1060

EXXON COMPANY, U.S.A.

P.O. BOX 4032 • CONCORD, CA 94524-4032
MARKETING DEPARTMENT • ENVIRONMENTAL ENGINEERING

MARLA D. GUENSLER
SENIOR ENGINEER

(510) 246-8776
(510) 246-8798 FAX

March 26, 1997

Mr. Dale Klettke
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

RE: Former Exxon RAS #7-0236/6630 East East 14th Street, Oakland, California

Dear Mr. Klettke:

Attached for your review and comment is the report entitled ***Groundwater Monitoring Well and Vadose Zone Well Destruction and Groundwater Monitoring Well Installation***, dated March 18, 1997, for the above referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and details the results of the destruction of two groundwater monitoring wells (MW1 and MW7) and three vadose zone wells (VE1 through VE3), and the installation of one groundwater monitoring well (MW8) at the subject site.

If you have any questions or comments, please contact me at (510) 246-8776.

Sincerely,

Marla D. Guensler
Senior Engineer

MDG/tjm

Attachment: ERI's Report on Groundwater Monitoring Well and Vadose Zone Well Destruction and Groundwater Monitoring Well Installation, dated March 18, 1997

cc: w/attachment
Mr. John Kaiser - CRWQCB - San Francisco Bay Region

w/o attachment
Mr. Marc A. Briggs, ERI

ENVIRONMENTAL RESOLUTIONS, INC.

March 18, 1997
ERI 200903.R01

Ms. Marla D. Guensler
Exxon Company, U.S.A.
2300 Clayton Road, Suite 640
Concord, California 94520

Subject: Groundwater Monitoring Well and Vadose Zone Well Destruction and Groundwater Monitoring Well Installation at Former Exxon Service Station 7-0236, 6630 East 14th Street, Oakland, California.

Ms. Guensler:

At the request of Exxon Company, U.S.A. (Exxon), Environmental Resolutions, Inc. (ERI) is submitting this letter documenting the destruction of two groundwater monitoring wells, three vadose zone wells, and installation of one groundwater monitoring well at the subject site (Plate 1). ERI performed the work in accordance with ERI's Work Plan (dated December 12, 1996).

Exxon requested that ERI destroy groundwater monitoring wells on the property adjacent to the subject site (formerly owned by Exxon) to allow for divestment of the adjacent property. ERI installed a new groundwater monitoring well on the existing service station property to replace the two destroyed groundwater monitoring wells. The vadose wells were destroyed because there are no future plans for their use.

ERI performed the field work in accordance with ERI's Site Safety Plan. ERI obtained permits to destroy the groundwater monitoring and vadose zone wells and install one groundwater monitoring well from Alameda County Zone 7 Water Agency. The well destruction and well installation permits are attached (Attachment A).

BACKGROUND

The site is at the northeastern side of East 14th Street between Havenscourt Boulevard and 66th Avenue in Oakland, California, as depicted on the Site Vicinity Map (Plate 1). The site is at an elevation of approximately 20 feet above mean sea level (United States Geological Survey [U.S.G.S.] 1980). The approximate configuration of former station facilities, former underground storage tanks (USTs), and other pertinent site features are shown on the Generalized Site Plan (Plate 2).

WELL DESTRUCTION

On January 10, 1997, ERI observed Woodward Drilling, Inc. (Woodward) of Rio Vista, California overdrill two monitoring wells (MW1 and MW7) to approximately 26 feet below ground surface (bgs) and three vadose zone wells (VE1 through VE3) to approximately 12 feet bgs, and backfill the borings with cement-bentonite slurry. The locations of these wells are shown on the Generalized Site Plan (Plate 2). Drilling was performed under the guidance of ERI's geologist.

Attachments:

Table 1:	Soil and Stockpile Sample Analysis Results
Plate 1:	Site Vicinity Map
Plate 2:	Generalized Site Plan
Attachment A:	Well Destruction and Well Installation Permits
Attachment B:	Field Protocol
Attachment C:	Unified Soil Classification System and Log of Boring
Attachment D:	Disposal Documentation
Attachment E:	Results of Soil and Stockpile Laboratory Analyses and Chain of Custody

SOIL BORING AND WELL CONSTRUCTION

Soil Boring

On January 10, 1997, ERI observed Woodward drill one on-site soil boring (B8). ERI's standard field protocol is attached (Attachment B). Drilling was performed under the guidance of ERI's geologist who collected soil samples from the borings during drilling. Soil samples were collected at approximately 5-foot intervals.

ERI's geologist identified the soil samples collected from the boring using visual and manual methods, and classified the samples using the Unified Soil Classification Systems (Attachment C). Descriptions of the materials encountered are presented in the Log of Boring (Attachment C).

Soil boring B8 was drilled to approximately 25 feet bgs. Cuttings generated during drilling were stockpiled on site and covered with plastic sheeting pending appropriate disposal. At Exxon's request, Dillard Trucking of Byron, California transported and disposed of the stockpiled soil at BFI/Vasco landfill in Livermore, California. Disposal documentation is attached (Attachment D).

Monitoring Well Construction, Development, and Surveying

Woodward constructed monitoring well MW8 in boring B8. Details of the monitoring well construction are shown on the Log of Boring (Attachment C).

On January 22, 1997, an ERI representative developed the well using surging and pumping techniques. ERI contracted Ron Archer Civil Engineer of Pleasanton, California (a licensed surveyor) to survey both new and existing wells and provide the location and elevation of the wellheads relative to mean sea level.

ANALYTICAL METHODS

Soil Samples

Selected soil samples collected from the boring were submitted under Chain of Custody Record to Sequoia Analytical Laboratories (California State Certification Number 1210) in Redwood City, California. The Chain of Custody Records are attached (Attachment E). The soil sample selected for analyses consisted of the sample collected above first-encountered groundwater and producing the highest photoionization detector readings. Soil sample was analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tert-butyl ether (MTBE), total petroleum hydrocarbons as gasoline (TPHg), and total extractable petroleum hydrocarbons as diesel (TEPHd) using the methods listed in Table 1.

ERI also submitted a composite soil sample collected from the drill cutting stockpile under Chain of Custody Record to Sequoia Analytical Laboratories. The composite sample was analyzed for BTEX, TPHg, TEPHd, and total threshold limit concentration (TTLC) lead using the methods listed in Table 1.

Water Samples

On February 25, 1997, ERI collected groundwater samples from monitoring well MW8 and the remaining wells (MW2 through MW6) for the first quarter 1997 groundwater monitoring and sampling event. The results of the sampling will be reported under separate cover.

RESULTS OF INVESTIGATION

Geology and Hydrogeology

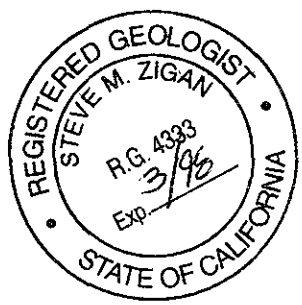
Sediments encountered beneath the site typically consist of silty clay and fine-grained sandy clay with a gravel lens at approximately 25 feet. Groundwater was encountered approximately 14.5 feet bgs. Static groundwater level will be measured during the first quarter 1997 monitoring and sampling event.

Soil Conditions

Results of laboratory analyses of the soil sample are summarized in Table 1. Residual gasoline and diesel hydrocarbons were detected in the vadose zone in boring B8 at concentrations of 22 parts per million (ppm) TPHg, 0.26 ppm benzene, and 14 ppm TEPHd. Copies of laboratory reports for the soil sample obtained during this investigation are included in Attachment E.

Results of laboratory analyses of the composite soil sample are summarized in Table 1. Results of laboratory analyses are attached (Attachment E).

Please call (415) 382-5994 if you have any questions regarding this letter report.



Sincerely,
Environmental Resolutions, Inc.

Glenn L. Matteucci
Senior Staff Geologist

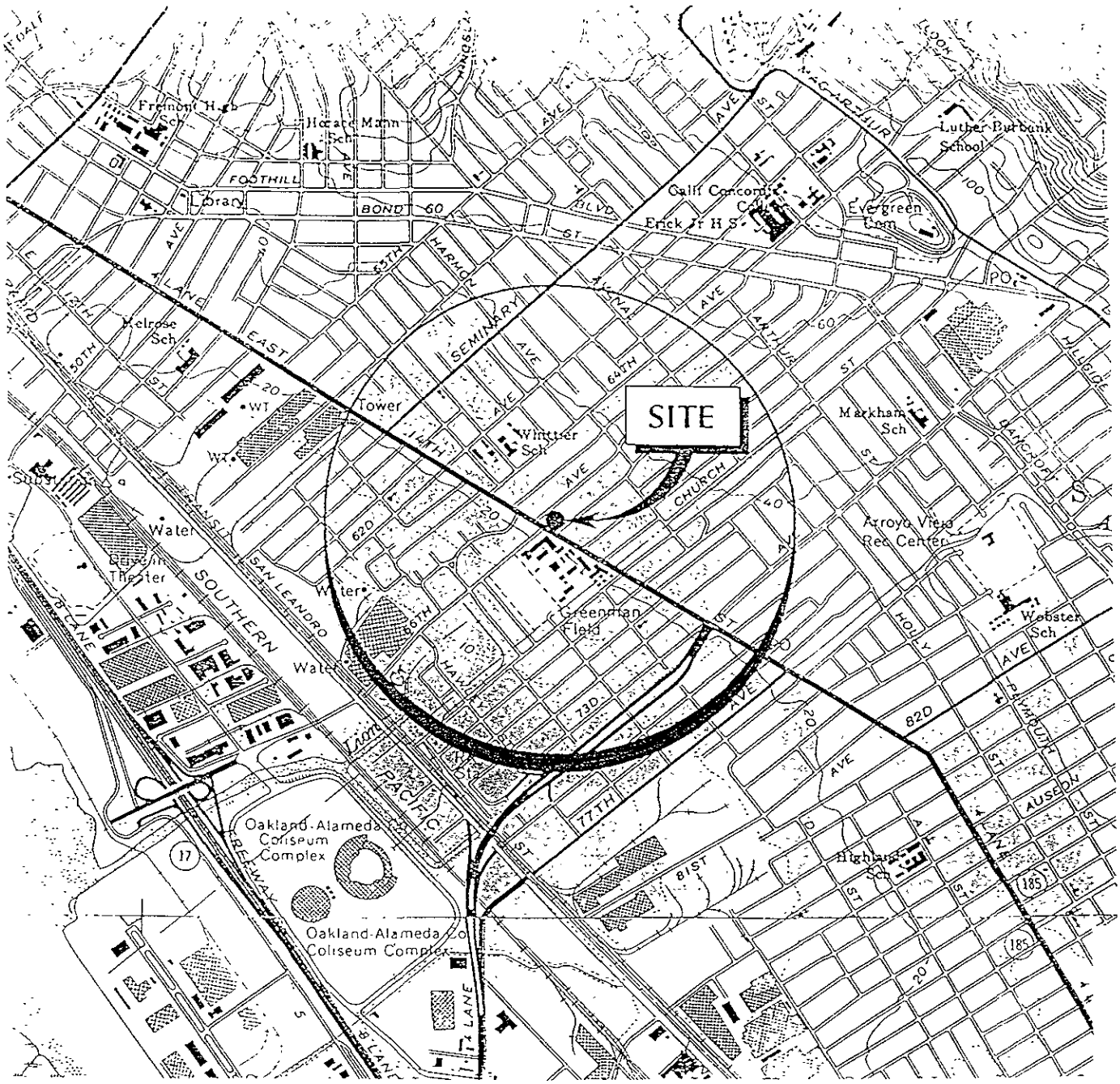
Steve M. Zigan
R.G. 4333
H.G. 133

TABLE 1
SOIL AND STOCKPILE SAMPLE ANALYSIS RESULTS
Former Exxon Service Station 7-0236
6630 East 14th Street
Oakland, California

Sample Number	TPHg	B	T	E	X	TEPHd	MTBE	TTLC Lead
S-10-MW8	22	0.26	0.013	0 067	0.19	14	<0.025	NA
SP-1-(1-4)	13	0.28	0.026	0.069	0.11	14	NA	13

Notes:
Soil results in parts per million

TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA method 8015 (modified).
BTEX	=	Toluene, benzene, ethylbenzene and total xylenes using EPA method 8020.
TEPHd	=	Total extractable petroleum hydrocarbons as diesel analyzed using EPA method 8015 (modified)
MTBE	=	Methyl tert-butyl ether analyzed using EPA method 8020.
TTLC Lead	=	Total threshold limit concentrations (TTLC) analyzed using EPA method 6010
NA	=	Not Analyzed



20090001

N

APPROXIMATE SCALE

0 1/2 1

MILE

Source: U.S.G.S. 7.5 minute topographic quadrangle map Oakland East and San Leandro, Calif. 1980

ERI ENVIRONMENTAL RESOLUTIONS, INC.

PROJECT ERI 2009

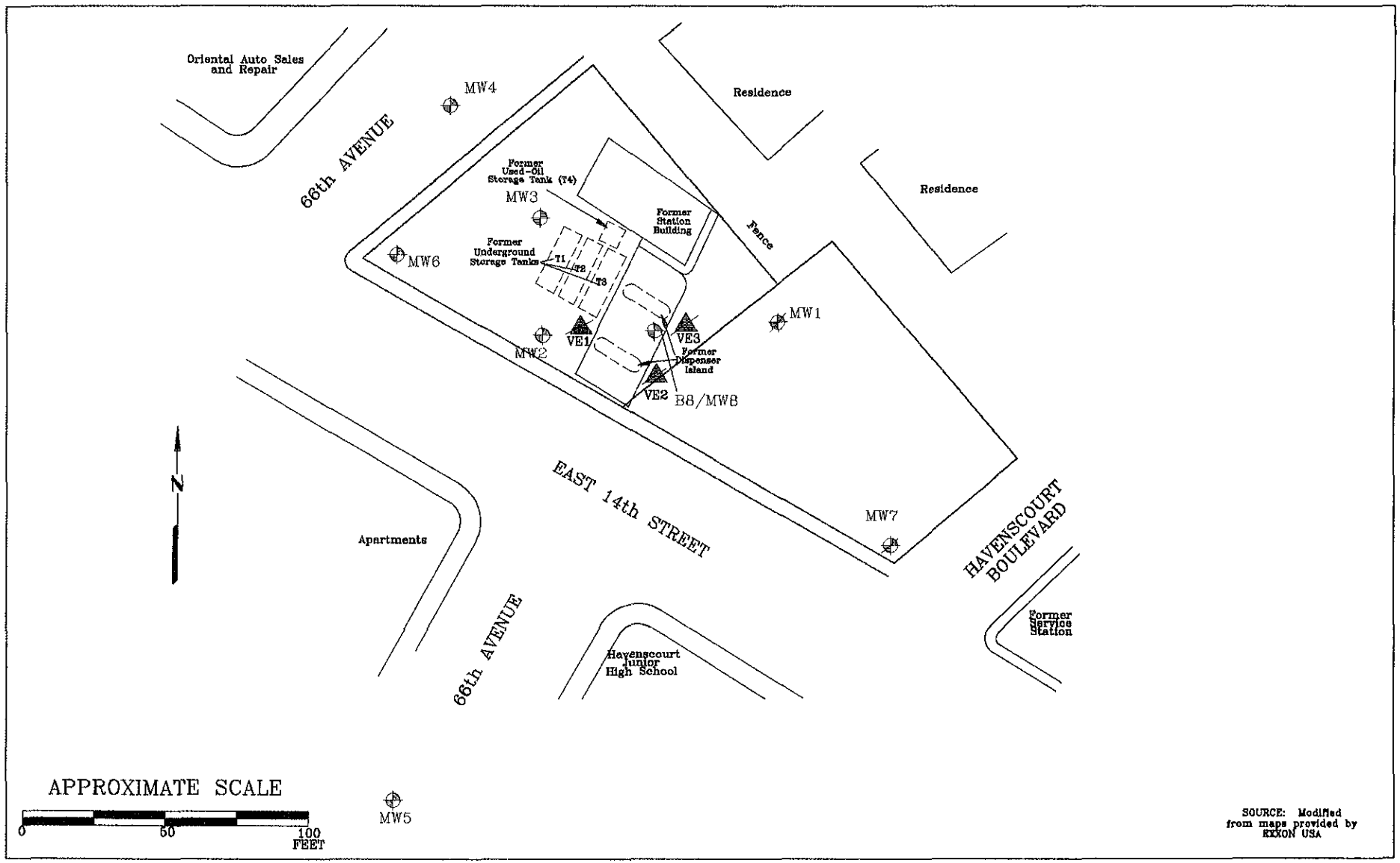
SITE VICINITY MAP

FORMER EXXON SERVICE STATION 7-0236

6630 East 14th Street

Oakland, California

PLATE 1



FN 20090002

ERI ENVIRONMENTAL RESOLUTIONS, INC.

GENERALIZED SITE PLAN

FORMER
EXXON SERVICE STATION 7-0236
6630 East 14th Street
Oakland, California

EXPLANATION

- MW8 — Groundwater Monitoring Well
- Groundwater Monitoring Well (Destroyed)
- VE3 — Vapor Extraction Well (Destroyed)
- B8/MW8 — Soil Boring/Groundwater Monitoring Well

PROJECT NO.
2009

PLATE
2

DATE: 2/11/97

ATTACHMENT A

WELL DESTRUCTION AND WELL INSTALLATION PERMITS

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Exxon SS # 7-0236
6630 E. 14th St
Oakland, CA

CLIENT
Name Exxon Co. USA
Address 2300 Clayton Rd Suite 640 Voice (510) 246-8776
City Concord, CA Zip 94520

APPLICANT
Name Environmental Resolutions
Fax (415) 382-1856
Address 74 Digital Dr. Suite 6 Voice (415) 382-9105
City Novato, CA Zip 94949

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	___	Well Destruction *	X

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger Hollow Stem
Cable ___ Other ___

DRILLER'S LICENSE NO. 710079

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth ___ ft.
Surface Seal Depth ___ ft. Number ___

GEOTECHNICAL PROJECTS
Number of Borings ___ Maximum
Hole Diameter ___ in. Depth ___ ft.

ESTIMATED STARTING DATE ___
ESTIMATED COMPLETION DATE ___

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S

FOR OFFICE USE

PERMIT NUMBER 97007
LOCATION NUMBER 2S/3W 16A80 to 16A83

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

(E.) WELL DESTRUCTION. See attached.

* Monitoring wells MW 1 & MW 7
Vadose Zone Wells VE1, VE2, & VE3

Approved Wyman Hong Date 7 Jan 97
Wyman Hong

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Exxon SS # 7-0236
6630 E. 14th St
Oakland, CA

CLIENT
Name Exxon Co. USA
Address 2300 Clayton Rd Suite 640 Voice (510) 246-8726
City Concord, CA Zip 94520

APPLICANT
Name Environmental Resolutions
Fax (415) 382-1856
Address 74 Digital Dr Suite 6 Voice (415) 382-9405
City Novato, CA Zip 94949

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger Hollow Stem
Cable ___ Other ___

DRILLER'S LICENSE NO. 710079

WELL PROJECTS MW 8

Drill Hole Diameter	8	in.	Maximum		
Casing Diameter	2	in.	Depth	25	ft.
Surface Seal Depth	5	ft.	Number	1	

GEOTECHNICAL PROJECTS

Number of Borings	___		Maximum		
Hole Diameter	___	in.	Depth	___	ft.

ESTIMATED STARTING DATE 1/9/97
ESTIMATED COMPLETION DATE 1/10/97

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature]

FOR OFFICE USE

PERMIT NUMBER 97006
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 7 Jan 97
Wyman Hong

ATTACHMENT B

FIELD PROTOCOL

FIELD PROTOCOL

Site Safety Plan

Field work is performed by ERI personnel in accordance with a site safety plan developed for the site. This plan describes the basic safety requirements for the subsurface investigation and the drilling of soil borings at the work site. The site safety plan is applicable to personnel and subcontractors of ERI. Personnel at the site are informed of the contents of the site safety plan before work begins. A copy of the site safety plan is kept at the work site and is available for reference by appropriate parties during the work. The ERI geologist acts as the Site Safety Officer.

Soil Borings and Sampling

Prior to drilling of borings and construction of wells, ERI acquires necessary permits from the appropriate agency(ies). ERI also contacts Underground Service Alert (USA) before drilling to help locate public utility lines at the site. ERI handprobes and handaugers boring locations to a depth of approximately 4 feet bgs and a diameter greater than the soil boring diameter as per Exxon protocol before drilling to reduce the risk of damaging underground structures.

Soil borings are drilled with a B57 (or similar) drill rig equipped with 8-inch diameter, hollow-stem augers. Auger flights and sampling equipment are steam-cleaned before use to minimize the possibility of crosshole contamination. The rinseate is containerized and stored on site. ERI will coordinate with Exxon for appropriate disposal of the rinseate.

Drilling is performed under the observation of a field geologist, and the earth materials in the borings are identified using visual and manual methods, and classified as drilling progresses using the Unified Soil Classification System. Soil borings are drilled to approximately 10 feet below the uppermost zone of saturation or 5 feet into any competent clay layer (aquitard) encountered beneath the water-bearing zone. If an aquitard is encountered, the boring is terminated and backfilled with bentonite before installing a groundwater monitoring well.

During drilling, soil samples are collected at 5-foot intervals, obvious changes in lithology, and just above the groundwater surface. Samples are collected with a California-modified, split-spoon sampler equipped with laboratory-cleaned brass sleeves. Samples are collected by advancing the auger to a point just above the sampling depth and driving the sampler into the soil. The sampler is driven 18 inches with a standard 140-pound hammer repeatedly dropped 30 inches. The number of blows required to drive the sampler each successive 6-inch interval is counted and recorded to give an indication of soil consistency.

Soil samples are monitored with a photoionization detector (PID), which measures hydrocarbon concentrations in the ambient air or headspace above the soil sample. Field instruments such as the PID are useful for indicating relative levels of hydrocarbon vapors, but do not detect concentrations of hydrocarbons with the same precision as laboratory analyses. Soil samples selected for possible chemical analysis are sealed promptly with Teflon® tape, and plastic caps. The samples are labeled and placed in iced storage for transport to the laboratory. Chain of Custody Records are initiated by the geologist in the field, updated throughout handling of the samples, and sent with the samples to

the laboratory. Copies of these records are in our report. Cuttings generated during drilling are placed on plastic sheeting and covered and left at the site. ERI coordinates with Exxon for the soil to either be treated on site or removed to an appropriate disposal facility.

Monitoring Well Construction

Monitoring wells are constructed in borings using thread-jointed, 2-inch inner diameter, Schedule 40 polyvinyl chloride (PVC) casing. No chemical cements, glues, or solvents are used in well construction. The screened portion of each well consists of factory-perforated casing with 0.010-inch wide slots. If unconfined aquifer conditions exist, the well screen is installed from the total depth of each well to approximately 10 feet above the uppermost water-bearing unit. If confined conditions exist, the uppermost water-bearing unit is screened exclusively. Unperforated casing is installed from the top of each screen to the ground surface. The annular space in the well is packed with number 2/12 sand to approximately 1 to 2 feet above the slotted interval. A bentonite plug is added above the sand pack to prevent cement from entering the well pack. The remaining annulus is backfilled to grade with a slurry of portland cement.

The monitoring wells are protected with a traffic-rated, cast-aluminum utility box equipped with a PVC skirt. The box has a watertight seal to protect against surface-water infiltration and must be opened with a special wrench. The design of this box discourages vandalism and reduces the possibility of accidental disturbance of the well.

Well Development

ERI waits a minimum of 24 hours before development of the monitoring wells to allow the grout to seal. Initially, a water sample is collected for subjective analysis before development of the monitoring wells. This sample is collected from near the water surface in the well with a Teflon bailer cleaned with a laboratory-grade detergent and deionized water. The wells are developed with a surge block and pump. Well development continues until the discharge water is clear of silt and sand. Clay-size sediments derived from the screened portion of the formation cannot be eliminated by well development. After the well has been allowed to stabilize, the well is checked for floating product using an interface probe. The thickness of any product detected in the well is recorded. If floating product is encountered in the well, the well is not purged, and the water is not sampled for chemical analysis. Product is bailed from the well and stored in appropriately labeled drums on site. ERI apprises Exxon of appropriate disposal options for product bailed from the well.

If no floating product is detected after development, the well is purged of stagnant water and a sample is collected for laboratory analysis. The well is purged of approximately 3 to 5 well volumes of water with a submersible pump, or until pH, conductivity, and temperature of the purged water have stabilized. Water purged from the wells is stored in labeled, 55-gallon, steel drums approved for this use by the Department of Transportation until suitable disposal options can be selected based on laboratory analysis. ERI coordinates with Exxon for disposal of the purged water.

Quality Assurance/Quality Control

The sampling and analysis procedures employed by ERI for groundwater monitoring and sampling follow regulatory guidance documents for quality assurance/quality control (QA/QC). Quality control is maintained by site-specific field protocols and quality control checks performed by the laboratory. Laboratory and field handling of samples may be monitored by including QC samples for analysis. QC samples may include any combination of the following. The number and types of QC samples are selected and analyzed on a project-specific basis.

ATTACHMENT C

UNIFIED SOIL CLASSIFICATION SYSTEMS AND LOG OF BORING

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		LTR	DESCRIPTION	MAJOR DIVISIONS		LTR	DESCRIPTION
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravels or gravel sand mixtures, little or no fines	FINE GRAINED SOILS	SILTS AND CLAYS LL<50	ML	Inorganic silts and very fine-grained sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
		GP	Poorly-graded gravels or gravel sand mixture, little or no fines			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		GM	Silty gravels, gravel-sand-clay mixtures			OL	Organic silts and organic silt-clays of low plasticity
		GC	Clayey gravels, gravel-sand-clay mixtures		SILTS AND CLAYS LL>50	MH	Inorganic silts, micaceous or diatomaceous fine-grained sandy or silty soils, elastic silts
	SAND AND SANDY SOILS	SW	Well-graded sands or gravelly sands, little or no fines			CH	Inorganic clays of high plasticity, fat clays
		SP	Poorly-graded sands or gravelly sands, little or no fines			OH	Organic clays of medium to high plasticity
		SM	Silty sands, sand-silt mixtures				
		SC	Clayey sands, sand-clay mixtures	HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils

DEPTH THROUGH WHICH SAMPLER IS DRIVEN

RELATIVELY UNDISTURBED SAMPLE

MISSED SAMPLE

GROUNDWATER LEVEL OBSERVED FROM FIRST WET SOIL SAMPLE IN BORING

STATIC GROUNDWATER LEVEL

OVM — ORGANIC VAPOR METER READING IN PARTS PER MILLION

PID — PHOTO-IONIZATION DETECTOR READING IN PARTS PER MILLION

WELL DESIGN

SAND PACK

BENTONITE ANNULAR SEAL

NEAT CEMENT ANNULAR SEAL

BLANK PVC

MACHINE-SLOTTED PVC

S-10 — SAMPLE NUMBER

BLOW/FT REPRESENTS THE NUMBER OF BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES TO DRIVE THE SAMPLER THROUGH THE LAST 12 INCHES OF AN 18-INCH PENETRATION

DASHED LINES SEPARATING UNITS ON THE LOG REPRESENT APPROXIMATE BOUNDARIES ONLY ACTUAL BOUNDARIES MAY BE GRADUAL LOGS REPRESENT SUBSURFACE CONDITIONS AT THE BORING LOCATION AT THE TIME OF DRILLING ONLY

ERI ENVIRONMENTAL RESOLUTIONS, INC.

PROJECT 2009

UNIFIED SOIL CLASSIFICATION SYSTEM AND LOG OF BORINGS SYMBOL KEY

Former Exxon Service Station 7-0236
6630 East 14th Street
Oakland, California

PLATE

Appendix

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2009 Boring: B8/MW8 Plate: 1 OF 1

Site: Former Exxon Service Station 7-0236 Date: 01/10/97

Drill Contractor: Woodward

Sample Method: Split Spoon Geologist: STEVE M ZIGAN

Drill Rig: B57 Bore Hole Diameter: 8" Signature

Location: Between South ends of former dispenser islands Registration: R.G. 4333

Logged by: Scott Graham

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	USCS	GEOLOGIC DESCRIPTION
				Fill, sandy gravel
			CH	Clay, black, damp, trace of very fine-grained sand
5	30	6.0	CL	Silty clay, olive-gray, moist, some very fine-grained sand, trace of gravel to 1/4" diameter
10	47	383		transitioning to sandy clay, olive-gray, moist, orange and black mottling, fine-grained, some gravels
15	40			light brown, wet, increasing gravels
20	13	2.0		transitioning to silty clay, brown, wet
25	16	6.0		trace of silt, lens of gravels to 3/8" diameter at 25 feet
				Total depth = 25 feet
				Groundwater encountered at 14.5 feet
30				
35				
40				

WELL DESIGN

Well Diameter: 2", Slot Size: 0.010, Sand Size: 2/12, Grout: Neat cement

ATTACHMENT D

DISPOSAL DOCUMENTATION

Dillard Trucking, Inc. dba
DILLARD ENVIRONMENTAL SERVICES
P.O. Box 579
Byron, CA 94514
Tel# (510) 634-6850 Fax# (510) 634-0569

March 14, 1997

Environmental Resolutions, Inc.

Attn: Marc Briggs

Re: Exxon Station #7-0236 - 6630 E. 14th Street, Oakland, CA
Removed: 17.59 tons

Dear Mr. Briggs:

Please be advised that the stockpile from the above referenced site has been removed. The soil was transported for disposal to BFI/Vasco in Livermore, CA on February 25th, 1997.

Should you have any questions, please do not hesitate to call.

Sincerely,

Dillard Trucking, Inc. dba,
DILLARD ENVIRONMENTAL SERVICES

Regan Cortez
Assistant Customer Service Rep

cc: file

ATTACHMENT E

RESULTS OF SOIL AND STOCKPILE LABORATORY ANALYSES

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
74 Digital Drive , Suite 6
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: Exxon 7-0236, 200903X
Sample Descript: S-10-MW8
Matrix: SOLID
Analysis Method: 8015Mod/8020
Lab Number: 9701749-01

Sampled: 01/10/97
Received: 01/15/97
Extracted: 01/16/97
Analyzed: 01/16/97
Reported: 01/27/97

QC Batch Number: GC011697BTEXEXA
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	**2.0**	**22**
Methyl t-Butyl Ether	0.025	N.D.
Benzene	**0.010**	**0.26**
Toluene	**0.010**	**0.013**
Ethyl Benzene	**0.010**	**0.067**
Xylenes (Total)	**0.010**	**0.19**
Chromatogram Pattern:		
Unidentified HC		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	181 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
74 Digital Drive , Suite 6
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: Exxon 7-0236, 200903X
Sample Descript: S-10-MW8
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9701749-01

Sampled: 01/10/97
Received: 01/15/97
Extracted: 01/16/97
Analyzed: 01/21/97
Reported: 01/27/97

QC Batch Number: GC0116970HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	14
Chromatogram Pattern: Unidentified HC		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	111

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager

Sequoia Analytical
680 Chesapeake Dr.
Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Consultant's Name: Environmental Resolutions Inc			**Page** 1 **of** 1
Address: 74 Digital Dr Suite 6 Novato Ca 94949			**Site Location:** 6630 East 14th Street
Project #: 7-0236	**Consultant Project #:** 200903X		**Consultant Work Release #:** 1943250z
Project Contact: Marc Briggs	**Phone #:** 415 382 9105		**Laboratory Work Release #:**
EXXON Contact: Marla Guenster	**Phone #:** 510 246 8776		**EXXON RAS #:** 7-0236
Sampled by (print): Scott Graham	**Sampler's Signature:** Scott Graham		Oakland, Ca
Shipment Method:	**Air Bill #:**		

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☒ Standard (10 day)

ANALYSIS REQUIRED 9705174.9

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	MTBE		Temperature: _____ Inbound Seal: Yes No Outbound Seal: Yes No
S-5-MW8	1/10/97	11:50	Soil	ICE	1		Hold	Hold		Hold		
S-10-MW8	"	11:58	"	"	"	1	X	X		X		
S-15-MW8	"	12:08	"	"	"		Hold	Hold		Hold		
S-20-MW8	"	12:19	"	"	"		"	"		"		
S-25-MW8	"	12:28	"	"	"		"	"		"		

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
Scott Graham	1/15/97	11:15		1/15/97	11:15	
	1/15/97					
			ZDavis/Sequoia	1-15-97	1751	

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

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Environmental Resolutions
74 Digital Drive , Suite 6
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: Exxon 7-0236, 200903X

Lab Proj. ID: 9701727

Sampled: 01/10/97
Received: 01/15/97
Analyzed: see below

Reported: 01/27/97

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9701727-01				
Sample Desc : **SOLID,SP-1-(1-4) comp**				
Lead	**mg/Kg**	**01/16/97**	**10**	**13**

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager

Sequoia Analytical

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Environmental Resolutions
74 Digital Drive , Suite 6
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: Exxon 7-0236, 200903X
Sample Descript: SP-1-(1-4) comp
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9701727-01

Sampled: 01/10/97
Received: 01/15/97
Extracted: 01/16/97
Analyzed: 01/21/97
Reported: 01/27/97

QC Batch Number: GC0116970HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	14
Chromatogram Pattern:		
Unidentified HC		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	145

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
74 Digital Drive , Suite 6
Novato. CA 94949

Attention: Marc Briggs

Client Proj. ID: Exxon 7-0236, 200903X
Sample Descript: SP-1-(1-4) comp
Matrix: SOLID
Analysis Method: 8015Mod/8020
Lab Number: 9701727-01

Sampled: 01/10/97
Received: 01/15/97
Extracted: 01/16/97
Analyzed: 01/16/97
Reported: 01/27/97

QC Batch Number: GC011697BTEXEXA
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	2.0	13
Benzene	0.010	0.28
Toluene	0.010	0.026
Ethyl Benzene	0.010	0.069
Xylenes (Total)	0.010	0.11
Chromatogram Pattern:		
Unidentified HC		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	176 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager

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EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Consultant's Name: Environmental Resolutions Inc			**Page** 1 of 1
Address: 74 Digital Dr Suite 6 Novato Ca 94949			**Site Location:** 6630 East 14th Street
Project #: 7-0236	**Consultant Project #:** 200903X		**Consultant Work Release #:** 19432502
Project Contact: Marc Briggs	**Phone #:** 415 382 9105		**Laboratory Work Release #:**
EXXON Contact: Marla Gwensler	**Phone #:** 510 246 8776		**EXXON RAS #:** 7-0236
Sampled by (print): Scott Graham	**Sampler's Signature:** Scott Graham		Oakland, Ca
Shipment Method:	**Air Bill #:**		

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☒ Standard (10 day)

ANALYSIS REQUIRED

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample # 970127	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	~~Solvent~~ Lead		Temperature: _____ Inbound Seal: Yes No Outbound Seal: Yes No
SP-1-1	1/10/97	12:50	Soil	ICE	1	01	X	X		X		Composite
SP-1-2	"	"	"	"	"	02	"	"		"		
SP-1-3	"	"	"	"	"	03	"	"		"		
SP-1-4	"	"	"	"	"	↓	"	"		"		

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
Scott Graham	1/15/97	11:18	[illegible]	1/15/97	11:45	
[illegible]	1/15/97					
			A DeAndrea / Sequoia	1-15-97	1251	

Pink - Client
Yellow - Sequoia
White - Sequoia

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JAN 27 '97 06:04PM SEQUOIA ANALYTICAL