DESERT PETROLEUM INC.

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11:00 am, Dec 05, 2011

Alameda County Environmental Health

Mr. Jerry Wickham Alameda County Health Care Services **Environmental Health Services** 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6791 FACSMILE (510) 337-9335

November 28, 2011

RE: The following work plan revises the previously presented work plan regarding excavation of contaminated soils located at Former Desert Petroleum Site DP793", 4035 Park Blvd., Oakland, California 94602.

Dear Mr. Wickham:

I have reviewed the enclosed work plan that I contracted Western Geo-Engineers to prepare.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report are true and correct to the best of my knowledge.

Sincerely,

S. Thompse

William Thompson, Desert Petroleum, Inc.

Date

3781 TELEGRAPH ROAD, VENTURA, CALIFORNIA 93003-3420 . (805) 654-8084 . FAX (805) 654-0720



WESTERN GEO-ENGINEERS

REGISTERED GEOLOGISTS

Mr. Jerry Wickham Alameda County Health Service work plan) Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 367-6797 November 23, 2011 (revision of September 24, 2008 revised

RE: Revision of the February 6, 2006 and revised September 24, 2008 Work Plans for site DP793 located at 4035 Park Blvd., Oakland, CA.

Dear Mr. Wickham:

INTRODUCTION

After review of the March 8, 2005 "Soil and Groundwater Investigation with Conceptual Model ", Alameda County Health requested the development of the February 2006 Work Plan that would detail the execution and completion of the following tasks 1) excavation and removal of benzene contaminated soils, 2) destruction of unnecessary monitor wells, 3) further definition of the TPHg plume west of Brighton Avenue along the sewer and storm drain system and 4) construction treatment compound along with an underground lateral from the new treatment compound to the receptor trench, to provide continuous pumping from trench wells T1 and T2. The tasks were designated as follows: 1) excavation and removal of benzene contaminated soils, 2) destruction of unnecessary monitor wells, 3) further definition of the TPHg plume west of Brighton Avenue along the sewer and storm drain system and 4) construction treatment compound along with an underground lateral from the new treatment compound to the receptor trench to provide continuous pumping from trench wells T1 and T2. This work plan was approved in the April 4, 2006 Alameda County Health directive.

Tasks 2, 3 and 4 have been completed, but due to high bid cost and encroachment agreements with the City of Oakland, Task 1 has been delayed. Encroachment agreements have been obtained and the necessary geotechnical investigations for the excavation will be finalized once this revised work plan for excavation work has been accepted by Alameda County Health.

Once this work plan has been approved, Mr. Jerry Wickham, Alameda County Environmental Health, has requested a timeline to start and complete the excavation work be signed by the Responsible Party (Desert Petroleum).

SITE LOCATION AND IDENTIFICATION NUMBERS

Former Desert Petroleum #793 is a non-active service station (USTs and associated piping removed June 23, 1994 and building demolished on April 9, 2003), located on the northwest corner of the intersection of Park Boulevard and Hampel Street at 4035 Park Blvd., Oakland, California (Figure 1). The site is located in projected section 32; T1S; R3W; MDB&M at an approximate elevation of 210 feet above mean sea level (Figure 2).

East Bay Municipal Utility District - Sewer Discharge Permit <u>#50435501</u> Alameda County Local Oversight STID<u>1248</u>, Fuel Leak Case No. RO0000429 San Francisco Bay Regional Board (Region 2) Case # <u>01-0170</u> Facility/Leak Site ID# <u>T0600100158</u>

Table 1 is a tabulation of soil sample results. Table 2 is the calculated amounts of clean overburden and contaminated soils to be excavated.

OVERVIEW OF REVISED WORK PLAN

This work plan is designed to show changes in Task 1, Remove (excavate) soils contaminated with benzene (gasoline range hydrocarbons) as defined in the March 8, 2005 "Soil and Groundwater Investigation with Conceptual Model".

LOCAL GEOLOGY AND HYDROGEOLOGY OF THE SITE

Desert Petroleum site, DP793 is situated in the Coast Ranges Province of California. The Coast Ranges are a geomorphic province that trends north-northwesterly (30 - 40 degrees west of north), paralleling the Sierra Nevada, positioned east of the Pacific Ocean and west of the Great Valley Province.

The Hayward fault is the boundary between two distinctly different geologic and physiographic provinces: the hills on the east side of the fault and the flatlands on the west side of the fault.

The groundwater basins within the Coastal Ranges are predominately unconsolidated fine to coarse grained sediments deposited by streams draining the mountain ranges.

GEOMORPHOLOGY/GROUNDWATER OCCURRENCE

The site is located on the western slope of the Berkeley Hills. The Berkeley Hills are a northwest-southeast trending range within the Coastal Range Province of California. Erosion of the Coastal Ranges has filled the valleys within and bordering the Coastal Range with sequences of gravels, silts, sands, and clays. Groundwater in this area is contained within the "East Bay Plain". The East Bay Plain groundwater basin is composed of unconsolidated, fine to coarse grained sediments deposited by streams draining the Diablo Range. Regional tectonic events and sea level fluctuations, caused

by glaciation have subjected the East Bay Plain to alternating periods of marine inundation (fine sediments) and subaerial exposure (coarse sediments). A sequence of silts and clays (confining layers) and coarse-grained sediments (alluvial fans) have been deposited on top of relatively impermeable bedrock.

The area is relatively unstable, ie. plate boundary, faulting and the hills are predominately highly tilted Franciscan Assemblage, Great Valley Sequence and Miocene age sedimentary and igneous rock. During seasonal soil saturation, slump blocks and rockslides are common to the area.

Drinking water for Alameda County originates from the Sierra Nevada mountain range, but at one time the East Bay Plain was the main water supply. Currently the East Bay Plain supplies water for domestic irrigation and industrial purposes. The January 1994 Department of Water Resources Report "Ground Water Storage Capacity of a Portion of the East Bay Plain, Alameda County, California" indicates that about 2,560,000 acre-feet of groundwater is stored in the basin. Of this about 80,000 acre-feet can be safely used if water levels are maintained above sea level. The average thickness of the aquifer is approximately 50 feet, with depth to groundwater varying between 5 and 40 feet below land surface.

STRATIGRAPHY/GROUNDWATER OCCURRENCE

STATION PROPERTY

In areas that have not be previously excavated or brought to grade with rock fill, the native soil from surface to 11 feet below ground surface (BGS) consists of dark brown silty clay. The dark brown silty clay is underlain by light brown stiff clay that includes occasional sub-rounded to round metavolcanic and quartz gravel. This clay extends to approximately 17 feet BGS. First groundwater is found in this clayey formation between 5 and 16 feet BGS. Direct Push Core Holes (December 2004) were tested between 11 and 19 feet BGS for the occurrence of groundwater. Due to the low yield, the test holes had to be left open overnight to allow enough water to enter prior to obtaining samples. A conglomerate of brown, clayey gravels and sands extends from the base of the brown clay to approximately 33 feet BGS. The conglomerate is consolidated to semi consolidated. Direct Push Core Holes were tested for the presence of water between 24 and 30 feet BGS. Enough water entered the test hole within hours to obtain water samples. Firm brown clay underlies the conglomerate to 49.5 feet explored. Direct Push Core Holes were tested for the presence of water between 34 feet BGS and total depth. Due to low yield, these test holes were left open overnight to allow enough water entry to obtain samples, see Figures 3 (Onsite Sample Locations) and Figure 4 (Lithologic Onsite Cross Section).

BACKYARD SEWER LATERAL ROUTE

Assessments performed along the sewer lateral as it leaves the site and routes through the residential area towards Brighton Avenue show the subsurface to consist of fill from a couple of inches thick to two feet thick. Beneath the fill is a sequence of clay formations that vary from light brown to dark gray to approximately the 6 foot depth. Silty clay then extends to approximately the 14-foot depth. Beneath the silty clay is sand with occasional gravel (conglomerate). This sand is 11 feet thick at RS5 and is underlain by silty clay.

Hand augured borings were used to install temporary piezometers to perform "time recharge" slug tests of the shallow groundwater beneath the backyards near the sewer lateral route. These borings, B1, B2, B3, B4 and B5 were installed May 1996. Using the Bouwer and Rice Slug Test Model, hydraulic conductivity was calculated for each boring. Boring B4 did not produce enough water that day to perform the test. Depth to water measurements along with top of piezometer elevation level were used to determine gradient. The resulting groundwater velocities ranged from a low of 4.1 feet/year at BH1 to a high of 385 feet/year at BH5. Soil samples from these borings were analyzed for total organic carbon (TOC). Utilizing the TOC (340 - 5700 mg/Kg) amounts the retarded velocity for each borehole was then calculated for BTEX. Benzene in groundwater has a retarded velocity ranging from 2.98 feet/year at BH1 to a high of 70 feet/year at BH5, see July 3, 1996 Western Geo-Engineers report "Sewer Lateral Investigation Report Desert Petroleum Station #793, 4035 Park Boulevard, Oakland, CA."

BRIGHTON AVENUE

Construction of the receptor trench along the eastern curb area of Brighton Avenue revealed two separate sequences of lithology. North of the storm drain catch basin the sequence consists of; clay to the four foot depth, silty clay to the seven foot depth, fine silty sand to the 9 foot depth, medium sand to the 10 foot depth, silty clay to the 11 $\frac{1}{2}$ foot depth, gravel to the 12 foot depth, underlain by clay to the 16 foot depth. South of the storm catch basin is a sequence of silty clays and clays to the 10 foot depth.

Sandier sequence of sediments north of the storm water catch basin at Brighton Avenue compared to the sediments south of the storm water catch basin, indicate a facies change or a fault remnant striking east/west near the storm drain catch basin. A topographic lineation along the 200 foot contour is located in this area, see Figure 2.

GROUNDWATER

Groundwater movement has been documented by depth to water measurements of the existing groundwater monitoring wells associated with this investigation, see Table 1. The groundwater flows west, northwest from the site towards the topographic low, receptor trench, along Brighton Avenue. During precipitation events infiltration to the area on site that has been over-excavated and then backfilled with pea gravel and road

base becomes a groundwater high. Pumping from on site well RS5 has created a depression, cone, at RS5 with influence out to down gradient wells RS8 and RS10.

WORK PLAN PROCEDURES (TASKS)

This work plan describes the amount of soil to be excavated, documentation sample locations, backfill materials and procedures and Health and Safety procedures and monitoring in completion of Task 1, remove (excavate) soils contaminated with benzene and (gasoline range hydrocarbons). The original cost to perform contaminated soil removal/disposal of approximately 1400 cubic yards of \$470,000 (\$200,000 for shoring) with a total cost to complete Tasks 1 and 4 at \$580,500.00, was rejected as excessive by Desert Petroleum. A subsequent more focused excavation plan of approximately 750 cubic yards was then submitted to Desert Petroleum with a revised cost estimate of \$176,000 (no shoring) for a total cost to complete Tasks 1 at \$193,300. Geotechnical borings were performed within the area to be excavated in January 2011. Two soil samples were obtained from chemical analysis of TPHg, BTEX and MtBE. The results of these two soil samples indicated a reduction in residual contaminant levels, indicating that the excavation could be reduced even further than the previously proposed 750 cubic yards. The following describes the changes in the excavation plan, Task 1.

Task 1, remove (excavate) soils contaminated with benzene and gasoline range hydrocarbons that pose a risk to the environment as described in the "November 2007, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board – San Francisco Bay Region". With the removal of the source (residual soil contamination) advancing the chemicals of concern (COCs) TPHg, BTEX and MtBE to reach the California Water Quality Threshold Goals (Objectives) (WQO's).

COCs	MCL	Taste Odor	CA Public	WQO
			Health	
TPHg	21 ^X	5		5
^X CANCER				
SLOPE f				
Benzene	1	170	0.15	0.15
Toluene	150	42	150	42
Ethylbenzene	300	29	32	29
Xylenes	1750	17	1800	17
MtBE	13	5	13	5

WQO's as listed below in ug/L.

TASK 1 - EXCAVATION/BACKFILL

The February 2006 Work Plan estimated that approximately 700 cubic yards of clean overburden (8 to 10 foot depth) needed to be removed and stockpiled on site prior to removal of gasoline contaminated soil. This has not changed. Monitor well RS05 was to

be destroyed and a dewatering well was to be placed at the extreme northwest corner of the excavation. Groundwater entering the excavation would be pumped to a 4000 gallon poly tank (allowing solids to settle) prior to being pumped to the water carbon treatment system for disposal to the sanitary sewer under East Bay Municipal Utility District Wastewater Discharge Permit No 50435501 which allows a continuous discharge of 3 gpm to sewer. Under this revised work plan dewatering of the excavation will utilize current pumping well RS05 instead of placing a new well at the northwest corner of the excavation. If RS05 is damaged during the excavation work, RS05 will be excavated removed (total borehole depth of RS05 is 40 feet). A replacement well will be placed at the RS05 location. The excavation will proceed from pumping well RS05 eastward from a total depth of 26 feet at RS05 eastward to the 24 foot depth at core boring C11, southeastern to the 22 foot depth at core boring C13 and south to the 24 foot depth at core boring C1, see Figure 5. With the use of sloping/benching shoring will not be necessary. The Geotechincal excavation report will specify the degree of sloping/benching that will be necessary. Confirmation soil samples will be obtained from the sidewalls and base of the excavation prior to any backfilling. The excavated contaminated soil will be stockpiled while the excavation/backfilling proceeds and covered with 6 mil plastic liner when not being added to. Once the excavation has been completed and backfilled this soil will be sampled for profiling and disposal. It is anticipated that the profile sample results will allow this soil to be disposed of at a Class II landfill. Once the excavation has been completed and if well RS05 was damaged and had to be removed a 4 inch PVC well (dewatering well - EX) would be permanently placed for future groundwater/vapor removal. If RS05 has not been damaged, a two inch diameter vapor recovery well will be placed into the backfill, near RS05 for future vapor extraction source testing. The vapor extraction well (VE) will be constructed of 2 inch diameter schedule 40 PVC with 0.02 slot from the 16 foot depth to 11 foot depth, with blank casing to surface. The excavation well (EX-1) if needed, will be constructed of schedule 40 PVC with 0.02 slot from the 26 foot depth to 11 foot depth, with blank casing to surface.

BACKFILLING

To alleviate concerns of potential pathways for vapor migration, the backfill plan will reduce the use of the drain rock and increase the use of the clean road base. Figure 6 is a proposed cross section view that illustrates the reduction in the use of the drain rock. After ACEH is satisfied that no further excavation is necessary or can safely be performed and no further confirmation samples are necessary the excavation will be backfilled.

Backfilling will be performed in the following sequence.

- 1. Placement of geofabric along the base and sidewalls of the excavation, to prevent fines from evading the drain rock.
- 2. If necessary permanent placement of EX well in geofabric covered excavation.
- 3. Placement of clean drain rock at approximately 5 to 6 foot thickness at the base of the excavation and to the 12 foot depth along the western edge of the excavation to include the location of RS05 or EX well.

- 4. Compaction of the drain rock.
- 5. Placement of geofabric on top of the drain rock, to prevent fines from evading the drain rock.
- 6. Placement of clean road base, compacted to the 8 foot depth.
- 7. Compaction placement of the clean overburden soil to grade.

Schedule 80 PVC pipe will connect the wells to the treatment compound, buried at approximately 2 feet below grade, to connect the excavation well traffic rated vault (24"width X 24"deep) to the treatment compound. This vault will be secured slightly above grade $\frac{1}{2}$ " in a concrete form.

NOTIFICATIONS

Upon approval of this revision to the February 2006 Work Plan a preapproval for cost will be submitted to the Underground Storage Tank Clean-Up Fund (UST Fund). Once preapprovals have been granted all necessary permissions and permits will be obtained. A 48-hour notice will be given to all concern parties including USA (Underground Service Alert) prior to start of any site activities.

LIMITATIONS

The information presented in this report is based on the following:

- 1. The observations and data collected by field personnel.
- 2. The result of laboratory analyzes performed by a state certified analytical laboratory.
- 3. Our understanding of the regulations of Alameda County, the City of Oakland and the State of California.
- 4. References reviewed for this report.

Changes in groundwater conditions can occur due to variations in rainfall, temperature, local and regional water use and local construction practices. In addition, variations in the soil and groundwater conditions could exist beyond the points explored in this investigation.

State Certified Laboratory analytical results are included in this report. This laboratory follows EPA and State of California approved procedures; however, WEGE is not responsible for errors in these laboratory results.

The services performed by Western Geo-Engineers, a corporation under California Registered Geologist #3037, have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the State of California, the City of Oakland and Alameda County.

Our work and/or supervision of remediation and/or abatement operations, active or preliminary at this site is in no way meant to imply that we are owners or operators of this

site. Please note that the known contamination of soil and/or groundwater must be reported to the appropriate agencies in a timely manner. No other warranty expressed or implied is made.

Sincerely yours, MCK E NAPPER Jack E. Napper Ca. Reg. Geologist #3037

George Converse Project Geologist

cc: Mr. William Thompson, Desert Petroleum (805) 654-8084 Mr. Kin Man Li, property owner 4035 Park Blvd. (510) 599-7000

SB-A	LF	9/8/1993	5	<0.2	< 0.005	< 0.005	< 0.005	< 0.005	
SB-A	LF	9/8/1993	15	<0.2	< 0.005	< 0.005	< 0.005	< 0.005	
SB-B	LF	9/8/1993	5	<0.2	< 0.005	< 0.005	< 0.005	< 0.005	
SB-B	LF	9/8/1993	12.5	400	1.7	17	8.2	44	
	-								
LF-1	LF	9/9/1993	6	<0.2	< 0.005	< 0.005	< 0.005	< 0.005	

SOIL BORINGS AT 4003 AND 4006 BRIGHTON AVENUE

DPO-SS1	WWC	7/24/1990	3.5	<1	< 0.005	< 0.005	< 0.005	< 0.005	
DPO-SS1	WWC	7/24/1990	5	<1	0.005	<0.005	<0.005	0.011	
					-				
DPO-SB1	WWC	8/21/1990	5	390	2.5	17	9.4	47	
DPO-SB2	WWC	8/21/1990	5	41	0.31	1.4	0.92	4.4	
DPO-SB2	WWC	8/21/1990	10	230	3.5	21	5	43	
DPO-SB2	WWC	8/21/1990	15	<1	0.052	0.13	0.019	0.099	
DPO-SB2	WWC	8/21/1990	20	<1	0.03	0.033	0.0076	0.03	
DPO-SB3	WWC	9/19/1990	15	<1	< 0.005	< 0.005	< 0.005	0.0073	

SOIL BORINGS ALONG SEWER LATERAL

RS-3	RSI	12/11/1989	5	<1	< 0.003	0.043	< 0.003	0.008	
RS-3	RSI	12/11/1989	10	<1	< 0.003	0.02	< 0.003	< 0.003	
RS-4	RSI	12/12/1989	5	50	0.78	3.4	0.74	4.1	
RS-4	RSI	12/12/1989	10	8	0.25	0.94	0.17	0.92	
RS-5	RSI	12/12/1989	5	<1	na	na	na	na	
RS-5	RSI	12/12/1989	10	<1	na	na	na	na	
RS-5	RSI	12/12/1989	15	<1	na	na	na	na	
RS-5	RSI	12/12/1989	20	530	1.5	8.4	3.9	22	
RS-5	RSI	12/12/1989	25	4	0.7	0.42	0.58	0.26	
RS-5	RSI	12/12/1989	30	1600	na	na	na	na	
RS-5	RSI	12/12/1989	35	<1	na	na	na	na	
RS-5	RSI	12/12/1989	40	1	0.036	0.069	0.009	0.043	
RS-6	RSI	12/13/1989	5	<1	na	na	na	na	
RS-6	RSI	12/13/1989	10	<1	na	na	na	na	
RS-6	RSI	12/13/1989	15	<1	na	na	na	na	
RS-6	RSI	12/13/1989	20	<1	0.017	0.007	< 0.003	0.015	
RS-6	RSI	12/13/1989	25	<1	0.009	0.011	< 0.003	< 0.003	
RS-6	RSI	12/13/1989	30	<1	na	na	na	na	
RS-6	RSI	12/13/1989	35	<1	0.005	0.007	< 0.003	0.006	
RS-7(SB-1)	RSI	12/14/1989		130	0.46	3.6	1	7.6	
RS-7(SB-2)	RSI	12/14/1989	STOCKPI	370	1.1	13	4.4	29	

SOIL BORINGS/MONITOR WELLS INSTALLATIONS BY RSI 16 33

<1

<1

10

<1

<1

11

<1

<1

12/11/1989

12/11/1989

12/11/1989

12/11/1989

12/11/1989

12/11/1989

12/11/1989

12/11/1989

12/11/1989

12/11/1989

10

15

20

25

30

5

10

15

20

RSI

RS-1

RS-1 RS-1

RS-1 RS-1

RS-1

RS-2

RS-2

RS-2

RS-2

SAMPLE	SAMPLE	EC DATE	DEPTH E	EPA METH	OD 8020						
ID	BY	SAMPLED	SAMPLEE	TPHg	BENZENE	TOLUENE	ETHYL-	XYLENES	MTBE	TOC	TBA
			BELOW				BENZENE				
			SURFACE	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
			IN FEET								

na

na

na

<0.003

0.056

< 0.003

na

na

na

< 0.003

na

na

na

0.008

0.12

0.012

na

na

na

0.017

na

na

na

< 0.003

0.041

< 0.003

na

na

na

< 0.003

na

na

na

< 0.003

0.13

< 0.003

na

na

na

<0.003

TABLE 1 SOIL SAMPLE (CERTIFIED LABORATORY RESULTS) FORMER DP #793 4035 PARK BLVD., OAKLAND, CALIFORNIA

G-17	WEGE	8/8/1995	17	6	0.16	0.31	0.11	0.68		
H-SW-BOT-16	WEGE	8/10/1995	16	1000	3.6	31	14	77		
I-SW BUILD 8	WEGE	8/10/1995	8	2000	4.5	35	18	130		
J-BOT WEST	WEGE	8/11/1995	13	<1	< 0.005	< 0.005	< 0.005	< 0.005		
K-SW WEST 8	WEGE	8/11/1995	8	<1	< 0.005	< 0.005	< 0.005	0.005		
SIDEWALLS AN				OF PUMP IS	LANDS AND	DISPENSER	AREAS			
PI-1	WEGE	8/14/1995	12	<1	< 0.005	<0.005	<0.005	<0.005		
기-2	WEGE	8/14/1995	7	<1	0.011	< 0.005	0.005	0.03		
기-3	WEGE	8/14/1995	8	<1	< 0.005	< 0.005	< 0.005	< 0.005		
PI-4	WEGE	8/14/1995	6	<1	< 0.005	< 0.005	< 0.005	< 0.005		
HYDRAULIC HO	DIST AREAS	S 8/16/1995	7	na					1	
		0/10/1333				05	18	92		-
. =	-	9/16/1005	115							
SLP-14.5 NPL-7	WEGE	8/16/1995 8/16/1995	14.5 7	1200 na	8.8	25	10	92		
SLP-14.5 NPL-7 WASTE OIL US	WEGE WEGE	8/16/1995	7	na						
NPL-7 NASTE OIL US	WEGE		-		2.1	3.3	7.9	33		
SLP-14.5 NPL-7 NASTE OIL US [1-17 EXPLORATOR)	WEGE WEGE T WEGE Y PIT WEST	8/16/1995 8/31/1995	7	na					 	
SLP-14.5 NPL-7 NASTE OIL US [1-17 EXPLORATOR)	WEGE WEGE T WEGE	8/16/1995 8/31/1995	7	na						
SLP-14.5 NPL-7 WASTE OIL US T1-17 EXPLORATORY T2-11.5	WEGE WEGE T WEGE Y PIT WEST	8/16/1995 8/31/1995	7 17 G	na 940	2.1	3.3	7.9	33		
SLP-14.5 NPL-7 NASTE OIL US [1-17 EXPLORATOR) [2-11.5 [2-17.5	WEGE WEGE WEGE Y PIT WEST WEGE WEGE	8/16/1995 8/31/1995 OF BUILDIN 8/31/1995 8/31/1995 BORING FO	7 17 G 11.5 17.5 R MONITC	na 940 <1 4 PR WELL MW	2.1 <0.005 0.05 '1, REPLACE	3.3 <0.005 0.07 D RS-1 WHI0	7.9 <0.005 0.062 CH WAS OVE	33 <0.005 0.31 R-EXCAVAT	ED.	
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SLP-14.5 NPL-7 NASTE OIL US (1-17 EXPLORATOR) (2-11.5 (2-11.5 (2-17.5) (W1-5 (W1-5) (W1-10)	WEGE WEGE T WEGE Y PIT WEST WEGE WEGE WEGE	8/16/1995 8/31/1995 OF BUILDIN 8/31/1995 8/31/1995 BORING FO 9/5/1995 9/5/1995	7 G 11.5 17.5 R MONITC 5 10	na 940 <1 4 R WELL MW <1 <1	 2.1 <0.005 0.05 <td>3.3 <0.005 0.07 D RS-1 WHI0 0.005 <0.005</td><td> 7.9 <0.005 0.062 CH WAS OVE <0.005 <0.005 </td><td>33 <0.005 0.31 R-EXCAVAT 0.015 <0.005</td><td>ED.</td><td></td>	3.3 <0.005 0.07 D RS-1 WHI0 0.005 <0.005	 7.9 <0.005 0.062 CH WAS OVE <0.005 <0.005 	33 <0.005 0.31 R-EXCAVAT 0.015 <0.005	ED.	
SLP-14.5 NPL-7 WASTE OIL US T1-17 EXPLORATOR\ T2-11.5 T2-17.5 WW1-5 WW1-5 WW1-10 WW1-15	WEGE WEGE	8/16/1995 8/31/1995 OF BUILDIN 8/31/1995 8/31/1995 BORING FO 9/5/1995 9/5/1995	7 G 11.5 17.5 R MONITO 5 10 15	na 940 <1 4 R WELL MW <1	2.1 <0.005 0.05 '1, REPLACE 0.005 <0.005 <0.005	3.3 <0.005 0.07 D RS-1 WHI0 0.005 <0.005 <0.005	7.9 <0.005 0.062 CH WAS OVE <0.005 <0.005 <0.005	33 <0.005 0.31 R-EXCAVAT 0.015 <0.005 <0.005	ED.	
SLP-14.5 NPL-7 WASTE OIL US [1-17 EXPLORATOR) [2-11.5 [2-17.5 W1-5 WW1-5 WW1-10 WW1-10	WEGE WEGE T WEGE Y PIT WEST WEGE WEGE WEGE	8/16/1995 8/31/1995 OF BUILDIN 8/31/1995 8/31/1995 BORING FO 9/5/1995 9/5/1995	7 G 11.5 17.5 R MONITC 5 10	na 940 <1 4 R WELL MW <1 <1	 2.1 <0.005 0.05 <td>3.3 <0.005 0.07 D RS-1 WHI0 0.005 <0.005</td><td> 7.9 <0.005 0.062 CH WAS OVE <0.005 <0.005 </td><td>33 <0.005 0.31 R-EXCAVAT 0.015 <0.005</td><td>ED.</td><td></td>	3.3 <0.005 0.07 D RS-1 WHI0 0.005 <0.005	 7.9 <0.005 0.062 CH WAS OVE <0.005 <0.005 	33 <0.005 0.31 R-EXCAVAT 0.015 <0.005	ED.	
SLP-14.5	WEGE WEGE	8/16/1995 8/31/1995 OF BUILDIN 8/31/1995 8/31/1995 8/31/1995 9/5/1995 9/5/1995 9/5/1995	7 G 11.5 17.5 R MONITC 5 10 15 20	na 940 <1 4 0R WELL MW <1 <1 <1 <1	2.1 <0.005 0.05 (1, REPLACE 0.005 <0.005 <0.005 <0.005	3.3 <0.005 0.07 D RS-1 WHI0 0.005 <0.005 <0.005	7.9 <0.005 0.062 CH WAS OVE <0.005 <0.005 <0.005	33 <0.005 0.31 R-EXCAVAT 0.015 <0.005 <0.005	ED.	

SIDEWALLS OF UST EXCAVATION AND SOUTH OF BUILDING SWA -13 WEGE 8/8/1995 13 0.005 0.009 0.046 0.36 3 SWB-6 WEGE 8/8/1995 < 0.005 6 < 0.005 < 0.005 < 0.005 <1 SWC-13 WEGE 8/8/1995 13 <0.005 <0.005 <0.005 0.022 3 SWD-6 WEGE 8/8/1995 6 <1 < 0.005 < 0.005 < 0.005 < 0.005 SWE-11.5 WEGE 8/8/1995 11.5 <1 < 0.005 < 0.005 < 0.005 < 0.005 0.12 0.16 0.053 WEGE WEGE 0.24 0.31 F-14 G-17 8/8/1995 8/8/1995 14 0.29 3 0.68

PRODUCT	DISPENSING S	YSTEM							
PL-1	WEGE	6/23/1994	2.5	<1	0.01	< 0.005	< 0.005	0.02	
PL-2	WEGE	6/23/1994	2.5	<1	0.01	0.031	0.0059	0.032	
		OVER-EXCA	VATION C	F USTs AND	PRODUCT I	DISPENSING	AREAS		

WO-1	WEGE	6/23/1994	7.5	3	0.063	0.34	0.048	0.23	
PRODUCT DI	ISPENSING S	YSTEM							
PL-1	WEGE	6/23/1994	2.5	<1	0.01	< 0.005	< 0.005	0.02	

T3A	WEGE	6/23/1994	14	<1	0.013	0.012	< 0.005	<0.015	
T3B	WEGE	6/23/1994	14	<1	0.013	0.011	<0.005	<0.015	
WASTE OIL	UST								

UNLEADED	STEEL UST								
T2A	WEGE	6/23/1994	14	<1	0.022	0.027	0.005	0.022	
T2B	WEGE	6/23/1994	14	<1	0.017	0.025	0.005	0.02	
UNLEADED	FIBERGLASS	UST							
ToA		0/00/11001				0.010	0.005	0.015	T

0.022

0.027

0.075

0.028

0.03

0.006

0.16

0.026

UST AND PIPING REMOVAL DOCUMENTATION SAMPLING 2

<1

SAMPLE	SAMPLE	C DATE	DEPTH	EPA METHO	DD 8020						
ID	BY	SAMPLED	SAMPLEE	TPHg	BENZENE	TOLUENE	ETHYL-	XYLENES	MTBE	TOC	TBA
			BELOW				BENZENE				
			SURFACE	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
			IN FEET								_
L E_1	1 F	0/0/1003	15.5	<0.2	<0.005	<0.005	<0.005	<0.005			1

SOIL SAMPLE (CERTIFIED LABORATORY RESULTS) FORMER DP #793 4035 PARK BLVD., OAKLAND, CALIFORNIA

14

14

REGULAR LEADED STEEL UST

WEGE

WEGE

6/23/1994

6/23/1994

T1A T1B

TABLE 1 SOIL SAMPLE (CERTIFIED LABORATORY RESULTS) FORMER DP #793 4035 PARK BLVD., OAKLAND, CALIFORNIA

SAMPLE	SAMPLE	C DATE	DEPTH	EPA METHO	DD 8020						
ID	BY	SAMPLED	SAMPLEE BELOW	TPHg	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	MTBE	TOC	TBA
			SURFACE	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
BH1-10	WEGE	5/1/1996	10	31	< 0.005	0.16	0.22	0.71		390]
BH2-5.5	WEGE	5/2/1996	5.5	<0.2	<0.005	<0.005	<0.005	<0.005		2400]
BH3-5	WEGE	5/2/1996	5	<0.2	< 0.005	<0.005	<0.005	<0.005			ר
BH3-8.5	WEGE	5/2/1996	8.5	<0.2	< 0.005	< 0.005	< 0.005	< 0.005			
BH3-10.5	WEGE	5/2/1996	10.5	<0.2	0.09	<0.005	<0.005	0.021		340]
BH4-6.5	WEGE	5/2/1996	6.5	<0.2	< 0.005	<0.005	<0.005	<0.005		1	h
BH4-0.5 BH4-8.5	WEGE	5/2/1996	8.5	<0.2	<0.005	<0.005	<0.005	<0.005		460	-
											-
BH5-5	WEGE	5/2/1996	5	<0.2	< 0.005	< 0.005	< 0.005	< 0.005			
BH5-6.5	WEGE	5/2/1996	6.5	<0.2	< 0.005	<0.005	<0.005	<0.005		5700]
AUGER 1	WEGE	1/17/1997	0.9	0.5	< 0.005	0.017	<0.005	<0.01	0.14		1
AUGER 2	WEGE	1/17/1997	7	0.68	0.024	0.032	0.009	0.024	0.07	1	1
AUGER 3	WEGE	1/17/1997	4.5	<0.5	< 0.005	0.017	< 0.005	<0.01	0.085		1

ADDITIONAL MONITOR WELLS ALONG SEWER LATERAL

RS8-10	WEGE	8/2/1999	10	160	0.49	0.79	2.6	6.2	< 0.005	
RS9-6	WEGE	8/3/1999	6	<0.5	< 0.005	< 0.005	< 0.005	<0.01	< 0.005	
RS9-10	WEGE	8/3/1999	10	67	0.41	2	0.87	4.9	< 0.005	
RS10-6	WEGE	8/5/1999	6	<0.5	0.005	< 0.005	< 0.005	<0.01	< 0.005	
RS10-9.5	WEGE	8/5/1999	9.5	870	11	62	21	120	< 0.005	

RECEPTOR TRENCH DOCUMENTATION SAMPLES

TRENCH-A-15	WEGE	8/4/1999	15	<0.5	0.072	0.011	0.008	0.015	< 0.005	
TRENCH-B-10	WEGE	8/4/1999	10	140	2	4	2.4	10	< 0.005	
TRENCH-C-14	WEGE	8/4/1999	14	<0.5	0.009	0.017	0.005	0.031	< 0.005	
TRENCH-D-10.5	WEGE	8/5/1999	10.5	<0.5	< 0.005	0.006	< 0.005	0.017	< 0.005	
TRENCH-E-5	WEGE	8/5/1999	5	4000	17	260	110	580	< 0.005	
TRENCH-F-10.5	WEGE	8/5/1999	10.5	<0.5	0.064	0.015	0.01	0.046	< 0.005	
TRENCH-G-7	WEGE	8/6/1999	7	1100	1.4	70	34	180	4.5	
TRENCH-H-10.5	WEGE	8/6/1999	10.5	<0.5	< 0.005	< 0.005	< 0.005	0.018	< 0.005	
TRENCH-I-5	WEGE	8/6/1999	5	<0.5	< 0.005	< 0.005	< 0.005	<0.01	< 0.005	
TRENCH-J-10	WEGE	8/6/1999	10	<0.5	0.021	0.079	0.011	0.057	< 0.005	
TRENCH-K-12.5	WEGE	8/9/1999	12.5	<0.5	< 0.005	< 0.005	< 0.005	<0.01	< 0.005	
TRENCH-L-10	WEGE	8/9/1999	10	<0.5	< 0.005	< 0.005	< 0.005	<0.01	< 0.005	
TRENCH-M-6	WEGE	8/12/1999	6	<0.5	< 0.005	< 0.005	< 0.005	<0.01	< 0.005	
TRENCH-N-8	WEGE	8/12/1999	8	<0.5	0.012	0.005	< 0.005	0.012	< 0.005	
TRENCH-O-10	WEGE	8/12/1999	10	<0.5	0.011	< 0.005	< 0.005	0.011	< 0.005	
TRENCH-P-6	WEGE	8/12/1999	6	<0.5	0.045	<0.005	<0.005	<0.01	<0.005	

SOIL CORES DECEMBER 2004

		SOL CONE							
CORE HOLE 1									
C1-8/8.25	WEGE	12/9/2004	8.25	<1	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
C1-12/12.25	WEGE	12/9/2004	12.25	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C1-20/20.25	WEGE	12/9/2004	20.25	12	< 0.005	< 0.005	0.0083	< 0.005	< 0.005
C1-23.75/24	WEGE	12/9/2004	24	1500	<0.05	0.097	5.1	15	< 0.05
C1-39.75/40	WEGE	12/9/2004	40	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C1-45.75/46	WEGE	12/9/2004	46	<1	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
C1-49.25/49.5	WEGE	12/9/2004	49.5	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

CORE HOLE 2

C2-8.5/8.75	WEGE	12/16/2004	8.75	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		
C2-19/19.25	WEGE	12/16/2004	19.25	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		0.012
C2-22.5/23	WEGE	12/16/2004	23	2.5	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		
C2-39.75/40	WEGE	12/16/2004	40	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		
C2-49.25/49.5	WEGE	12/16/2004	49.5	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005]	

TABLE 1 SOIL SAMPLE (CERTIFIED LABORATORY RESULTS) FORMER DP #793 4035 PARK BLVD., OAKLAND, CALIFORNIA

SAMPLE	SAMPLE	C DATE	DEPTH	EPA METHO	DD 8020						
ID	BY	SAMPLED	SAMPLED	TPHg	BENZENE	TOLUENE	ETHYL-	XYLENES	MTBE	TOC	TBA
			BELOW				BENZENE				
			SURFACE	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
			IN FEET								
CORE HOLE 3											
C3-7.75/8	WEGE	12/15/2004	8	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		
C3-15/15.5	WEGE	12/15/2004	15.5	270	0.16	0.14	4.2	2.3	< 0.05		
C3-31.75/32	WEGE	12/15/2004	32	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		
C3-35.75/36	WEGE	12/15/2004	36	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		
C3-41.75/42	WEGE	12/15/2004	42	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		

CORE HOLE 4										_	
C4-7.75/8	WEGE	12/16/2004	8	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		
C4-19.5/20	WEGE	12/16/2004	20	58	0.044	0.83	1.1	2.1	< 0.005		0.092
C4-25.75/26	WEGE	12/16/2004	26	<1	< 0.005	< 0.005	< 0.005	0.0056	< 0.005		
C4-39.75/40	WEGE	12/16/2004	40	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005]	

CORE HOLE 5, NOT DRILLED

CORE HOLE 6

C6-7.75/8	WEGE	12/13/2004	8	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C6-15.75/16	WEGE	12/13/2004	16	120	0.22	<0.025	0.16	< 0.05	<0.025
C6-16.5/17	WEGE	12/13/2004	17	1600	0.99	<0.25	23	3.2	<0.25
C6-31.75/32	WEGE	12/13/2004	32	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C6-34.75/35	WEGE	12/13/2004	35	<1	0.035	< 0.005	< 0.005	< 0.005	< 0.005

CORE HOLE 7

C7-7.75/8	WEGE	12/15/2004	8	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C7-18/18.25	WEGE	12/15/2004	18.25	220	0.055	0.031	0.64	0.05	<0.025
C7-29.75/30	WEGE	12/15/2004	30	<1	0.14	0.028	0.013	0.029	< 0.005
C7-45.75/46	WEGE	12/15/2004	46	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C7-48.75/49	WEGE	12/15/2004	49	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

CORE HOLE 8

OOTLE THOLE O									
C8-7.75/8	WEGE	12/14/2004	8	<1	< 0.005	<0.005	< 0.005	<0.005	< 0.005
C8-11.75/12.0	WEGE	12/14/2004	12	470	<0.1	<0.1	0.13	<0.1	<0.1
C8-15.75/16.0	WEGE	12/14/2004	16	7.2	0.08	0.043	0.25	0.3	< 0.005
C8-29.75/30.0	WEGE	12/14/2004	30	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C8-37.75/38	WEGE	12/14/2004	38	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

CORE HOLE 9

OOTLE HOLE O									
C9-7.75/8	WEGE	12/14/2004	8	520	<0.25	<0.25	4.2	5.4	<0.25
C9-11.75/12	WEGE	12/14/2004	12	1300	<0.25	0.72	17	75	<0.25
C9-23.75/24	WEGE	12/14/2004	24	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C9-30.75/31	WEGE	12/14/2004	31	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

CORE HOLE 10

C10-7.75/8	WEGE	12/13/2004	8	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C10-16/16.25	WEGE	12/13/2004	16.25	1.1	0.005	< 0.005	0.026	0.067	< 0.005
C10-29.75/30	WEGE	12/13/2004	30	<1	0.085	< 0.005	< 0.005	< 0.005	0.0066
C10-33.75/34	WEGE	12/13/2004	34	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

CORE HOLE 11

C11-7.75/8	WEGE	12/13/2004	8	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C11-17.5/18	WEGE	12/13/2004	18	2.4	0.012	< 0.005	0.013	0.028	< 0.005
C11-23.75/24.0	WEGE	12/13/2004	24	210	3.9	15	4.4	23	<0.025
C11-28.75/29	WEGE	12/13/2004	29	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C11-31.75/32	WEGE	12/13/2004	32	<1	0.027	< 0.005	<0.005	< 0.005	< 0.005

CORE HOLE 12

C12-5.75/6.0	WEGE	12/10/2004	6	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C12-15.75/16	WEGE	12/10/2004	16	6	< 0.005	< 0.005	0.056	< 0.005	< 0.005
C12-19.75/20	WEGE	12/10/2004	20	3.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C12-29.75/30	WEGE	12/10/2004	30	4.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

CORE HOLE 13

C13-3.75/4.0	WEGE	12/9/2004	4	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
C13-13.75/14	WEGE	12/9/2004	14	23	0.097	< 0.005	0.31	0.46	< 0.005

TABLE 1 SOIL SAMPLE (CERTIFIED LABORATORY RESULTS) FORMER DP #793 4035 PARK BLVD., OAKLAND, CALIFORNIA

SAMPLE	SAMPLE	C DATE	DEPTH	EPA METHO	DD 8020						
ID	BY	SAMPLED	SAMPLEE	TPHg	BENZENE	TOLUENE	ETHYL-	XYLENES	MTBE	TOC	TBA
			BELOW				BENZENE				
			SURFACE	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
			IN FEET								
C13-21/21.5	WEGE	12/9/2004	21.5	180	0.74	1.1	2.8	12	< 0.025		
C13-23.75/24	WEGE	12/10/2004	24	<1	0.19	< 0.005	< 0.005	0.016	0.0094		
C13-29.75/30	WEGE	12/10/2004	30	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		

Geotechical Evaluation Drilling for proposed excavation slope stability and grading permit.										
GB 1-15	GB 1-15 WEGE 1/24/2011 15 <1 <0.005 <0.005 <0.005 <0.005 <0.005									
GB 2-17.5	WEGE	1/24/2011	17.5	720	< 0.005	< 0.005	9.2	11	< 0.005	

RSI REMEDIATION SERVICE, INT'L WWC WATERWORKS CORP. LF LEVINE-FRICKE WEGE WESTERN GEO-ENGINEERS < BELOW LABORATORY LOWER DETECTION LIMITS mg/Kg milligrams per kilogram (parts per million) TPHg TOTAL PETROLEUM HYDROCARBONS GASOLINE RANGE MTBE METHYL TERTIARY BUTYL ETHER TOC Total Organic Carbon

Table 2 Estimated excavated soil amounts Planned DP793 - 4035 Park Blvd., Oakland, CA.

surface - clean soils, overburden

depth	excavated	# grids	square ft	cubic ft	accumulativ	/e accumulati	ve approximate
	depth	5x5			0	yards	tons
0 to 10	10	6	5 1625	5 16250	16250	602	903

clean soil spread on lot

width	length	height	cubic ft	0
20	50	8	8000	8000
45	50	1.50	3375	11375
20	20	1.50	600	11975
35	80	1.50	4200	16175
15	25	1.50	562.5	16737.5

contaminated soils

surface - clean soils, overburden

depth	excavated a	# grids	square ft	cubic ft	accumulativ	ve accumulat	ive approximat	e
	depth 5	5x5			0	yards	tons	
10 to 16	6	9	225	1350	1350	50) 75	
10 to 22	12	7	175	2100	3450	128	3 192	highest concentrations
10 to 24	14	6	150	2100	5550	206	308	at top of water
10 to 25	15	13	325	4875	10425	386	579	12 fbs.
10 to 26	16	1	25	400	10825	401	601	

Stock pile foot print - contaminated soils

_	width	length		height	cubic ft
	4()	45	6.50	11700

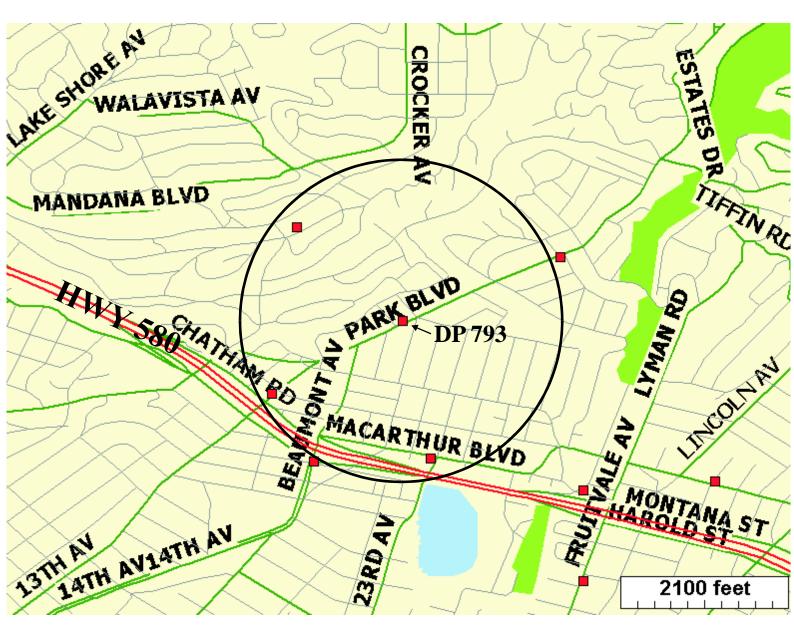
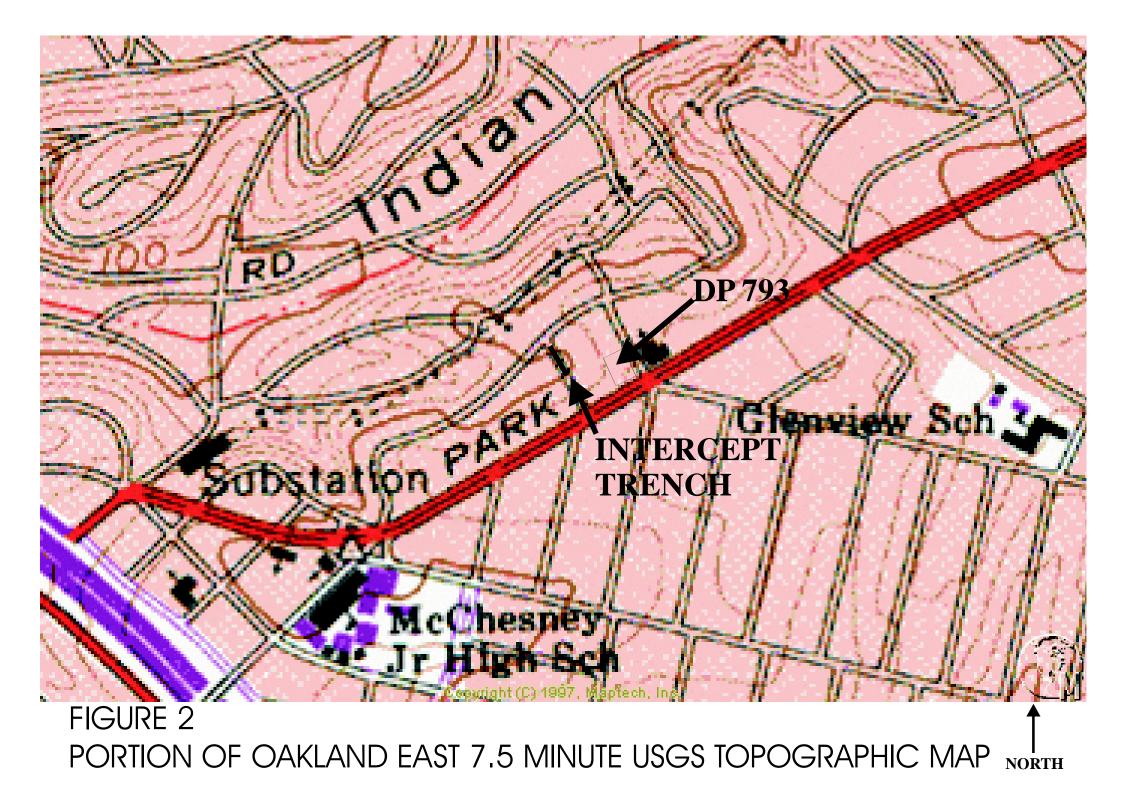




FIGURE 1 GEOTRACKER AREA WELL & LUST MAP DP 793 4035 PARK BLVD. OAKLAND, CA



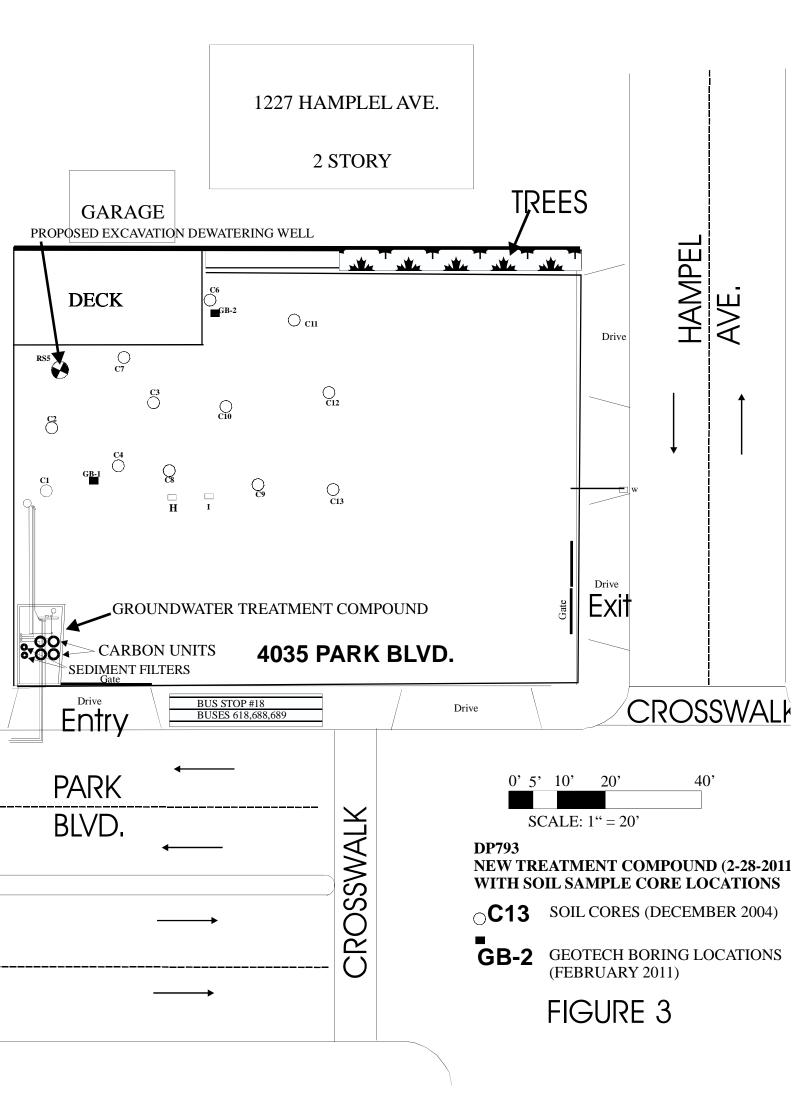


FIGURE 4 - CROSS SECTION SHOWING PROPOSED LOCATION OF EXCAVATION, RS05 or EXCAVATION WELL (EX) AND BACKFILL MATERIAL



