



LEVINE-FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

July 13, 1990

LF 1983.01

JUL 23 1990

Mr. Dale Sobek
6000 S Corporation
6000 Stevenson Blvd.
Fremont, California 94538

Subject: Report of Closure of Deep Production Wells
5S1W8A1, 5S1W8A3, and 5S1W8A4 at 6000 Stevenson
Blvd., Fremont, California

Dear Dale:

Attached are four copies of the well closure report for the
three deep industrial wells formerly located on your property.

These copies are enclosed for your files and distribution to
the Alameda County Water District, the City of Fremont, and
the Regional Water Quality Control Board.

Please call me or Carol Yamane if you have any questions.

Sincerely,

Bob Roat
Senior Staff Engineer

Enclosure

✓ JUL 17 1990



LEVINE-FRICKE

CONSULTING ENGINEERS AND HYDROGEOLOGISTS

July 13, 1990

LF 1983.01

Ms. Jill Duerig
Alameda County Water District
43885 South Grimmer Boulevard
Fremont, California 94539

Subject: Closure of Deep Production Wells 5S1W8A1, 5S1W8A3,
and 5S1W8A4 at 6000 Stevenson Boulevard, Fremont,
California

Dear Ms. Duerig:

This letter report describes the closure activities for three former agricultural/industrial wells located at 6000 Stevenson Boulevard (Figure 1). The wells were destroyed between February 19 and March 3, 1990, by DeLucchi Well & Pump, Inc.

If you have any questions or comments, please contact Mr. Dale Sobek of 6000 S Corporation, or call me or Carol Yamane at Levine-Fricke.

Sincerely,

Bob Roat
Senior Staff Engineer

cc: Ms. Linda Vrabel, City of Fremont
Mr. Richard Hiett, RWQCB

1900 Powell Street, 12th Floor
Emeryville, California 94608
(415) 652-4500

90 AUG 15 PM 10:17

7/26/90



JUL 23 1990

**Closure of Deep Production Wells
5S1W8A1, 5S1W8A4
at 6000 Stevenson Boulevard
Fremont, California**

July 13, 1990
1983.01

Prepared for:

6000 S Corporation
6000 Stevenson Boulevard
Fremont, California 94538



LEVINE·FRICKE

C O N T E N T S

	<u>PAGE</u>
LIST OF TABLES	ii
LIST OF FIGURES	ii
CERTIFICATION	iii
1.0 BACKGROUND	1
2.0 CLOSURE ACTIVITIES	2
3.0 FIELD OBSERVATIONS	3
4.0 RESULTS OF LEVINE·FRICKE SAMPLING	3
5.0 SUMMARY AND DISCUSSION OF CHEMICAL ANALYSIS RESULTS	4
6.0 SEALING OF WELLS	5

TABLES

FIGURES

APPENDICES:

- A: WELL DATA SHEETS AND WATER WELL DRILLERS' REPORTS
- B: ENSCO GROUND-WATER ANALYSIS RESULTS
- C: WATER QUALITY SAMPLING LOG SHEETS
- D: LAB CERTIFICATES, GROUND-WATER ANALYSES
- E: LAB CERTIFICATES, OIL ANALYSIS

L I S T O F T A B L E S

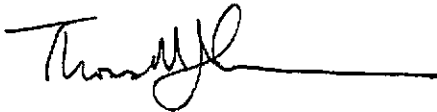
TABLE 1:	Summary of Well Histories
TABLE 2:	Ground-Water Analysis Data: Hydrocarbons, Volatile Organics, and PCBs
TABLE 3:	Ground-Water Analysis Data: Dissolved Metals Concentrations

L I S T O F F I G U R E S

FIGURE 1:	Site Map
FIGURE 2:	Site Plan

C E R T I F I C A T I O N

All hydrogeologic and geologic information, conclusions, and recommendations in this report have been prepared or reviewed by a Levine·Fricke Registered Geologist.



Thomas M. Johnson
Vice President and Principal Hydrogeologist
Registered Geologist #4286

July 13, 1990

LF 1983.01

**Closure of Deep Production Wells
5S1W8A1, 5S1W8A3, and 5S1W8A4
at 6000 Stevenson Boulevard, Fremont, California**

This report summarizes the closure activities for three former agricultural/industrial wells located at 6000 Stevenson Boulevard. The property is currently owned by 6000 S Corporation.

1.0 BACKGROUND

The three closed deep production wells (designated 5S1W8A1, 5S1W8A3 and 5S1W8A4, and referred to in this report as 8A1, 8A3, and 8A4) were installed in the early 1960s, presumably for agricultural use. Wells 8A3 and 8A4 were installed by DeLucchi Well & Pump, Inc. No construction information was available for well 8A1. Available well data sheets and Water Well Drillers' Reports are shown in Appendix A. Well construction data for the three wells are summarized in Table 1. Approximate well locations at the site are shown in Figure 2.

Wells 8A3 and 8A4 were reportedly used by the owner, Dale S. Sobek, for air conditioning and landscape watering purposes. Well 8A3 was reportedly used to supply water for the air conditioning system, while well 8A4 was used for water recharge from the system. According to the well data sheet shown in Appendix A, well 8A1 was abandoned on July 6, 1962. At the time of closure in February 1990, this well had to be unearthed from beneath concrete pavement.

Grab water samples were initially collected from wells 8A3 and 8A4 by Ensco Environmental Services in January 1989, during a Preliminary Site Investigation (Ensco Environmental Services, "Preliminary Environmental Assessment of 6000 S Corporation Site, 6000 Stevenson Boulevard," January 1990). The samples were analyzed for priority pollutant metals, volatile organic compounds (VOCs), priority pesticides, polychlorinated biphenyls (PCBs), oil and grease (O&G), total petroleum hydrocarbons as diesel (TPHD), and total petroleum hydrocarbons as gasoline (TPHG). The Ensco analysis results are presented in Appendix B. The Ensco results detected PCBs (0.019 ppm), TPH characterized as gasoline (1.8 ppm), TPH characterized as diesel (330 ppm), and O&G (740 ppm), as well

as chromium (0.06 ppm), nickel (0.09 ppm), and zinc (0.05 ppm) in well 8A3. Only O&G (0.56 ppm), lead (0.83 ppm), nickel (0.06 ppm), and zinc (110 ppm) were detected in well 8A4.

At the time of the Ensco sampling, floating product was reported in well 8A3. Since this well had a large industrial pump attached, it is likely that floating product and the chemicals detected in water samples from this well were constituents of the motor oil which leaked from the pump over the period of time during which the pump operated to provide water to the air conditioning system.

2.0 CLOSURE ACTIVITIES

Before the wells were sealed, Levine·Fricke personnel collected additional water samples to verify the presence of chemicals in the wells and to test the water quality in the newly uncovered well 5S1W8A1 (8A1), which had not been previously sampled by Ensco. This additional testing was requested by the Alameda County Water District.

Prior to the arrival of Levine·Fricke personnel on the site, employees of Mr. Sobek reportedly bailed well 8A3 to remove as much product from the well as possible. The well walls were also reportedly swabbed. The bailed oil was stored in a 55-gallon drum for further testing and proper disposal.

Levine·Fricke personnel collected grab samples from wells 8A1, 8A3, and 8A4 on December 27, 1989. Discrete samples were collected at two depths beneath the water surface in each well using a clean teflon bailer. Sampling depths are shown in Tables 2 and 3. Water Quality Sampling log sheets containing information on the sampling event are included in Appendix C. A clean bailer with a new rope was used for sampling each depth at each well. The bailers were cleaned before sampling with high pressure hot water and Alconox, an industrial grade detergent.

Samples were placed in laboratory-supplied containers and were transported to BC Analytical in Emeryville, California, for chemical analysis under strict chain-of-custody protocol. Additional samples were also collected for Mr. Sobek. These samples were transported to Carter Analytical Laboratory of Campbell, California, for metals analysis.

Samples transported to BC Analytical were analyzed for TPH characterized as diesel and TPH characterized as gasoline (using modified EPA Method 8015), PCBs (using EPA Method 8080), and purgeable priority pollutants (using EPA Method 8240). Samples transported to Carter Analytical were analyzed for lead, chromium, zinc, nickel and arsenic using Atomic adsorption spectroscopy. One sample from well 8A4 was analyzed at each lab. Two samples each were analyzed from wells 8A1 and 8A3 (upper and lower depths).

3.0 FIELD OBSERVATIONS

Samples collected from well 8A3 by Levine-Fricke personnel showed a slight oily sheen, although no significant free product layer was found. No sheen was observed in either well 8A1 or well 8A4.

The depth to water in well 8A1 on December 27, 1989, was 39.08 feet below the top of the casing. The measured well depth was approximately 270.6 feet. The depth to water in well 8A3 was 42.24 feet. The bottom of the well was not measured, but the construction log shows that depth to be 586 feet. The depth to water in well 8A4 was 24.25 feet, and the measured well depth was 71 feet.

4.0 RESULTS OF LEVINE-FRICKE SAMPLING

Results of the analyses are summarized in Tables 2 and 3. Laboratory certificates and chain-of-custody forms are shown in Appendix D. Only trichlorofluoromethane (0.006 ppm), chromium (0.01 ppm), iron (0.02 ppm), and nickel (0.04 ppm) were detected in the sample collected from well 8A1.

Concentrations of TPH characterized as diesel (1.6 ppm/1.2 ppm), TPH characterized as gasoline (0.055 ppm/0.097 ppm), xylenes (0.003 ppm/0.004 ppm), and PCBs (0.0014 ppm/0.0039 ppm), as well as chromium (0.02 ppm/0.01 ppm), iron (0.10 ppm/0.18 ppm), nickel (0.01 ppm/0.04 ppm), and zinc (0.01 ppm/0.02 ppm) were reported in the upper and lower samples, respectively, collected from well 8A3.

TPH characterized as diesel (0.059 ppm), chromium (0.05 ppm), iron (0.12 ppm), nickel (0.01 ppm), and zinc (0.01 ppm) were reported in the sample collected from well 8A4.

At the suggestion of Ms. Jill Duerig of the Alameda County Water District, a sample was collected and analyzed from the oil which had been bailed from the top of well 8A3. The sample, collected by Mr. Sobek, was analyzed for PCBs by BC Analytical. The results (Appendix E) showed the presence of Arochlor 1254 (360 mg/kg), the same PCB detected in the water samples.

5.0 SUMMARY AND DISCUSSION OF CHEMICAL ANALYSIS RESULTS

The data collected by Ensco and Levine·Fricke show that samples collected from wells 8A1, 8A3, and 8A4 contained metal concentrations within current EPA drinking water maximum contaminant level standards. In addition, samples collected from well 8A1 were reported to contain only trace amounts of trichlorofluoromethane and toluene. Samples collected from well 8A4 contained only trace amounts of TPH characterized as diesel.

Samples collected from well 8A3 were reported to contain TPH characterized as diesel, TPH characterized as gasoline, and trace amounts of xylenes. This characterization includes light-end oils similar to those bailed as product from well 8A3. These data suggest that the free product, which likely originated from the well pump, was the source of chemicals in the well.

Samples collected from well 8A3 also contained detectable quantities of Arochlor 1254, a PCB. The data collected by Ensco and Levine·Fricke suggest that the PCBs reported in samples collected from well 8A3 resulted from oil leaks from the pump. Two pieces of data support this theory. First, the PCB concentration was reduced by an order of magnitude between the original Ensco sampling event and the Levine·Fricke sampling event. This reduction may be attributed to the bailing and swabbing of most of the product from the well. Second, the presence of the same PCB (Arochlor 1254) in the floating product as was reported in the well water sample suggests that the floating product was the source of the PCBs.

6.0 SEALING OF WELLS

The three wells were sealed during the week of February 18, 1990, by DeLucchi Well & Pump, Inc., of Fremont, California. The wells were destroyed under the supervision of the Alameda County Water District (ACWD) under permit numbers 90-044 (well 8A1), 90-045 (well 8A3), and 90-046 (well 8A4). According to John DeLucchi, President of DeLucchi Well & Pump, Inc., the wells were destroyed according to the conditions of each permit. Copies of the permits are on file with the ACWD. The water produced during the destruction of each well was discharged to the sanitary sewer under temporary permit #90-003 issued by the Union Sanitary District.

Table 1
Summary of Well Histories

	5S1W8A1	5S1W8A3	5S1W8A4
Date Installed	pre 7/6/62	6-5-60	4-15-60
Reported Use	Agricultural (1)	Industrial (pumping well) (2)	Industrial (recharge from 8A3) (3)
Reported Depth (ft)	Unknown	586	272 *
Diameter (inches)	16	16(0-316 ft) 12(0-451 ft) 10(446-586 ft)	10
Measured Depth (12/27/90) (ft)	270.6	NM	71 (muddy bottom)
Screened Interval (depth in feet)	Unknown	451-475 556-568	227-240, 255-265
Depth to water (12/27/89) (feet)	39.08	42.24	24.25

(1) The former agricultural well (8A4) had been completely paved over, its location and existence unknown to the current owner of the property (Mr. Dale Sobek). Records at the ACWD (Appendix A) indicate that the well may have been abandoned as early as 1962.

(2) Well 8A3 was used as a pumping well for an industrial air conditioning unit. It had a large surface-mounted pump attached before the closure activities commenced.

(3) Well 8A4 was used as a recharge well for water from the air conditioning unit. Water was reportedly pumped from 8A3, through the air conditioning unit, and back into 8A4.

* = Drilled to 600 feet, collapsed during grouting, logged to 272 feet at time of grouting

NM = Not Measured.

Table 2
 6000 Stevenson Boulevard, Fremont, California
 Groundwater Analysis Data
 Hydrocarbons, Volatile Organics, and PCBs

ANALYSIS	5S1W8A 1 TOP	5S1W8A1 BOTTOM	5S1W8A3 TOP	5S1W8A3 BOTTOM	5S1W8A 4 TOP
DATE SAMPLED	27-Dec 1989	27-Dec 1989	27-Dec 1989	27-Dec 1989	27-Dec 1989
DEPTH UNDER WATER SURFACE (feet)	13.25	41.83	20.51	58.56	13.25
TPHD (ppm)	ND	ND	- 1.6	1.2	0.059
TPHG (ppm)	ND	ND	0.055	0.097	ND
BENZENE (ppm)	ND	ND	ND	ND	ND
ETHYL-BENZENES (ppm)	ND	ND	ND	ND	ND
XYLENES (ppm)	ND	ND	0.003	0.004	ND
TOTAL O&G (ppm)	ND	ND	ND	ND	ND
EPA 8240 (ppm)	0.008*	0.006**	ND	ND	ND
PCBS (ppm)	ND	ND	0.0014#	0.0039#	ND

TPHG = Low to Medium Boiling Point Hydrocarbons (gasoline)
 TPHD = High Boiling Point Hydrocarbons (diesel)
 ppm = parts per million
 EPA 8240 = Purgeable Priority Pollutants
 PCBs = Polychlorinated Biphenyls
 ND = Not Detected (refer to laboratory reports for
 detection limits
 * = Reported as 0.006 ppm trichlorofluoromethane +
 0.002 ppm toluene
 ** = Reported as 0.006 ppm trichlorofluoromethane
 # = Reported as Arochlor 1254

Table 3
 6000 Stevenson Boulevard, Fremont, California
 Groundwater Analysis Data
 Dissolved Metals Concentrations

ANALYSIS	5S1W8A1 TOP	5S1W8A3 TOP	5S1W8A3 BOTTOM	5S1W8A4 TOP
DATE SAMPLED	27-Dec 1989	27-Dec 1989	27-Dec 1989	27-Dec 1989
DEPTH UNDER WATER SURFACE (feet)	13.25	20.51	58.56	13.25
ARSENIC (ppm)	0.50	0.50	0.50	0.80
ARSENIC RETEST (ppm) *	ND	ND	ND	ND
CADMIUM (ppm)	ND	ND	ND	ND
CHROMIUM (ppm)	0.01	0.02	0.01	0.05
LEAD (ppm)	ND	ND	ND	ND
IRON (ppm)	0.02	0.10	0.18	0.12
NICKEL (ppm)	0.04	0.01	0.04	0.01
ZINC (ppm)	ND	0.01	0.02	0.01

ppm = parts per million

ND = Not Detected (refer to laboratory reports for detection limits)

* = Metals were analyzed using atomic adsorption spectroscopy. Anomalous arsenic readings were obtained. At the suggestion of the Carter Analytical Laboratory, the samples were retested for arsenic using carbon furnace AA spectroscopy to remove any confounding humic compounds from the test.

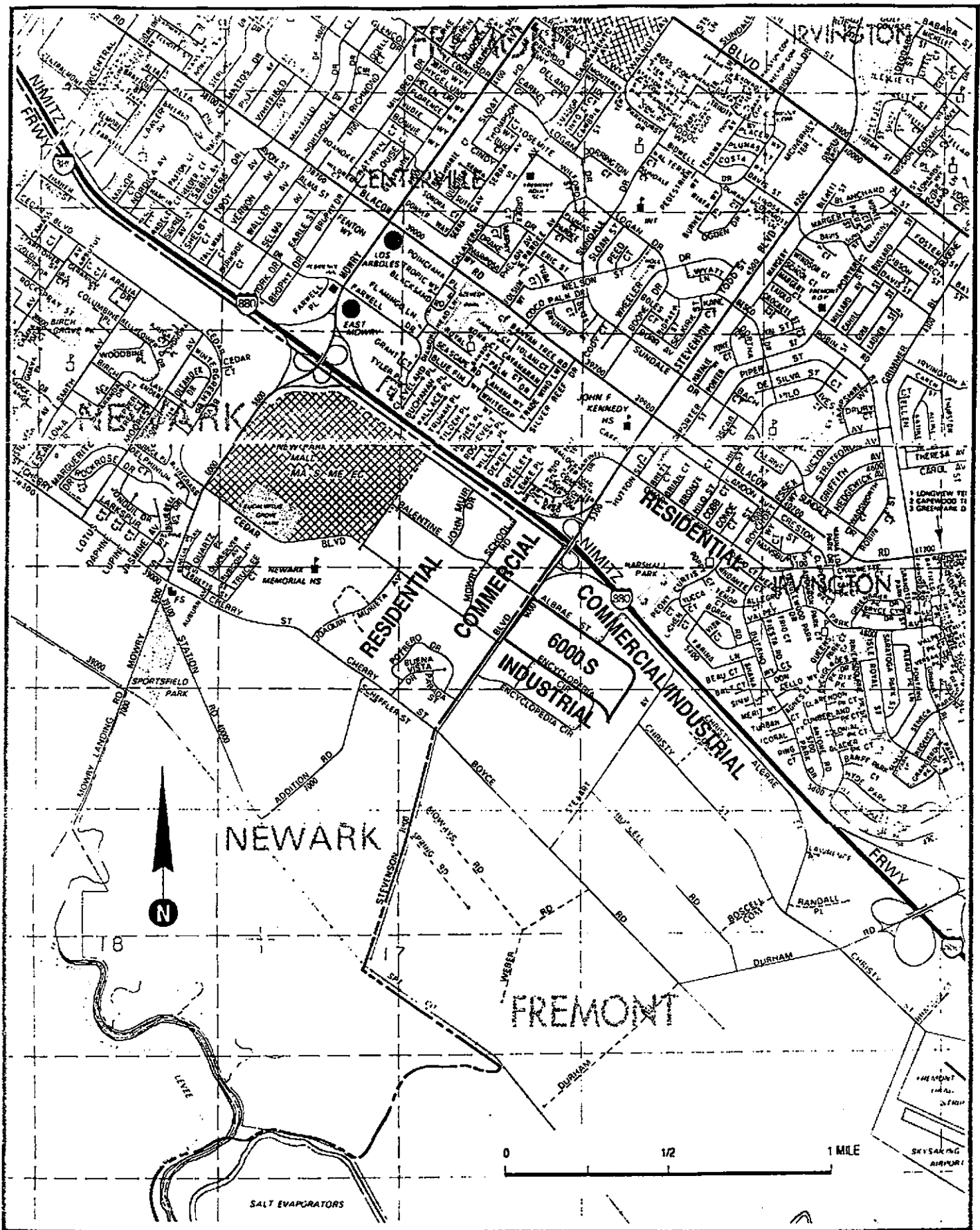


Figure 1 : SITE MAP

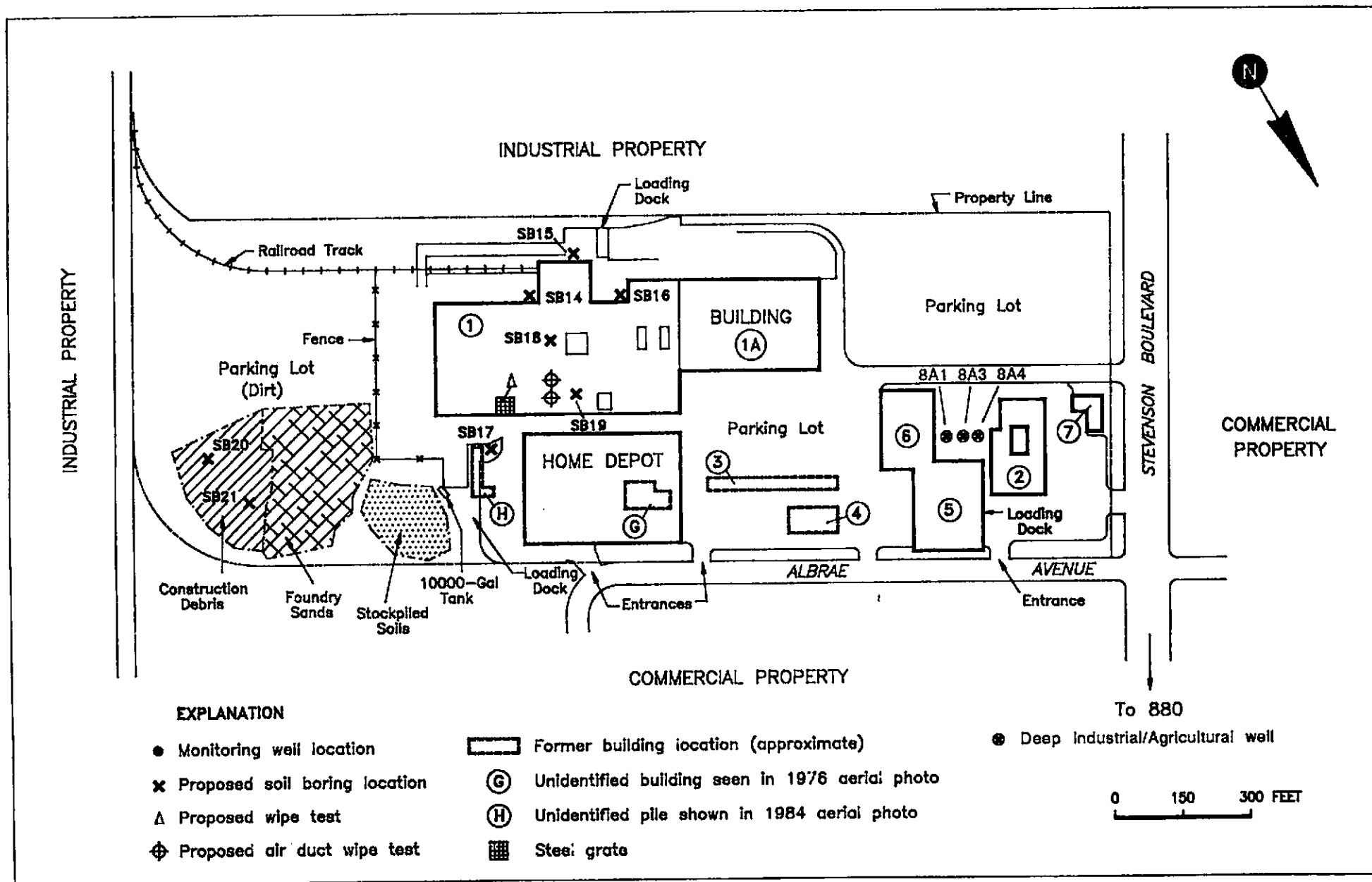


Figure 2 : SITE PLAN - 6000 STEVENSON BLVD., FREMONT, CALIFORNIA

APPENDIX A

WELL DATA SHEETS AND WATER WELL DRILLERS' REPORTS

WELL DATA SHEET

MICROFILMED

Well No. 55/101-8A1

Prepared by WJH

Date 6 Oct. 1967

Owner Brinter, W.B.

Other Designation _____

Location 3 mi SW from ... 55 mi. N. of ...

Use:

- Irrigation of _____ acres
- Domestic for _____
- Stock _____
- Commercial for _____
- Industrial for _____

- Municipal
- Not presently Used
- Abandoned
- Sealed

Well Data:

Driller _____ Date _____

Depth _____ Diameter 16"

Perforations _____

Control Casing: Depth _____ Diameter _____ Grouted _____

(Above) (Below) Hayward Fault Ref. Elev. _____

Aquifers _____

Sealing Data:

Well Sealed: Driller _____ Date _____

Specifications by _____

Inspection by _____

- Reason for Sealing: Subdivision Problem Well
- Other

Pump Data:

Pump Mfr. Well Volume 1.390 Motor Mfr. _____

Horsepower _____ Pump Serial No. _____

Electric Meter No. _____

Capacity _____ gpm @ _____ ft. TDH

Drawdown _____ ft. at _____ GPM

CONFIDENTIAL

**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

CONFIDENTIAL

**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

This well drilled into lower ^{MICROFILMED} Aquifer & collapsed during grouting, log only gives depth at 272'. Actual depth of well is 600?
 WELL DATA SHEET

Well No. 55/1W-8A4

Prepared by MSH

Date 11-8-63

Owner Trailmobile

Other Designation _____

Location R'W. of well 55/1W-8A3

Use:

- Irrigation of _____ acres
- Domestic for _____
- Stock _____
- Commercial for _____
- Industrial for _____

- Municipal
- Not presently Used
- Abandoned
- Sealed

Drain Well

Well Data:

Driller Delucchi Date 5-24-60

Depth 272 Diameter 10"

Perforations 227-240, 255-265

Control Casing: Depth _____ Diameter _____ Grouted _____

(Above) (Below) Hayward Fault Ref. Elev. _____

Aquifers Cent - Fremont

Sealing Data:

Well Sealed: Driller _____ Date _____

Specifications by _____

Inspection by _____

- Reason for Sealing: Subdivision Problem Well Other

Pump Data:

Pump Mfr. _____ Motor Mfr. _____

Horsepower _____ Pump Serial No. _____

Electric Meter No. _____

Capacity _____ gpm @ _____ ft. TDH

Drawdown _____ ft. at _____ GPM

CONFIDENTIAL

**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

DeLucchi Well & Pump, Inc.

(415) 793-2822

JOHN M. DELUCCHI
CERTIFIED MASTER
WELL CONTRACTOR

35137 MISSION BLVD.
FREMONT, CA 94536-1588

STATE CONTRACTORS LICENSE NO. 384454

FEB 14 1989

KTOP

STANDARDS

X625'/FT.

SL
M

5 INV.

SEE
SHEET

OFFICE PARKING

123' BLACKTOP

8% P
ST
0.025% SLOPE

WALKWAY AREA

SPRINKLERS (11)

STAND. WALK

FLOY LINE AT
BLDG. 26.5'
E OF CURB

BUILDING #1

4' GATES

6'-0" CONC. WALK

9' CONC. WALK

ABANDONED
WELL
OPERATING WELL

27'-0"

24'

RETURN WELL

COMPRESSOR
PAD SEE SECT.

5
212

SEE ADDENDUM #4

CONNECTION FOR
LAWN SPRINKLERS

TELEPHONE &
ELECTRIC MANHOLES

FACE OF
BACKGROUND
TELEPHONE



APPENDIX B

ENSCO GROUND-WATER ANALYSIS REPORTS

Wallace, Roberts and Todd
 Sobek Property, Fremont, California
 Project # 1706G

TABLE 4
GROUNDWATER ANALYSES DATA
Hydrocarbons, volatile organics, PCBs and MOCA

SAMPLE NO.	DATE SAMPLED	TPHD (ppm)	TPHG (ppm)	BENZENE (ppb)	TOLUENE (ppb)	ETHYL BENZENE (ppb)	XYLENES (ppb)	TOTAL OIL & GREASE (ppm)	624 (ppb)	PCBs (ppb)	MOCA (ppb)
Recovery Well #08A01	2/24/89	ND	ND	ND	ND	ND	ND	0.56	ND	ND	NA
Occupational Well #08A03	2/27/89	330	1.8	ND	ND	ND	ND	740	ND	19*	NA
SB-2	3/21/89	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA
SB-7	3/21/89	ND	ND	ND	ND	ND	ND	ND	9.3**	ND	NA
MW-1	3/29/89	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TPHG = Low to Medium Boiling Point Hydrocarbons (gasoline)
 TPHD = High Boiling Point Hydrocarbons (diesel)
 ppm = parts per million
 ppb = parts per billion
 624 = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MOCA = 4,4' Methylene-bis-2-chloroaniline
 ND = Not Detected
 NA = Not Analyzed
 Note: For detection limits, refer to laboratory reports

Current Department of Health Services
 Action Levels in Drinking Water
 Benzene 0.7 ppb
 Toluene 100 ppb
 Ethyl Benzene 680 ppb
 Xylenes 620 ppb
 Note: Subject to change as reviewed by Department of Health Services

* Reported as Araclor 1254
 ** 1,1,1-Trichloroethane

Wallace, Roberts and Todd
 Sobek Property, Fremont, California
 Project # 1706G

TABLE 5
 GROUNDWATER ANALYSES DATA
 Priority pollutant metals

SAMPLE NO.	DATE SAMPLED	Antimony (ppm)	Arsenic (ppm)	Beryllium (ppm)	Cadmium (ppm)	Chromium (ppm)	Copper (ppm)	Lead (ppm)	Mercury (ppm)	Nickel (ppm)	Selenium (ppm)	Zinc (ppm)
Recovery Well #08A01 (Well 1)	2/24/89	ND	ND	ND	ND	ND	ND	0.83	ND	0.06	ND	110
Occupational Well #08A03 (Well 3)	2/27/89	ND	ND	ND	ND	0.06	ND	ND	ND	0.09	ND	0.05

ppm = parts per million

ND = Not Detected

Note: For detection limits, refer to laboratory reports

EnSCO 1/90

APPENDIX C
WATER QUALITY SAMPLING LOG SHEETS

File

10-30-89
LEVINE • FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name Sobek / 6000s Project No. 1983
 Date 12/27/90 Sample No. _____
 Samplers Name Roat
 Sampling Location 6000 Stevenson, Fremont
 Sampling Method Boiler (Teflon)
 Analyses Requested 8110, 8015_{sp}, 8015_{hchl}, 8080 PCB
 Number and Types of Sample Bottles used Vol, 1.6 Amber
 Method of Shipment _____

See
Well 1

GROUND WATER **SURFACE WATER**

Well No. 3 (newly installed) (SS/W-8A) Stream Width _____
 Well Diameter (in.) 10" 16" Stream Depth _____
 Depth to Water, 34.08' Stream Velocity _____
 Static (ft) 270.6 (measured) Rained recently? _____
 Water in Well Box _____ Other _____
 Well Depth (ft) 270.6 (measured)
 Height of Water 231.52'
 Column in Well _____
 Water Volume in Well 2418 gal ~~2827 gal~~ ?
 2-inch casing = 0.16 gal/ft
 4-inch casing = 0.65 gal/ft
 5-inch casing = 1.02 gal/ft
 6-inch casing = 1.47 gal/ft

LOCATION MAP

1983 - 7.481 gal

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
1500	62.58		17.3	7.9	612			3T
	97.0							3B

Suggested Method for Purging Well _____

File

10-30-89
LEVINE • FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name Sobek / 6000s Project No. 1983

Date 12/27/90 Sample No. _____

Samplers Name Roat

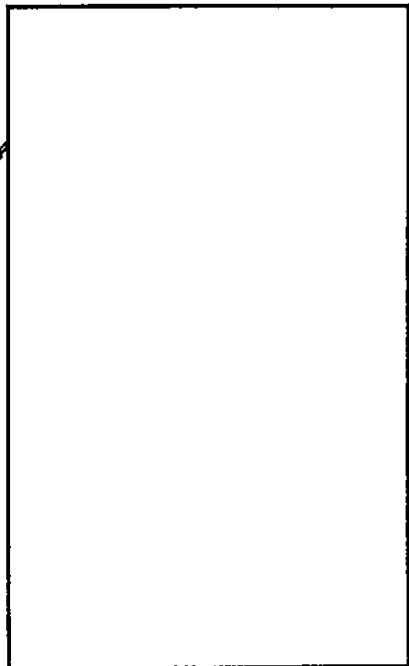
Sampling Location 6000 Stevenson

Sampling Method Teflon Bailor (Product Bailor First)

Analyses Requested 8010, 8015 (gas), 8015 diesel, 8080 PCB

Number and Types of Sample Bottles used VOA + 16 paper

Method of Shipment _____



LOCATION MAP

GROUND WATER **SURFACE WATER**

Well No. 2 (In-linier well) Stream Width _____

Well Diameter (in.) 16" Stream Depth _____

Depth to Water Static (ft) 42.24 Stream Velocity _____

Water in Well Box _____ Rained recently? _____

Well Depth (ft) 586 (reported) Other _____

Height of Water Column in Well 542.65 2-inch casing = 0.16 gal/ft

Water Volume in Well 2942 gal 4-inch casing = 0.65 gal/ft

(1.2" casing, 0.44 gal/ft; 10" casing, 446-586) 5-inch casing = 1.02 gal/ft
6-inch casing = 1.47 gal/ft

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
1330	62.75		18	8.39	791			oil/sleer on bailer
								sample 2T
	100.8							sample 2B

Suggested Method for Purging Well _____

Drilled ~ 6/5/60 to 586', screened at 451-475
556-568

File

10-30-87
LEVINE • FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name Sobek / 6000S Project No. 1983

Date 12/27/89 Sample No. _____

Samplers Name Root

Sampling Location 6000 Stevenson, Fremont

Sampling Method Teflon Bailer

Analyses Requested 8010, 8015 (gas), 8015 Diesel, 8080 PCB

Number and Types of Sample Bottles used _____

Method of Shipment _____

GROUND WATER

SURFACE WATER

Well No. 2 (injection well) (55/W-8A4) Stream Width _____

Well Diameter (in.) 10" Stream Depth _____

Depth to Water Static (ft) 24.25' Stream Velocity _____

Water in Well Box — Rained recently? _____

Well Depth (ft) 71+ft (muddy)* Other _____

Height of Water Column in Well > 46.75

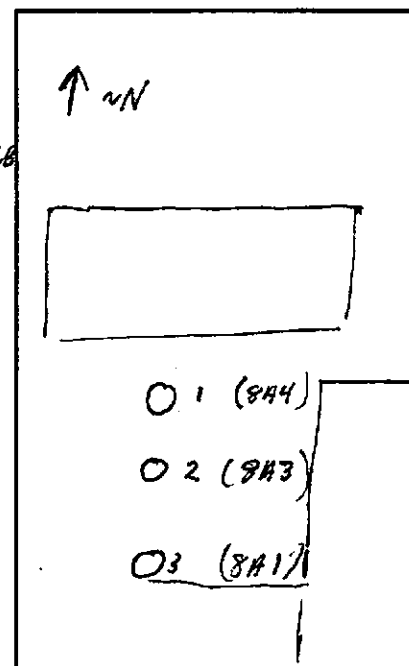
Water Volume in Well 190.8 gal

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft



LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
1100	37.4		16	8.49	394			sample 1T3
	66.1							sample 1B

Suggested Method for Purging Well _____

* Drilled ~4/15/60 to 600+ft, logged at that time to 272'

APPENDIX D

LAB CERTIFICATES, GROUND-WATER ANALYSES

RER

Analytical Report

LOG NO: E89-12-585

Received: 27 DEC 89

Reported: 16 JAN 90

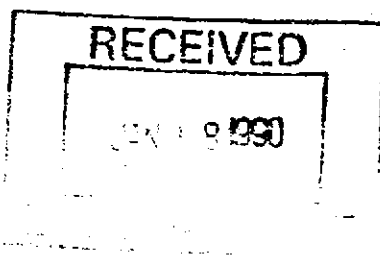
Dr. Akali Igbene
Levine - Fricke
1900 Powell Street 12th Floor
Emeryville, California 94608

Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED				
12-585-1	IT	27 DEC 89				
12-585-2	2T	27 DEC 89				
12-585-3	2B	27 DEC 89				
12-585-4	3T	27 DEC 89				
12-585-5	3B	27 DEC 89				
PARAMETER	12-585-1	12-585-2	12-585-3	12-585-4	12-585-5	
Polychlorinated Biphenyls						
Date Analyzed	01.15.90	01.16.90	01.15.90	01.15.90	01.16.90	
Date Extracted	01.02.90	01.02.90	01.02.90	01.02.90	01.02.90	
Aroclor 1016, ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	
Aroclor 1221, ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	
Aroclor 1232, ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	
Aroclor 1242, ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	
Aroclor 1248, ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	
Aroclor 1254, ug/L	<0.3	1.4	3.9	<0.3	<0.3	
Aroclor 1260, ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	
Aroclor 1262, ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	
Total PCB's, ug/L	---	1.4	3.9	---	---	
TPH - Volatile Hydrocarbons						
Date Analyzed	12.28.89	12.28.89	12.28.89	12.28.89	12.28.89	
Dilution Factor, Times	1	1	1	1	1	
C4 to C12 Hydrocarbons, ug/L	<50	55	97	<50	<50	
Other TPH - Volatile Hydrocarbons	---	---	---	---	---	



Analytical Report

LOG NO: E89-12-585

Received: 27 DEC 89

Reported: 16 JAN 90

Dr. Akali Igbene
 Levine - Fricke
 1900 Powell Street 12th Floor
 Emeryville, California 94608

Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES					DATE SAMPLED
12-585-1	IT					27 DEC 89
12-585-2	2T					27 DEC 89
12-585-3	2B					27 DEC 89
12-585-4	3T					27 DEC 89
12-585-5	3B					27 DEC 89
PARAMETER	12-585-1	12-585-2	12-585-3	12-585-4	12-585-5	
TPH - Semivolatile Hydrocarbons						
Date Analyzed	01.09.90	01.09.90	01.09.90	01.09.90	01.09.90	
Dilution Factor, Times	1	1	1	1	1	
C12 to C25 Hydrocarbons, ug/L	59	1600	1200	<50	<50	
C12-C25 Fuel characterization, .	DIESEL	DIESEL	DIESEL	---	---	
Other TPH - Semivolatile Hydrocarbons	---	---	---	---	---	

This Fuel characterization is a qualitative identification based upon a visual comparison of sample chromatograms with those from authentic standards.

Analytical Report

LOG NO: E89-12-585

Received: 27 DEC 89

Reported: 16 JAN 90

Dr. Akali Igbene
 Levine - Fricke
 1900 Powell Street 12th Floor
 Emeryville, California 94608

Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED				
12-585-1	IT	27 DEC 89				
12-585-2	2T	27 DEC 89				
12-585-3	2B	27 DEC 89				
12-585-4	3T	27 DEC 89				
12-585-5	3B	27 DEC 89				
PARAMETER	12-585-1	12-585-2	12-585-3	12-585-4	12-585-5	
Purgeable Priority Pollutants						
Date Extracted	01.04.90	01.04.90	01.04.90	01.04.90	01.04.90	
1,1,1-Trichloroethane, ug/L	<1	<1	<1	<1	<1	
1,1,2,2-Tetrachloroethane, ug/L	<1	<1	<1	<1	<1	
1,1,2-Trichloroethane, ug/L	<1	<1	<1	<1	<1	
1,1-Dichloroethane, ug/L	<1	<1	<1	<1	<1	
1,1-Dichloroethene, ug/L	<1	<1	<1	<1	<1	
1,2-Dichloroethane, ug/L	<1	<1	<1	<1	<1	
1,2-Dichloroethene (Total), ug/L	<1	<1	<1	<1	<1	
1,2-Dichloropropane, ug/L	<1	<1	<1	<1	<1	
1,3-Dichloropropene, ug/L	<1	<1	<1	<1	<1	
2-Chloroethylvinylether, ug/L	<1	<1	<1	<1	<1	
2-Hexanone, ug/L	<1	<1	<1	<1	<1	
Acetone, ug/L	<10	<10	<10	<10	<10	
Acrolein, ug/L	<10	<10	<10	<10	<10	
Acrylonitrile, ug/L	<10	<10	<10	<10	<10	
Bromodichloromethane, ug/L	<1	<1	<1	<1	<1	
Bromomethane, ug/L	<1	<1	<1	<1	<1	
Benzene, ug/L	<1	<1	<1	<1	<1	
Bromoform, ug/L	<1	<1	<1	<1	<1	
Chlorobenzene, ug/L	<1	<1	<1	<1	<1	
Carbon Tetrachloride, ug/L	<1	<1	<1	<1	<1	
Chloroethane, ug/L	<1	<1	<1	<1	<1	

Analytical Report

LOG NO: E89-12-585

Received: 27 DEC 89
Reported: 16 JAN 90

Dr. Akali Igbene
Levine - Fricke
1900 Powell Street 12th Floor
Emeryville, California 94608

Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 4

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED				
12-585-1	IT	27 DEC 89				
12-585-2	2T	27 DEC 89				
12-585-3	2B	27 DEC 89				
12-585-4	3T	27 DEC 89				
12-585-5	3B	27 DEC 89				
PARAMETER	12-585-1	12-585-2	12-585-3	12-585-4	12-585-5	
Chloroform, ug/L	<1	<1	<1	<1	<1	
Chloromethane, ug/L	<1	<1	<1	<1	<1	
Carbon Disulfide, ug/L	<1	<1	<1	<1	<1	
Dibromochloromethane, ug/L	<1	<1	<1	<1	<1	
Ethylbenzene, ug/L	<1	1	2	<1	<1	
Freon 113, ug/L	<1	<1	<1	<1	<1	
Methyl ethyl ketone, ug/L	<20	<20	<20	<20	<20	
Methyl isobutyl ketone, ug/L	<1	<1	<1	<1	<1	
Methylene chloride, ug/L	<1	<1	<1	<1	<1	
Styrene, ug/L	<1	<1	<1	<1	<1	
Trichloroethene, ug/L	<1	<1	<1	<1	<1	
Trichlorofluoromethane, ug/L	<1	<1	<1	6	6	
Toluene, ug/L	<1	<1	<1	2	<1	
Tetrachloroethene, ug/L	<1	<1	<1	<1	<1	
Vinyl acetate, ug/L	<1	<1	<1	<1	<1	
Vinyl chloride, ug/L	<1	<1	<1	<1	<1	
Total Xylene Isomers, ug/L	<1	3	4	<1	<1	
trans-1,3-Dichloropropene, ug/L	<1	<1	<1	<1	<1	

Analytical Report

LOG NO: E89-12-585

Received: 27 DEC 89

Reported: 16 JAN 90

Dr. Akali Igbene
Levine - Fricke
1900 Powell Street 12th Floor
Emeryville, California 94608

Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 5

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED			
12-585-7	1B	27 DEC 89			
12-585-8	2T Duplicate	27 DEC 89			
12-585-9	1T Duplicate	27 DEC 89			
12-585-10	1B Duplicate	27 DEC 89			
12-585-11	2B Duplicate	27 DEC 89			
PARAMETER	12-585-7	12-585-8	12-585-9	12-585-10	12-585-11
Sample Held, Not Analyzed	HELD	HELD	HELD	HELD	HELD

Analytical Report

LOG NO: E89-12-585

Received: 27 DEC 89

Reported: 16 JAN 90

Dr. Akali Igbene
Levine - Fricke
1900 Powell Street 12th Floor
Emeryville, California 94608

Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 6

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED		
12-585-12	3B Duplicate			27 DEC 89
12-585-13	3T Duplicate			27 DEC 89
12-585-14	2B-Field Blank			27 DEC 89
PARAMETER		12-585-12	12-585-13	12-585-14
Sample Held, Not Analyzed		HELD	HELD	HELD

Analytical Report

LOG NO: E89-12-585

Received: 27 DEC 89

Reported: 16 JAN 90

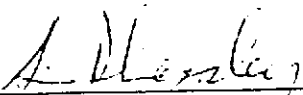
Dr. Akali Igbene
Levine - Fricke
1900 Powell Street 12th Floor
Emeryville, California 94608

Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 7

LOG NO	SAMPLE DESCRIPTION, BLANK WATER SAMPLES	DATE SAMPLED
12-585-6	Trip Blank	27 DEC 89
PARAMETER	12-585-6	
Sample Held, Not Analyzed	HELD	



Sim D. Lessley, Ph.D., Laboratory Director

RER

Analytical Report

LOG NO: E90-01-077

Received: 27 DEC 89

Reported: 17 JAN 90

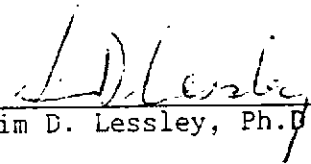
Dr. Akali Igbene
Levine - Fricke
1900 Powell Street 12th Floor
Emeryville, California 94608

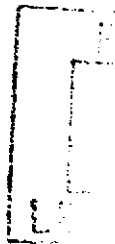
Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED		
01-077-1	2T (Relog of 8912585-8)	27 DEC 89		
01-077-2	1T (Relog of 8912585-9)	27 DEC 89		
01-077-3	3T (Relog of 8912585-13)	27 DEC 89		
PARAMETER		01-077-1	01-077-2	01-077-3
Oil and Grease, gravimetric, mg/L		<5	<5	<5


Sim D. Lessley, Ph.D., Laboratory Director



LOG NO: E90-01-077

Received: 27 DEC 89

Reported: 17 JAN 90

Dr. Akali Igbene
Levine - Fricke
1900 Powell Street 12th Floor
Emeryville, California 94608

Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED		
01-077-1	2T (Relog of 8912585-8)			27 DEC 89
01-077-2	1T (Relog of 8912585-9)			27 DEC 89
01-077-3	3T (Relog of 8912585-13)			27 DEC 89
PARAMETER		01-077-1	01-077-2	01-077-3
Oil and Grease, gravimetric, mg/L		<5	<5	<5

Sim D. Lessley, Ph.D., Laboratory Director

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: <u>1183</u>				Field Logbook No.:				Date: <u>12/27/89</u>		Serial No.: No. <u>5715</u>	
Project Name: <u>5050k/60000</u>				Project Location: <u>Fremont</u>							
Sampler (Signature): <u>[Signature]</u>				ANALYSES				Samplers: <u>[Signature]</u>			
SAMPLES								HOLD RUSH			
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	EPA 601	EPA 624	8015			REMARKS
<u>1T</u>	<u>12/27</u>	<u>1700</u>	<u>1</u>	<u>1</u>	<u>IL</u>			<input checked="" type="checkbox"/>			<u>Diesel - waste oil</u>
<u>1T</u>	"	"	<u>1 Dup</u>	<u>1</u>	<u>IL</u>			<input checked="" type="checkbox"/>			<u>Hold</u>
<u>1B</u>	"	<u>1200</u>	<u>1</u>	<u>1</u>	<u>IL</u>			<input checked="" type="checkbox"/>			<u>Diesel - waste oil HOLD</u>
<u>2T</u>	"	<u>1230</u>	<u>1</u>	<u>1</u>	<u>IL</u>			<input checked="" type="checkbox"/>			<u>Diesel - waste oil</u>
<u>2T</u>	"	<u>1230</u>	<u>1 Dup</u>	<u>1</u>	<u>IL</u>			<input checked="" type="checkbox"/>			<u>Hold</u>
<u>2B</u>	"	<u>1700</u>	<u>1</u>	<u>1</u>	<u>IL</u>						<u>Diesel - waste oil</u>
<u>2B</u>	"	<u>↓</u>	<u>1 Dup</u>	<u>1</u>	<u>IL</u>						<u>Hold</u>
<u>3T</u>	"	<u>1745</u>	<u>1</u>	<u>1</u>	<u>IL</u>						<u>Diesel - waste oil</u>
<u>3T</u>	"	<u>↓</u>	<u>1 Dup</u>	<u>1</u>	<u>IL</u>						<u>HOLD</u>
<u>3B</u>	"	<u>1530</u>	<u>1</u>	<u>1</u>	<u>IL</u>						<u>Diesel - waste oil</u>
<u>3B</u>	"	<u>↓</u>	<u>1 Dup</u>	<u>1</u>	<u>IL</u>						<u>HOLD</u>
<u>TRIP BLANK</u>				<u>2</u>	<u>IL</u>						<u>HOLD</u>

RELINQUISHED BY: (Signature) <u>[Signature]</u>	DATE <u>12/27/89</u>	TIME <u>18:30</u>	RECEIVED BY: (Signature) <u>[Signature]</u>	DATE <u>12/27/89</u>	TIME <u>18:30</u>
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		
Sample Collector: <u>LEVINE-FRICKE</u> 1900 Powell Street, 12th Floor Emeryville, Ca 94608 (415) 652-4500	Analytical Laboratory: <u>B+C</u>		<u>206 # 8912 5.55</u>		

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1983	Field Logbook No.:	Date: 12/27/99	Serial No.: No 5718
Project Name: SOBEK/COVUS	Project Location: Fremont		

Sampler (Signature): <i>[Signature]</i>	ANALYSES	Samplers: <i>[Signature]</i>
---	----------	------------------------------

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	ANALYSES					HOLD	RUSH	REMARKS
						EPA 601	EPA 624	8080					
1T	12/27	1100	1	1	IL								8080 - PCB only
1T		1120	1 DUP	1	IL								HOLD
1B		1200	1	1	IL								8080 PCB only HOLD
2T		1300	1	1									8080 PCB only
2T Dup			1 Dup	1									HOLD
2T			1 Dup	1									HOLD
2B		1400	Field Print	1									HOLD
2B			1	1									8080 - PCB only ✓
2B			1 Dup	1									HOLD
3T		1445	1	1									8080 PCB ONLY ✓
3T			1 Dup	1									HOLD
3B		1530	1	1									8080 PCB ONLY HOLD
3B			1 Dup	1									HOLD
FIELD BLANK				2									HOLD

RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE	TIME	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, Ca 94608 (415) 652-4500	Analytical Laboratory: <i>[Signature]</i> 200 # 8912555
---	---

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1983 Field Logbook No.: _____ Date: 12/21/85 Serial No.: No 5717
 Project Name: Schub/COOOS Project Location: Fremont

Sampler (Signature): _____ ANALYSES: _____
 Samplers: Rosa

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	ANALYSES				HOLD	RUSH	REMARKS
						EPA 601	EPA 624	8220				
<u>1T</u>	<u>12/21</u>	<u>1100</u>	<u>1, 2</u>	<u>2</u>	<u>VOT</u>							
<u>1B</u>		<u>1200</u>	<u>1, 2</u>	<u>2</u>								<u>HOLD</u>
<u>2T</u>		<u>1330</u>	<u>1, 2</u>									
<u>2B</u>		<u>1400</u>	<u>1, 2</u>									
<u>3T</u>		<u>1445</u>	<u>1, 2</u>									
<u>3T</u>		<u>1445</u>	<u>1, 2 VVP</u>									<u>HOLD</u>
<u>3B</u>	<u>✓</u>	<u>1330</u>	<u>1, 2</u>									<u>HOLD</u> <u>analyze</u>
<u>2B</u>	<u>✓</u>	<u>1100</u>	<u>Field Blank</u>									<u>HOLD</u> <u>(See 2015)</u>
<u>A8912165</u>			<u>Field Blank</u>									<u>HOLD</u>
			<u>Field Blank</u>									

-1
-7
2-23
-3-23
4-23
-13
-5
11-29
-2-29
-6

RELINQUISHED BY: (Signature) <u>Rosa</u>	DATE <u>12/21/85</u>	TIME <u>19:30</u>	RECEIVED BY: (Signature) <u>[Signature]</u>	DATE <u>12/21/85</u>	TIME <u>19:30</u>
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
 1900 Powell Street, 12th Floor
 Emeryville, Ca 94608
 (415) 652-4500

Analytical Laboratory: B+C
200 # 8912585

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1983 Field Logbook No.: _____ Date: 12/27/89 Serial No.: No 5718
 Project Name: SOBER / GOODS Project Location: FLEMONT

Sampler (Signature): [Signature] ANALYSES
 Hold RUSH Samplers: [Signature]

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	ANALYSES						REMARKS	
						EPA 601	EPA 624	3015					HOLD
1T	12/27	1100	1, 2	2	VUG								- gasoline ✓
1T		1120	1, 2 Dup										HOLD
1B		1200	1, 2										HOLD
2T		1300	1, 2										- gasoline ✓
2B		1400	1, 2										HOLD gasoline ✓
3T		1445	1, 2										gasoline ✓
3T		1445	1, 2 Dup										HOLD
3B		1530	1, 2										HOLD gasoline ✓
1B		1700	1, 2 Dup										HOLD
A891226			Trip Blkd										HOLD

RELINQUISHED BY: (Signature) <u>[Signature]</u>	DATE <u>12/27</u>	TIME <u>1530</u>	RECEIVED BY: (Signature) <u>[Signature]</u>	DATE <u>12/27/89</u>	TIME <u>1530</u>
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
 1900 Powell Street, 12th Floor
 Emeryville, Ca 94608
 (415) 652-4500

Analytical Laboratory:
B + C 200 # 29125815

CARTER ANALYTICAL LABORATORY, INC.

95 LOST LAKE LANE • CAMPBELL, CA 95008 • (408) 866-1600

REPORT FOR Mr. Dale W. Sobek P.O.# 480184
6000 S Corporation ORDER NO B927-CD DATE 01-24-90
SUBJECT Analysis of Water for Arsenic

Four water samples were analyzed for arsenic using carbon furnace Atomic Absorption (AA) spectroscopy. The samples were identified as follows.

<u>Sample</u>	<u>Customer Label</u>	<u>Description</u>
L1	#1	water
L2	#2 upper	water
L3	#2 lower	water
L4	#3	water

AA Analysis

The samples were analyzed using the AA with a carbon furnace. The ash and atomization temperatures were set for arsenic. One drop of 1% nickel nitrate solution was added to all samples, standards and blanks in order to reduce interferences. The spectrophotometer was calibrated with proven standards. The results, in parts per billion (ppb), are as follows.

<u>Sample</u>	<u>Arsenic (ppb)</u>
L1	< 40
L2	< 40
L3	< 40
L4	< 40

The detection limit for arsenic was 40 parts per billion.

REPORT APPROVED BY

M. Carter
M. Carter

TITLE

President

This report completes this order. Should there be a demonstrated cause to dispute the results stated in this report, or the charges for services rendered, submit your detailed complaint in writing to this lab within 10 days. Upon acceptance of this report, its contents and related charges, the invoice is due and payable within 30 days from the invoice date.

CARTER ANALYTICAL LABORATORY, INC.

Part of this report is to be reproduced for any purpose without our written consent

ARTER ANALYTICAL LABORATORY, INC.

Page 2 of 2
Order 8927Conclusion

Arsenic was not detected in any sample.

Samples submitted for analyses must be collected within a two week period following the completion of the analyses. Any samples remaining after the designated period of time will be discarded.

Should you have any questions please call. We look forward to serving you again in the near future.

JAN 16 1990

CARTER ANALYTICAL LABORATORY, INC.

95 LOST LAKE LANE • CAMPBELL, CA 95008 • (408) 866-1600

REPORT FOR Mr. Dale W. Sobek ORDER NO. 8871-CD DATE 01-12-90
Levine and Fricke
 SUBJECT Analysis of Water Samples


Four well water samples were analyzed by atomic absorption (AA) spectroscopy for toxic metals. The samples were identified as follows.

Sample	Description
L1	#1, well water
L2	#2 upper, well water
L3	#2 lower, 50 ft. well water
L4	#3, well water

AA Analysis

Each sample was made acidic (pH=2 or lower) with nitric acid. One drop of 1% cesium chloride was added to the samples, the blank and the standards in order to reduce interferences. The samples were analyzed using a AA spectrophotometer. The proper operational conditions were established for each element and the AA spectrophotometer was calibrated with proven standards. The results are as follows.

Element	Det. Lim.	L1 (ppm)	L2 (ppm)	L3 (ppm)	L4 (ppm)	Key. Stds:
lead	<.01	< 0.01	< 0.01	< 0.01	< 0.01	0.05
chromium	<.01	0.05	0.02	0.01	0.01	0.05
zinc	2.01	0.01	0.01	0.02	< 0.01	5.0
nickel	<.01	0.01	0.01	0.04	0.03	
arsenic	<.05	0.80	0.50	0.50	0.50	0.005

REPORT APPROVED BY  TITLE Vice President Operations

This report completes this order. Should there be a demonstrated cause to dispute the results stated in this report, or the charges for services rendered, submit your detailed complaint in writing to this lab within 10 days. Upon acceptance of this report, its contents and related charges, the invoice is due and payable within 30 days from the invoice date.

CARTER ANALYTICAL LABORATORY, INC.

No part of this report is to be reproduced for any purpose without our written consent

ANALYTICAL LABORATORY, INC.

Page 2 of 2
Order 8871

Element	L1 (ppm)	L2 (ppm)	L3 (ppm)	L4 (ppm)	
cadmium	< 0.01	< 0.01	< 0.01	< 0.01	.005
iron	< .01	0.12	0.1	0.18	0.02 .300

Less than figures denote detection limits.

Conclusion

The analysis shows the samples to contain low levels of some of the tested metals.

Samples submitted for analyses must be collected within a two week period following the completion of the analyses. Any samples remaining after the designated period of time will be discarded.

Should you have any questions please call. We look forward to serving you again in the near future.

c/o 60005 Corp.

CHAIN OF CUSTODY RECORD

(Cd, Fe)

SO # 8871		Company Name: Levine + Frick				Samples By:				LOCATION AAPB, G. En. Ni: An. Cd, Fe	REMARKS
Received By: -Maulin- [Signature]		Date: 1/4/90		Time:							
Sample #	Container Type	OUT/IN 1/10 9:20	IN 1/10 9:30	OUT	IN	OUT	IN				
L1 #1 well 1		Chemist H	Chemist H	Chemist	Chemist	Chemist	Chemist	L A B	✓		
L2 #2 well 2 top		DateTime 1/10 9:00	DateTime 1/10 9:30	DateTime	DateTime	DateTime	DateTime	L A B	✓		
L3 #3 well 2 bottom		Chemist	Chemist	Chemist	Chemist	Chemist	Chemist	L A B	✓		
L4 #4 well 3		DateTime	DateTime	DateTime	DateTime	DateTime	DateTime	L A B	✓		
		Chemist	Chemist	Chemist	Chemist	Chemist	Chemist				
		DateTime	DateTime	DateTime	DateTime	DateTime	DateTime				
Comments:								Disposition: Sample to be disposed of.			
Relinquished By:				Date		Time		Received By:			

Carter Analytical Laboratory, Inc
 95 Lost Lake Lane
 Campbell, California 95008
 (408) 866-1600

TEL NO. 415 852 0000
 CORPORATION

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

TEL NO. 415-557-8010
 900 S CORPORATION
 Jan 17, 90 11:12 No. 002 P. 05

Project No.: 1783	Field Logbook No.:	Date: 12/29/89	Serial No.: 6604
Project Name: 1.4/6000	Project Location: Emerald		
Sampler (Signature): _____			

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	ANALYSES				HOLD	RUSH	REMARKS
						EPA 601	EPA 624	EPA 210				
1	12/29	1800	1	1	L							
2		12:00		1	L							Wall 1
3		1100		1	L							Wall 2
4		1445	4	1	L							Wall 3
* All 1. to Le S. Hall 1 the lab with 1.1.1.1.1.1. pulled out with 2.												

RELINQUISHED BY: (Signature) _____	DATE: 12/29/89	TIME: 14:45	RECEIVED BY: (Signature) _____	DATE: 12/29/89	TIME: 11:10
RELINQUISHED BY: (Signature) _____	DATE: 12/29/89	TIME: 10:10	RECEIVED BY: (Signature) _____	DATE: 12/29/89	TIME: 10:35
RELINQUISHED BY: (Signature) _____	DATE: _____	TIME: _____	RECEIVED BY: (Signature) _____	DATE: _____	TIME: _____
METHOD OF SHIPMENT: _____	DATE: _____	TIME: _____	LAB COMMENTS: _____	Analytical Laboratory: _____	
Sample Collector: ARR: Eric Peay LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, Ca 94608 (415) 652-4500					

APPENDIX E

LAB CERTIFICATES, OIL ANALYSIS

Analytical Report

LOG NO: E90-04-293

Received: 12 APR 90

Reported: 26 APR 90

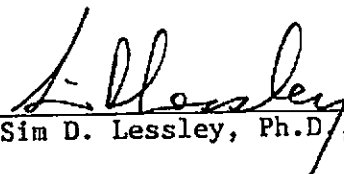
Dr. Akali Igbene
Levine - Fricke
1900 Powell Street 12th Floor
Emeryville, California 94608

Project: 1983

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, PETROLEUM SAMPLES	DATE SAMPLED
04-293-1	Well-Oil	27 MAR 90
PARAMETER	04-293-1	
Polychlorinated Biphenyls		
Date Analyzed	04.23.90	
Date Extracted	04.18.90	
Aroclor 1016, mg/kg	<60	
Aroclor 1221, mg/kg	<60	
Aroclor 1232, mg/kg	<60	
Aroclor 1242, mg/kg	<60	
Aroclor 1248, mg/kg	<60	
Aroclor 1254, mg/kg	360	
Aroclor 1260, mg/kg	<60	
Aroclor 1262, mg/kg	<60	
Total PCB's, mg/kg	360	


Sim D. Lessley, Ph.D., Laboratory Director

MAY - 7 1990

BC ANALYTICAL

BATCH QC REPORT
 ORDER E9004293

DATE REPORTED : 04/27/90

Page 1

METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)

PARAMETER	DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT
Polychlorinated Biphenyls					
Date Analyzed	04.21.90	17	4.21.90	NA	Date
Date Extracted	04.21.90	17	4.18.90	NA	Date
Aroclor 1016	04.21.90	17	0	0.01	mg/kg
Aroclor 1221	04.21.90	17	0	0.01	mg/kg
Aroclor 1232	04.21.90	17	0	0.01	mg/kg
Aroclor 1242	04.21.90	17	0	0.01	mg/kg
Aroclor 1248	04.21.90	17	0	0.01	mg/kg
Aroclor 1254	04.21.90	17	0	0.01	mg/kg
Aroclor 1260	04.21.90	17	0	0.01	mg/kg
Aroclor 1262	04.21.90	17	0	0.01	mg/kg
Total PCB's	04.21.90	17	0	0.3	mg/kg

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9004293

Project No.: 1983 Field Logbook No.: _____ Date: 4/2/90 Serial No.: No 6756
 Project Name: Sobek / 60005 Project Location: Frenont

Sampler (Signature): Bob Post ANALYSES
 Samplers: Sobek

SAMPLES					ANALYSES				HOLD		RUSH		REMARKS
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	ETA-601	ETA-604	80804					
well-oil	3/27/90	-	1	1	oil/water			X					Test oil phase only
													RUSH
													* PCB, only
													5 day? due 4/19/90

RELINQUISHED BY: (Signature) <u>Bob Post</u>	DATE <u>4/1/90</u>	TIME <u>6:30</u>	RECEIVED BY: (Signature) <u>Rathin O'Brien</u>	DATE <u>4/12/90</u>	TIME <u>1:30</u>
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
 1900 Powell Street, 12th Floor
 Emeryville, Ca 94608
 (415) 652-4500

Analytical Laboratory: