated by inspecting manways between lined sections for product accumulation.

K. Several baker tanks were cleaned and de-mobilized.

III. PLANS:

A. Continue to gauge monitoring wells and determine the extent and location of the product plume. The RP shall present a well monitoring plan and provide gauging data to EPA. The RP will either install Christie boxes or decommission wells as necessary in accordance with a city encroachment permit.

IV. KEY ISSUES:

B. The UC compiled the final Incident Action Plan to cover operations for this entire reporting period. The UC plans to discontinue the ICS structure beginning 2/28/2005.

C. Ensure ongoing operations do not adversely impact, Port operations either at the APL dock or traffic circulation through the Port facility.

D. Develop monitoring criteria to determine the effectiveness of in-situ storm drain lining relative to the objective of returning the storm drain to normal operation without an imminent threat to the estuary.

V. ESTIMATED COSTS

A. Authorized OSLTF ceiling for this case is $500,000.

B. USCG intramural cost to date are approximately $71,000.

C. USCG contractor costs to date are approximately $200,000.

D. EPA costs to date, both intramural and contractor costs are unknown but are less than $20,000.

E. Kinder Morgan costs are currently unknown.

VI. DISPOSITION OF WASTES:

A. Recovered oil/water is being staged on site in baker tanks and then trucked to a Kinder Morgan terminal facility in Brisbane for storage in an empty tank pending characterization and disposal. So far over 7,400 gallons of jet fuel has been recovered and separated from a total of greater than 360,000 gallons of recovered oily liquids.

VII. CONTACT INFORMATION:

Bret Moxley, EPA FOSC
415-972-3114

Harry Allen, FOSC
415-218-7406

End

********For Information Only*******

This page is to remind you of the Removal Start and Completion definitions for POLREPs.

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RP-Financed Start: The date the RP's contractor begins actual on-site work in compliance with the UAO or AOC.

Removal Completions - NPL and Non-NPL Sites

Fund Financed Completion: Completions are counted when the actions specified on the action memo are completed and no additional ERRS expenditures are anticipated.

RP-Financed Completion: Completions are counted when the OSC has certified that the RPs or their contractors have completed a removal action and fully met the terms of the order.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
EMERGENCY RESPONSE PROGRAM

POLLUTION REPORT

Date: March 28, 2005

From: Bret Moxley, On-Scene Coordinator

To: Distribution List

Subject: Oakland Estuary Pipeline Spill
Latitude: 37 47' 48.5" N **Longitude:** 122 18' 08.2" W

POLREP No.: 5
Reporting Period: March 1 to March 28, 2005
Start Date: February 4, 2005 **Site ID No.:** Z9A
Completion Date: TBD **Task Order No.:** N/A
FPN: A05016 **Response Authority:** OPA

I. BACKGROUND:

A. See previous POLREPs.

II. ACTIONS TAKEN DURING REPORTING PERIOD - 3/1/05 to 3/28/05:

A. Continued hard boom and absorbent boom tending and maintenance at the storm drain outfall. Currently there are two layers of dedicated hard boom in the water each with a string of absorbent boom immediately inside the hard boom. Due to ship traffic unloading at the APL dock, all the boom was moved under the APL dock. Consequently the boom was approximately 50 feet out from the storm drain outfall.

B. Continued sheen collection where feasible both within the hard boom and outside the hard boom if necessary. When feasible, on water contractors will continue to collect any sheen observed within at least 1/4 mile in any direction from the storm drain outfall. Minimal transient sheen was observed during minus tide events

when the opportunity for release of potentially accumulated hydrocarbon in the mainline storm drain would be the greatest.

C. Continued vacuum truck collection of free product in the french drain constructed in the immediate area of the pipeline release. Currently the jet fuel in this area is of negligible thickness in two of the three risers and is variable up to 7 inches thick in the third french drain riser.

D. The 17 monitoring well network around the release site has been monitored regularly. This has included daily observation for any light non-aqueous phase liquid (LNAPL) in the wells and three sampling events. The monitoring wells show non-detect for jet fuel with one exception MW-8 had 60 parts per million jet fuel in an early sampling event. Subsequently this well has been non-detect for jet fuel.

E. Daily observation of the man holes has shown no significant leakage of hydrocarbon from the lined portions of the storm drain system. Occasionally some sheen is apparent in several man holes, but the source is not discernable and so far the amount is negligible.

III. PLANS:

A. Continued evaluate the extent of jet fuel plume migration using the 17 monitoring wells, installed at 30 foot intervals, surrounding the pipeline release site.

B. Determine the best means of ongoing collection of decreasing amounts of LNAPL jet fuel from the french drain riser system.

IV. KEY ISSUES:

None

V. ESTIMATED COSTS

A. Authorized OSLTF ceiling for this case is $500,000.
B. USCG intramural cost to date are approximately $71,000.
C. USCG contractor costs to date are approximately $200,000.
D. EPA costs to date, both intramural and contractor costs are unknown but are less

than $30,000.

E. Kinder Morgan costs are currently unknown.

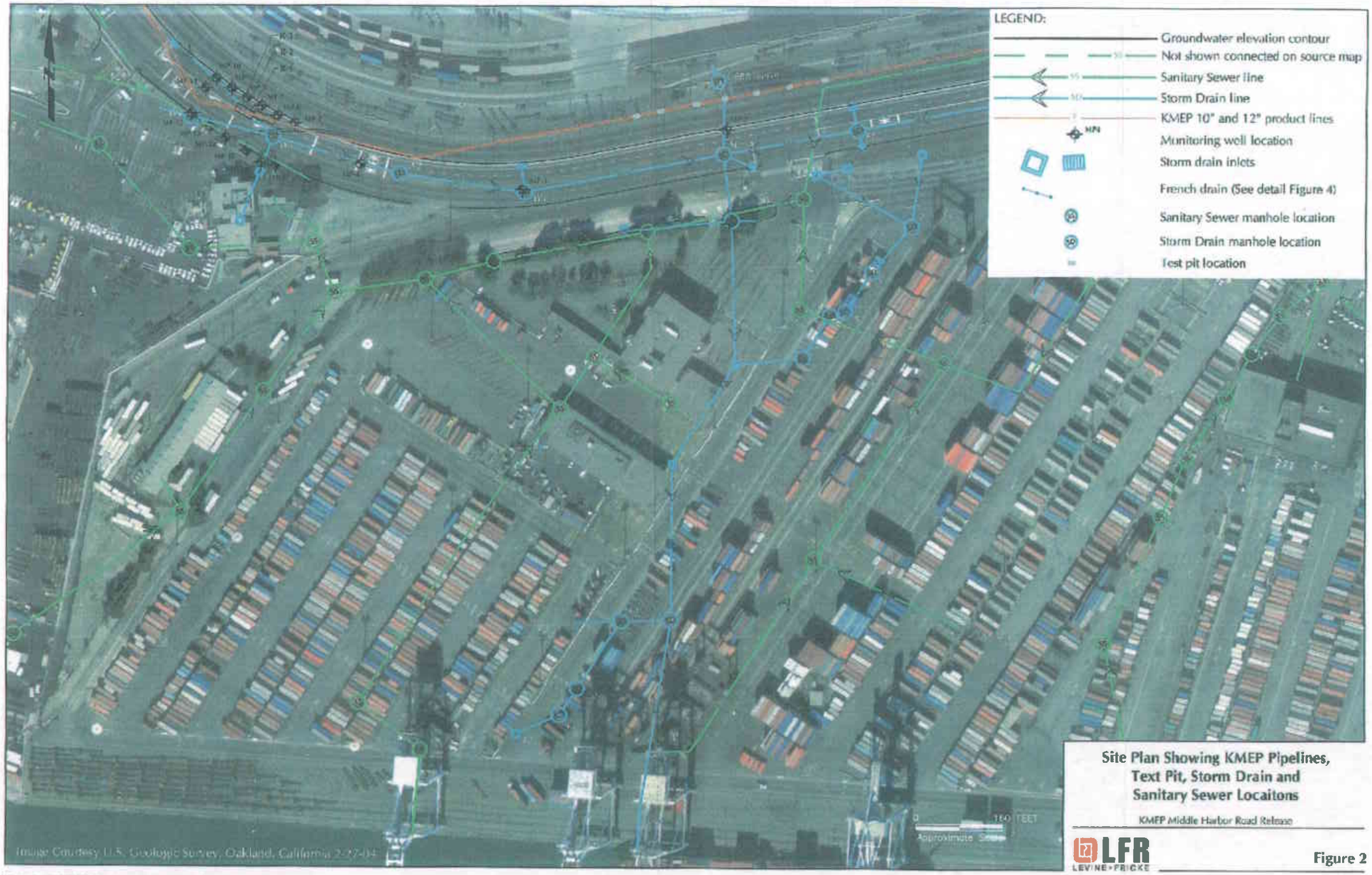
VI. DISPOSITION OF WASTES:

A. Treatment of project water temporarily stored at Kinder Morgan's Brisbane terminal is complete. The water was treated through a temporary carbon system and then transported to East Bay Municipal Utility District facility. The residual product will be disposed of at the Seaport disposal facility. The remaining water in the two onsite Baker tanks and any new water generated during pumping activities will be transported directly (without treatment) to the Riverbank disposal facility. Additionally, Kinder Morgan has completed the transport of the majority of soil, boom, and pad bins to the disposal facility in Kettleman City.

VII. CONTACT INFORMATION:

Bret Moxley, EPA FOSC
415-972-3114

End



Site Plan Showing KMEP Pipelines, Text Pit, Storm Drain and Sanitary Sewer Locaitons

KMEP Middle Harbor Road Release

LFR LEVINE•FRICKE

Figure 2

Municipal Debris Fill Area

Northeast Area

Boring B20 Area

MARINE OPERATIONS BLDG

EXPLANATION

APPROXIMATE EXTENT OF SIGNIFICANT IMPACT AREAS IN SHALLOW SOIL AS IDENTIFIED BY SAMPLING POINTS (QUERIED WHERE BOUNDARY LOCATION IS RELATIVELY LESS CERTAIN))

N

200 0 200 Feet

Source: Moffat & Nichol, 2004.

4000.04_STORMDRAINLAYOUT.DWG

ENVIRONMENTAL SUBSURFACE ASSESSMENT
Berths 60-63 Yard and Gate Redevelopment
Port of Oakland

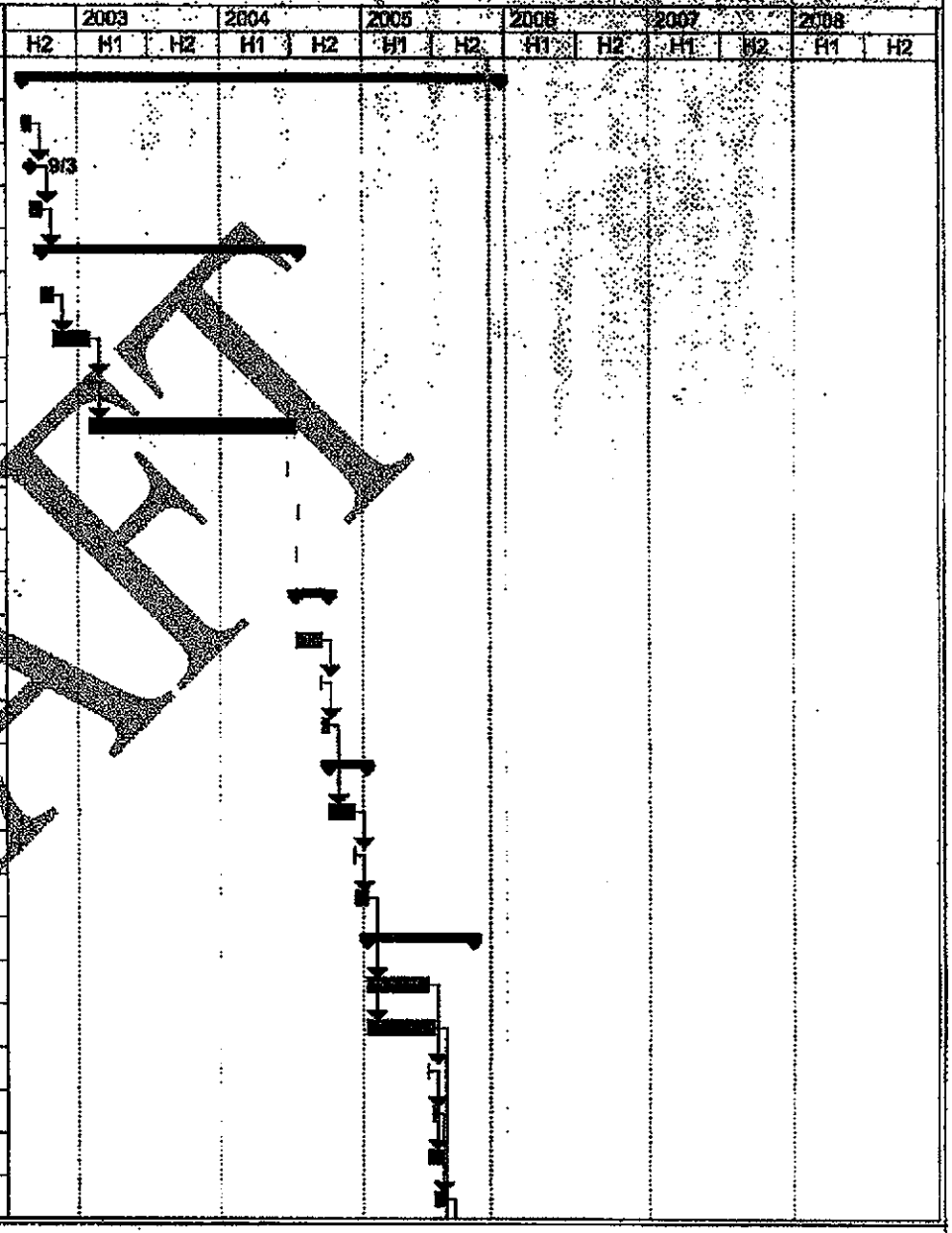
SIGNIFICANT IMPACTED AREAS IN SHALLOW SOILS OVER STORM DRAINAGE LAYOUT

Date 03/30/05	Project No 4000.04	Figure 13

Treadwell&Rollo

APL Yard and Gate Redevelopment Project

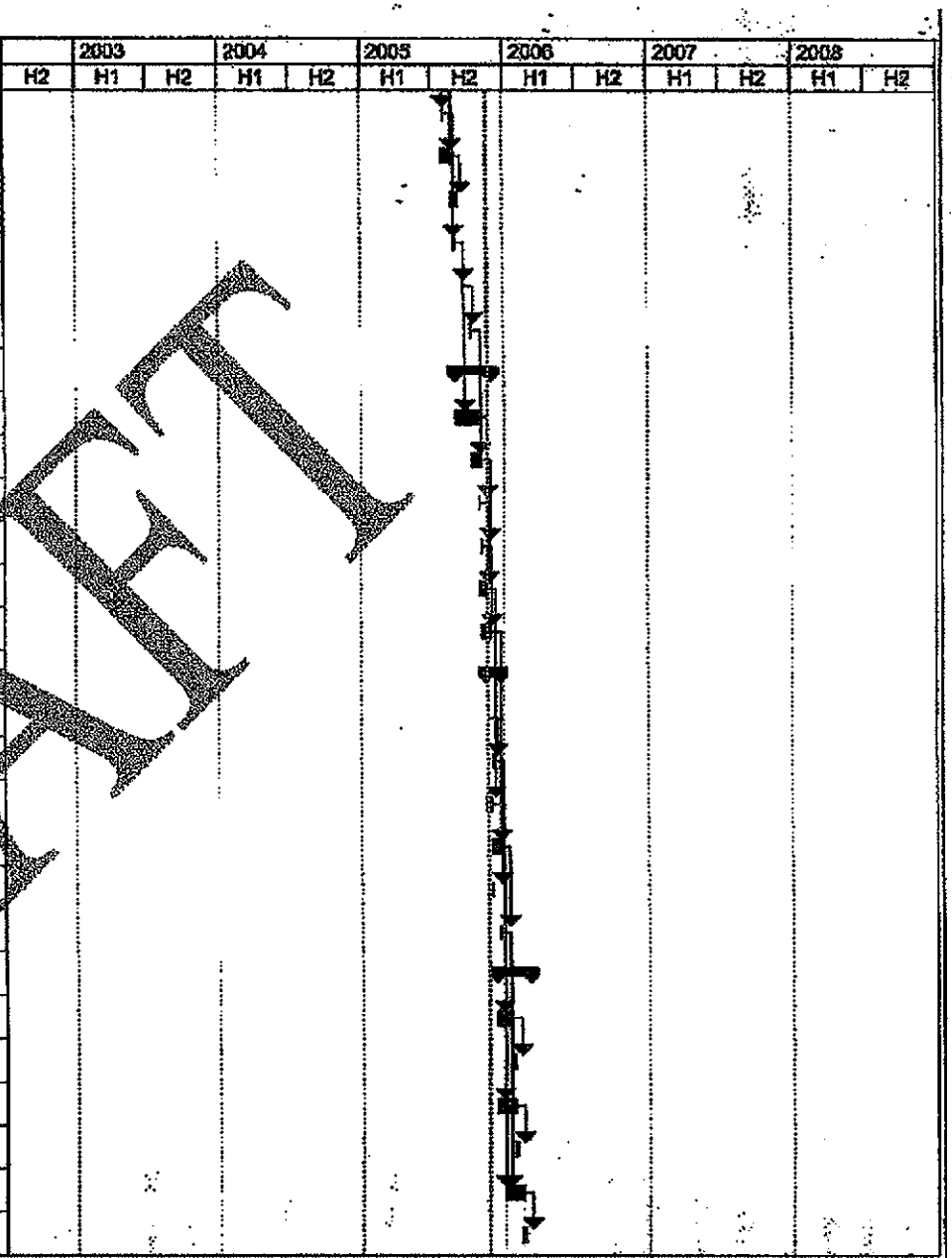
ID	Task Name	Duration	Start	Finish	Predec
1	**DESIGN**	**876 days**	**Thu 8/15/02**	**Thu 12/22/05**	
2	Consultant Selection	14 days	Thu 8/15/02	Tue 9/3/02	
3	Bd Appr Negotiations	0 days	Tue 9/3/02	Tue 9/3/02	2
4	Prepare Contract	20 days	Wed 9/4/02	Tue 10/1/02	3
5	**0-30%**	**470 days**	**Wed 10/2/02**	**Tue 7/20/04**	4
6	Data Gathering	20 days	Wed 10/2/02	Tue 10/29/02	
7	30% Design	67 days	Wed 10/30/02	Thu 1/30/03	6
8	30% Design Submittal	1 day	Fri 1/31/03	Fri 1/31/03	7
9	On Hold (APL Negotiations)	378 days	Mon 2/3/03	Wed 7/14/04	8
10	Letter of Intent Signed	1 day	Tue 6/22/04	Tue 6/22/04	
11	Board Approval - Design	1 day	Tue 7/20/04	Tue 7/20/04	
12	Kickoff Meeting w/ APL & M&N	1 day	Wed 7/14/04	Wed 7/14/04	
13	**30% - Revised 30%**	**60 days**	**Wed 7/14/04**	**Tue 10/5/04**	
14	30% Mod. Design	47 days	Wed 7/14/04	Thu 9/16/04	
15	30% Mod. Design Submittal	1 day	Fri 9/17/04	Fri 9/17/04	14
16	30% Review	12 days	Mon 9/20/04	Tue 10/5/04	15
17	**Revised 30% - 60%**	**70 days**	**Wed 10/6/04**	**Tue 1/11/05**	
18	60% Design	47 days	Wed 10/6/04	Thu 12/9/04	16
19	60% Design Submittal	1 day	Fri 12/10/04	Fri 12/10/04	18
20	60% Review	22 days	Mon 12/13/04	Tue 1/11/05	19
21	**60% - 90%**	**194 days**	**Wed 1/12/05**	**Mon 10/10/05**	
22	90% Design - Buildings	132 days	Wed 1/12/05	Thu 7/14/05	20
23	90% Design - Yard	122 days	Wed 1/12/05	Thu 6/30/05	20
24	90% Design Submittal - Buildin	1 day	Fri 6/17/05	Fri 6/17/05	22
25	90% Design Submittal - Yard	1 day	Fri 7/1/05	Fri 7/1/05	24
26	90% Review - Buildings	25 days	Mon 7/18/05	Fri 7/22/05	24
27	90% Review -Yard	19 days	Tue 7/5/05	Fri 7/29/05	25



Prepared by: Ken Jung
Filename: APL_Schedule_v8_c4
Date Printed: Sat 11/19/05, 11:35 AM

Task
Split
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Split
Rolled Up Milestone
Rolled Up Progress
External Tasks
Project Summary

ID	Task Name	Duration	Start	Finish	Predec
28	APL's 90% Comments	1 day	Wed 8/3/05	Wed 8/3/05	23
29	Design - Constructability Set	16 days	Mon 8/1/05	Mon 8/22/05	27
30	Constructability Review	13 days	Tue 8/23/05	Thu 9/8/05	29
31	APL's Addl 90% Comments	1 day	Tue 8/30/05	Tue 8/30/05	28
32	Discuss Phasing with APL	1 day	Thu 9/22/05	Thu 9/22/05	31
33	Decision on Project Phasing	1 day	Mon 10/10/05	Mon 10/10/05	32
34	**90% - 100%**	**56 days**	**Wed 8/31/05**	**Wed 11/30/05**	
35	100% Design - Buildings	43 days	Wed 8/31/05	Fri 10/28/05	31
36	100% Design - Yard	19 days	Tue 10/11/05	Fri 11/4/05	33
37	100% Design Submittal - Buildi	1 day	Mon 10/31/05	Mon 10/31/05	35
38	100% Design Submittal - Yard	1 day	Mon 11/7/05	Mon 11/7/05	36
39	100% Review - Buildings	12 days	Tue 11/1/05	Wed 11/16/05	37
40	100% Review - Yard	17 days	Tue 11/8/05	Wed 11/30/05	38
41	**100% - Final**	**28 days**	**Thu 11/17/05**	**Thu 12/22/05**	
42	Maritime Comm Mtg	1 day	Mon 11/21/05	Mon 11/21/05	
43	Bd Appr Plans & PM	1 day	Tue 12/6/05	Tue 12/6/05	42
44	Final Design - Buildings	11 days	Thu 11/17/05	Thu 12/1/05	39
45	Final Design - Yard	15 days	Thu 12/1/05	Wed 12/21/05	40
46	Final Design Submittal - Buildin	1 day	Fri 12/2/05	Fri 12/2/05	44
47	Final Design Submittal - Yard	1 day	Thu 12/22/05	Thu 12/22/05	45
48	**BID AND AWARD**	**62 days**	**Mon 12/12/05**	**Tue 3/7/06**	
49	Bid Period - MOB	28 days	Mon 12/12/05	Wed 1/18/06	43
50	Review MOB Bids	5 days	Thu 1/19/06	Wed 1/25/06	49
51	Bid Period - M&R	33 days	Mon 12/12/05	Wed 1/25/06	43
52	Review M&R Bids	5 days	Thu 1/26/06	Wed 2/1/06	51
53	Bid Period - Yard and Gate	33 days	Mon 12/12/05	Wed 2/15/06	43,47
54	Review Yard and Gate Bids	5 days	Thu 2/16/06	Wed 2/22/06	53



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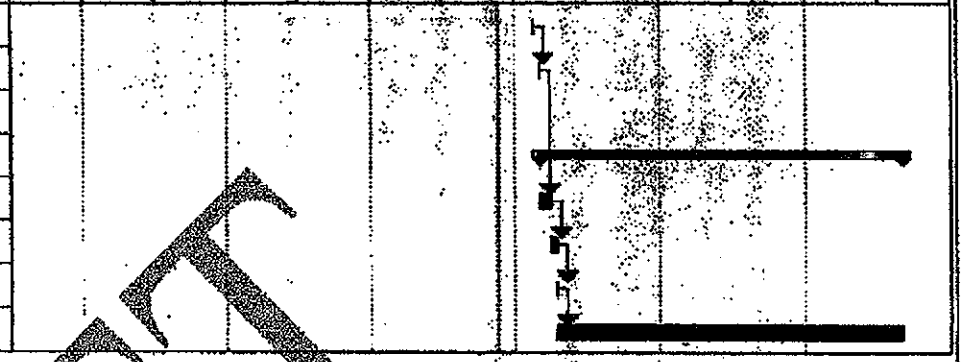
Task
Split
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Split
Rolled Up Milestone
Rolled Up Progress
External Tasks
Project Summary

ID	Task Name	Duration	Start	Finish	Predec
55	Maritime Comm Mtg	1 day	Mon 2/20/06	Mon 2/20/06	
56	Bd Appr to Award Contract	1 day	Tue 3/7/06	Tue 3/7/06	55
57					
58	**CONSTRUCTION**	**851 days**	**Wed 3/8/06**	**Wed 9/3/08**	
59	Contract Execution	20 days	Wed 3/8/06	Tue 4/4/06	56
60	Submittals, Paperwork	10 days	Wed 4/5/06	Tue 4/18/06	59
61	NTP	1 day	Wed 4/19/06	Wed 4/19/06	60
62	Construction	620 days	Thu 4/20/06	Wed 9/3/08	61



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Task
Split
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Milestone
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Rolled Up Task
Rolled Up Split
Rolled Up Milestone ◇
Rolled Up Progress
External Tasks
Project Summary