DOULOS
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March 8, 2012

Law Offices of Allan R Frumkin, Inc.
3180 Crow Canyon Place, Suite 255
San Ramon, CA 94583
Attn: Allan Frumkin, Atty

RE: **Hydrolic Investigation**
2700 23rd Avenue
Oakland, CA

Dear Mr. Frumkin:

Doulos Environmental, Inc. (Doulos), has been authorized by the Law Offices of Allan R Frumkin, Inc. (responsible party), to conduct additional hydrogeologic investigation work at the subject site. The location of the site is presented in Figure 1, and a detailed site map is included as Figure 2. The purpose of this report is to compare previously collected data with current data collected by Doulos, and estimate costs to clean up the site.

On February 14, 2012 Doulos performed two activities: sampling of the four groundwater monitoring wells and collection of two soil samples from one boring. The groundwater sampling and soil sampling were conducted in accordance with the methods and procedures described in Enclosure A.

Soil Boring

Doulos advanced one soil boring to approximately 6.5' below the ground surface. The boring location is presented on Figure 2. The boring was advanced with a 3.5" diameter hand auger. Undisturbed soil samples were collected with a slide hammer fitted with a 2" X 6" brass tube. After the boring was advanced, it was backfilled with Portland cement to approximately 6" from the surface, and the surface was matched with the surrounding material.

Soil samples were collected at 3.25' and at 6.25'. Both samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), and Total petroleum hydrocarbons as gasoline (TPHg) using EPA Method 8260B; and Total petroleum hydrocarbons as diesel (TPHd) using modified EPA Method 8015. Both soil samples contained measurable amounts of petroleum hydrocarbons. Analytical results can be seen on Table 1 below. Analytical worksheets are presented in Enclosure B.

TABLE 1
Soil Analytical Results (reported in mg/kg)
2700 23rd Avenue, Oakland, California

ID	Date	Depth	TPH-gas	TPH-diesel	TPH-motor oil	Benzene	Toluene	Ethylbenzene	Xylenes	Methyl tert-butyl ether	Naphthalene
MW-1	10/27/2010	3.5	ND<1.0	ND<1.0	ND<5.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	10/27/2010	8.5	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--
	10/27/2010	13.5	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--
	10/27/2010	18.5	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--
MW-2	10/27/2010	3.5	ND<1.0	5.1	5.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	10/27/2010	8.5	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--
	10/27/2010	13.5	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--
	10/27/2010	18.5	ND<1.0	1.2	ND<5.0	--	--	--	--	--	--
MW-3	10/27/2010	3.5	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--
	10/27/2010	8.5	200	27	ND<5.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	10/27/2010	13.5	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--
	10/27/2010	18.5	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--
MW-4	10/27/2010	3.5	1,400	220	16	<0.50	<0.50	1.1	0.96	<0.50	<0.50
	10/27/2010	8.5	270	18	ND<5.0	<0.20	<0.20	0.61	1.4	<1.2	0.27
	10/27/2010	13.5	ND<1.0	ND<1.0	ND<5.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	10/27/2010	18.5	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--
DHB-1	2/14/2012	3.25	490	140	NA	0.16	0.18	1.7	4.2	NA	NA
DHB-1	2/14/2012	6.25	360	220	NA	1.05	0.21	1.9	5.8	NA	NA

Groundwater Sampling

Prior to purging, Doulos personnel collected depth to groundwater measurements. Copies of Doulos' field sheets are contained in Enclosure C. The previous groundwater level data, along with the current data is summarized in Table 2 below.

TABLE 2
Groundwater Elevations
2700 23rd Avenue, Oakland, California

Well Number	Date	Depth to Groundwater (ft below TOC)	Groudnwater Elevation (ft above msl)
MW-1	11/18/2010	7.93	160.91
	2/14/2012	7.31	161.53
MW-2	11/18/2010	7.52	162.81
	2/14/2012	6.37	163.96
MW-3	11/18/2010	5.14	163.63
	2/14/2012	4.98	163.69
MW-4	11/18/2010	not measured	--
	2/14/2012	6.45	161.95

On the basis of the current measurements from MW-1 through MW-4 groundwater flow appears to be to the southwest (see Figure 3), which is similar to the most previous sampling event. Groundwater samples were collected from all four monitoring wells. All four samples were analyzed for BTEX, 5 Oxys, and TPHg by EPA Method 8260. Analytical results are presented in Table 3, along with the previous analytical results. Figure 4 presents concentrations of selected petroleum hydrocarbon constituents in groundwater. The laboratory report and chain-of-custody for the current sampling event are contained in Enclosure B.

Groundwater analytical results are similar to the previous sampling event. Monitoring well, MW-4, contains the highest level of Benzene and TPH-gasoline at 1,500 and 27,000 micrograms per liter respectively. The previous event in this well was 2,800µ/L and 26,000µ/L respectively.

TABLE 3
Groundwater Analytical Results (reported in µg/L)
2700 23rd Avenue, Oakland, California

Well Number	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Methyl tert-butyl ether	Naphthalene	TPH-gas	TPH-diesel	TPH-motor oil
MW-1	11/18/2010	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.3	ND<0.5	ND<50	ND<50	ND<250
	2/14/2012	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.2	NA	ND<50	ND<50	NA
MW-2	11/18/2010	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<50	ND<250
	2/14/2012	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	ND<50	ND<50	NA
MW-3	11/18/2010	ND<0.5	ND<0.5	ND<0.5	0.84	ND<0.5	ND<0.5	3,700	2,100	ND<250
	2/14/2012	ND<0.50	ND<0.50	1.2	ND<0.50	ND<0.50	NA	3,400	ND<1,500	NA
MW-4	11/18/2010	2,800	1,500	550	3,100	ND<0.5	210	26,000	2,800	ND<250
	2/14/2012	1,500	660	520	1,500	ND<5.0	NA	27,000	ND<3,000	NA

Estimated Costs to Closure

These estimates are based on currently available data collected by others and by Doulos. The extent of petroleum hydrocarbon constituents in soil and groundwater is not defined which makes it difficult to estimate with accuracy the total costs to closure. Other factors that could affect costs to closure would be a change in regulatory criteria, different remedial options which might be more or less effective, as well as other factors. The costs to closure are derived from previous experiences obtaining site closure and currently accepted forms of remediation.

The first and least costly scenario would include installing three additional monitoring wells and sampling the site for four quarters. After this, assuming a decreasing trend in concentrations, completing a closure report and abandoning all seven wells. The cost for this would be approximately $69,000.00.

A second and more costly scenario, based on what would be found in other soil and groundwater samples, would include installing six additional monitoring wells and one remedial well, soil excavation, and bi-weekly overpurging and monitoring of an iSOC system. This would also include two years of groundwater monitoring. After this, assuming a decreasing trend in concentrations, completing a closure report and abandoning all 11 wells. The cost for this would be approximately $357,000.00.

The third and most costly scenario for site closure, if conditions warranted, would include installation of a soil vapor and groundwater treatment system, with a thermal oxidizer unit. The system would require operation and maintenance for approximately two years. After this, assuming a decreasing trend in concentrations, completing a closure report and abandoning all 11 wells. The cost for this would be approximately $750,000.00.

Remarks/Signatures

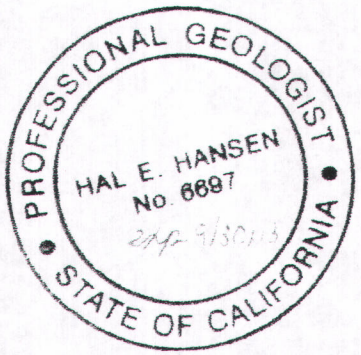
The interpretations contained in this document represent our professional opinions, and are based in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeological and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions regarding this project, please contact Hal Hansen at (916) 990-0333.

Sincerely,

DOULOS ENVIRONMENTAL, INC.

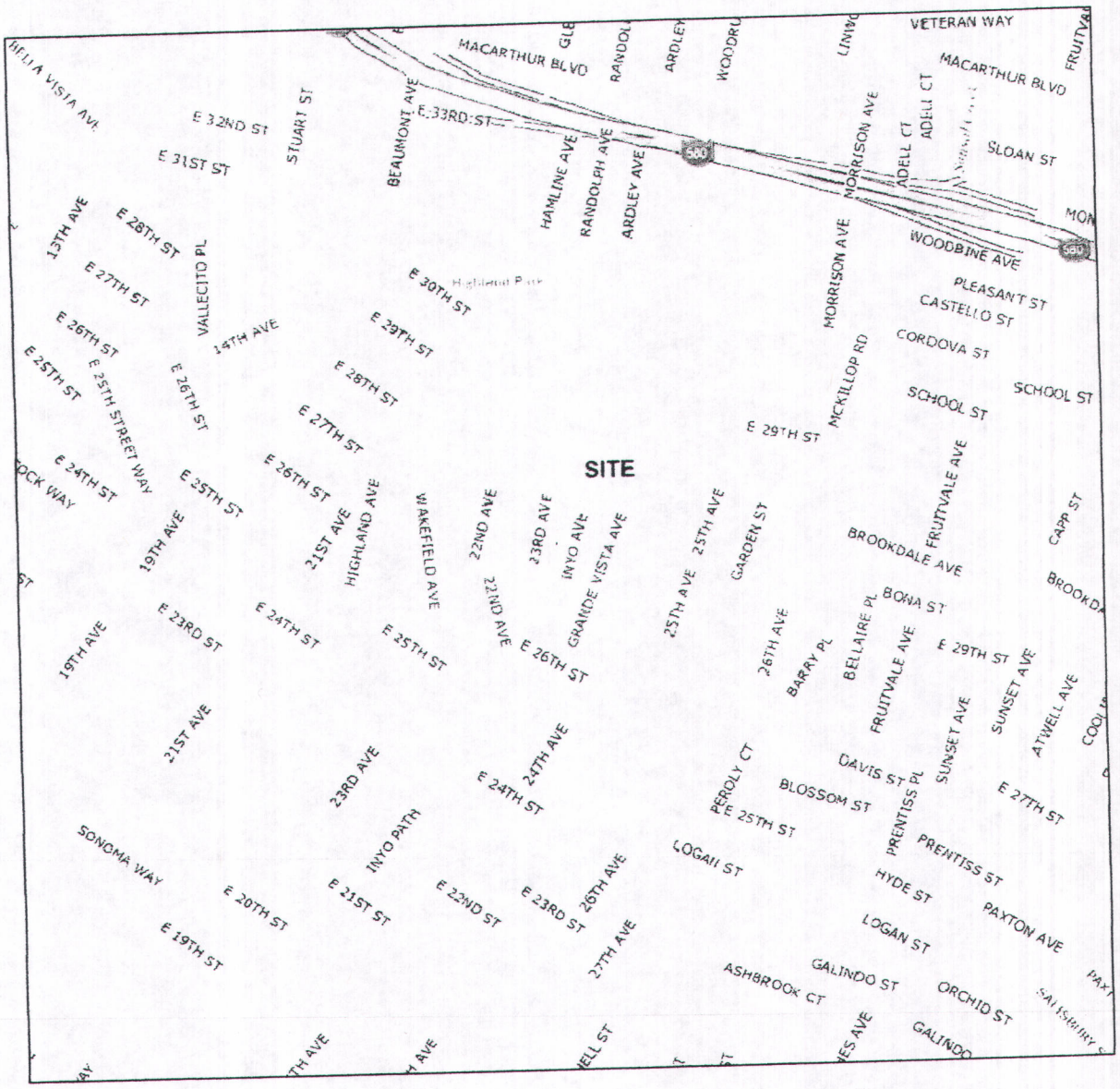
Hal Hansen, R.G. #6697



Enclosures:

- Figure 1: Site Location Map
- Figure 2: Site Map
- Figure 3: Groundwater Contour Map
- Figure 4: Soil and Groundwater Analytical Results Map

- Enclosure A: Doulos Field Methods and Procedures
- Enclosure B: Laboratory Analytical Reports
- Enclosure C: Doulos Field Sheets



NORTH

0 1,000 2,000

Scale In Feet

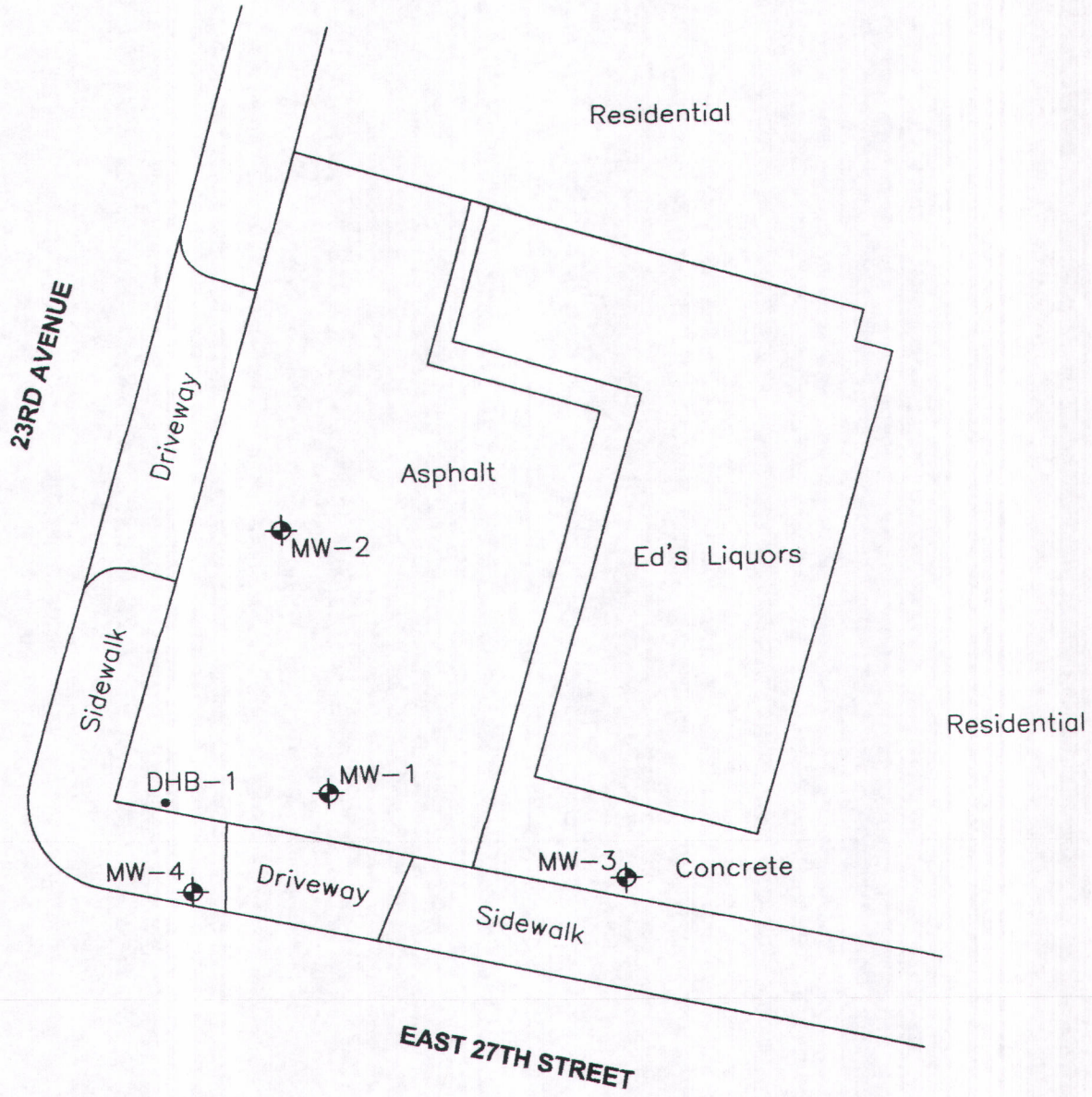
FIGURE 1

SITE VICINITY MAP

2700 23RD AVENUE
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY: DA 3/12
DRAWING NO. FIG 1	REVIEWED BY:

DOULOS
Environmental, Inc.



EXPLANATION:

- Soil Sample Location
- Groundwater Monitoring Well

0 20 40

Scale In Feet

NORTH

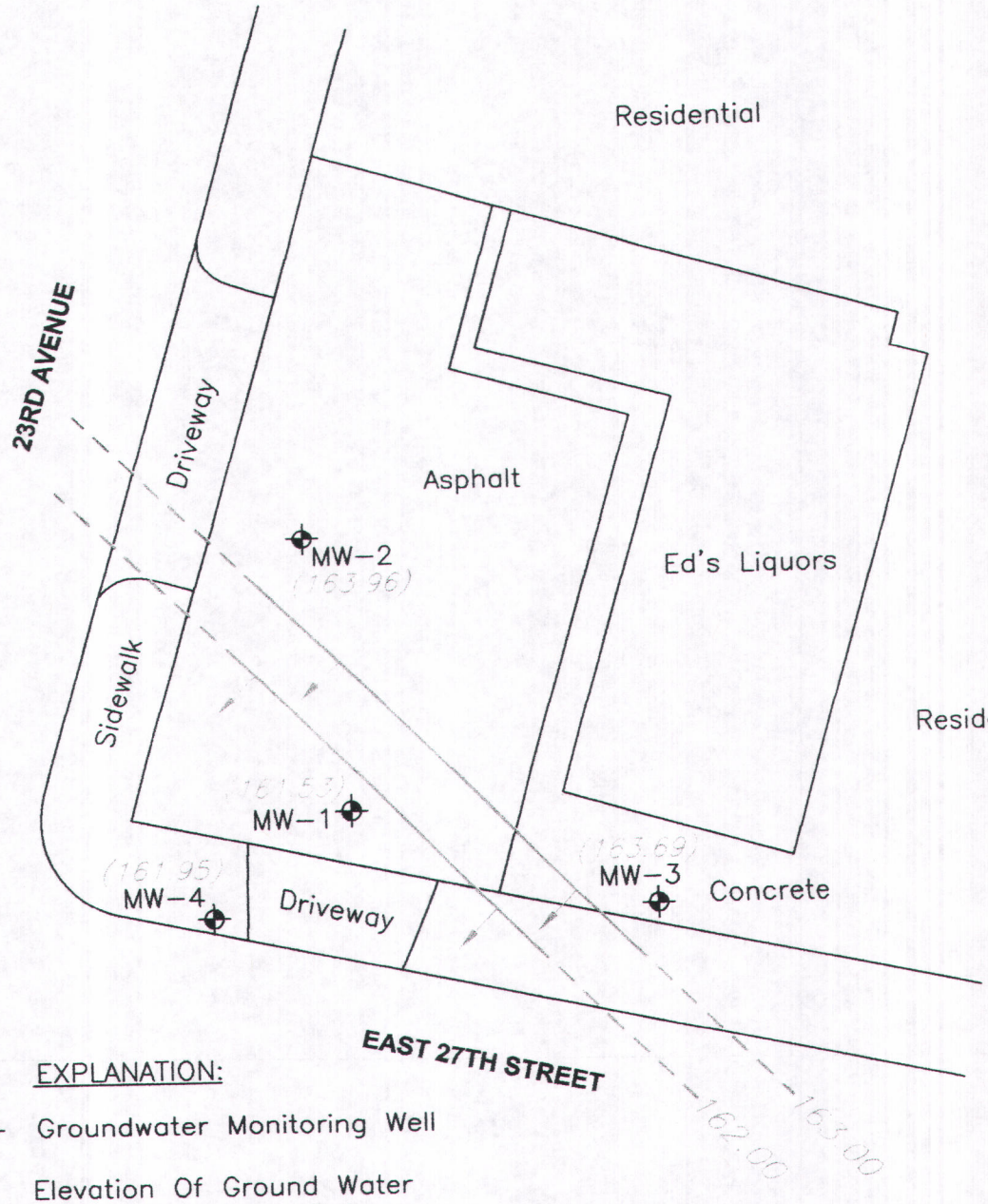
FIGURE 2

SITE MAP

2700 23RD AVENUE
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY: DA 3/12
DRAWING NO. FIG 2	REVIEWED BY:

DOULOS Environmental, Inc.



EXPLANATION:

- Groundwater Monitoring Well
- (163.96) Elevation Of Ground Water Measured In Feet; Datum Is Mean Sea Level
- -163.00- Line Of Equal Elevation Of Ground Water Measured In Feet; Datum Is Mean Sea Level
- Inferred Direction Of Ground Water Flow

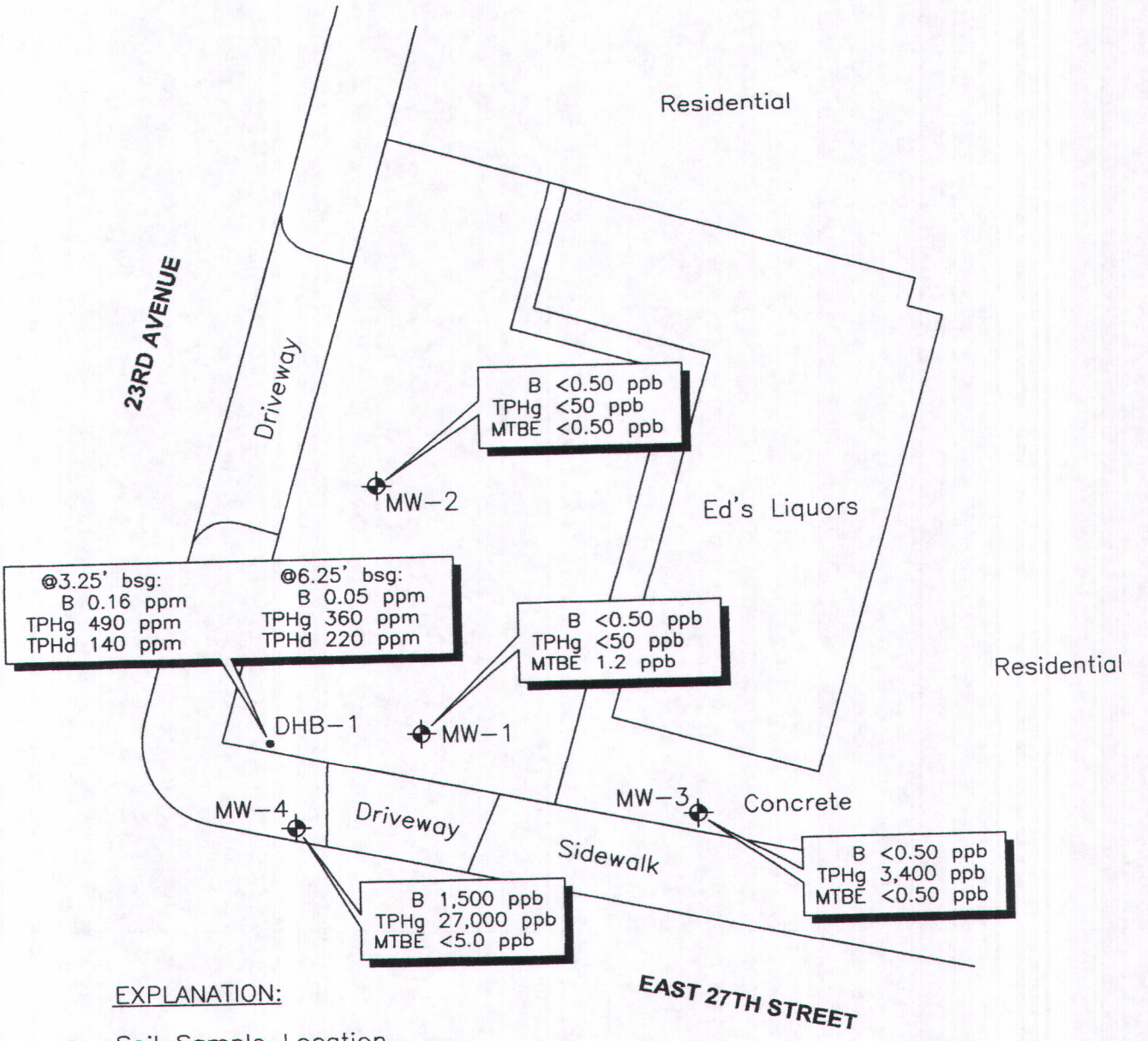
0 20 40
Scale In Feet

NORTH

FIGURE 3
GROUNDWATER CONTOUR MAP
(FEBRUARY 14, 2012)
2700 23RD AVENUE
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY: DA 3/12
DRAWING NO. FIG 3	REVIEWED BY:

DOULOS Environmental, Inc.



EXPLANATION:

- • Soil Sample Location
- ⊕ Groundwater Monitoring Well

Analytical Information

B	Benzene
TPHg	Total Petroleum Hydrocarbons as Gasoline
TPHd	Total Petroleum Hydrocarbons as Diesel
MTBE	Methyl Tert-Butyl Ether
ppm	Parts Per Million
ppb	Parts Per Billion
bsg	Below Surface Grade

0 20 40

Scale In Feet

NORTH

FIGURE 4
SOIL AND GROUNDWATER ANALYTICAL RESULTS (FEBRUARY 14, 2012)
2700 23RD AVENUE
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY: DA 3/12
DRAWING NO. FIG 4	REVIEWED BY:

DOULOS Environmental, Inc.

ENCLOSURE A

Doulos Environmental, Inc.
Field Methods and Procedures

DOULOS
Environmental, Inc.

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FAX (916) 990-0332
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P.O. Box 2559, Orangevale, CA 95662

SAMPLING METHODS AND QA/QC SUMMARY

Proper sampling methods must be followed to assure that samples represent actual field conditions and that samples are labeled, preserved, and transported properly to retain sample integrity. This attachment describes procedures to be followed by Doulos Environmental, Inc. (Doulos), during collection of samples of groundwater. Sampling procedures will be based on sampling guidance documents from the American Society of Testing and materials (ASTM), U.S. Environmental protection Agency (EPA), and California Department of Health Services (DHS). Actual sampling procedures to be employed will be based on field conditions and may differ from those described here.

DECONTAMINATION PROCEDURES

All equipment that comes into contact with potentially contaminated water, which is used down the well, will be decontaminated before each use. (The only re-usable items that are placed inside the well are the water level meter and check valve used on the end of disposable tubing.) Only disposable tubing and disposable bailers will be used to collect samples. Decontamination of the water level meter and check valve will consist of trisodium phosphate (TSP) wash and freshwater rinse, as appropriate. If a down hole grundfos pump is used, disposable tubing is also used. The cord and the pump are washed with TSP with a clean water rinse. New, clean disposable tubing is used to purge each well.

PRE-PURGE ACTIVITIES

- Determine the order in which the wells will be monitored and sampled based on previous analytical results. Start with the well with the lowest concentrations and proceed systematically to the well with the highest concentrations.
- Remove the well lid. Unlock and remove the well plug.
- Slowly lower the electronic water level meter probe into the well. Measure the depth to water to the nearest 0.01 foot relative to the top of casing. Measure from the reference point located on the north side of the casing (usually a V-cut or distinguishable mark). Measure the total depth of the well if the depth cannot be obtained from well construction log or previous sampling sheet.
- Record the time, depth to water, possibly product thickness, and total well depth on field data sheet.
- Decontaminate the water level indicator probe and tape using a standard three-bucket wash. Allow to air dry.
- Check condition of well box, casing, and lid. Record well deficiencies on field data sheet.
- Move to the well with the next highest concentrations.
- Repeat Steps

ROUTINE PURGING AND SAMPLING

- Purge and sample the wells in the order established in the above Pre-purge activities if possible.
- Define the work area around well with safety cones and/or fencing, if deemed necessary. Remove the well lid and well plug.
- Connect a clean check valve, if necessary, to the clean disposable tubing, and attach the tubing to the above ground centrifugal pump.
- Slowly lower tubing into well to avoid mixing water column and/or dislodging particulates from the inside of the well casing.
- Turn "on" centrifugal pump. Begin pumping and adjust flow rate to less than 2 gallons per minute. If necessary, hand assist pump to purge water.
- Record pH, temperature, and specific conductivity at each casing volume until stabilization is achieved or a minimum of three well casing volumes of groundwater have been removed. Take a minimum of three sets of readings. Stabilization is achieved when two successive readings are within ±10% for pH, temperature, specific conductivity, and other field parameters.
- While the pump is still running, remove tubing from the well. This is to ensure no back flow of water from the pump.
- Attach string to disposable bailer. Slowly lower bailer into well to avoid mixing water column and/or dislodging particulates from inside of the well casing. Allow bailer to fill with water.
- Retrieve bailer from well and fill appropriate, laboratory-supplied sample containers. Fill sample containers by slowly pouring water into container, allowing water to flow down the inside of the containers until full.
- Label sample containers, place sample containers in re-sealable plastic bags, and transfer containers to ice-chilled cooler. Identify sample, date, and time on chain of custody.
- Replace the well plug and lock. Secure well lid and move to the well with the next highest concentrations. Repeat Steps.

CONDUCTIVITY, TEMPERATURE, PH, AND OTHER FIELD PARAMETERS

Specific conductance, water temperature, pH measurements, and other field parameters will be made when a water sample is collected. A conventional pH meter with a combination electrode or equivalent will be used for field-specific conductance measurements. Temperature measurements will be performed using standard thermometers or equivalent temperature meters. Combination instruments capable of measuring up to five of the parameters may also be used. When required by regulatory agencies a flow-through cell will be used as the collection method.

All instruments will be calibrated in accordance with manufacturer's recommendations. The values for their standards used in calibration will be recorded in a field notebook.

SAMPLE CUSTODY

This section describes standard operating procedures for sample custody and custody documentation. Sample custody procedures will be followed through sample collection, transfer, analysis, and ultimate disposal. The purpose of these procedures is to assure that the integrity of samples is maintained during their collection, transportation, and storage prior to analysis.

FIELD CUSTODY PROCEDURES

Sample quantities, types, and locations will be determined before the actual fieldwork commences. As few personnel as possible will handle samples. The field sampler is personally responsible for the care and custody of the collected samples until they are properly transferred.

Field Documentation

Each sample will be labeled and sealed properly immediately after collection. Sample identification documents will be carefully prepared so that identification and chain-of-custody records can be maintained and sample disposition can be controlled. Forms will be filled out with waterproof ink. The following sample identification documents will be utilized:

- Sample labels
- Field notebook
- Chain-of-custody forms

Sample Labels

Sample labels provide identification of samples. Preprinted sample labels will be provided. Each label will contain the following information:

- Name of collector
- Date and time of collection
- Place of collection
- Sample identification number
- Preservative (if any)

Field Data Sheets Labels

Information pertinent to a field survey, measurements, and/or sampling must be recorded on field data sheets. Entries on data sheets should include the following:

- Name and title of author, date and time of entry, and physical/environmental conditions during field activity.
- Location of sampling or measurement activity.
- Name(s) and title(s) of field crew.
- Sample collection or measurement method(s).
- Number and volume of sample(s) collected.
- Description of measuring reference point(s).
- Date and time of collection or measurement.
- Sample identification number(s).
- Sample preservative (if any.
- Sample distribution (e.g., laboratory).
- Field observations/comments.
- Field measurement data (pH, etc.).

Chain-of-custody Record

A chain-of-custody record will be filled out for and will accompany every sample and every shipment of samples to the analytical laboratories in order to establish the documentation necessary to trace sample possession from the time of collection. The record will contain the following information:

- Station of sample number of sample I.D.
- Signature of collector, sampler, or recorder.
- Date and time of collection.
- Place of collection.
- Sample type.
- Signatures of persons involved in the chain of possession.
- Inclusive dates of possession.
- Sampling Company's Log Code
- Global ID Number
- California EDF Report Required
- EDF deliverable to e-mail address
- Type of analysis requested clearly marked
- Additional notes/comments if needed

The laboratory portion of the form should be completed by laboratory personnel and will contain the following information:

- Name of person receiving the sample.
- Laboratory sample number.
- Date and time of sample receipt.
- Sample condition and temperature.

Sample Transfer and Shipment

A chain-of-custody record will always accompany samples. When transferring samples, the individuals relinquishing and receiving the samples will sign, date, and note the time on the chain-of-custody record. Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis. The chain-of-custody record will accompany each shipment. The method of shipment, courier name(s), and other pertinent information will be entered in the chain-of-custody record.

LABORATORY CUSTODY PROCEDURES

A designated sample custodian will accept custody of the shipped samples and verify that the information on the sample label matches that on the chain-of-custody record. Information regarding method of delivery and sample conditions will also be checked on the chain-of-custody record. The custodian will then enter the appropriate data into the laboratory sample tracking system. The laboratory custodian may use the sample number on the sample label or may assign a unique laboratory number to each sample. The custodian will then transfer the sample to the proper analyst or store the sample in the appropriate secure area.

Laboratory personnel are responsible for the care and custody of samples from the time they are received until the sample is exhausted. Once at the laboratory, the samples will be handled in accordance with U.S. Environmental Protection Agency SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Third Edition, for the intended analyses. All data sheets, chromatographs, and laboratory records will be filed as part of the permanent documentation.

CORRECTIONS TO DOCUMENTATION

Original data recorded in field notebooks, chain-of-custody records, sampling information sheets, and other forms should not be altered, destroyed, or discarded even if they are illegible or contain inaccuracies that require a replacement document.

If an error is made or found on a document, the individual making the corrections will do so by crossing a single line through the error, entering the correct information, and initialing and dating the change. The erroneous information will be obliterated. Any subsequent error(s) discovered on a document will be corrected. All corrections will be initialed and dated.

LABORATORY SAMPLE STORAGE AND DISPOSAL

The analytical laboratory should retain samples and extracts for 60 days after the laboratory issues a written report. Unless notified by the program manager, excess or unused samples should be disposed of by the laboratory in an appropriate manner consistent with applicable government regulations.

DOULOS ENVIRONMENTAL, INC.

Sampling Methods

Proper sampling methods must be followed to assure that samples represent actual field conditions and are labeled, preserved, and transported properly to retain sample integrity. This attachment describes procedures to be followed by Doulos Environmental, Inc. (Doulos), during collection of samples of subsurface soil and groundwater. Sampling procedures will be based on sampling guidance documents from the American Society of Testing and materials (ASTM), U.S. Environmental protection Agency (EPA), and California Department of Health Services (DHS). Actual sampling procedures to be employed will be based on field conditions and may differ from those described here.

A. EXPLORATION BORING/SOIL SAMPLING PROCEDURES

Soil borings and soil sampling will be performed under the direction of a Doulos geologist. The soil borings will be advanced using drilling techniques appropriate for each project, as specified in the project work plan. Soil samples will be collected at maximum intervals of 5 feet. Soil sampling will be done in accordance with ASTM 1586-84. Using this procedure, three 1.06- to 2-inch-diameter, 6-inch-length, brass or stainless steel tubes are placed in a California-type-split-barrel sampler, or a slide hammer with a single 6-inch by 2-inch brass or stainless tube by tapping the tube into the soil in the backhoe bucket with a hammer. The sampler is driven into the soil by a 140-pound weight falling 30 inches or with a slide hammer on hand auger samples. After an initial set of 6 inches, the number of blows required to drive the sampler an additional 12 inches is known as penetration resistance, or the 'N' value. The 'N' value is used as an empirical measure of the relative density of cohesion less soils and the consistency of cohesive soils. When collecting a soil sample from a tank excavation or line excavation, the soil sample will be collected by tapping a brass stainless steel tube into the soil in the backhoe bucket.

Upon recovery of the split-barrel sampler or slide hammer sampler, the brass or stainless steel tubes containing the soil will be removed. One tube will be sealed at the ends with plastic end caps. The end caps will be secured to the ends of the tube to prevent loss of volatile constituents. The sample will be labeled with an identification number, time, date, locations, and requested laboratory analysis. The sample will then be placed in a plastic bag and stored at approximately 4 degrees Celsius in an ice chest for transport to the laboratory. Sample custody procedures outlined in Section E of this attachment will be followed. This will be performed for each sample collected.

Soil in one of the brass or stainless steel tubes from the split-barrel sampler will be extracted upon recovery, placed in a plastic bag, and sealed for later screening for organic vapors using a photo ionization detector (PID) or a flame ionization detector (FID). The remaining portion of the soil sample will be examined and a complete log of soil conditions will be recorded on a soil boring log using the Unified Soil Classification System. The soil will be examined for grain size, color, and moisture content.

The split-barrel sampler or slide hammer sampler will be cleaned to prevent contamination across sampling intervals using procedures described in Section C. Soil generated from the soil borings will be stored in 55-gallon drums (unless otherwise directed by agencies or the client) labeled with the corresponding boring number, date, and address of the facility.

B. DECONTAMINATION AND DISPOSAL PROCEDURES

All equipment that comes into contact with potentially contaminated soil, drilling fluid, air or water will be decontaminated before each use. Decontamination will consist of steam cleaning, a high-pressure, hot-water rinse, or trisodium phosphate (TSP) wash and freshwater rinse, as appropriate drilling and sampling equipment will be decontaminated as follows:

1. Drill rig augers, drill rods, and drill bits will be steam-cleaned prior to use and between borings. Visible soil, grease, and other impurities will be removed.

2. Soil sampling equipment will be steam-cleaned prior to use and between each boring. Prior to individual sample collection, any sampling device will also be cleaned in a TSP solution and rinsed twice in clean water. Any visible soil residue will be removed.

3. It is anticipated that disposable equipment will be used to collect water samples. If disposable equipment is not used, water sampling equipment will be decontaminated using methods described in item 2 above for soil sampling equipment.

4. Water sampling containers will be cleaned and prepared by the respective analytical laboratories.

5. Stainless steel or brass soil sampling tubes will be steam-cleaned or washed in TSP solution and rinsed with clean water.

6. Field monitoring equipment (pH, conductivity, or temperature probes) will be rinsed with clean water prior to use and between samples.

C. FIELD MEASUREMENTS

Field data will be collected during various sampling and monitoring activities; this section describes routine procedures to be followed by personnel performing field measurements. The methods presented below are intended to ensure that field measurements are consistent and reproducible when performed by various personnel.

C.1 Buried Utility Locations

Prior to commencement of work on site, Doulos will contact appropriate utility companies to have underground utility lines located. Doulos will also visually survey the site to estimate the locations of potentially unmarked underground utilities. All work associated with the borings will be preceded by hand augering to a minimum depth of 5 feet below grade to avoid damaging underground utilities.

C.2 Lithologic Logging

A log of soil conditions encountered during the drilling and sample collection will be maintained using the Unified Soil Classification System by a Doulos geologist. A California registered geologist will review all boring logs.

The collected soil samples will be examined and the following information recorded: boring location, sample interval and depth, blow counts, color, soil type, moisture content (qualitative), and depth at which ground water (if present) is first encountered. Also recorded on the soil boring logs will be the field screening results derived from the use of a portable PID or FID.

C.3 Disposal Procedures

Soils and fluids that are produced and/or used during the installation and sampling of borings, and that are known or suspected to contain potentially hazardous materials, will be contained during the above operations. These substances will be retained on site until chemical testing has been completed to determine the proper means of disposal. Handling and disposal of substances known or suspected to contain potentially hazardous materials will comply with the applicable regulations of DHS, the California Department of Water Resources, and any other applicable regulations. Soils and fluids produced and/or used during the above-described operations that are shown to contain potentially hazardous materials will be disposed of appropriately.

Residual substances generated during cleaning procedures that are known or suspected to pose a threat to human health or the environment will be placed in appropriate containers until chemical testing has been completed to determine the proper means for their disposal.

C.4 Conductivity, Temperature, and pH

Specific conductance, water temperature, and pH measurements will be made when a water sample is collected. Regardless of the sample collection method, a representative water sample will be placed in a transfer bottle used solely for field parameter determinations. A conventional pH meter with a combination electrode or equivalent will be used for field-specific conductance measurements. Temperature measurements will be performed using standard thermometers or equivalent temperature meters. Combination instruments capable of measuring two or all three of the parameters may also be used.

All instruments will be calibrated in accordance with manufacturer's recommendations. The values for conductivity standards and pH buffers used in calibration will be recorded in a field notebook. All probes will be thoroughly cleaned and rinsed with fresh water prior to any measurements, in accordance with Section C.1

C.5 Groundwater Purging

Prior to purging, the amount of groundwater to equal three casing volumes is calculated. During the purging process, pH, temperature and conductivity readings are taken at least every casing volume. Once parameters have stabilized to within 0.1 degree Fahrenheit within 10% of the conductivity value, and 0.1 unit for pH the groundwater sample is collected. On large diameter wells, six inches or greater, a sample may be collected prior to three casing volumes if pH, temperature and conductivity stabilize to the above-mentioned criteria. When possible the pump is placed in the screened interval and pumped at a flow rate where the groundwater is not brought below the top of the screen. The groundwater is collected from the discharge end of new clean disposable tubing used on each well.

D. SAMPLE CUSTODY

This section describes standard operating procedures for sample custody and custody documentation. Sample custody procedures will be followed through sample collection, transfer, analysis, and ultimate disposal. The purpose of these procedures is to assure that (1) the integrity of samples is maintained during their collection, transportation, and storage prior to analysis and (2) post-analysis sample material is properly disposed of. Sample custody is divided into field procedures and laboratory procedures, as described below.

D.1 Field Custody Procedures

Sample quantities, types, and locations will be determined before the actual fieldwork commences. As few personnel as possible will handle samples. The field sampler is personally responsible for the care and custody of the collected samples until they are properly transferred.

D.1.1 Field Documentation

Each sample will be labeled and sealed properly immediately after collection. Sample identification documents will be carefully prepared so that identification and chain-of-custody records can be maintained and sample disposition can be controlled. Forms will be filled out with waterproof ink. The following sample identification documents will be utilized:

- Sample labels
- Field notebook
- Chain-of-custody forms

D.1.2 Sample Labels

Sample labels provide identification of samples. Preprinted sample labels will be provided. Where necessary, the label will be protected from water and solvents with clear label-protection tape. Each label will contain the following information:

- Name of collector
- Date and time of collection
- Place of collection
- Doulos project number
- Sample number
- Preservative (if any)

D.1.3 Sample Labels

Information pertinent to a field survey, measurements, and/or sampling must be recorded on field data sheets. Entries on data sheets should include the following:

- Name and title of author, date and time of entry, and physical/environmental conditions during field activity.
- Location of sampling or measurement activity.
- Name(s) and title(s) of field crew.
- Type of sampled media (e.g., soil, groundwater, air, etc.).
- Sample collection or measurement method(s).
- Number and volume of sample(s) collected.
- Description of sampling point(s).
- Description of measuring reference point(s).
- Date and time of collection or measurement.
- Sample identification number(s).
- Sample preservative (if any.
- Sample distribution (e.g., laboratory).
- Field observations/comments.
- Field measurement data (pH, etc.).

D.1.4 Chain-of-custody Record

A chain-of-custody record will be filled out for and will accompany every sample and every shipment of samples to the analytical laboratories in order to establish the documentation necessary to trace sample possession from the time of collection. The record will contain the following information:

- Station of sample number of sample I.D.
- Signature of collector, sampler, or recorder.
- Date and time of collection.
- Place of collection.
- Sample type.
- Signatures of persons involved in the chain of possession.
- Inclusive dates of possession.

The laboratory portion of the form should be completed by laboratory personnel and will contain the following information:

- Name of person receiving the sample.
- Laboratory sample number.
- Date and time of sample receipt.
- Analyses requested.
- Sample condition and temperature.

D.1.5 Sample Transfer and Shipment

A chain-of-custody record will always accompany samples. When transferring samples, the individuals relinquishing and receiving the samples will sign, date, and note the time on the chain-of-custody record.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis. The chain-of-custody record will accompany each shipment. The method of shipment, courier name(s), and other pertinent information will be entered in the chain-of-custody record.

D.2 Laboratory Custody Procedures

A designated sample custodian will accept custody of the shipped samples and verify that the information on the sample label matches that on the chain-of-custody record. Information regarding method of delivery and sample conditions will also be checked on the chain-of-custody record. The custodian will then enter the appropriate data into the laboratory sample tracking system. The laboratory custodian may use the sample number on the sample label or may assign a unique laboratory number to each sample. The custodian will then transfer the sample to the proper analyst or store the sample in the appropriate secure area.

Laboratory personnel are responsible for the care and custody of samples from the time they are received until the sample is exhausted. Once at the laboratory, the samples will be handled in accordance with U.S. Environmental Protection Agency SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Third Edition, for the intended analyses. All data sheets, chromatographs, and laboratory records will be filed as part of the permanent documentation.

D.3 Corrections to Documentation

Original data recorded in field notebooks, chain-of-custody records, sampling information sheets, and other forms should be written in ink. These documents should not be altered, destroyed, or discarded even if they are illegible or contain inaccuracies that require a replacement document.

If an error is made or found on a document, the individual making the corrections will do so by crossing a single line through the error, entering the correct information, and initialing and dating the change. The erroneous information will be obliterated. Any subsequent error(s) discovered on a document will be corrected. All corrections will be initialed and dated.

D.4 Sample Storage and Disposal

The analytical laboratory should retain samples and extracts for 60 days after the laboratory issues a written report. Unless notified by the program manager, excess or unused samples should be disposed of by the laboratory in an appropriate manner consistent with applicable government regulations.

ENCLOSURE B

Laboratory Analytical Reports

KIFF Analytical LLC

Report Number : 80357
Date : 03/09/2012

Laboratory Results

Hal Hansen
Doulos Environmental
8563 Westin Lane
Orangevale, CA 95662

Subject : 2 Soil Samples
Project Name : Atty Frumkin - Oakland
Project Number :

Dear Mr. Hansen,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC and TNI 2009 standards. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Troy G. Turpen

Troy Turpen

KIFF Analytical LLC

Report Number : 80357
Date : 03/09/2012

Subject : 2 Soil Samples
Project Name : Atty Frumkin - Oakland
Project Number :

Case Narrative

A version of this report was previously issued on 02/22/2012. This revised version replaces that report.

All soil samples were reported on a total weight (wet weight) basis.

Matrix Spike/Matrix Spike Duplicate results associated with samples DHB-1 3.25' and DHB-1 6.25' for the analyte TPH as Diesel were affected by the analyte concentrations already present in the un-spiked sample.

KIFF Analytical LLC

Report Number : 80357
Date : 03/09/2012

Project Name : **Atty Frumkin - Oakland**
Project Number :

Sample : **DHB-1 3.25'** Matrix : Soil Lab Number : 80357-01
Sample Date :02/14/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.16**	0.025	mg/Kg	EPA 8260B	02/21/12 22:08
Toluene	**0.18**	0.025	mg/Kg	EPA 8260B	02/21/12 22:08
Ethylbenzene	**1.7**	0.025	mg/Kg	EPA 8260B	02/21/12 22:08
Total Xylenes	**4.2**	0.025	mg/Kg	EPA 8260B	02/21/12 22:08
TPH as Gasoline	**490**	5.0	mg/Kg	EPA 8260B	02/22/12 10:45
1,2-Dichloroethane-d4 (Surr)	88.5		% Recovery	EPA 8260B	02/21/12 22:08
Toluene - d8 (Surr)	91.2		% Recovery	EPA 8260B	02/21/12 22:08
2-Bromochlorobenzene (Surr)	98.1		% Recovery	EPA 8260B	02/21/12 22:08
TPH as Diesel	**140**	1.0	mg/Kg	M EPA 8015	02/22/12 12:41
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	104		% Recovery	M EPA 8015	02/22/12 12:41

KIFF Analytical LLC

Report Number : 80357
Date : 03/09/2012

Project Name : **Atty Frumkin - Oakland**
Project Number :

Sample : **DHB-1 6.25'** Matrix : Soil Lab Number : 80357-02
Sample Date :02/14/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.050**	0.050	mg/Kg	EPA 8260B	02/21/12 22:42
Toluene	**0.21**	0.050	mg/Kg	EPA 8260B	02/21/12 22:42
Ethylbenzene	**1.9**	0.050	mg/Kg	EPA 8260B	02/21/12 22:42
Total Xylenes	**5.8**	0.050	mg/Kg	EPA 8260B	02/21/12 22:42
TPH as Gasoline	**360**	5.0	mg/Kg	EPA 8260B	02/21/12 22:42
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	02/21/12 22:42
Toluene - d8 (Surr)	97.8		% Recovery	EPA 8260B	02/21/12 22:42
2-Bromochlorobenzene (Surr)	98.9		% Recovery	EPA 8260B	02/21/12 22:42
TPH as Diesel	**220**	1.0	mg/Kg	M EPA 8015	02/22/12 13:10
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	93.3		% Recovery	M EPA 8015	02/22/12 13:10

Report Number : 80357

Date : 03/09/2012

QC Report : Method Blank Data

Project Name : **Atty Frumkin - Oakland**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	02/16/2012
Octacosane (Diesel Surrogate)	108		%	M EPA 8015	02/16/2012
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/21/2012
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/21/2012
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/21/2012
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	02/21/2012
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	02/21/2012
1,2-Dichloroethane-d4 (Surr)	106		%	EPA 8260B	02/21/2012
Toluene - d8 (Surr)	101		%	EPA 8260B	02/21/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 80357

Date : 03/09/2012

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Atty Frumkin - Oakland**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	80376-01	<0.0050	0.0398	0.0394	0.0312	0.0322	mg/Kg	EPA 8260B	2/21/12	78.3	81.8	4.36	67.9-120	25
Ethylbenzene	80376-01	<0.0050	0.0398	0.0394	0.0356	0.0369	mg/Kg	EPA 8260B	2/21/12	89.2	93.8	4.97	65.5-127	25
P + M Xylene	80376-01	<0.0050	0.0398	0.0394	0.0336	0.0351	mg/Kg	EPA 8260B	2/21/12	84.4	89.1	5.35	62.5-124	25
Toluene	80376-01	<0.0050	0.0398	0.0394	0.0323	0.0336	mg/Kg	EPA 8260B	2/21/12	81.2	85.4	5.07	65.7-120	25
TPH as Diesel	80357-01	140	19.9	19.6	160	201	mg/Kg	M EPA 8015	2/22/12	79.9	**293**	**114**	60-140	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 80357

Date : 03/09/2012

QC Report : Laboratory Control Sample (LCS)

Project Name : **Atty Frumkin - Oakland**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Diesel	20.0	mg/Kg	M EPA 8015	2/16/12	95.9	70-130
Benzene	0.0388	mg/Kg	EPA 8260B	2/21/12	87.1	67.9-120
Ethylbenzene	0.0388	mg/Kg	EPA 8260B	2/21/12	99.1	65.5-127
P + M Xylene	0.0388	mg/Kg	EPA 8260B	2/21/12	94.6	62.5-124
Toluene	0.0388	mg/Kg	EPA 8260B	2/21/12	90.8	65.7-120

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 80357

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To):	California EDF Report? ☑ Yes ☐ No
Company / Address: Doulos Environmental, INC. 8563 Westin Lane, Orangevale, CA. 95662	Sampling Company Log Code: DEIO
Phone #: 916-990-0333 / Fax #: 916-990-0332	Global ID:
Project #: / P.O. #:	PDF/EDF Deliverable To (Email Address): doulosenv@comcast.net
Project Name: Atty Frumkin - Oakland	Sampler Signature:
Project Address: 2700 23rd Avenue, Oakland, CA	

Sample Designation	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	H_2SO_4	None	Water	Soil	Air	MTBE(EPA 8260B) per EPA 8021 level @ 5.0	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav. (1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	TPH Diesel	TAT	For Lab Use Only
SOIL MID	2-14-12	1240		1								X				X	X											X	STAT 01
SOIL DEEP	"	1300		1								X				X	X											X	STAT 02

TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☐ 1 wk

Relinquished by:	Date	Time	Received by:
	2-14-12	1530	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	021412	1530	kiff Analytical LLC

Remarks: SOIL SAMPLING 1Q12

Bill to: Doulos Environmental

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

RECEIVER: TJB (Initials)

SRG#: 80357 Date: 021412

Project ID: Atty Frumkin - Oakland

Method of Receipt: ☐ Courier ☒ Over-the-counter ☐ Shipper

COC Inspection

Is COC present?	☒ Yes	☐ No	
Custody seals on shipping container?	☐ Intact	☐ Broken ☐ Not present	☒ N/A
Is COC Signed by Relinquisher? ☒ Yes ☐ No Dated?	☒ Yes	☐ No	
Is sampler name legibly indicated on COC?	☒ Yes	☐ No	
Is analysis or hold requested for all samples?	☒ Yes	☐ No	
Is the turnaround time indicated on COC?	☒ Yes	☐ No	
Is COC free of whiteout and uninitialed cross-outs?	☒ Yes	☐ No, Whiteout ☐ No, Cross-outs	

Sample Inspection

Coolant Present: ☒ Yes ☐ No (includes water)

Temperature °C 4.9 Therm. ID# IR-3 Initial TJB Date/Time 021412/1525 ☐ N/A

Are there custody seals on sample containers?	☐ Intact	☐ Broken	☒ Not present
Do containers match COC? ☒ Yes ☐ No ☐ No, COC lists absent sample(s)		☐ No, Extra sample(s) present	
Are there samples matrices other than soil, water, air or carbon?	☐ Yes	☒ No	
Are any sample containers broken, leaking or damaged?	☐ Yes	☒ No	
Are preservatives indicated? ☐ Yes, on sample containers	☐ Yes, on COC	☐ Not indicated	☒ N/A
Are preservatives correct for analyses requested?	☐ Yes	☐ No	☒ N/A
Are samples within holding time for analyses requested?	☒ Yes	☐ No	
Are the correct sample containers used for the analyses requested?	☒ Yes	☐ No	
Is there sufficient sample to perform testing?	☒ Yes	☐ No	
Does any sample contain product, have strong odor or are otherwise suspected to be hot?		☐ Yes	☒ No

Receipt Details

Matrix SO	Container type Sleeve	# of containers received 2
Matrix	Container type	# of containers received
Matrix	Container type	# of containers received

Date and Time Sample Put into Temp Storage Date: 021412 Time: 1530

Quicklog

Are the Sample ID's indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If Sample ID's are listed on both COC and containers, do they all match?	☒ Yes	☐ No		☐ N/A
Is the Project ID indicated:	☒ On COC	☐ On sample container(s)	☐ On Both	☐ Not indicated
If project ID is listed on both COC and containers, do they all match?	☐ Yes	☐ No		☒ N/A
Are the sample collection dates indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If collection dates are listed on both COC and containers, do they all match?	☒ Yes	☐ No		☐ N/A
Are the sample collection times indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If collection times are listed on both COC and containers, do they all match?	☒ Yes	☐ No		☐ N/A

COMMENTS: