

Detterman, Mark, Env. Health

From: Sami Malaeb [s.malaeb@comcast.net]
Sent: Monday, April 30, 2012 4:26 PM
To: Detterman, Mark, Env. Health
Cc: rbatiste@eec-corp.com; britpete@aol.com; colisa@me.com
Subject: Update on the Subsurface Investigation at Salisbury Avenue, Associates, LLC Site, 2145 35th Avenue, Oakland, California
Attachments: Figure 3 Borings Drilled in 2012.PDF; Figure 4 Depiction of the Hydrocarbons in Groundwater (2012).PDF; Figure 5 (Petroleum Hydrocarbons in Groundwater and Proposed Wells).PDF

Hi Mark:

I hope all is well with you. The drilling and Sampling of all fifteen boreholes have been completed according to the approved workplan and its addendum. I uploaded all the field points, analytical data, and a new site plan into the Geotracker. Also, I tabulated all the soil and groundwater analytical results. I created new 11 " X 17" Figures for clarity. The first attached figure shows the location of all the sampling locations and drilled borings to date. The second figure depicts the petroleum hydrocarbons in groundwater. The third Figure shows the estimated hydrocarbon plume and the location of the proposed monitoring wells. The next email will contain all the Tables. In short the following is noted:

- The soil is mainly impacted below the water table. Spotty contamination in the shallow soil. Surface lead is not an issue. No lead concentration was detected above 400 mg/kg (The HUD Level).
- All borings were drilled to approximately 18 to 20 feet below surface grade. Three borings BH5, BH9, and BH12 were drilled by using dual casing to 30 feet below surface grade. Shallow groundwater was encountered between approximately 12 and 15 feet below grade. No second water bearing zone was encountered in borings BH9 and BH12 (soil from 16 feet of depth to the bottom of the borings was moist, but not wet to yield water). However, a small lense containing water was encountered between 25 to approximately 27 feet of depth in boring BH5 and it was sampled.
- It appears the petroleum hydrocarbon plume is split into two. It is likely that the plume extends offsite. See the attached Figure 5.
- I proposed the location of the monitoring wells. I proposed shorter wells to avoid driving contamination deeper into the ground. Please see the attached proposed Figure 8 next email (Well diagram).

I will call you to discuss the rational of the well locations.

Best Regards,

Sami Malaeb, P.E., R.E.A.
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Email: s.malaeb@comcast.net

RESIDENTIAL HOUSES

SALISBURY STREET



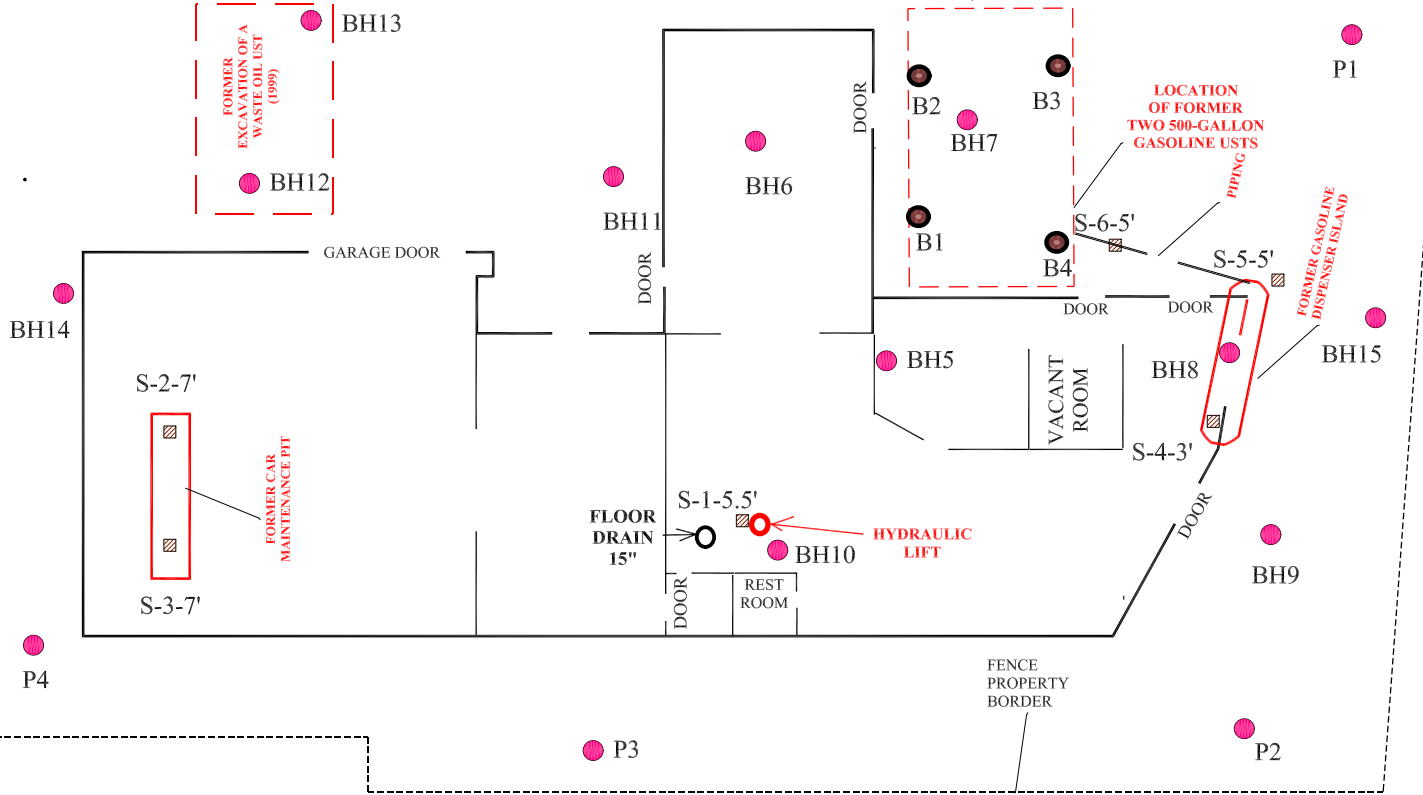
SIDEWALK

GROUNDWATER FLOW

0 FEET 10
APPROXIMATE SCALE

SUBJECT SITE

RESIDENTIAL HOUSE



-  SHALLOW SOIL SAMPLING LOCATIONS 2012
-  BORINGS DRILLED IN 2012
-  BORINGS DRILLED IN 2007

35TH AVENUE

RESIDENTIAL HOUSES

APPARTMENT BUILDING

FENCE PROPERTY BORDER

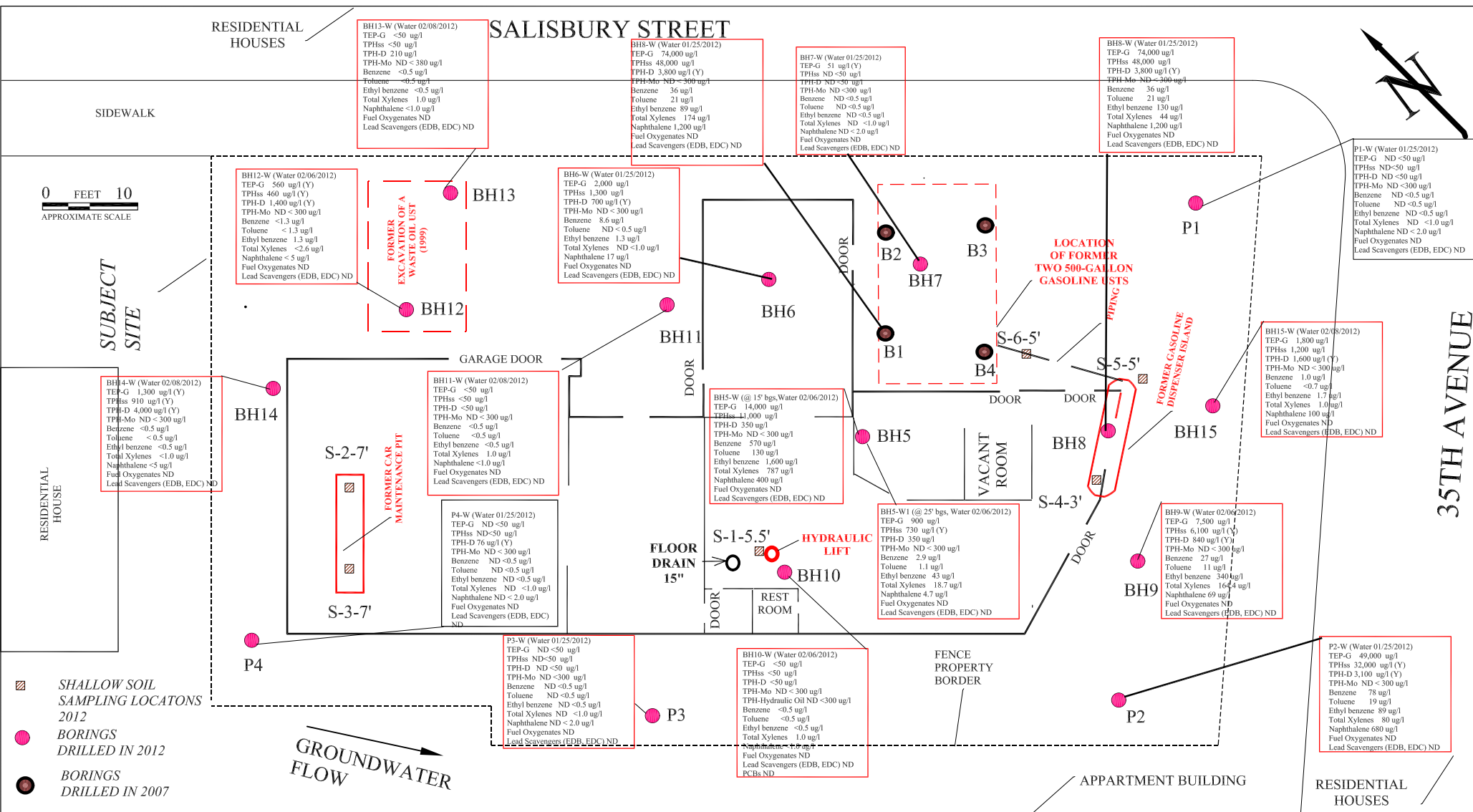


1485 BAYSHORE BOULEVARD, SUITE 374
SAN FRANCISCO, CA 94124

BORINGS DRILLED IN 2012
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 3

APRIL 2012



1485 BAYSHORE BOULEVARD, SUITE 374
SAN FRANCISCO, CA 94124

DEPICTION OF THE HYDROCARBONS IN GROUDWATER
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 4
APRIL 2012

RESIDENTIAL HOUSES

SALISBURY STREET

SIDWALK

Estimated Petroleum Hydrocarbon Plumes

GROUNDWATER FLOW

0 FEET 10 APPROXIMATE SCALE

SUBJECT SITE

FORMER EXCAVATION OF A WASTE OIL LIST (1999)

LOCATION OF FORMER TWO 500-GALLON GASOLINE USTS

FORMER GASOLINE DISPENSER ISLAND

PROPOSED MW-4

RESIDENTIAL HOUSE

PROPOSED MW-1

GARAGE DOOR

S-2-7'

S-3-7'

FORMER CAR MAINTENANCE PIT

FLOOR DRAIN 15"

S-1-5.5'

HYDRAULIC LIFT

VACANT ROOM

S-4-3'

S-5-5'

S-6-5'

PROPOSED MW-3

35TH AVENUE

APPARTMENT BUILDING

RESIDENTIAL HOUSES

- SHALLOW SOIL SAMPLING LOCATIONS 2012
- BORINGS DRILLED IN 2012
- BORINGS DRILLED IN 2007

PROPOSED MW-2



1485 BAYSHORE BOULEVARD, SUITE 374 SAN FRANCISCO, CA 94124

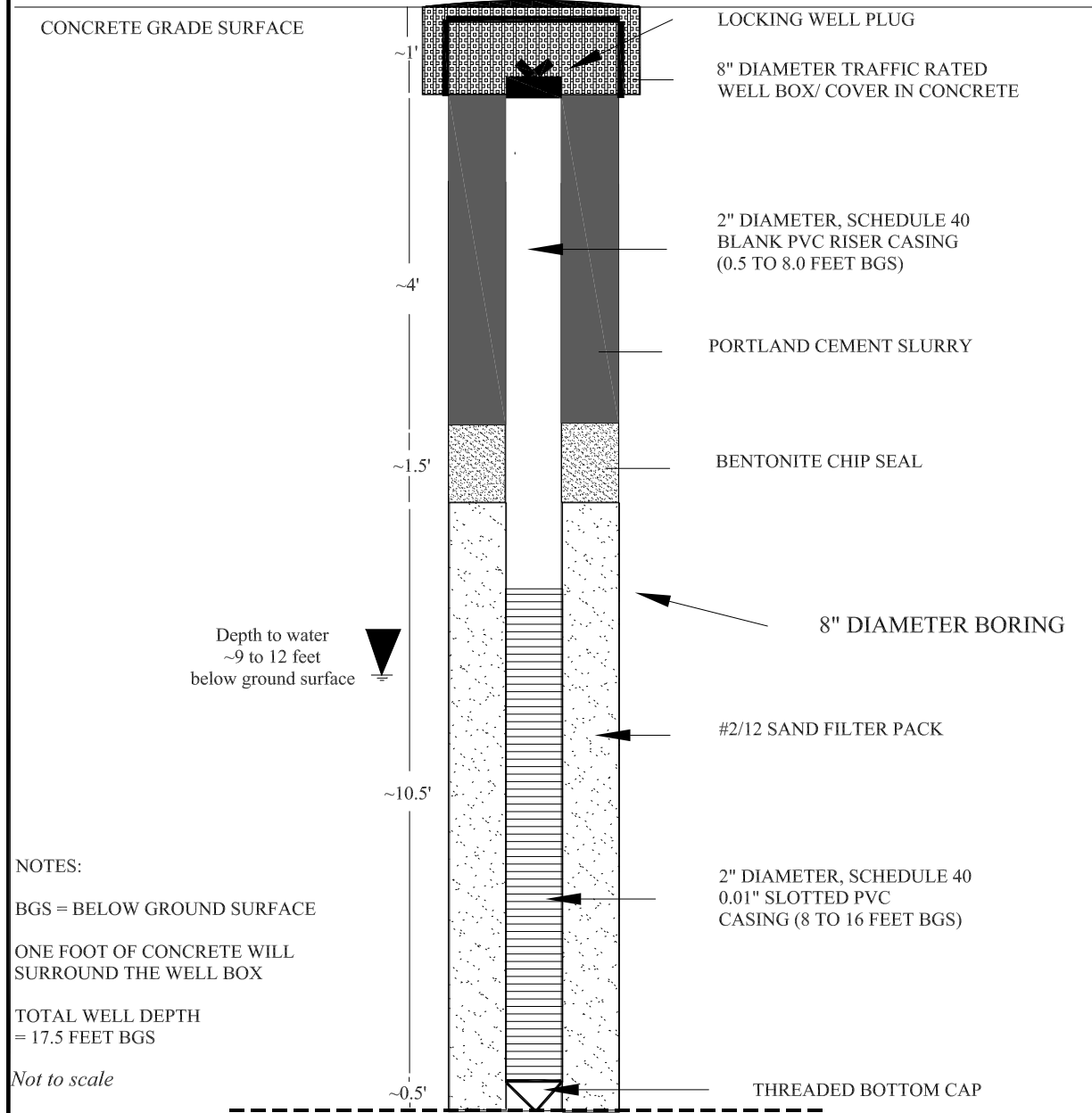
PETROLEUM HYDROCARBONS IN GROUNDWATER AND PROPOSED MONITORING WELLS 2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 5

APRIL 2012

GROUNDWATER MONITORING WELL
CONSTRUCTION SPECIFICATIONS

POSITIVE GRADE FOR WATER
TO FLOW AWAY FROM THE WELL BOX



NOTES:

BGS = BELOW GROUND SURFACE

ONE FOOT OF CONCRETE WILL
SURROUND THE WELL BOX

TOTAL WELL DEPTH
= 17.5 FEET BGS

Not to scale



1485 BAYSHORE BOULEVARD, SUITE 374
SAN FRANCISCO, CA 94124

2145 35th AVENUE
OAKLAND, CALIFORNIA

(05/20/10) BY SM
NOT TO SCALE

FIGURE 8
PROPOSED WELL
CONSTRUCTION DIAGRAM

TABLE 1
SUMMARY OF CHEMICAL ANALYSES FOR TPH, TEPH, PCBs, AND BTEX
SOIL SAMPLES COLLECTED FROM THE LOCATIONS OF FORMER HYDRAULIC LIFT,
CAR MAINTENANCE PIT, DISPENSER ISLAND, AND PIPING
2145 35th Avenue
Oakland, California

| Sample ID | Description | Date Sampled | TPH ⁽¹⁾ as Gasoline (mg/kg) ⁽²⁾ | TPH as Stoddard Solvent (mg/kg) | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl benzene (mg/kg) | Total Xylenes (mg/kg) | TEPH ⁽³⁾ as Diesel (mg/kg) | TEPH as Motor Oil (mg/kg) | TEPH as Hydraulic Fluid (mg/kg) | PCBs (mg/kg) |
|---|---|--------------|---|---------------------------------|----------------------|--------------------|-----------------------|-----------------------|---------------------------------------|---------------------------|---------------------------------|----------------------|
| S-1-5.5' | Soil sample collected at 5.5 feet bgs ⁽⁴⁾ from the hydraulic lift excavation | 01/11/12 | NA | NA ⁽⁵⁾ | <0.0047 | <0.0047 | <0.0047 | <0.0094 | 47 (Y) ⁽⁶⁾ | 260 | 330 | 0.027 ⁽⁷⁾ |
| S-2-7.0 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (east side) | 01/13/12 | <1.0 | <1.0 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | <1.0 | <5.0 | NA | NA |
| S-3-7.0 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (west side) | 01/13/12 | <1.0 | <1.0 | <0.0047 | <0.0047 | <0.0047 | <0.0094 | <1.0 | <5.0 | NA | NA |
| S-4-3.0 | Soil sample collected at 3.0 feet bgs from under the former dispenser island and piping | 01/13/12 | 5.7 (Y) | 2.5 (Y) | <0.25 ⁽⁸⁾ | <25 ⁽⁸⁾ | <0.25 ⁽⁸⁾ | <0.5 ⁽⁸⁾ | 12 (Y) | <5.0 | NA | NA |
| S-5-5.0 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | 01/13/12 | <1.1 | <1.1 | <0.0047 | <0.0047 | <0.0047 | <0.0094 | <0.99 | <5.0 | NA | NA |
| S-6-5.0 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | 01/13/12 | <1.1 | <1.1 | <0.01 | <0.01 | <0.01 | <0.02 | 3.7 (Y) | 8.2 | NA | NA |
| Residential land use shallow soil, drinking water ⁽⁹⁾ | | | 83 | 83 | 0.044 | 2.9 | 2.3 | 2.3 | 83 | 370 | 370 | 0.22 |
| Residential land use shallow soil, non-drinking water ⁽¹⁰⁾ | | | 100 | 100 | 0.12 | 9.3 | 2.3 | 11 | 100 | 370 | 370 | 0.22 |

TPH⁽¹⁾ = Total volatile petroleum hydrocarbons by EPA Method 8015B
mg/kg⁽²⁾ = milligrams per kilogram
TEPH⁽³⁾ = Total extractable petroleum hydrocarbons by EPA Method 8015B
bgs⁽⁴⁾ = Below ground surface
NA⁽⁵⁾ = Not applicable or sample not analyzed for the specific indicated compound
(Y)⁽⁶⁾ = Sample exhibits chromatographic pattern which does not resemble standard

ND ⁽⁷⁾ = Non-detected or below the laboratory respective detection limit for all the Aroclors; except Aroclor-1268 was detected at 0.027 mg/kg (below ESL)
⁽⁸⁾ = Reporting limit is above ESL

⁽⁹⁾ = Tier 1 Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is Current or Potential Source of Drinking Water (mg/kg) (Table A-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - November 2007, (Revised May 2008).

⁽¹⁰⁾ = Tier 1 Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is not Current or Potential Source of Drinking Water (mg/kg) (Table B-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - November 2007, (Revised May 2008).

TABLE 2
SUMMARY OF CHEMICAL ANALYSES FOR FUEL OXYGENATES AND LEAD SCAVENGERS
SOIL SAMPLES COLLECTED FROM THE LOCATIONS OF FORMER HYDRAULIC LIFT,
CAR MAINTENANCE PIT, DISPENSER ISLAND, AND PIPING
2145 35th Avenue
Oakland, California

| Sample ID | Description | Date Sampled | tert-Butyl Alcohol (TBA) (µg/kg) ⁽¹⁾ | Isopropyl Ether (DIPE) (µg/kg) | Ethyl tert-Butyl Ether (ETBE) (µg/kg) | Methyl tert-Amyl Ether (TAME) (µg/kg) | Methyl tert-Butyl Ether (MTBE) (µg/kg) | Ethylene Dibromide (EDB) (µg/kg) | 1,2-dichloroethane (DCA) (µg/kg) |
|--|---|--------------|--|-----------------------------------|--|--|---|-------------------------------------|-------------------------------------|
| S-1-5.5' | Soil sample collected at 5.5 feet bgs ⁽²⁾ from the hydraulic lift excavation | 01/11/12 | NA | NA | NA | NA | <4.7 | <4.7 | <4.7 |
| S-2-7.0 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (east side) | 01/13/12 | <96 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| S-3-7.0 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (west side) | 01/13/12 | <97 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-4-3.0 | Soil sample collected at 3.0 feet bgs from under the former dispenser island and piping | 01/13/12 | <5,000 | <250 | <250 | <250 | <250 | <250 | <250 |
| S-5-5.0 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | 01/13/12 | <95 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-6-5.0 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | 01/13/12 | <200 | <10 | <10 | <10 | <10 | <10 | <10 |
| Residential land use shallow soil, drinking water ⁽³⁾ | | | 75 | -- | -- | -- | 23 | 0.33 | 4.5 |
| Residential land use shallow soil, non-drinking water ⁽⁴⁾ | | | 10,000 | -- | -- | - | 8,400 | 19 | 220 |

µg/kg⁽¹⁾ = Microgram per kilogram

bgs⁽²⁾ = Below ground surface

⁽³⁾ = Tier 1 Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is Current or Potential Source of Drinking Water (mg/kg), (Table A-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final November 2007, (Revised May 2008).

⁽⁴⁾ = Tier 1 Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is not Current or Potential Source of Drinking Water (mg/kg), (Table B-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - November 2007, (Revised May 2008).

(--) Not determined or not available

Note: reporting limits of some compounds listed in the above table are higher than their respective ESLs

TABLE 3
SUMMARY OF CHEMICAL ANALYSES FOR PURGEABLE ORGANICS BY GC/MS
SOIL SAMPLES COLLECTED FROM THE FORMER HYDRAULIC LIFT, CAR MAINTENANCE PIT,
DISPENSER ISLAND AND PIPING
2145 35TH Avenue
Oakland, California

| Sample ID | Date Sampled | Description | Freon 12 (ug/kg) ⁽¹⁾ | Chloro-methane (ug/kg) | Vinyl Chloride (ug/kg) | Bromoethane (ug/kg) | Chloro-ethane (ug/kg) | Trichloro-Fluoro-methane (ug/kg) | Acetone (ug/kg) | Freon 113 (ug/kg) | 1,1-Dichloroethene (ug/kg) | Mehylene Chloride (ug/kg) |
|--|--------------|---|---------------------------------|------------------------|------------------------|---------------------|-----------------------|----------------------------------|-----------------|-------------------|----------------------------|---------------------------|
| S-1-5.5 | 01/11/12 | Soil sample collected at 5.5 feet bgs ⁽¹⁾ from the hydraulic lift excavation | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <4.7 | <19 | <4.7 | <4.7 | <19 |
| S-2-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (east side) | <9.6 | <9.6 | <9.6 | <9.6 | <9.6 | <4.8 | <19 | <4.8 | <4.8 | <19 |
| S-3-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (west side) | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <4.7 | <19 | <4.7 | <4.7 | <19 |
| S-4-3.0 | 01/13/12 | Soil sample collected at 3.0 feet bgs from under the former dispenser island and piping | <500 | <500 | <500 | <500 | <500 | <250 | <1,000 | <250 | <250 | <1,000 |
| S-5-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | <9.5 | <9.5 | <9.5 | <9.5 | <9.5 | <4.7 | 210 | <4.7 | <4.7 | <19 |
| S-6-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | <20 | <20 | <20 | <20 | <20 | <10 | 270 | <10 | <20 | <40 |
| Direct Exposure Soil Screening Levels (Residential Exposure Scenario) ⁽³⁾ | | | -- | 6,400 | 22 | 390 | 850 | -- | 500 | -- | 1,000 | 77 |

TABLE 3 (Continue)
SUMMARY OF CHEMICAL ANALYSES FOR PURGEABLE ORGANICS BY GC/MS
SOIL SAMPLES COLLECTED FROM THE FORMER HYDRAULIC LIFT, CAR MAINTENANCE PIT,
DISPENSER ISLAND AND PIPING
2145 35TH Avenue
Oakland, California

| Sample ID | Date Sampled | Description | Carbon Disulfide (ug/kg) | MTBE (ug/kg) | Trans-1,2-Dichloroethene (ug/kg) | Vinyl Acetate (ug/kg) | 1,1-Dichloroethane (ug/kg) | 2-Butanone (ug/kg) | Cis-1,2-Dichloroethene (ug/kg) | 2,2-Dichloropropane (ug/kg) | Chloroform (ug/kg) | Bromo-chloromethane (ug/kg) |
|---|--------------|--|--------------------------|--------------|----------------------------------|-----------------------|----------------------------|--------------------|--------------------------------|-----------------------------|--------------------|-----------------------------|
| S-1-5.5 | 01/11/12 | Soil sample collected at 5.5 feet bgs, from the hydraulic lift excavation | <4.7 | <4.7 | <4.7 | <47 | <4.7 | <9.4 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-2-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs, from under the former maintenance pit (east side) | <4.8 | <4.8 | <4.8 | <48 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 |
| S-3-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs, from under the former maintenance pit (west side) | <4.7 | <4.7 | <4.7 | <47 | <4.7 | <9.4 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-4-3.0 | 01/13/12 | Soil sample collected at 3.0 feet bgs, from under the former dispenser island and piping | <250 | <250 | <250 | <2,500 | <250 | <500 | <250 | <250 | <250 | <250 |
| S-5-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs, from under the former dispenser island and piping | <4.7 | <4.7 | <4.7 | <47 | <4.7 | <9.5 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-6-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs, from under the former dispenser island and piping | <10 | <10 | <10 | <100 | <10 | <20 | <10 | <10 | <10 | <10 |
| Direct Exposure Soil Screening Levels (Residential Exposure Scenario) | | | -- | 23 | 670 | -- | 4.5 | 3,900 | 190 | 120 | 680 | 570 |

TABLE 3 (Continue)

SUMMARY OF CHEMICAL ANALYSES FOR PURGEABLE ORGANICS BY GC/MS
SOIL SAMPLES COLLECTED FROM THE FORMER HYDRAULIC LIFT, CAR MAINTENANCE PIT,
DISPENSER ISLAND AND PIPING
2145 35TH Avenue
Oakland, California

| Sample ID | Date Sampled | Description | 1,1,1-Trichloroethane (ug/kg) | 1,1-Dichloro propene (ug/kg) | Carbon Tetrachloride (ug/kg) | 1,2-Dichloroethane (ug/kg) | Benzene (ug/kg) | Trichloro ethene (ug/kg) | 1,2-Dichloropropane (ug/kg) | Bromodichloro -methane (ug/kg) | Dibromo-methane (ug/kg) |
|---|--------------|--|-------------------------------|------------------------------|------------------------------|----------------------------|-----------------|--------------------------|-----------------------------|--------------------------------|-------------------------|
| S-1-5.5 | 01/11/12 | Soil sample collected at 5.5 feet bgs, from the hydraulic lift excavation | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-2-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs, from under the former maintenance pit (east side) | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| S-3-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs, from under the former maintenance pit (west side) | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-4-3.0 | 01/13/12 | Soil sample collected at 3.0 feet bgs, from under the former dispenser island and piping | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 |
| S-5-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs, from under the former dispenser island and piping | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-6-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs, from under the former dispenser island and piping | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Direct Exposure Soil Screening Levels (Residential Exposure Scenario) | | | 7,800 | 59 | 20 | 200 | 44 | 460 | 120 | 570 | -- |

TABLE 3 (Continue)

SUMMARY OF CHEMICAL ANALYSES FOR PURGEABLE ORGANICS BY GC/MS
SOIL SAMPLES COLLECTED FROM THE FORMER HYDRAULIC LIFT, CAR MAINTENANCE PIT,
DISPENSER ISLAND AND PIPING
2145 35TH Avenue
Oakland, California

| Sample ID | Date Sampled | Description | 4-Methyl-1-2-pentanone (ug/kg) | Cis-1,3-Dichloropropene (ug/kg) | Toluene (ug/kg) | Trans-1,3-Dichloropropene (ug/kg) | 1,1,2-Trichloroethane (ug/kg) | 2-Hexanone (ug/kg) | 1,3-Dichloropropane (ug/kg) | Tetra-chloroethene (ug/kg) | Dibromochloro-methane (ug/kg) |
|---|--------------|--|--------------------------------|---------------------------------|-----------------|-----------------------------------|-------------------------------|--------------------|-----------------------------|----------------------------|-------------------------------|
| S-1-5.5 | 01/11/12 | Soil sample collected at 5.5 feet bgs, from the hydraulic lift excavation | <9.4 | <4.7 | <4.7 | <4.7 | <4.7 | <9.4 | <4.7 | <4.7 | <4.7 |
| S-2-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs, from under the former maintenance pit (east side) | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 |
| S-3-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs, from under the former maintenance pit (west side) | <9.4 | <4.7 | <4.7 | <4.7 | <4.7 | <9.4 | <4.7 | <4.7 | <4.7 |
| S-4-3.0 | 01/13/12 | Soil sample collected at 3.0 feet bgs, from under the former dispenser island and piping | <250 | <250 | <250 | <250 | <250 | <500 | <250 | <250 | <250 |
| S-5-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs, from under the former dispenser island and piping | <9.5 | <4.7 | <4.7 | <4.7 | <4.7 | <9.4 | <4.7 | <4.7 | <4.7 |
| S-6-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs, from under the former dispenser island and piping | <10 | <10 | <10 | <10 | <10 | <20 | <10 | <10 | <10 |
| Direct Exposure Soil Screening Levels (Residential Exposure Scenario) | | | 2,800 | 59 | 2,900 | 590 | 70 | -- | 120 | 370 | 7,600 |

TABLE 3
SUMMARY OF CHEMICAL ANALYSES FOR PURGEABLE ORGANICS BY GC/MS
SOIL SAMPLES COLLECTED FROM THE FORMER HYDRAULIC LIFT, CAR MAINTENANCE PIT,
DISPENSER ISLAND AND PIPING
2145 35TH Avenue
Oakland, California

| Sample ID | Date Sampled | Description | 1,2-Dibromoethane (ug/kg) | Choloro benzene (ug/kg) | 1,1,1,2-Tetrachloethane (ug/kg) | Ethyl-benezene (ug/kg) | m,p-Xylenes (ug/kg) | o-Xylenes (ug/kg) | Styrene (ug/kg) | Bromoform (ug/kg) | Isopropyl-benzene (ug/kg) | 1,1,2,2-Tetrachloethane (ug/kg) |
|---|--------------|---|---------------------------|-------------------------|---------------------------------|------------------------|---------------------|-------------------|-----------------|-------------------|---------------------------|---------------------------------|
| S-1-5.5 | 01/11/12 | Soil sample collected at 5.5 feet bgs ⁽²⁾ from the hydraulic lift excavation | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-2-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (east side) | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| S-3-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (west side) | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-4-3.0 | 01/13/12 | Soil sample collected at 3.0 feet bgs from under the former dispenser island and piping | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 |
| S-5-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-6-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Direct Exposure Soil Screening Levels (Residential Exposure Scenario) | | | 0.33 | 1,500 | 24 | 2,300 | 1,150 | 1,150 | 1,500 | 2,200 | -- | 18 |

TABLE 3
SUMMARY OF CHEMICAL ANALYSES FOR PURGEABLE ORGANICS BY GC/MS
SOIL SAMPLES COLLECTED FROM THE FORMER HYDRAULIC LIFT, CAR MAINTENANCE PIT,
DISPENSER ISLAND AND PIPING
2145 35TH Avenue
Oakland, California

| Sample ID | Date Sampled | Description | 1,2,3-Trichloro propane (ug/kg) | Propyl benzene (ug/kg) | Bromo benzene (ug/kg) | 1,3,5-Trimethylbenzene (ug/kg) | 2-Chrotoluene (ug/kg) | 4-Chrotoluene (ug/kg) | tert-butylbenzene (ug/kg) | 1,2,4-Trimethylbenzene (ug/kg) | sec-Butyl benzene (ug/kg) | Para-Isopropyl Toluene (ug/kg) |
|---|--------------|---|---------------------------------|------------------------|-----------------------|--------------------------------|-----------------------|-----------------------|---------------------------|--------------------------------|---------------------------|--------------------------------|
| S-1-5.5 | 01/11/12 | Soil sample collected at 5.5 feet bgs ⁽²⁾ from the hydraulic lift excavation | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-2-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (east side) | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| S-3-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (west side) | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-4-3.0 | 01/13/12 | Soil sample collected at 3.0 feet bgs from under the former dispenser island and piping | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 |
| S-5-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-6-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Direct Exposure Soil Screening Levels (Residential Exposure Scenario) | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 3 (Continue)

SUMMARY OF CHEMICAL ANALYSES FOR PURGEABLE ORGANICS BY GC/MS
SOIL SAMPLES COLLECTED FROM THE FORMER HYDRAULIC LIFT, CAR MAINTENANCE PIT,
DISPENSER ISLAND AND PIPING
2145 35TH Avenue
Oakland, California

| Sample ID | Date Sampled | Description | 1,3-Dichlorobenzene (ug/kg) | 1,4-Dichlorobenzene (ug/kg) | n-Butyl benzene (ug/kg) | 1,2-Dichlorobenzene (ug/kg) | 1,2-Dibromo-3-Chloropropane (ug/kg) | 1,2,4-Trichlorobenzene (ug/kg) | Hexa-Chloro-butadiene (ug/kg) | Naphtalene (ug/kg) | 1,2,3-Trichlorobenzene |
|---|--------------|--|-----------------------------|-----------------------------|-------------------------|-----------------------------|-------------------------------------|--------------------------------|-------------------------------|--------------------|------------------------|
| S-1-5.5 | 01/11/12 | Soil sample collected at 5.5 feet bgs, from the hydraulic lift excavation | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-2-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs, from under the former maintenance pit (east side) | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| S-3-7.0 | 01/13/12 | Soil sample collected at 7.0 feet bgs, from under the former maintenance pit (west side) | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-4-3.0 | 01/13/12 | Soil sample collected at 3.0 feet bgs, from under the former dispenser island and piping | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 |
| S-5-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs, from under the former dispenser island and piping | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 | <4.7 |
| S-6-5.0 | 01/13/12 | Soil sample collected at 5.0 feet bgs, from under the former dispenser island and piping | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Direct Exposure Soil Screening Levels (Residential Exposure Scenario) | | | 7,400 | 590 | -- | 1,100 | 4.5 | 1,500 | 2,200 | 1,300 | -- |

⁽¹⁾ ug/kg = Microgram per kilogram or part per billion

⁽²⁾ bgs = Below ground surface

⁽³⁾ Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table A-1, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, Interim Final - November 2007, (Revised May 2008)

-- = No established value listed.

TABLE 4
SUMMARY OF CHEMICAL ANALYSES FOR THE 5 LEAKING UNDERGROUND
STORAGE TANK (LUFT) METALS
SOIL SAMPLES COLLECTED FROM THE LOCATIONS OF FORMER HYDRAULIC LIFT,
CAR MAINTENANCE PIT, DISPENSER ISLAND, AND PIPING
2145 35th Avenue
Oakland, California

| Sample ID | Description | Date Sampled | Cadmium (Cd) (mg/kg) ⁽¹⁾ | Chromium (Cr) (mg/kg) | Lead (Pb) (mg/kg) | Nickel (Ni) (mg/kg) | Zinc (Zn) (mg/kg) |
|--|---|--------------|--|--------------------------|----------------------|------------------------|----------------------|
| S-1-5.5 | Soil sample collected at 5.5 feet bgs ⁽²⁾ from the hydraulic lift excavation | 01/11/12 | 0.45 | 32 | 51 | 53 | 84 |
| S-2-7.0 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (east side) | 01/13/12 | <0.24 | 130 | 3.5 | 260 | 44 |
| S-3-7.0 | Soil sample collected at 7.0 feet bgs from under the former maintenance pit (west side) | 01/13/12 | <0.24 | 120 | 2.9 | 270 | 43 |
| S-4-3.0 | Soil sample collected at 3.0 feet bgs from under the former dispenser island and piping | 01/13/12 | <0.25 | 110 | 5.7 | 360 | 39 |
| S-5-5.0 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | 01/13/12 | <0.25 | 95 | 3.3 | 130 | 36 |
| S-6-5.0 | Soil sample collected at 5.0 feet bgs from under the former dispenser island and piping | 01/13/12 | <0.27 | 160 | 4.0 | 260 | 40 |
| Residential land use shallow soil, drinking water ⁽³⁾ | | | 1.7 | -- | 200 | 150 | 600 |
| Residential land use shallow soil, non-drinking water ⁽⁴⁾ | | | 1.7 | -- | 200 | 150 | 600 |

mg/kg⁽¹⁾ = milligrams per kilogram

bgs⁽²⁾ = Below ground surface

⁽³⁾ = Tier 1 Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is Current or Potential Source of Drinking Water (mg/kg), (Table A-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final November 2007, (Revised May 2008).

⁽⁴⁾ = Tier 1 Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is not Current or Potential Source of Drinking Water (mg/kg), (Table B-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - November 2007, (Revised May 2008).

Bold = Concentration presented in bold where such a value is at or exceeds one of the environmental screening levels (ESLs) listed

TABLE 5
SUMMARY OF CHEMICAL ANALYSES FOR TPH, TEPH, PCBs, AND BTEX
SOIL SAMPLES COLLECTED FROM BOREHOLES
2145 35th Avenue
Oakland, California

| Sample ID | Description | Date Sampled | TPH ⁽¹⁾ | TPH as | Benzene | Toluene | Ethyl | Total | TEPH ⁽³⁾ as | TEPH as | TEPH as |
|-----------|---|--------------|--|--------------------------------|---------|---------|--------------------|--------------------|------------------------|-------------------------|--------------------------|
| | | | as Gasoline (mg/kg) ⁽²⁾ | Stoddard Solvent (mg/kg) | (mg/kg) | (mg/kg) | benzene (mg/kg) | Xylenes (mg/kg) | Diesel (mg/kg) | Motor Oil (mg/kg) | Hydraulic Oil (mg/kg) |
| P1-5 | Soil sample collected at 5' from boring P1 | 01/25/2012 | <0.93 | <0.93 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | <1.0 | <5.0 | NA ⁽⁴⁾ |
| P1-14 | Soil sample collected at 14' from boring P1 | 01/25/2012 | <1.0 | <1.0 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | <1.0 | <5.0 | NA |
| P2-8 | Soil sample collected at 8' from boring P2 | 01/25/2012 | 1.1 (Y) | <1.0 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | 17 (Y) ⁽⁵⁾ | <5.0 | NA |
| P2-12 | Soil sample collected at 12' from boring P2 | 01/25/2012 | NA | 630 | <1.0 | <1.0 | <1.0 | <2.0 | 140 (Y) | 26 | NA |
| P2-16 | Soil sample collected at 16' from boring P2 | 01/25/2012 | <1.0 | <1.0 | <0.005 | <0.005 | <0.005 | <0.010 | <1.0 | <5.0 | NA |
| P2-20 | Soil sample collected at 20' from boring P2 | 01/25/2012 | <1.0 | <1.0 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | <1.0 | <5.0 | NA |
| P3-8 | Soil sample collected at 8' from boring P3 | 01/25/2012 | <1.0 | <1.0 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | <0.99 | <5.0 | NA |
| P3-12 | Soil sample collected at 12' from boring P3 | 01/25/2012 | <0.98 | <0.98 | <0.0047 | <0.0047 | <0.0047 | <0.0094 | <1.0 | <5.0 | NA |
| P4-8 | Soil sample collected at 8' from boring P4 | 01/25/2012 | <0.93 | <0.93 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | <0.99 | <5.0 | NA |
| P4-12 | Soil sample collected at 12' from boring P4 | 01/25/2012 | <1.0 | <1.0 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | <1.0 | <5.0 | NA |
| BH5-5 | Soil sample collected at 5' from boring BH5 | 02/06/2012 | 120 | 82 | <0.049 | <0.049 | 0.360 | 0.280 | 25 | <5.0 | NA |
| BH5-8 | Soil sample collected at 8' from boring BH5 | 02/06/2012 | 720 | 480 | <0.25 | <0.25 | 6.4 | 6.15 | 210 | <5.0 | NA |
| BH5-12 | Soil sample collected at 12' from boring BH5 | 02/06/2012 | 310 | 210 | <0.0048 | <0.0048 | 1.3 | 0.198 | 240 | <5.0 | NA |
| BH5-30 | Soil sample collected at 30' from boring BH5 | 02/06/2012 | <1.0 | <1.0 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | <1.0 | <5.0 | NA |
| BH6-8 | Soil sample collected at 8' from boring BH6 | 01/25/2012 | <1.0 | <1.0 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | 4.4 (Y) | <5.0 | NA |
| BH6-12 | Soil sample collected at 12' from boring BH6 | 01/25/2012 | 530 (Y) | 480 | <0.050 | <0.050 | <0.050 | <0.010 | 240 (Y) | 9.2 | NA |
| BH6-16 | Soil sample collected at 16' from boring BH6 | 01/25/2012 | <1.0 | <1.0 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | 2.1 (Y) | <5.0 | NA |
| BH7-8 | Soil sample collected at 8' from boring BH7 | 01/25/2012 | <1.0 | <1.0 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | 2.4 (Y) | <5.0 | NA |
| BH7-12 | Soil sample collected at 12' from boring BH7 | 01/25/2012 | <1.0 | <1.0 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | 2.3 (Y) | <5.0 | NA |
| BH8-8 | Soil sample collected at 8' from boring BH8 | 01/25/2012 | 1.0 (Y) | <0.92 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | 1.8 (Y) | <5.0 | NA |
| BH8-12 | Soil sample collected at 12' from boring BH8 | 01/25/2012 | 33 (Y) | 63 | <0.025 | <0.025 | <0.025 | <0.050 | 62 (Y) | 7.3 | NA |
| BH8-16 | Soil sample collected at 16' from boring BH8 | 01/25/2012 | <1.1 | <1.1 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | 3.2 (Y) | <5.0 | NA |
| BH9-8 | Soil sample collected at 8' from boring BH9 | 02/06/2012 | 710 | 480 (Y) | <0.250 | <0.250 | 2.000 | 1.950 | 870 | <25 | NA |
| BH9-16 | Soil sample collected at 16' from boring BH9 | 02/06/2012 | <0.96 | <0.96 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | <1.0 | <5.0 | NA |
| BH9-30 | Soil sample collected at 30' from boring BH9 | 02/06/2012 | <0.93 | <0.93 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | 1.3 (Y) | <5.0 | NA |
| BH10-9 | Soil sample collected at 9' from boring BH10 | 02/06/2012 | <1.1 | <1.1 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | <1.0 | <5.0 | <5.0 |
| BH10-12 | Soil sample collected at 12' from boring BH10 | 02/06/2012 | 8.8 (Y) | 5.9 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | 160 (Y) | 570 | 790 |
| BH11-8 | Soil sample collected at 8' from boring BH11 | 02/08/2012 | <1.0 | <1.0 | <0.0048 | <0.0048 | <0.0048 | <0.0096 | <1.0 | <5.0 | NA |

| Sample ID | Description | Date Sampled | TPH ⁽¹⁾ as Gasoline (mg/kg) ⁽²⁾ | TPH as Stoddard Solvent (mg/kg) | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl benzene (mg/kg) | Total Xylenes (mg/kg) | TEPH ⁽³⁾ as Diesel (mg/kg) | TEPH as Motor Oil (mg/kg) | TEPH as Hydraulic Oil (mg/kg) |
|--|---|--------------|--|--|--------------------|--------------------|-----------------------------|-----------------------------|---|------------------------------------|-------------------------------------|
| BH11-12 | Soil sample collected at 12' from boring BH11 | 02/08/2012 | <0.94 | <0.94 | <0.0044 | <0.0044 | <0.0044 | <0.0088 | 1.6 (Y) | <5.0 | NA |
| BH12-5 | Soil sample collected at 5' from boring BH12 | 02/06/2012 | <0.99 | <0.99 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | <1.0 | <5.0 | NA |
| BH12-12 | Soil sample collected at 12' from boring BH12 | 02/06/2012 | <0.98 | <0.98 | <0.0047 | <0.0047 | <0.0047 | <0.0094 | <1.0 | <5.0 | NA |
| BH12-30 | Soil sample collected at 30' from boring BH12 | 02/06/2012 | <0.92 | <0.92 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | <1.0 | <5.0 | NA |
| BH13-5 | Soil sample collected at 5' from boring BH13 | 02/08/2012 | <1.1 | <1.1 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | <1.0 | <5.0 | NA |
| BH13-8 | Soil sample collected at 8' from boring BH13 | 02/08/2012 | <1.0 | <1.0 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | <1.0 | <5.0 | NA |
| BH14-8 | Soil sample collected at 8' from boring BH14 | 02/08/2012 | <0.93 | <0.93 | <0.0047 | <0.0047 | <0.0047 | <0.0094 | 9.3 (Y) | 38 | NA |
| BH15-4 | Soil sample collected at 4' from boring BH15 | 02/08/2012 | <0.95 | <0.95 | <0.005 | <0.005 | <0.005 | <0.010 | <0.99 | <5.0 | NA |
| BH15-8 | Soil sample collected at 8' from boring BH15 | 02/08/2012 | <1.1 | <1.1 | <0.0049 | <0.0049 | <0.0049 | <0.0098 | 1.7 (Y) | <5.0 | NA |
| BH15-12 | Soil sample collected at 12' from boring BH15 | 02/08/2012 | 960 (Y) | 810 (Y) | <0.250 | <0.250 | <0.250 | <0.500 | 130 | 22 | NA |
| BH15-16 | Soil sample collected at 16' from boring BH15 | 02/08/2012 | <1.1 | <1.1 | <0.005 | <0.005 | <0.005 | <0.010 | <1.0 | <5.0 | NA |
| Residential land use shallow soil, drinking water ⁽⁶⁾ | | | 83 | 83 | 0.044 | 2.9 | 2.3 | 2.3 | 83 | 370 | 370 |
| Residential land use shallow soil, non-drinking water ⁽⁷⁾ | | | 100 | 100 | 0.12 | 9.3 | 2.3 | 11 | 100 | 370 | 370 |

TPH⁽¹⁾ = Total volatile petroleum hydrocarbons by EPA Method 8015B
mg/kg⁽²⁾ = milligrams per kilogram
TEPH⁽³⁾ = Total extractable petroleum hydrocarbons by EPA Method 8015B
NA⁽⁴⁾ = Not applicable or sample not analyzed for the specific indicated compound
(Y)⁽⁵⁾ = Sample exhibits chromatographic pattern which does not resemble standard

⁽⁶⁾ = Tier 1 Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is Current or Potential Source of Drinking Water (mg/kg) (Table A-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - November 2007, (Revised May 2008).

⁽⁷⁾ = Tier 1 Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is not Current or Potential Source of Drinking Water (mg/kg) (Table B-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - November 2007, (Revised May 2008).

Bold = Concentration presented in bold where such a value is at or exceeds one of the environmental screening levels (ESLs) listed