Western Operations

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Clayton
ENVIRONMENTAL
CONSULTANTS

October 31, 1990

Ms. Cynthia Chapman
Hazardous Materials Specialist
ALAMEDA COUNTY HEALTH AGENCY
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California

Clayton Project No. 29196.00

Dear Ms. Chapman:

I have enclosed a copy of the **Update on Subsurface Investigative Work Completed at the Former Texaco Station at Park Street and Shore Line Drive** as you have requested.

You will also find copies of Woodward & Clyde reports that were sent to Clayton for your review.

If you have any questions, please contact me at (415) 426-2676.

Sincerely,

Alan D. Gibbs R.G.
Supervisor, Geology Group

ADG/rjs
Enclosures

PLTF/DEFT Exhibit 15 (A"attach 1)
WIT DENNIS BYRNE
DATE 11/22/91 ERG
ELYSE R. GARDNER, CSR

Clayton
ENVIRONMENTAL
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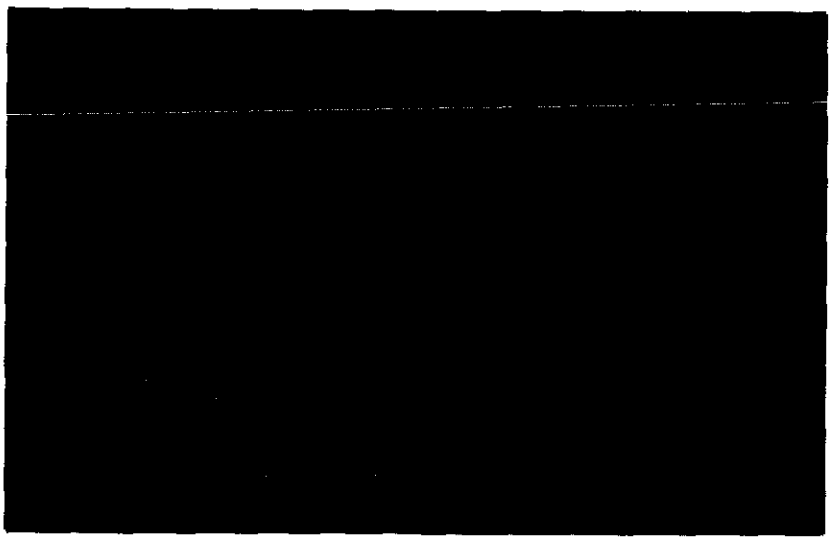

(EXH. 154)

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
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Clayton
ENVIRONMENTAL
CONSULTANTS

Update on Subsurface Investigative Work Completed at the Former Texaco Station at Park Street and Shore Line Drive Alameda, California

Clayton Project No: 29196.00

October 15, 1990

Executive Summary

Clayton Environmental Consultants, Inc, was retained by Harsch Investment Corporation to conduct a subsurface soil and groundwater investigation at the former Texaco Station site located at the north corner of Park Street and Shore Line Drive in Alameda, California.

Tasks completed to date include:

- Installation, development, and sampling of six shallow monitoring wells onsite
- Trenching of shallow soils to determine extent of soil affected by petroleum constituents
- Collection and analysis of samples from onsite aerating soils excavated from the dry cleaning site

Completion of this work revealed that:

- Groundwater onsite occurs from 5 to 7 feet below the ground surface (bgs) and flows in a southerly direction. Groundwater elevations onsite do not appear to be affected by tidal fluctuations.
- The concentration of hydrocarbon oil and grease in the soil sample from borehole MW-5 was 160 parts per million (ppm). This exceeds the Regional Water Quality Control Board's (RWQCB) "Recommendations for the Evaluation and Investigation of Underground Storage Tanks" level of 100 ppm.
- Concentrations of benzene, toluene, and ethylbenzene in groundwater samples from MW-5 exceed the State of California Department of Health Services (CA DHS) action levels for water quality goals for human health and welfare.
- Trenching onsite revealed soils with petroleum hydrocarbons at 1 to 2 feet bgs. We estimate that approximately 500-700 cubic yards will need to be excavated and aerated onsite (Figure 4).

- Based on the information gathered from the monitoring well installation and trenching conducted onsite, it appears that the underground storage tanks, the gasoline dispensers along Park Street, and the fuel lines formerly located on the Texaco site (Figure 4) were the source of total petroleum hydrocarbons as gasoline and diesel, as well as the volatile hydrocarbons, benzene, toluene, ethylbenzene, and xylene, into the soils and groundwater on the Texaco site.

- A concentration of 20 parts per billion (ppb) of tetrachloroethene (PCE) was detected in groundwater from MW-1. A concentration of 0.7 ppb of PCE was detected in groundwater from MW-9. The CA DHS action level for PCE is 4 ppb.

- Concentrations of PCE in the aerating soils from the dry cleaning site are well below the 20 ppm action level established by the Alameda County Health Agency (ACHA) and the RWQCB for this site.

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1.0 INTRODUCTION

Clayton Environmental Consultants, Inc, was retained by Harsch Investment Corporation to conduct a subsurface soil and groundwater investigation at the former Texaco Station site located at the north corner of Park Street and Shore Line Drive in Alameda, California (Figure 1). This report provides an update of activities at the subject site.

Tasks completed to date include:

- Installation, development, and sampling of six shallow monitoring wells onsite
- Trenching of shallow soils to determine the extent of soil affected by petroleum constituents
- Collection and analysis of samples from onsite aerating soils excavated from the dry cleaning site

2.0 BACKGROUND

In 1989, Harsch contracted Woodward-Clyde Consultants to conduct a Phase I environmental assessment of a square block of property which Harsch owns and plans to redevelop (Figures 1 & 2). This property had previously been leased to the following five tenants:

- Pet hospital
- Dry cleaner/laundromat
- Chevron carwash/service station
- Goodyear
- Texaco station

All of the above structures have been leveled, except for the carwash/service station, which will soon be demolished.

In a subsequent Phase II site investigation, Woodward-Clyde found that soils and shallow groundwater at the former Texaco station had been impacted by petroleum hydrocarbons (Woodward-Clyde Project No. 8910116A, 7/18/89). They also found shallow soils (less than 5 feet bgs) under the former Goodyear building were impacted by oil and grease ranging from 30 to 340 ppm. Groundwater and soil at the former dry cleaning site were found to be impacted by benzene, tetrachloroethene (PCE), dichloroethene (DCE), and trichloroethene (TCE).

The USTs at the Texaco site were located near the southern corner of the property at Shore Line Drive and Park Street. There were two dispenser islands, one bordering Shore Line Drive and the other bordering Park Street, as indicated on the enclosed site plan. USTs at the site included:

- one 6,000-gallon gasoline UST
- Two 4,000-gallon gasoline USTs
- One 550-gallon waste oil UST

3.0 BOREHOLE INSTALLATION/MONITORING WELL CONSTRUCTION

To better define the vertical and horizontal extent of soil/groundwater contamination at the former Texaco site, five shallow monitoring wells were installed on June 11 and 12, 1990. Before drilling began, a well construction application was filed with the Alameda County Flood Control and Water Conservation District (Appendix A). Aqua Science Engineers was contracted to install the monitoring wells under the direct supervision of Clayton personnel. All work was performed in accordance with Clayton's "Drilling, Well Construction, and Sampling Protocols", included in Appendix B.

Monitoring wells MW-1, MW-2, and MW-3 are located on the north and northeast sides of the subject site. These monitoring wells were installed to evaluate potential migration of hydraulically upgradient, known subsurface contamination from the Chevron and Goodyear sites, as shown in Figure 2.

Monitoring well MW-4 was placed downgradient of the former dry cleaning site. Monitoring well MW-5 was placed downgradient of Texaco's former underground storage tanks.

On August 24, 1990, an additional monitoring well, MW-9, was installed at the northeast boundary, between monitoring wells MW-1 and MW-2, to further evaluate potential migration of hydraulically upgradient subsurface contamination. Another well construction application was filed with the Alameda County Flood Control and Water Conservation District and is included in Appendix A. Aqua Science Engineers was again contracted to install the well under the supervision of Clayton personnel.

Monitoring wells MW-6, MW-7, and MW-8, are numbers that Clayton has designated for wells installed by Woodward-Clyde for the recent survey by Tronoff & Associates. These wells were formerly Woodward-Clyde wells MW-1, MW-2, and MW-3, respectively. Monitoring well MW-6, on the Texaco site, was destroyed during recent construction activities.

3.1 WELL DEVELOPMENT AND WATER SAMPLING

Clayton surged and pumped the newly installed monitoring wells, MW-1 through MW-5, with a 4-inch submersible pump on June 18, 1990. This was done to stabilize the filter material and remove turbid water caused by drilling operations. We sampled groundwater from these five monitoring wells on June 22, 1990.

Clayton surged and pumped the sixth monitoring well, MW-9, on August 28, 1990. We sampled MW-9 on August 31, 1990.

Groundwater from monitoring wells MW-3, MW-4, and MW-5, were sampled for hydrocarbon oil and grease (EPA Method 418.1) on October 2, 1990.

All work was conducted in accordance with the sampling protocols in Appendix B. The field sampling data sheets from both sampling events are included as Appendix C. Appendix E contains the complete analytical results.

3.2 HYDROGEOLOGY

Soils at the site generally consist of medium-grained sand overlying sandy clays, interpreted as bay mud. During drilling we generally encountered the bay mud at 14 feet below the ground surface (bgs). Boring logs are presented in Appendix D.

Depth to groundwater ranges from 5 to 7 feet bgs. Well elevations for MW-1 through MW-8 were surveyed to datum sea level by Tronoff & Associates, a licensed land surveyor. The survey for monitoring well MW-9 is currently in progress and the map will be included as an addendum to this report.

From the well elevation data, presented in Table 2, groundwater flow direction was calculated to be S5°E, or almost directly south. The groundwater gradient on the site ranges from 0.1 to 0.6 feet of elevation drop per 100 feet distance.

We measured the depths to groundwater throughout a tidal cycle, and did not note any fluctuations in the elevations of water in the wells, as a result of tidal influence.

3.3 LABORATORY ANALYSES FROM MONITORING WELL INSTALLATION

3.3.1 Purpose and Scope

Six soil samples (one sample per borehole) and 6 water samples (one sample per monitoring well) were collected and brought to Clayton's laboratory for analysis.

Soil and water samples from MW-1 and MW-2 were analyzed by the following methods to evaluate the possibility of subsurface migration of contaminants from the former Goodyear building and Chevron carwash:

- EPA Method 8015/3510, for gasoline (soil)
- EPA Method 8015/8020, for volatile hydrocarbons and gasoline (water)
- EPA Method 8015/3550, for diesel fuel (soil)
- EPA Method 8015/3510, for diesel fuel (water)
- EPA Method 418.1, for waste oil (hydrocarbon oil and grease) (soil and water)
- EPA Method 8240, for purgeable organics (soil and water)
- ICAP for metals lead, cadmium, chromium, and zinc (soil and water)

Soil and water samples from MW-3 and MW-4 were analyzed by the following methods to identify any subsurface migration of contaminants from the Chevron carwash and the dry cleaning site, as well as aerating stockpiled soils:

- EPA Method 8015/3510, for gasoline (soil)
- EPA Method 8015/8020, for volatile hydrocarbons and gasoline (water)
- EPA Method 8015/3550, for diesel fuel (soil)
- EPA Method 8015/3510, for diesel fuel (water)
- EPA Method 418.1, for waste oil (hydrocarbon oil and grease) (water only)
- EPA Method 8010, for purgeable halocarbons (soil)
- EPA Method 601, for purgeable halocarbons (water)
- ICAP for metals lead, cadmium, chromium, and zinc (soil and water)

Soil and water samples from MW-5 were analyzed by the following methods to address any subsurface migration of constituents from the former Texaco fuel tanks:

- EPA Method 8015/3510, for gasoline (soil)
- EPA Method 8015/8020, for volatile hydrocarbons and gasoline (water)
- EPA Method 8015/3550, for diesel fuel (soil)
- EPA Method 8015/3510, for diesel fuel (water)
- EPA Method 418.1, for waste oil (hydrocarbon oil and grease) (soil samples only)
- ICAP for metals lead, cadmium, chromium, and zinc

Soil and water samples from MW-9 were analyzed by the following methods to identify any subsurface migration of contaminants from the Chevron carwash and the former Goodyear building:

- EPA Method 8015 (modified), for gasoline and diesel (soil)
- EPA Method 8015/5030, for gasoline (water)
- EPA Method 8015/3510, for diesel (water)
- EPA Method 418.1, for waste oil (hydrocarbon oil and grease) (soil and water)
- EPA Method 8010 for purgeable halocarbons (soil and water)
- EPA Method 8020 for purgeable aromatics (water)
- ICAP for metals lead, cadmium, chromium, and zinc (soil and water)

3.3.2 Soil Sample Analytical Results

Analytical results of soil samples are summarized in Table 3. The soil sample from the borehole for MW-1 had a concentration of 20 parts per million (ppm) of oil and grease. The soil sample from the borehole for MW-2 had 30 ppm of oil and grease, and borehole MW-5 had 160 ppm oil and grease.

We compared soil sample results for hydrocarbon oil and grease to concentrations in the RWQCB's "Recommendations for the Evaluation and Investigation of USTs."

This document states that when concentrations of oil and grease exceed 100 ppm, the RWQCB requires a soil/groundwater investigation. The concentrations of oil and grease found in the soil sample from the borehole for MW-5 puts the site into the RWQCB's Case 1 category, requiring a soil/groundwater investigation. This requirement is satisfied by the current study.

The RWQCB developed the 100 ppm level to help prioritize cases, not as a cleanup level. The level of cleanup is determined by assessing the potential for soil contamination to impact groundwater. The Alameda County Health Agency (ACHA) will also have to review the case and assist in determining cleanup levels.

3.3.3 Groundwater Sample Analytical Results

In Table 4 we summarize groundwater analytical results and compare our findings to the State of California Department of Health Services (CA DHS) action levels. Table 4 reports only detected compounds. All other compounds analyzed were below detection limits (Appendix E).

The concentrations of aromatic hydrocarbons in groundwater samples from MW-5 consisted of the following: 2,100 parts per billion (ppb) benzene, 100 ppb toluene, 820 ppb ethylbenzene, and 390 ppb xylenes. As Table 4 indicates, all of these levels, except xylenes, exceed the CA DHS action levels.

The groundwater sample from MW-5 also had a gasoline concentration of 7,700 ppb and a diesel concentration of 910 ppb.

A tetrachloroethene (PCE) concentration of 20 ppb was detected in groundwater from MW-1. A PCE concentration of 0.7 was detected in groundwater from MW-9. The CA DHS action level for PCE is 4 ppb, which the detected level in MW-1 exceeds.

4.0 TRENCHING OPERATION

Because the soil samples collected during borehole installation did not indicate a significant amount of soil contamination above the water table, and the USTs must have been sitting within the water table, we thought that most of the contamination was in the groundwater and not the soils. We modified our original work plan, which called for excavation of contaminated soils, to include a preliminary trenching operation to determine whether there was soil contamination.

The trenching was conducted on July 25, 1990. Fuel Oil Polishing was contracted to complete the trenches under direct supervision of Clayton personnel. Soil from the trenches was screened for petroleum hydrocarbons using a photoionization detector.

The locations of the trenches are shown on Figure 4. In the immediate vicinity of the former USTs, there did not appear to be contaminated soils above the water table. However, soils at approximately 1 to 2 feet bgs were contaminated in the vicinity of the former fuel dispensers along Park Street (trench T-5), and in the middle of the lot, upgradient of the former USTs in trenches T-4 and T-6 (Figure 4).

We collected four soil samples from the trenches. To determine the extent of contamination, we analyzed two of the samples that appeared clean, and that did not register on the PID meter, for gasoline, diesel, and hydrocarbon oil and grease. These were samples T4C from northeast of the USTs, and T7 from the location of the former dispenser island on Shore Line Drive (Figure 4). These samples were both below detectable limits for diesel and gasoline. Sample T4C had a concentration of 50 ppm oil and grease, and sample T7 had a concentration of 10 ppm oil and grease (Appendix E).

Two of the samples, T4A and T4B from trench 4, were obviously contaminated with petroleum hydrocarbons, and we did not analyze them. A summary of results of the trench samples are presented in Table 5.

From the work performed at the site, we estimate that approximately 500 to 700 cubic yards of soil will need to be excavated and aerated onsite.

5.0 SAMPLING OF AERATING SOILS FROM DRY CLEANING SITE

Approximately 150 cubic yards of soil that was excavated from the former dry cleaning site has been aerating on the former Texaco site from November 1989 to the present. On July 25, 1990, five discrete soil samples were collected from these soils and analyzed for purgeable halocarbons by EPA Method 8010. Purgeable halocarbons were not detected in two of the samples; analysis of the other three samples showed PCE at concentrations of 1.7, 3.7, and 21 ppb. The locations and concentrations of these samples are shown on Figure 4.

Ms. Cynthia Chapman, the ACHA caseworker for this site, and Mr. Tom Gandesbury of the RWQCB, have set a cleanup level for PCE of 20 ppm in soils. The concentrations of PCE in the aerating soils from the dry cleaning site are well below this cleanup level and Ms. Chapman has authorized that the soil can be considered clean.

6.0 CONCLUSIONS

The tasks completed to date revealed:

- Groundwater onsite occurs from 5 to 7 feet bgs and flows in a southerly direction. Groundwater elevations onsite do not appear to be affected by tidal fluctuations.
- The concentration of hydrocarbon oil and grease in the soil sample from borehole MW-5 was 160 ppm. This exceeds the RWQCB's "Recommendations for the Evaluation and Investigation of USTs" level of 100 ppm.
- Concentrations of benzene, toluene, and ethylbenzene in groundwater samples from MW-5 exceed the CA DHS action levels for water quality goals for human health and welfare.
- Trenching onsite revealed soils with petroleum hydrocarbons at 1 to 2 feet bgs. We estimate that approximately 500-700 cubic yards will need to be excavated and aerated onsite.
- Based on the information gathered from the monitoring well installation and trenching conducted onsite, it appears that the underground storage tanks, the gasoline dispensers along Park Street, and the fuel lines formerly located on the Texaco site (Figure 4) were the source of total petroleum hydrocarbons as gasoline and diesel, as well as the volatile hydrocarbons, benzene, toluene, ethylbenzene, and xylene, into the soils and groundwater on the Texaco site.
- The concentration of 20 ppb PCE in groundwater from MW-1 exceeds the CA DHS action level of 4 ppb.
- The source of PCE in the groundwater cannot be defined until the horizontal and vertical extent of contamination are better defined.
- Concentrations of PCE in the aerating soils from the dry cleaning site are well below the 20 ppm action level established by ACHA and RWQCB for this site.

7.0 RECOMMENDATIONS

Based on the above conclusions, Clayton makes the following recommendations:

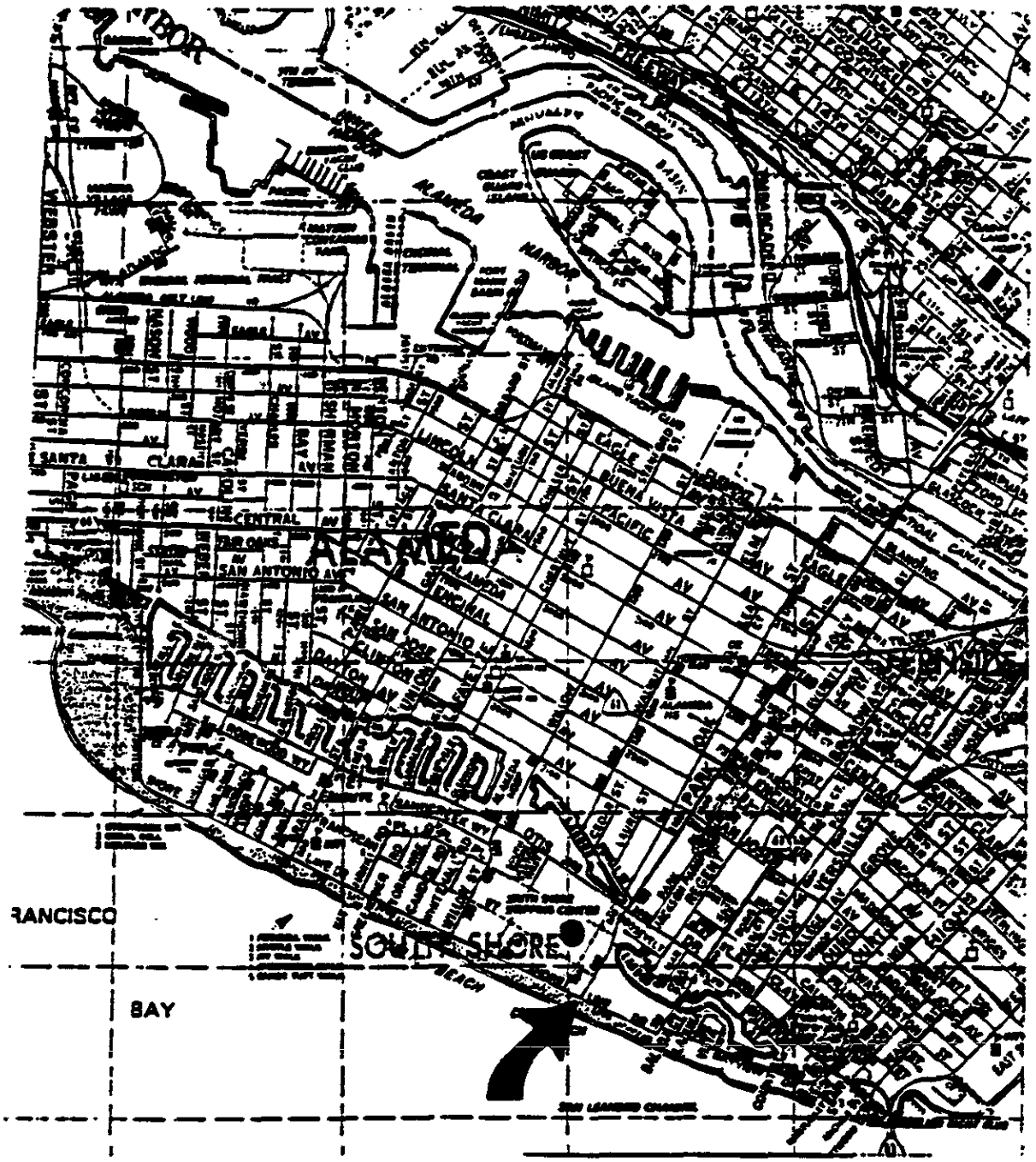
- The soils from the former dry cleaning site that have been aerating on the subject site have sufficiently low levels of PCE that the county has authorized that the soil can be considered clean and left onsite.
- The soils contaminated with petroleum hydrocarbons onsite should be excavated and aerated onsite.
- A groundwater treatment system should be designed and installed to treat groundwater contaminated with petroleum hydrocarbons and PCE.

This report prepared by: _____
Laurene Compton
Geologist

This report reviewed by: _____
Alan D. Gibbs, R.G.
Supervisor, Geology
Western Operations

October 15, 1990

FIGURES



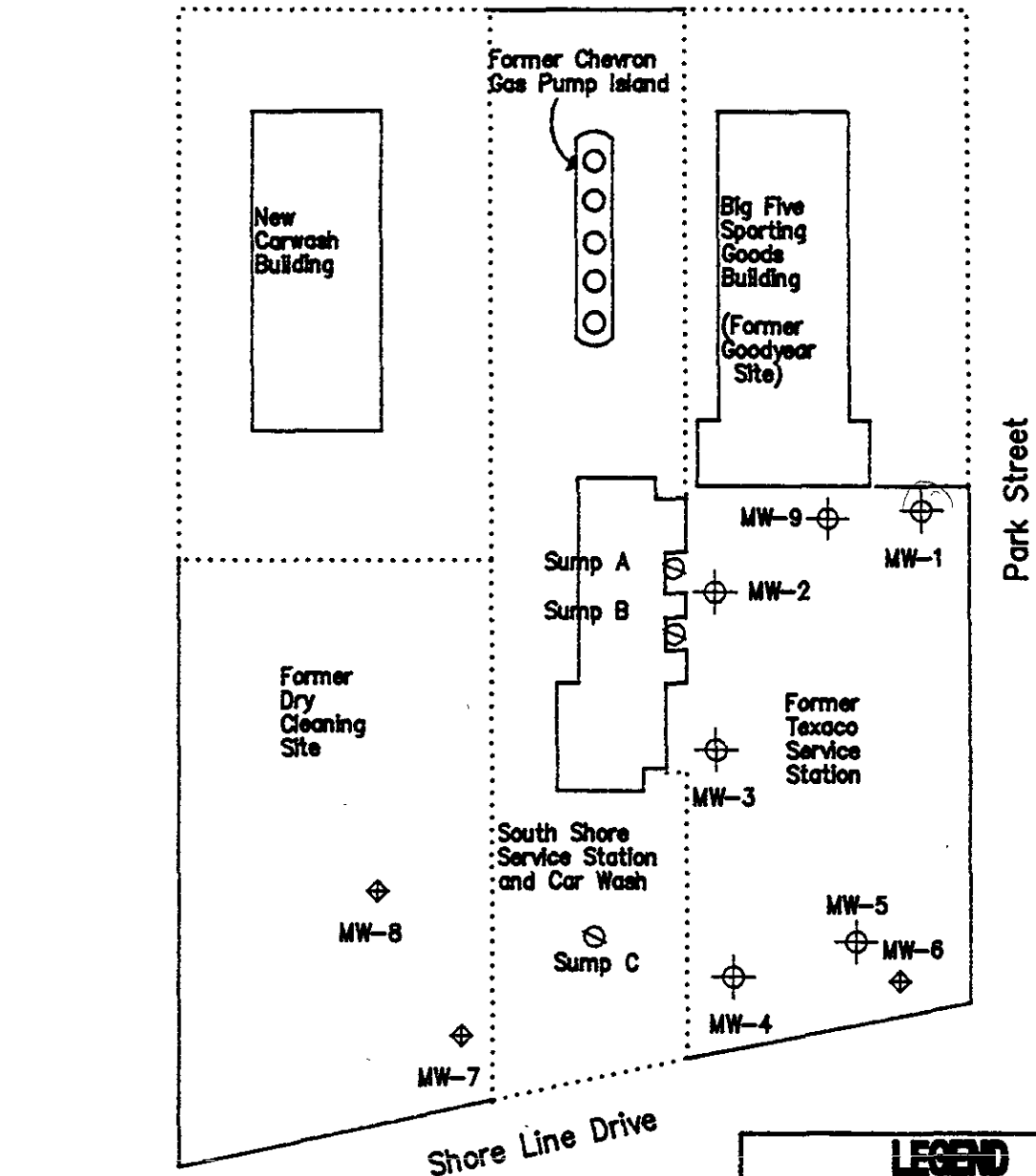
Site Location Map
Harsch Investment Corporation
Park Street and Shore Line Drive
Alameda, California

Clayton Project No. 29196.00

Figure 1

29196-01-17

Clayton ENVIRONMENTAL CONSULTANTS

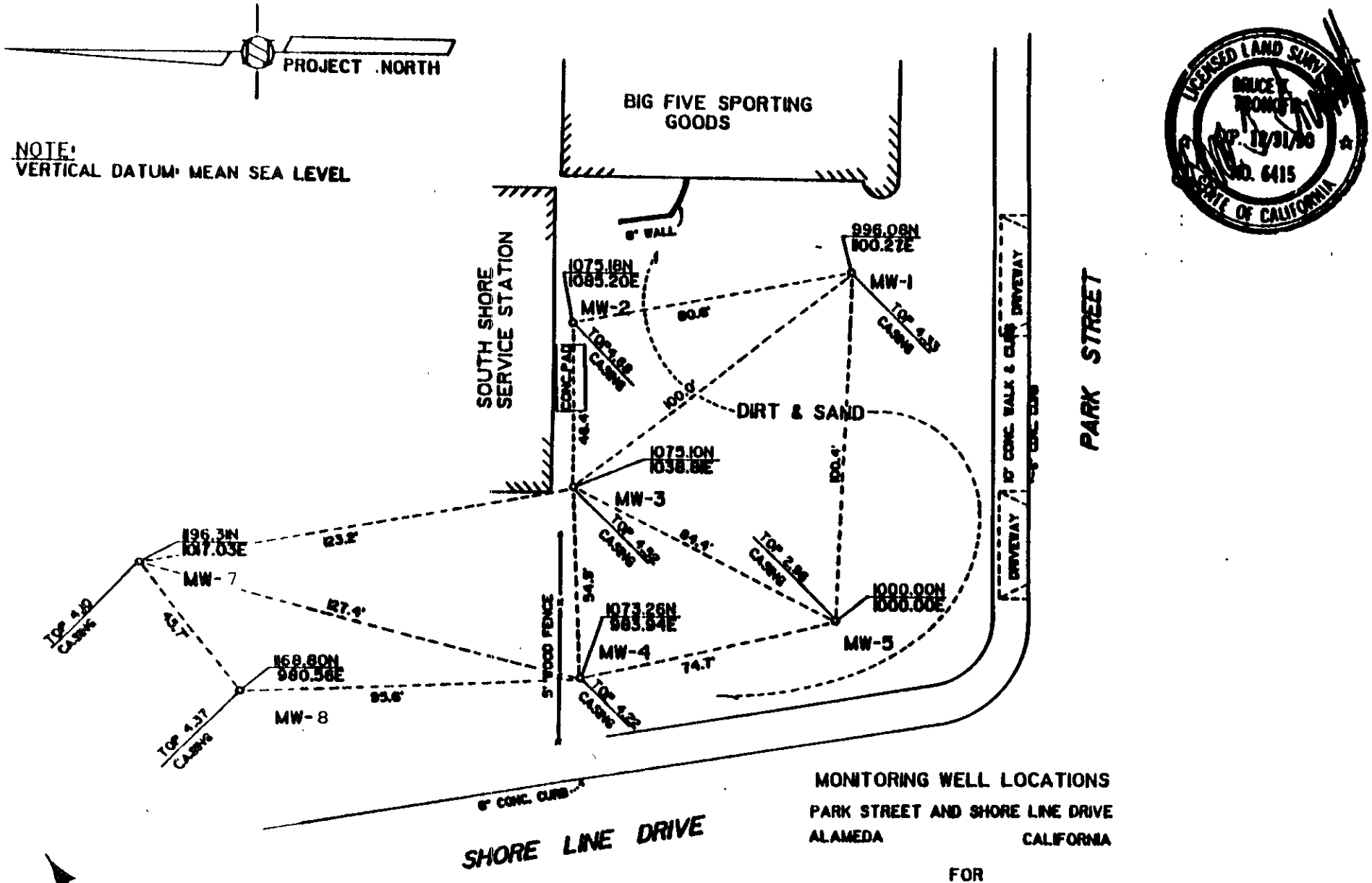


Diagrammatic Site Vicinity Map
Harsch Investment Corporation
Texaco Service Station
Park Street and Shore Line Drive
Alameda, California
Clayton Project No. 29196.00

Figure 2

29196-01-17

Clayton ENVIRONMENTAL CONSULTANTS



LICENSED LAND SURVEYOR
BRUCE T. TRONOFF
EXP. 12/31/90
NO. 6415
STATE OF CALIFORNIA

MONITORING WELL LOCATIONS

PARK STREET AND SHORE LINE DRIVE

ALAMEDA CALIFORNIA

FOR

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

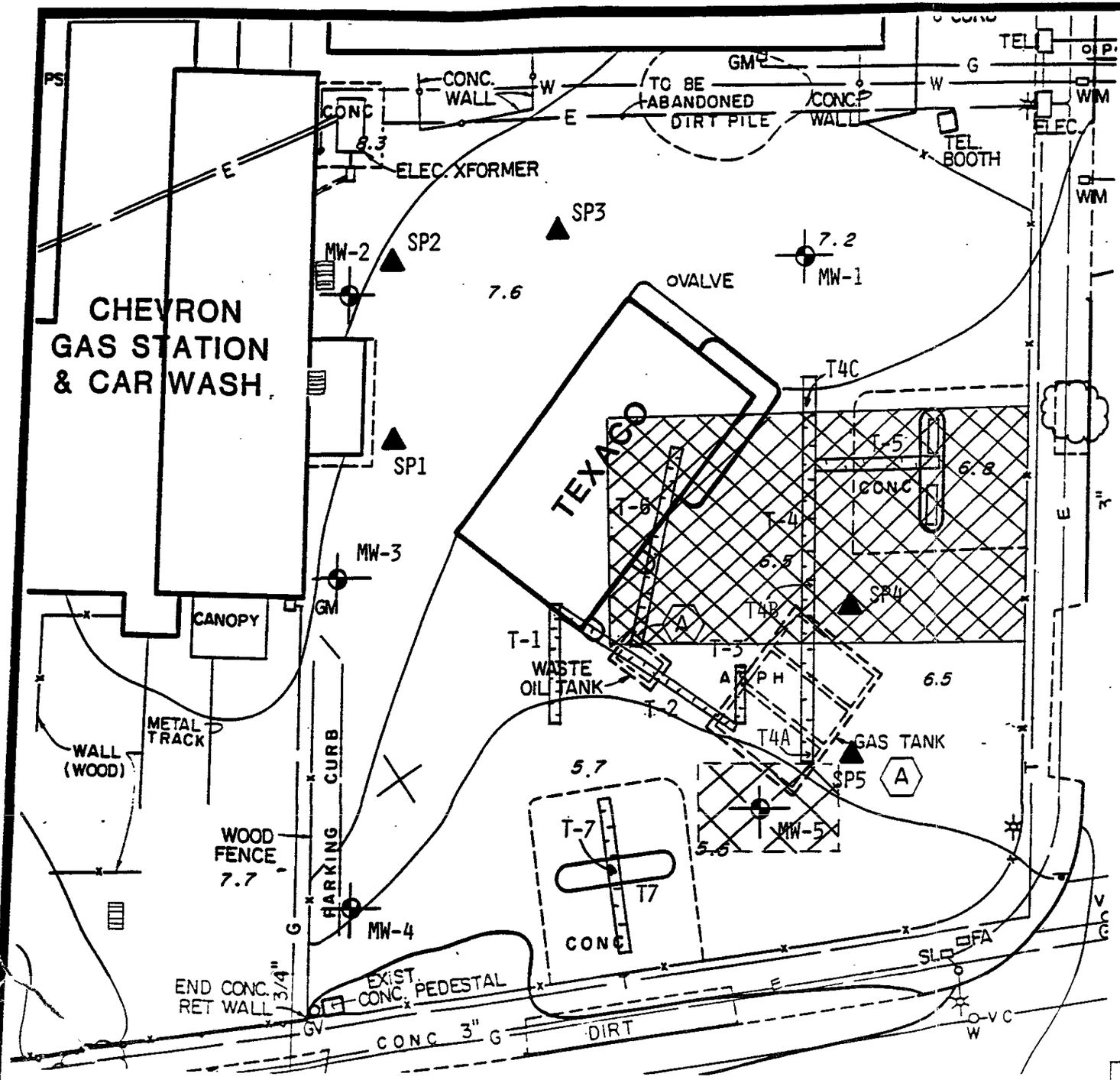
BY

TRONOFF ASSOCIATES - LAND SURVEYORS

560 PINE STREET (415) 392-3255 SAN FRANCISCO

SCALE 1" = 40' JUNE 26, 1990

figure 3



LEGEND	DESCRIPTION
OIWMH	INDUSTRIAL WASTE MANHOLE
OSSMH	SANITARY SEWER MANHOLE
OSDMH	STORM DRAIN MANHOLE
□CB	CATCH BASIN
△HW-I	HORIZONTAL / VERTICAL CONTROL
⊙WV	WATER VALVE
⊙GV	GAS VALVE
⊡FH	FIRE HYDRANT
⊙—□	STREET LIGHT
	SIGN
	TREES
—SS—	SAN. SEWER LINE
—SD—	STORM DRAIN LINE
—W—	WATER LINE
—E—	ELECTRICAL LINE
—T—	TELEPHONE LINE
—G—	GAS LINE
	CONTOUR LINE
	CHAIN LINK FENCE (U.O.N.)
⊡WM	WATER METER
⊡GM	GAS METER
⊙CO	CLEANOUT
⊙VC	VALVE COVER
△	MONUMENT / BENCH MARK
□FA	FIRE ALARM
SL (E)	STREET LIGHT
	RETAINING WALL

(A) — PER GENERAL ARRANGEMENT PLAN DP-6358, DATED 10-14-86

MW-2	MONITORING WELL LOCATION
SP3	SAMPLE LOCATION FOR AERATING SOILS
T-1	TRENCH LOCATION
T4C	SAMPLE LOCATION FROM TRENCHES
	PROPOSED SOIL EXCAVATION
	SUMP LOCATION

SITE PLAN OF FORMER TEXACO STATION SHOWING SAMPLE LOCATIONS, TRENCH LOCATIONS, AND PROPOSED SOIL EXCAVATION

Harsch Investment Corporation

Figure 4

Clayton ENVIRONMENTAL CONSULTANTS

TABLES

TABLE 1

WELL CONSTRUCTION DETAILS
FOR
MONITORING WELLS LOCATED AT
CORNER OF PARK STREET AND SHORE LINE DRIVE
ALAMEDA, CALIFORNIA

HARSCH INVESTMENT CORPORATION

Well Number	Total Depth (feet bgs)	Top of Screened Interval (feet bgs)	Diameter (inches)
MW-1	14.8	4.8	4
MW-2	14.8	4.8	4
MW-3	14.2	4.2	4
MW-4	18.5	3.5	4
MW-5	15.1	5.1	4
MW-6[1]	10.0	5.0	2
MW-7[2]	10.0	5.0	2
MW-8[3]	10.0	5.0	2
MW-9	15.0	5.0	4

bgs below ground surface

(1) Formerly, Woodward-Clyde monitoring well MW-1, installed by Woodward-Clyde in June 1989

(2) Formerly, Woodward-Clyde monitoring well MW-2, installed by Woodward-Clyde in June 1989

(3) Formerly, Woodward-Clyde monitoring well MW-3, installed by Woodward-Clyde in June 1989

TABLE 2

DEPTH TO GROUNDWATER AND GROUNDWATER ELEVATIONS ON JULY 25, 1990 AT 1540 IN MONITORING WELLS AT NORTH CORNER OF PARK STREET AND SHORE LINE DRIVE ALAMEDA, CALIFORNIA

HARSCH INVESTMENT CORPORATION

Well Number	Casing Elevation (feet)	Depth to Groundwater (feet bgs)	Groundwater Elevation (feet)
MW-1	4.33	7.15	-2.82
MW-2	4.68	7.41	-2.73
MW-3	4.52	7.28	-2.76
MW-4	4.22	7.19	-2.97
MW-5	2.96	6.08	-3.12
MW-6(1)	unavailable(2)	unavailable	unavailable
MW-7(1)	4.37	not measured	not measured
MW-8(1)	4.10	6.71	-2.61

bgs below ground surface

(1) Wells MW-6, MW-7, and MW-8, were installed by Woodward-Clyde in June 1989 and were previously designated by them as MW-1, MW-2, and MW-3, respectively.

(2) Well MW-6 was destroyed by construction activities onsite.

TABLE 3

ANALYTICAL RESULTS OF SOIL SAMPLES FROM INSTALLATION OF MONITORING WELLS JUNE 11 AND 12, 1990 AND AUGUST 24, 1990 AT FORMER TEXACO STATION CORNER OF PARK STREET AND SHORE LINE DRIVE, ALAMEDA, CA FOR HARSCH INVESTMENTS CORPORATION

Constituent	MW-1-6.5'	MW-2-6.0'	MW-3-6.0'	MW-4-5.5'	MW-5-4.0'	MW-9-5.0'
EPA Method 418.1 for Total Recoverable Hydrocarbons	20 ppm	30 ppm	not analyzed	not analyzed	160 ppm	<10 ppm
EPA Method 8015/3550 for Diesel	<2 ppm	<2 ppm	<2 ppm	<2 ppm	<2 ppm	<10 ppm (1)
EPA Method 8015/3510 for Gasoline	<300 ppb	<300 ppb	<300 ppb	<300 ppb	<300 ppb	<10 ppm (1)

ppm parts per million (approximately equal to milligrams per kilogram)
ppb parts per billion (approximately equal to micrograms per liter)
< not detected at or above the indicated value (detection limit)

(1) Gasoline and diesel fuel in soil samples from MW-9 were analyzed by EPA Method 8015 (modified).

Except for gasoline and diesel, Table 3 reports only detected compounds. All other compounds for which analyses were conducted were below analytical detection limits. See Section 3.3.1 for a complete list of analyses run on the samples.

TABLE 4

ANALYTICAL RESULTS OF WATER SAMPLES
... COLLECTED JUNE 22 AND AUGUST 31, 1990
AT FORMER TEXACO STATION
CORNER OF PARK STREET AND SHORE LINE DRIVE, ALAMEDA, CA
FOR
HARSCH INVESTMENTS CORPORATION

Constituent	MW-1	MW-2	MW-3	MW-4	MW-5	MW-9	State Action Levels
EPA Method 8015/8020 for:							
Benzene	<0.4	<0.4	<0.4	<0.4	2,100	<0.4[1]	0.7
Toluene	<0.3	<0.3	<0.3	<0.3	100	<0.2	100
Ethylbenzene	<0.3	<0.3	<0.3	<0.3	820	<0.3	680
Xylenes	<0.4	<0.4	<0.4	<0.4	390	<0.4	620
Gasoline	<50	<50	<50	<50	7,700	<50[2]	not applicable
EPA Method 8015/3510 for Diesel Fuel	<50	<50	<50	<50	910	<50	not applicable
EPA Method 418.1 for Total Recoverable Petroleum Hydrocarbons	<1	<1	2 ppm	3 ppm	6 ppm	1 ppm	not applicable
EPA Method 8240 for purgeable organics including:							
Tetrachloroethene	20	<4	not analyzed	not analyzed	not analyzed	0.7[3]	4.0
EPA Method 601 for purgeable halocarbons	not analyzed	not analyzed	none detected	none detected	not analyzed	not analyzed	not applicable

< not detected at or above the indicated value (detection limit)

All concentrations reported in parts per billion (ppb) which is approximately equal to micrograms per liter (ug/L) except where noted as parts per million (ppm)

Table 4 reports only detected compounds. All other constituents analyzed for were below detectable limits. See Section 3.3.1 for a complete list of analyses run on the samples.

(1) Purgeable aromatics (volatile hydrocarbons) in groundwater samples from MW-9 were analyzed by EPA Method 8020.

(2) Gasoline in groundwater samples from MW-9 was analyzed by EPA Method 8015/5030.

(3) Purgeable halocarbons in groundwater from MW-9 were analyzed by EPA Method 8010.

TABLE 5

RESULTS OF SOIL SAMPLES COLLECTED JULY 26, 1990
FROM TRENCHING OPERATION
AT
CORNER OF PARK STREET AND SHORE LINE DRIVE
ALAMEDA, CALIFORNIA
FOR
HARSCH INVESTMENT CORPORATION

Constituent	Sample ID Number			
	T4C	T7	T4A	T4B
EPA Method 8015/3550 for diesel	<2 ppm	<2 ppm	Sample was not analyzed because the soil was obviously contaminated	Sample was not analyzed because the soil was obviously contaminated
EPA Method 8015/5020 for gasoline	<300 ppb	<300 ppb		
EPA Method 418.1 (modified) for hydrocarbon oil and grease	50 ppm	10 ppm		

ppm parts per million (approximately equal to milligrams per kilogram)
ppb parts per billion (approximately equal to micrograms per liter)
< not detected at or above the indicated value (detection limit)

APPENDIX A

WELL CONSTRUCTION APPLICATIONS

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94566 ♦ (415) 484-2600

24 May 1990

Clayton Environmental Consultants
P.O. Box 9019
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 90320 for a monitoring well construction project at the intersection of Park Street and Shore Line Drive in Alameda for Harsch Investments.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Todd Wendler or Craig Mayfield at 484-2600.

Very truly yours,

Mun J. Mar
General Manager

By J. Killingstad, Chief
Water Resources Engineering

TW:mm
Enc.

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94566 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT North corner of Park Street and Shore Line Drive, Alameda, CA

CLIENT
Name Harsch Investment Corp.
Address 235 W. MacArthur Phone (415) 658-1400
City Oakland Zip 94611

APPLICANT
Name Clayton Environmental Consultants
Address P.O. Box 9019 Phone (415) 426-2600
City Pleasanton, CA Zip 94566

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 x
Cable ___ Other ___

DRILLER'S LICENSE NO. 487000

WELL PROJECTS
Drill Hole Diameter 10 in. Maximum
Casing Diameter 4 in. Depth 15 ft.
Surface Seal Depth 5 ft. Number 5

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

ESTIMATED STARTING DATE 6/1/90
ESTIMATED COMPLETION DATE 6/3/90

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

APPLICANT'S SIGNATURE _____ Date 5/21/90

FOR OFFICE USE

PERMIT NUMBER 90320
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 _____ Date 21 May 90
Todd N. Wendler

121989

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94566 • (415) 484-2600

27 August 1990

Clayton Environmental Consultants
P.O. Box 9019
Pleasanton, CA 94566

Gentlemen:

Enclosed is Groundwater Protection Ordinance permit 90512 for a monitoring well construction project at Park Street and Shore Line Drive in Alameda for Harsch Investment.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Todd Wendler or Craig Mayfield at 484-2600.

Very truly yours,

Mun J. Mar
General Manager

By
J. Killingstad, Chief
Water Resources Engineering

TW:mm
Enc.

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94566 ♦ (415) 484-2600
FAX NO. 462-3914
Well Program

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Northwest corner of Park Street and Shore Line Drive, Alameda, CA

CLIENT
Name Harsch Investment Corp.
Address 235 W. MacArthur Phone (415) 658-1400
City Oakland, Zip 94611

APPLICANT
Name Clayton Environmental Consultants
Address P.O. Box 9019 Phone (415) 426-2600
City Pleasanton, CA Zip 94566

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 X
Cable ___ Other ___

DRILLER'S LICENSE NO. 48700

WELL PROJECTS
Drill Hole Diameter 10 in. Maximum
Casing Diameter 4 in. Depth 15 ft.
Surface Seal Depth 3 ft. Number 1

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

ESTIMATED STARTING DATE 8/27/90
ESTIMATED COMPLETION DATE 8/27/90

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

APPLICANT'S SIGNATURE [signature] Date 8/22/90
SUPERVISOR, Engineering Group

FOR OFFICE USE

PERMIT NUMBER 90512
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 [signature] Date 24 Aug 90
Todd N. Wendler

121989

APPENDIX B

CLAYTON DRILLING, WELL CONSTRUCTION, AND SAMPLING PROTOCOLS FOR BOREHOLE/MONITORING WELL INSTALLATION

DRILLING, WELL CONSTRUCTION, AND SAMPLING PROTOCOLS FOR BOREHOLE/MONITORING WELL INSTALLATION

BOREHOLE INSTALLATION

Clayton Environmental Consultants, Inc. acquires the proper governmental agency permits to bore, drill, or destroy all proposed boreholes and monitoring wells that intersect with groundwater aquifers and writes a health and safety plan.

Clayton subcontracts only with drillers who possess a current C-57 water well contractor's license issued by the State of California and whose personnel have attended the OSHA 40-hour Hazardous Materials Safety Training. Prior to starting work, a "tailgate" safety meeting including discussion of the safety hazards and precautions relevant to the particular job will be held with all personnel working on the job. Well drillers are identified on permit applications.

Borings are drilled dry by hollow- or solid-stem, continuous flight augers. Augers, drill rods, and other working components of the drilling rig are steam-cleaned before arriving onsite to prevent the introduction of contaminants. These components are also steam-cleaned between borings away from boring locations. Cleaned augers, rods, and other components are stored, and/or covered when not in use.

Our bore logs include a detailed description of subsurface stratigraphy. Clayton examines the soil brought to the surface by drilling operations, and samples undisturbed soil every 5 feet or as otherwise specified. Soil cuttings are screened for hydrocarbon contamination using a photoionization detector. Boring logs are filled out in the field by a professional geologist, civil engineer, engineering geologist who is registered by the State of California, or a technician who is trained and working under the supervision of one of the previously mentioned persons, using the Unified Soil Classification System.

SOIL SAMPLING

Soil samples are taken every 5 feet, at areas of obvious contamination, or as otherwise specified, with a California modified split-spoon sampler that is lined with three six-inch brass

tubes. The sampler and rod are inserted into the borehole to the current depth and a hammer of known weight and height above the sampler are allowed to free-fall onto the rod, advancing the assembly 18 inches into undisturbed soil. Clayton uses the number of blows necessary to drive the sampler into the ground to help evaluate the consistency of materials encountered. The sampler is then pulled from the borehole and disassembled, and the three brass tubes are separated for inspection and labeling.

Clayton uses new brass liners or liners cleaned with a trisodium phosphate (TSP) solution, double rinsed with clean tap water, and air dried prior to each sampling. The sampler is also cleaned with TSP and rinsed with tap water between sampling events.

Soil samples selected for laboratory analysis are left in the brass liners, sealed with aluminum foil and plastic caps, taped for air tightness, labeled, and immediately placed into a pre-cooled ice chest chilled to less than 4°C. Labels contain the following information: site name, date and time sampled, borehole number and depth, and the sampler's initials. The samples are transported under chain-of-custody to a state-certified laboratory. The laboratory analyzes soil samples within the prescribed holding time, storing them at temperatures below 4°C at all times.

Pending results of laboratory analysis, excess drilling and sampling cuttings are placed into Department of Transportation (DOT)-approved drums, labeled with the name of the site, address, and well number, and left at the site. Uncontaminated soil may be disposed of by the client. Soil found to contain levels of contaminants above local or state action levels will require that the client dispose of it in accordance with hazardous waste regulations. At the client's request, we will assist with the disposal of contaminated soil.

WELL CONSTRUCTION

Boreholes are converted to monitoring wells by placing 2-inch or 4-inch diameter well casing with flush-threaded joints and slotted screen into the borehole. Construction materials include polyvinyl chloride (PVC), stainless steel, or low carbon steel. The most suitable material for a particular installation will depend on the parameters to be monitored. All screens and casings used are in a contaminant-free condition when placed in the ground. No thread lubrication is used, other than teflon tape, for connecting the casing segments.

Wells extend at least 10 feet into the upper saturated zone, but do not extend through any clay layers greater than 5 feet that are below the shallow water table. Factory-slotted casing is used throughout and extends at least 2 feet above the permeable water-bearing zone. The top of the well is solid casing. The annular space of the borehole is backfilled with washed, kiln-dried sand to a point at least 1 foot above the slotted screen. A seal above the filter pack is formed by placing a 1- to 2-foot layer of bentonite pellets on top of the sand. The bentonite pellets are moistened by pouring clean tap water down the hole so that they can expand and seal the annulus. A neat cement grout is placed above the bentonite seal and brought to the ground surface.

Well casings are protected from surface contamination, accidental damage, and unauthorized entry or tampering with water-tight locking caps on the well casings. The caps are usually surrounded by a concrete vault. Wells are clearly identified with a metal tag or other device where the following information is recorded: well number, depth to water, depth of well, casing data including location of screened interval.

WELL DEVELOPMENT

The well seal in newly developed wells must set up for 48 to 72 hours prior to development. Since development of the well can volatilize contaminants present, the well must also settle for at least 48 to 72 hours between development and the first purging/sampling incident.

All monitoring wells are initially developed to clean the well and stabilize sand, gravel, and disturbed aquifer materials around the screened internal perforations. Wells are developed by pumping (or bailing) and surging until water turbidity and specific conductance stabilize. In some cases, where wells are installed in low permeability formations and the wells purge dry, the well is allowed to recover and is purged dry three times. Clean tap water is introduced into the well if it does not recover rapidly enough.

Pending results by laboratory analysis, purge water from well development and sampling is placed into DOT-approved drums, labeled with the name of the site, address, well number, and left at the site. Uncontaminated water may be disposed of by the client. Water found to contain levels of contaminants above local or state action levels requires that the client dispose of it in accordance with hazardous waste requirements. At the client's request, we

can assist with the disposal of contaminated purge water.

GROUNDWATER SAMPLING

To collect a representative sample of the groundwater, stagnant water within the well casing and filter material must be purged and fresh aquifer water allowed to replace it. The water is purged from the well by pumping or bailing at least three well volumes. Well volumes are calculated by measuring depth to groundwater to the nearest 0.01 foot upon arrival at the well before any purging has begun. Groundwater samples are collected only after purging has been of sufficient duration for pH, temperature, and electrical conductivity to stabilize. When purging low-yield wells, the wells are purged to dryness. When the well recovers to 80% of the depth measured upon arrival, samples are collected.

Field sampling logs maintained for each well include:

- Monitoring well identification
- Static water level, before and after pumping
- Well depth
- Condition of water prior to purging (e.g., amount of free product)
- Purge rate and volume
- pH, temperature, and conductivity during purging
- Time purged
- Time of sample collection
- Sampling method
- Name of sampler
- Climatic conditions

Water samples are collected using clean teflon bailers. All equipment that contacts samples is thoroughly cleaned before arrival at the site and between sampling events.

Water is collected in clean laboratory-supplied containers, labeled, placed immediately into an ice chest pre-cooled to 4°C, and transported to Clayton's laboratory for analysis. One trip blank will be furnished in accordance with our quality assurance/quality control (QA/QC) program.

All samples are collected in such a manner so as to minimize the volatilization of a sample due to agitation and/or transfer from bailer to sample container. Samples are collected so that contaminants most sensitive to volatilization are sampled first.

Preservatives are not added to any sample, unless instructed. If requested, they are supplied by Clayton's laboratory.

All sample containers are labeled in the field. Labels contain the following information: project name, sample identification number, project number, date and time of collection, and sampler's initials.

Under no circumstances are sealed sample containers opened by anyone other than the laboratory personnel who perform the requested analyses. If it is necessary for samples or sample chests to leave the immediate control of the sampler prior to delivery to the laboratory, for example during shipment by Federal Express, a custody seal is placed on each sample container and/or sample chest to ensure that the samples have not been tampered with during transportation. The custody seal is signed by the sampler, and the date and time that the seal was placed is recorded. The elapsed time between sample collection and delivery to the laboratory never exceeds 48 hours. Water samples are not held for more than 14 days prior to analysis and are kept at 4°C at all times.

To document and trace samples from time of collection, a signed chain-of-custody record is filled out by the sampler and accompanies the samples through the laboratory analyses. The completed chain-of-custody is included with the analytical report from the laboratory.

REFERENCES

Groundwater Monitoring Guidelines, Revised February 1990. Alameda County District Groundwater Protection Program.

Leaking Underground Fuel Tank (LUFT) Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Tank Closure. May 1988. State of California LUFT Task Force.

Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, Revised November 1989. North Coast, San Francisco Bay, and Central

Valley regions of the California State Water Quality Control Board.

Standards for the Construction and Destruction of Wells and Other Deep Excavations in Santa Clara County, Revised June 1989. Santa Clara Valley Water District.

APPENDIX C

WATER SAMPLING

FIELD DATA SHEETS

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 29196.00·· Site: Harsch/ Alameda Date: 6-22-90

Well # MW-1 Sampling Team: Williams/ Silva

Sampling Method: electronic submersible pump for purging / bailer for sampling

Field Conditions: partly cloudy, mild temperatures

Describe Equipment D-Con Before Sampling This Well: steam clean and then triple rinse with deionized water

Total Depth of Well: 14.80 ft. Time: 13:50 Depth to Water Before Pumping: 6.80 ft.

Height of Water Column:	Diameter 2-inch	Diameter 4-inch	Volume	Purge Factor	Volume To Purge
8.00 ft. *	.16	.65	= 5.22 gal *	5	= 26

Depth Purging From: 13 ft. Time Surging Begins: _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes
14:00	5 gallons	11.56	3.64	21.1°C	brownish; murky water
14:02	10 "	10.18	4.01	"	no odor
14:05	15 "	9.80	4.50	"	purged dry
14:20	20 "	10.73	3.95	"	brownish; murky water
14:21	25 "	10.42	3.80	"	no odor
14:24	30 "	10.40	3.76	"	purged dry

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins: ____

pH	9.45	9.20	8.90	8.75
Conductivity	3.63	3.51	3.50	3.52
T°C	21.1	21.1	21.1	21.1

Pre-Sample Collection Gallons Purged: 25

Time Sample Collected Begins: 14:32

Time Sample Collection Ends: 14:35

Total Gallons Purged: 26

Comments: purged the well dry twice before taking samples waited for the well to recover 80% before taking samples. Sampled water was slightly cloudy, brownish. no odor .

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 29196.00 Site: Harsch/ Alameda Date: 6-22-90

Well # MW-2 Sampling Team: Williams/ Silva

Sampling Method: electronic submersible pump for purging / bailer for sampling

Field Conditions: partly cloudy, mild temperatures

Describe Equipment D-Con Before Sampling This Well: steam clean and then triple rinse with deionized water

Total Depth of Well: 14.80 ft. Time: 10:30 Depth to Water Before Pumping: 7.10 ft.

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
	7.70 ft.	* .16	.65	=	5.0 gal	*	5	=	25

Depth Purging From: ___ft. Time Surging Begins: _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes
10:43	5 gallons	10.25	0.92	21.1°C	brownish, silty
10:44	10 "	9.97	0.91	"	murky
10:45	15 "	9.70	1.01	"	no odor
10:47	20 "	9.68	1.30	"	" "
10:50	25 "	9.67	1.49	"	" "

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins: _____

pH	10.62	10.51	10.46	10.33
Conductivity	1.68	1.40	1.31	1.25
T°C	21.1	21.1	21.1	21.1

Pre-Sample Collection Gallons Purged: 25

Time Sample Collected Begins: 11:14

Time Sample Collection Ends: 11:18

Total Gallons Purged: 26

Comments: _____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 29196.00 Site: Harsch/ Alameda Date: 6-22-90

Well # MW-3 Sampling Team: Williams/ Silva

Sampling Method: electronic submersible pump for purging / bailer for sampling

Field Conditions: partly cloudy, mild temperatures

Describe Equipment D-Con Before Sampling This Well: steam clean and then triple rinse with deionized water

Total Depth of Well: 14.20 ft. Time: 11:30 Depth to Water Before Pumping: 6.85 ft.

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
	6.85 ft.	* .16	.65	=	4.45 gal	*	5	=	22.3

Depth Purging From: 13 ft. Time Surging Begins: 11:32

Notes on Initial Discharge: grayish brown; murky

Time	Volume Purged	pH	Conductivity	T	Notes
11:34	5 gallons	10.83	1.24	20.0°C	brownish, murky
11:38	10 "	10.14	1.62	"	silty, murky
11:40	15 "	10.05	2.05	"	no odor
11:43	20 "	9.93	2.22	"	" "

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins: ____

pH	10.05	10.02	10.05	9.50
Conductivity	2.29	2.06	2.25	2.12
T°C	20.0	20.0	20.0	20.0

Pre-Sample Collection Gallons Purged: 22

Time Sample Collected Begins: 12:05

Time Sample Collection Ends: 12:10

Total Gallons Purged: 23

Comments: _____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 29196.00 Site: Harsch/ Alameda Date: 6-22-90

Well # MW-4 Sampling Team: Williams/ Silva

Sampling Method: electronic submersible pump for purging / bailer for sampling

Field Conditions: partly cloudy, mild temperatures

Describe Equipment D-Con Before Sampling This Well: steam clean and then triple rinse with deionized water

Total Depth of Well: 17.0 ft. Time: 12:17 Depth to Water Before Pumping: 7.10 ft.

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
10.07 ft.	*	.16	.65	=	6.54 gal	*	5	=	32.7

Depth Purging From: 16 ft. Time Surging Begins: 12:20

Notes on Initial Discharge:

Time	Volume Purged	pH	Conductivity	T	Notes
12:23	5 gallons	10.25	1.82	21.1°C	medium grayish brown; murky;
12:25	10 "	10.35	1.79	"	no odor
12:27	15 "	10.50	1.90	"	" " " "
12:28	20 "	10.25	2.80	"	" " " "
12:31	25 "	10.05	2.11	"	" " " "
12:34	30 "	10.10	2.01	"	" " " "

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins: 12:45

pH	10.61	10.51	10.55	10.48
Conductivity	1.78	1.85	1.78	1.79
T°C	21.1	21.1	21.1	21.1

Pre-Sample Collection Gallons Purged: 32

Time Sample Collected Begins: 12:45

Time Sample Collection Ends: 12:50

Total Gallons Purged: 33

Comments: _____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 29196.00 Site: Harsch/ Alameda Date: 6-22-90

Well # MW-5 Sampling Team: Williams/ Silva

Sampling Method: electronic submersible pump for purging / bailer for sampling

Field Conditions: partly cloudy, mild temperatures

Describe Equipment D-Con Before Sampling This Well: steam clean and then triple rinse with deionized water

Total Depth of Well: 15.10 ft. Time: 13:00 Depth to Water Before Pumping: 6.80 ft.

Height of Water Volumn:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
10.07	ft. *	.16	.65	=	6.54	gal *	5	=	32.7

Depth Purging From: 13 ft. Time Surging Begins: _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes
13:05	5 gallons	11.56	3.64	21.1°C	brownish, murky water;
14:02	10 "	10.18	4.01	"	no odor
14:05	15 "	9.80	4.50	"	purged dry
14:20	20 "	10.73	3.95	"	brownish; murky water;
14:21	25 "	10.42	3.80	"	no odor
14:24	30 "	10.40	3.76	"	purged dry

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins: ____

pH	9.45	9.20	8.90	8.75
Conductivity	3.63	3.51	3.50	3.52
T°C	21.1	21.1	21.1	21.1

Pre-Sample Collection Gallons Purged: 25

Time Sample Collected Begins: 14:32

Time Sample Collection Ends: 14:35

Total Gallons Purged: 26

Comments: purged the well dry twice before taking samples waited for the well to recover 80% before taking samples. Sampled water was slightly cloudy, brownish. No odor .

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
WATER SAMPLING FIELD SURVEY FORM

Job No: 29196.00 Site: Harsch/Alameda Date: August 31, 1990

Well No: MW-9 Sampling Team: Mike Johnson

Sampling Method: Purged and sampled by boiler

Field Conditions: Cloudy, cool 65°F

Describe Equipment Decontamination Before Sampling This Well:

Steam clean followed by triple rinse with deionized H_2O

Total Depth to Water: 15.28 feet Time: 0800 Depth to Water Before Purging: 8.45 feet

Volume Height of Water Column:		2-inch		4-inch		Volume		Purge Factor		To Purge
6.83	*	.16		.65	=	4.44	*	4	=	18 gals.

Depth Purging From: 8 - 9 feet Time Purging Begins: 0820

Notes on Initial Discharge: Silty, no odor

Time	Volume Purged	pH	Conductivity	T	Comments
0830	5g	12.86	7.40	68°F	Silty, no odor
0834	10g	13.30	6.50	68°F	
0838	15g	13.30	5.20	68°F	

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
WATER SAMPLING FIELD SURVEY FORM
(CONTINUED)

Time Field Parameter Measurement Begins: 0910

	Rep #1	Rep #2	Rep #3	Rep #4
pH	12.87	12.86	12.64	13.00
Conductivity (20mS)	5.20	5.20	4.70	4.20
T°C	68°F	68°F	68°F	68°F

Pre-Sample Collection Gallons Purged: 15 gallons

Time Sample Collection Begins: 0850

Time Sample Collection Ends: 0907

Total Gallons Purged: 16 gallons

Comments:

APPENDIX D

BORING LOGS

UNIFIED SOIL CLASSIFICATION SYSTEM

	MAJOR DIVISION			SOIL DESCRIPTION
COARSE - GRAINED SOILS > 50 % coarser than # 200 sieve	GRAVELS over half of coarse fraction larger than No. 4 sieve	Clean gravels with little or no fines	GW	Well Graded Gravels, Gravel - Sand Mixtures
			GP	Poorly Graded Gravels, Gravel - Sand Mixtures
		Gravels with over 12 % fines	GM	Silty Gravels, Poorly Graded Gravel - Sand - Silt Mixtures
			GC	Clayey Gravels, Poorly Graded Gravel - Sand - Clay Mixtures
	SANDS over half of coarse fraction finer than No. 4 sieve.	Clean sands with little or no fines	SW	Well Graded Sands, Gravelly Sands
			SP	Poorly Graded Sands, Gravelly Sands
		Sands with over 12 % fines	SM	Silty Sands, Poorly Graded Sand - Silt
			SC	Clayey Sands, Poorly Graded Sand - Clay Mixtures
FINE - GRAINED SOILS > 50 % finer than # 200 sieve	SILTS AND CLAYS liquid limit less than 50		ML	Silts, Very Fine Sands, Silty or Clayey Fine Sands
			CL	Low Plasticity Clays, Sandy or Silty Clays
			OL	Low Plasticity Organic Silts and Clays
	SILTS AND CLAYS liquid limit greater than 50		MH	Micaceous or Diatomaceous Silts, Volcanic Ash, Elastic Silts
			CH	High Plasticity Clays _ Fat Clays
			OH	High Plasticity Organic Silts and Clays
	HIGHLY ORGANIC SOILS		Pt	Peat and Other Fibrous Organic Soils

KEY TO SAMPLES

"Undisturbed" 2.5" sample

Disturbed Sample

Indicates depth of sampling w/ no recovery

Indicates depth and location of coring run

Indicates depth of Standard Penetration Test and 2" sample

KEY TO TEST DATA

Shear Strength (psf)

Confining Pressure or Normal Load (psf)

TxUU	750	(2600)	Unconsolidated Undrained Triaxial
TxCU	540	(2600)	Consolidated Undrained Triaxial
TxCD	800	(2600)	Consolidated Drained Triaxial
DS	500	(2000)	Direct Shear
UC	400		Unconfined Compression
FVS	470		Field Vane Shear
FP	500		Field Penetrometer

PI = Plasticity Index

C = Consolidation Test

Clayton Environmental Consultants, Inc.

Job No._____ Appr:_____Date_____

SOIL CLASSIFICATION CHART AND KEY TO TEST DATA

FIGURE

Clayton
ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 29196.00 Date: 06/12/90
Client: Harsch Investment Corporation
Location: Alameda, California
Logged By: Richard Silva Driller: Aqua Science

BORING NO. MW-1
Sheet 1 of 1

Field Location of Boring: North corner of Shoreline Drive and Park Street, Alameda, CA

Ground Elevation: 4.33 Datum: MSL

Drilling Method: Hollow stem auger
Hole Diameter: 10"
Casing Installation Data: 10' screen 15'-5', sand 15'-4', bentonite 4'-3', grout 3'-0'

Water Level	6.70	6.80	7.15	7.15		
Time	1400	1350	1115	1540		
Date	6/12	6/22	7/25	7/25		

Drilling Rate (ft/min)	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (usca)	Litho-graphic Symbol	DESCRIPTION
						Asphalt & baserock
		1				
		2		SP		SAND - medium brown, medium-grained sand with some silt, moist, no product odor, nonplastic, trace of shells, poorly graded
		3				
		4				
		5				
17						
22		6				
30	0	7	X	SP		SAND - grayish brown, with some silt, moist, medium-grained, no product odor, nonplastic, trace of shells
		8				
		9				
		10				
		11		SP		SAND - blue gray, with trace of silt, coarse-grained, wet, no product odor, some shells, trace of clay
		12				
		13				
		14				
		15				
		16				Terminate boring at 15 feet. Groundwater first encountered at 7 feet
		17				
		18				

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LOG OF EXPLORATORY BORING

Project No.: 29196.00 Date: 06/11/90
Client: Harsch Investment Corporation
Location: Alameda, California
Logged By: Richard Silva Driller: Aqua Science

BORING NO. MW-2
Sheet 1 of 1

Field Location of Boring: North Corner of Park Street and Shoreline Drive, Alameda, CA

Ground Elevation: 4.68 Datum: MSL

Drilling Method: Hollow stem auger
Hole Diameter: 10"
Casing Installation Data: 10' screen 15'-5', sand 15'-4', bentonite 4'-3', grout 3'-0'

Water Level	7.08	7.10	7.41	7.41		
Time	1400	1030	1115	1540		
Date	6/12	6/22	7/25	7/25		

Drilling Rate (ft/min)	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (usc)	Litho-graphic Symbol	DESCRIPTION
						Asphalt & baserock
		1				
		2		SP		SAND - with some silt, medium brown, moist, loose, no product odor, medium-grained, nonplastic
		3				
		4				
		5				
19						
21		6	X			
22	0	7				
		8		SP		SAND - coarse-grained with trace fine sand, grayish brown, moist, loose, no product odor, nonplastic, trace of shells
		9				
		10				
		11				
		12				
		13		OL		CLAY - blue-gray with some fine sand, trace of shells, no product odor, wet and soft
		14				
		15				
		16				Terminate boring at 15 feet. Groundwater first encountered at 7 feet.
		17				
		18				

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LOG OF EXPLORATORY BORING

Project No.: 29196.00 Date: 06/11/90
Client: Harsch Investment Corporation
Location: Alameda, California
Logged By: Richard Silva Driller: Aqua Science

BORING NO. MW-3
Sheet 1 of 1

Field Location of Boring: North Corner of Park Street and Shoreline Drive, Alameda, CA

Ground Elevation: 4.52 Datum: MSL

Drilling Method: Hollow stem auger
Hole Diameter: 10"
Casing Installation Data: 10' screen 15'-5', sand 5'-4', bentonite 4'-3', grout 3'-0'

Water Level	6.80	6.85	5.98	6.08		
Time	1400	1130	1115	1540		
Date	6/12/90	6/22/90	7/25/90	7/25/90		

Drilling Rate (ft/min)	PID / OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
						Asphalt & baserock
		1				
		2		SP		SAND - with some silt, medium brown, damp, nonplastic, no product odor, medium-grained
		3				
		4				
		5				
19						
25		6	X			SAND - coarse-grained, with trace of fine sand, grayish brown, moist, no product odor, abundant shells
28	0	7				
		8				
		9				
		10		SP		
		11				
		12				
		13				
		14		SC		CLAYEY SAND - blue-gray, wet, soft, very fine-grained
		15				
		16				Terminate boring at 15 feet. Groundwater first encountered at 7 feet
		17				
		18				

Clayton
ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 29196.00 Date: 06/11/90
Client: Harsch Investment Corporation
Location: Alameda, California
Logged By: Laurene Compton Driller: Aqua Science

BORING NO. MW-4
Sheet 1 of 1

Field Location of Boring: North corner of Shoreline Drive and Park Street in Alameda, CA

Ground Elevation: 4.22 Datum: MSL

Drilling Method: Hollow stem auger
Hole Diameter: 10"
Casing Installation Data: 15' screen 18.5'-3.5', sand to 2.5', 1' bentonite, grout 1.5'-0'

Water Level	6.90	6.93	7.18	7.19		
Time	1400	1217	1115	1540		
Date	6/12/90	6/22/90	7/25/90	7/25/90		

Drilling Rate (ft/min)	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (USCS)	Litho-graphic Symbol	DESCRIPTION
						Asphalt & baserock
		1				
		2		SP		SAND - with some silt, medium brown, damp, loose, nonplastic, medium-grained, no product odor, poorly graded
		3				
		4				
		5				
13				SP		SAND - coarse-grained, moist, gray brown, abundant shells, poorly graded, loose, nonplastic
16		6	X			
23	0	7				
		8				
		9				
		10				
13						
11	0	11	X			
7		12				
		13		OL		CLAY - medium blue gray, wet, soft, trace fine sand, low plasticity
		14				
		15				
		16				Terminate boring at 15 feet. Groundwater first encountered at 7 feet.
		17				
		18				

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LOG OF EXPLORATORY BORING

Project No.: 29196.00 Date: 6/12/90
Client: Harsch Investment Corporation
Location: Alameda, California
Logged By: Richard Silva Driller: Aqua Science

BORING NO. MW-5
Sheet 1 of 1

Field Location of Boring: North corner of Shoreline Drive and Park Street, Alameda, CA

Ground Elevation: 4.22 Datum: MSL

Drilling Method: Hollow stem auger

Hole Diameter: 10"
Casing Installation Data: 10' screen 15'-5', sand 15'-4', bentonite 4'-3', grout 3'-0'

Water Level	5.80	5.75	5.98	6.08		
Time	1400	1300	1115	1540		
Date	6/12/90	6/22/90	7/25/90	7/25/90		

Drilling Rate (ft/min)	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (usca)	Litho-graphic Symbol	DESCRIPTION
						Asphalt & baserock
		1				
		2		SP		SAND - medium grain, medium brown with some silt, moist, loose, some product odor, well sorted, trace of shells, poorly graded
		3				
	24					
		4	X			Could not use rig sampler because of bent rig, pushed sampler down
		5				
		6		SP		SAND - dark gray, wet, some shell fragments, coarse-grained, poorly graded, very strong product odor
		7				
		8				
		9				
		10				
		11				
		12				
		13				
		14		SC		CLAYEY SAND - blue-gray, fine-grained, wet, soft, some product odor, low plasticity
		15				
		16				Terminate boring at 15 feet. Groundwater first encountered at 5 feet.
		17				
		18				

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LOG OF EXPLORATORY BORING

Project No.: 30903.00 Date: 8/24/90
Client: Harsch Investment Corporation
Location: Alameda, CA
Logged By: M. Johnson Driller: Aqua Science

BORING NO. MW-9
Sheet 1 of 1

Field Location of Boring:
Northwest corner of Shoreline Drive and Park Street, Alameda, CA

Ground Elevation: *Datum: MSL*

Drilling Method: Continuous flight, hollow stem auger

Hole Diameter: 10"
Casing Installation Data: 4" schedule 40 PVC. 10' screen 15'-5', sand 15'-4', *bentonite 4'-3', grout 3'-0'*

Drilling Rate (ft/min)	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (usca)	Litho-graphic Symbol	DESCRIPTION
						Water Level
						Time
						Date
						Asphalt and baserock
		1				
		2		SP		SAND, fine to medium-grained with some silt, slightly moist, no odor, shells and other organic matter present
		3				
		4				
5						
11		5	X			
32				SP		SAND, moderate yellow brown, medium-grained (1/4 - 1/2 mm), moist - wet, no odor, shells and other organic matter present, trace of silt present
		6				
		v				
		7				
		8				
		9				
		10				
		11				
		12				
		13				
		14				
		15				
						Total depth = 15'
		16				
		17				
		18				

APPENDIX E

LABORATORY ANALYTICAL RESULTS

AND

CHAIN-OF-CUSTODIES

Clayton
ENVIRONMENTAL
CONSULTANTS

SOIL SAMPLES

FROM

BOREHOLE INSTALLATION

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600
Fax (415) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

June 26, 1990

Ms. Laurene Compton
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref. No. 29196.00
Work Order No. 9006089
Lab Client Code INT_EEP

Dear Ms. Compton:

Attached is our analytical laboratory report for the samples received on June 12, 1990. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Representative, at (415) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/tb
Attachments

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: MW-4-5.5.' 0850
Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/12/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/17/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9006089-01A

Compound	CAS #	Concentration mg/kg	Limit of Detection mg/kg
Chloromethane	74-87-3	ND	0.06
Bromomethane	74-83-9	ND	0.07
Vinyl chloride	75-01-4	ND	0.05
Chloroethane	75-00-3	ND	0.05
Methylene chloride	75-09-2	ND	0.2
1,1-Dichloroethene	75-35-4	ND	0.02
1,1-Dichloroethane	75-35-3	ND	0.04
Trans-1,2-Dichloroethene	156-60-5	ND	0.04
Cis-1,2-Dichloroethene	156-59-2	ND	0.04
1,2-Dichloroethene (total)	540-59-0	ND	0.04
Chloroform	67-66-3	ND	0.05
1,2-Dichloroethane	107-06-2	ND	0.03
1,1,1-Trichloroethane	71-55-6	ND	0.05
Carbon tetrachloride	56-23-5	ND	0.06
Bromodichloromethane	75-27-4	ND	0.07
1,2-Dichloropropane	78-87-5	ND	0.05
Cis-1,3-Dichloropropene	10061-01-5	ND	0.05
Trichloroethene	79-01-6	ND	0.03
Dibromochloromethane	124-48-1	ND	0.06
1,1,2-Trichloroethane	79-00-5	ND	0.06
Trans-1,3-Dichloropropene	10061-02-6	ND	0.06
2-Chloroethylvinylether	100-75-8	ND	0.1
Bromoform	75-25-2	ND	0.07
Tetrachloroethene	127-18-4	ND	0.05
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.05
Chlorobenzene	108-90-7	ND	0.07
1,3-Dichlorobenzene	541-73-7	ND	0.2
1,2-Dichlorobenzene	95-50-1	ND	0.4
1,4-Dichlorobenzene	106-46-7	ND	0.4
Dichlorodifluoromethane	75-71-8	ND	0.1
Trichlorofluoromethane	75-69-4	ND	0.04
Freon 113	76-13-1	ND	0.06

ND = Not detected at or above limit of detection

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: MW-3-6.0' 1130
Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/12/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/17/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9006089-02A

Compound	CAS #	Concentration mg/kg	Limit of Detection mg/kg
Chloromethane	74-87-3	ND	0.06
Bromomethane	74-83-9	ND	0.07
Vinyl chloride	75-01-4	ND	0.05
Chloroethane	75-00-3	ND	0.05
Methylene chloride	75-09-2	ND	0.2
1,1-Dichloroethene	75-35-4	ND	0.02
1,1-Dichloroethane	75-35-3	ND	0.04
Trans-1,2-Dichloroethene	156-60-5	ND	0.04
Cis-1,2-Dichloroethene	156-59-2	ND	0.04
1,2-Dichloroethene (total)	540-59-0	ND	0.04
Chloroform	67-66-3	ND	0.05
1,2-Dichloroethane	107-06-2	ND	0.03
1,1,1-Trichloroethane	71-55-6	ND	0.05
Carbon tetrachloride	56-23-5	ND	0.06
Bromodichloromethane	75-27-4	ND	0.07
1,2-Dichloropropane	78-87-5	ND	0.05
Cis-1,3-Dichloropropene	10061-01-5	ND	0.05
Trichloroethene	79-01-6	ND	0.03
Dibromochloromethane	124-48-1	ND	0.06
1,1,2-Trichloroethane	79-00-5	ND	0.06
Trans-1,3-Dichloropropene	10061-02-6	ND	0.06
2-Chloroethylvinylether	100-75-8	ND	0.1
Bromoform	75-25-2	ND	0.07
Tetrachloroethene	127-18-4	ND	0.05
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.05
Chlorobenzene	108-90-7	ND	0.07
1,3-Dichlorobenzene	541-73-7	ND	0.2
1,2-Dichlorobenzene	95-50-1	ND	0.4
1,4-Dichlorobenzene	106-46-7	ND	0.4
Dichlorodifluoromethane	75-71-8	ND	0.1
Trichlorofluoromethane	75-69-4	ND	0.04
Freon 113	76-13-1	ND	0.06

ND = Not detected at or above limit of detection

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: METHOD BLANK
Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/12/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/17/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9006089-06A

Compound	CAS #	Concentration mg/kg	Limit of Detection mg/kg
Chloromethane	74-87-3	ND	0.06
Bromomethane	74-83-9	ND	0.07
Vinyl chloride	75-01-4	ND	0.05
Chloroethane	75-00-3	ND	0.05
Methylene chloride	75-09-2	ND	0.2
1,1-Dichloroethene	75-35-4	ND	0.02
1,1-Dichloroethane	75-35-3	ND	0.04
Trans-1,2-Dichloroethene	156-60-5	ND	0.04
Cis-1,2-Dichloroethene	156-59-2	ND	0.04
1,2-Dichloroethene (total)	540-59-0	ND	0.04
Chloroform	67-66-3	ND	0.05
1,2-Dichloroethane	107-06-2	ND	0.03
1,1,1-Trichloroethane	71-55-6	ND	0.05
Carbon tetrachloride	56-23-5	ND	0.06
Bromodichloromethane	75-27-4	ND	0.07
1,2-Dichloropropane	78-87-5	ND	0.05
Cis-1,3-Dichloropropene	10061-01-5	ND	0.05
Trichloroethene	79-01-6	ND	0.03
Dibromochloromethane	124-48-1	ND	0.06
1,1,2-Trichloroethane	79-00-5	ND	0.06
Trans-1,3-Dichloropropene	10061-02-6	ND	0.06
2-Chloroethylvinylether	100-75-8	ND	0.1
Bromoform	75-25-2	ND	0.07
Tetrachloroethene	127-18-4	ND	0.05
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.05
Chlorobenzene	108-90-7	ND	0.07
1,3-Dichlorobenzene	541-73-7	ND	0.2
1,2-Dichlorobenzene	95-50-1	ND	0.4
1,4-Dichlorobenzene	106-46-7	ND	0.4
Dichlorodifluoromethane	75-71-8	ND	0.1
Trichlorofluoromethane	75-69-4	ND	0.04
Freon 113	76-13-1	ND	0.06

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS
(LOW LEVEL METHOD)

Sample I.D.: MW-2-6.0' 1320

Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/12/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/14/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9006089-03A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	10
Bromomethane	74-83-9	ND	4
Vinyl chloride	75-01-4	ND	4
Chloroethane	75-00-3	ND	4
Methylene chloride	75-09-2	ND	10
Trichlorofluoromethane	75-69-4	ND	3
1,1-Dichloroethene	75-35-4	ND	3
1,1-Dichloroethane	75-35-3	ND	3
Trans-1,2-Dichloroethene	156-60-5	ND	3
Cis-1,2-Dichloroethene	156-59-2	ND	3
1,2-Dichloroethene (total)	540-59-0	ND	3
Chloroform	67-66-3	ND	3
1,2-Dichloroethane	107-06-2	ND	3
1,1,1-Trichloroethane	71-55-6	ND	3
Carbon tetrachloride	56-23-5	ND	3
Bromodichloromethane	75-27-4	ND	3
1,2-Dichloropropane	78-87-5	ND	3
Cis-1,3-Dichloropropene	10061-01-5	ND	3
Trichloroethene	79-01-6	ND	4
Benzene	71-43-2	ND	2
Dibromochloromethane	124-48-1	ND	2
1,1,2-Trichloroethane	79-00-5	ND	3
Trans-1,3-Dichloropropene	10061-02-6	ND	5
2-Chloroethylvinylether	100-75-8	ND	3
Bromoform	75-25-2	ND	3
1,1,2,2-Tetrachloroethane	79-34-5	ND	4
Tetrachloroethene	127-18-4	ND	4

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS
(LOW LEVEL METHOD)

(CONTINUED)

Sample I.D.: MW-2-6.0' 1320

Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/12/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/14/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9006089-03A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Toluene	108-88-3	ND	2
Chlorobenzene	108-90-7	ND	3
Ethylbenzene	100-41-4	ND	3
1,3-Dichlorobenzene	541-73-7	ND	3
1,2-Dichlorobenzene	95-50-1	ND	3
1,4-Dichlorobenzene	106-46-7	ND	3
Freon 113	76-13-1	ND	3
Total Xylenes	1330-20-7	ND	3
Acetone	67-64-1	ND	20
2-Butanone	78-93-3	ND	20
4-Methyl-2-pentanone	108-10-1	ND	20
2-Hexanone	591-78-6	ND	20
Vinyl acetate	108-05-4	ND	10
Carbon disulfide	75-15-0	ND	3
Styrene	100-42-5	ND	3
Acrolein	107-02-8	ND	10
Acrylonitrile	107-13-1	ND	10

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS
(LOW LEVEL METHOD)

Sample I.D.: METHOD BLANK
Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/12/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/14/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9006089-06A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	10
Bromomethane	74-83-9	ND	4
Vinyl chloride	75-01-4	ND	4
Chloroethane	75-00-3	ND	4
Methylene chloride	75-09-2	ND	10
Trichlorofluoromethane	75-69-4	ND	3
1,1-Dichloroethene	75-35-4	ND	3
1,1-Dichloroethane	75-35-3	ND	3
Trans-1,2-Dichloroethene	156-60-5	ND	3
Cis-1,2-Dichloroethene	156-59-2	ND	3
1,2-Dichloroethene (total)	540-59-0	ND	3
Chloroform	67-66-3	ND	3
1,2-Dichloroethane	107-06-2	ND	3
1,1,1-Trichloroethane	71-55-6	ND	3
Carbon tetrachloride	56-23-5	ND	3
Bromodichloromethane	75-27-4	ND	3
1,2-Dichloropropane	78-87-5	ND	3
Cis-1,3-Dichloropropene	10061-01-5	ND	3
Trichloroethene	79-01-6	ND	4
Benzene	71-43-2	ND	2
Dibromochloromethane	124-48-1	ND	2
1,1,2-Trichloroethane	79-00-5	ND	3
Trans-1,3-Dichloropropene	10061-02-6	ND	5
2-Chloroethylvinylether	100-75-8	ND	3
Bromoform	75-25-2	ND	3
1,1,2,2-Tetrachloroethane	79-34-5	ND	4
Tetrachloroethene	127-18-4	ND	4

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS
(LOW LEVEL METHOD)

(CONTINUED)

Sample I.D.: METHOD BLANK
Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/12/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/14/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9006089-06A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Toluene	108-88-3	ND	2
Chlorobenzene	108-90-7	ND	3
Ethylbenzene	100-41-4	ND	3
1,3-Dichlorobenzene	541-73-7	ND	3
1,2-Dichlorobenzene	95-50-1	ND	3
1,4-Dichlorobenzene	106-46-7	ND	3
Freon 113	76-13-1	ND	3
Total Xylenes	1330-20-7	ND	3
Acetone	67-64-1	ND	20
2-Butanone	78-93-3	ND	20
4-Methyl-2-pentanone	108-10-1	ND	20
2-Hexanone	591-78-6	ND	20
Vinyl acetate	108-05-4	ND	10
Carbon disulfide	75-15-0	ND	3
Styrene	100-42-5	ND	3
Acrolein	107-02-8	ND	10
Acrylonitrile	107-13-1	ND	10

ND = Not detected at or above limit of detection

EXTRACTABLE PETROLEUM HYDROCARBONS
EPA METHOD 8015/3550

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/14/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006089

Lab No.	Sample I.D.	Diesel mg/kg	Limit of Detection mg/kg
-01	MW-4-5.5' 0850	ND	2
-02	MW-3-6.0' 1130	ND	2
-03	MW-2-6.0' 1320	ND	2
-MB	Method Blank	ND	2

ND = Not detected at or above limit of detection

VOLATILE PETROLEUM HYDROCARBONS
EPA METHOD 8015/3510

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/21/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006089

Lab No.	Sample I.D.	Gasoline µg/kg	Limit of Detection µg/kg
-01	MW-4-5.5' 0850	ND	300
-02	MW-3-6.0' 1130	ND	300
-03	MW-2-6.0' 1320	ND	300
-MB	Method Blank	ND	300

ND = Not detected at or above limit of detection

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/18/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006089

Batch Sub. No.	Sample Identification	Cadmium (mg/kg)	Chromium (mg/kg)
-01	MW-4-5.5.'	0.1	37
-02	MW-3-6.0'	<0.1	21
-03	MW-2-6.0'	<0.1	20
-MB	Method Blank	<0.1	<1
Limit of Detection:		0.1	1
Method Reference:		EPA 6010	EPA 6010

< Less than the indicated limit of detection (LOD)

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/18/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006089

Batch Sub. No.	Sample Identification	Lead (mg/kg)	Zinc (mg/kg)
-01	MW-4-5.5.'	3	22
-02	MW-3-6.0'	1	10
-03	MW-2-6.0'	1	16
-MB	Method Blank	<1	<1
Limit of Detection:		1	1
Method Reference:		EPA 6010	EPA 6010

< Less than the indicated limit of detection (LOD)

EXTRACTION LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/14/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006089

Batch Sub. No.	Sample Identification	Total Recoverable Petroleum Hydrocarbons (mg/kg)
-03	MW-2-6.0'	30
-MB	Method Blank	<10
Limit of detection:		10
Method Reference:		EPA 418.1 (Modified)

< Less than the indicated limit of detection (LOD)

Clayton
ENVIRONMENTAL CONSULTANTS
A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 1
Project No.	
Batch No.	9006089
Client No.	
Date Received	6-12-90 By TB
Date Logged In	By TS

Purchase Order No. | Client Job No. 29196.100

SEND INVOICE TO
Name Husek Investment Corp.
Company Clayton Dept.
Address
City, State, Zip

REPORT RESULTS TO
Name Laurene Compton Title
Company Clayton Dept.
Mailing Address
City, State, Zip
Telephone No. Telefax No.

Date Results Required: Standard TAT

Rush Charges Authorized? ☐ Yes ☑ No

Special Instructions: (method, limit of detection, phone results, rush results, etc.)

* Explanation of Preservative.

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	TIME	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	5030/8015 + Hex	3510/8015 Diesel	8010	ICAP, Pb, Zinc, Cadmium, Chromium	418.1	8240	HOLD	FOR LAB USE ONLY
MW-4-5.5'	0860	6/11/90	SOIL	2" Brass	1	X	X	X	X				01 A
MW-3-6.0'	1130				1	X	X	X	X				02
MW-2-6.0'	1320				1	X	X		X	X	X		03
MW-4-10.5'	0900											X	04
B-3-5.5'	1100											X	05

CHAIN OF CUSTODY (If required)
Relinquished by: [signature] Date/Time 6-12-90/0800
Relinquished by: Date/Time
Method of Shipment:

Received by: Date/Time
Received at lab by: Tracy B Bullock Date/Time 6/12/90 0800
Sample condition upon receipt:

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive, Novi, MI 48050, (313) 344-1770
Raritan Center, 160 Fieldcrest Ave., Edison, NJ 08837, (201) 225-6040
400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144, (404) 499-7500
1252 Quarry Lane, Pleasanton, CA 94566, (415) 426-2600

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600
Fax (415) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

June 26, 1990

Ms. Laurene Compton
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref. No. 29196.00
Work Order No. 9006099
Lab Client Code INT_EEP

Dear Ms. Compton:

Attached is our analytical laboratory report for the samples received on June 13, 1990. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Representative, at (415) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/tb
Attachments

EPA METHOD 8240
PURGEABLE ORGANICS
(LOW LEVEL METHOD)

Sample I.D.: MW-1-6.5'

Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/13/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/14/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9006099-01A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	10
Bromomethane	74-83-9	ND	4
Vinyl chloride	75-01-4	ND	4
Chloroethane	75-00-3	ND	4
Methylene chloride	75-09-2	ND	10
Trichlorofluoromethane	75-69-4	ND	3
1,1-Dichloroethene	75-35-4	ND	3
1,1-Dichloroethane	75-35-3	ND	3
Trans-1,2-Dichloroethene	156-60-5	ND	3
Cis-1,2-Dichloroethene	156-59-2	ND	3
1,2-Dichloroethene (total)	540-59-0	ND	3
Chloroform	67-66-3	ND	3
1,2-Dichloroethane	107-06-2	ND	3
1,1,1-Trichloroethane	71-55-6	ND	3
Carbon tetrachloride	56-23-5	ND	3
Bromodichloromethane	75-27-4	ND	3
1,2-Dichloropropane	78-87-5	ND	3
Cis-1,3-Dichloropropene	10061-01-5	ND	3
Trichloroethene	79-01-6	ND	4
Benzene	71-43-2	ND	2
Dibromochloromethane	124-48-1	ND	2
1,1,2-Trichloroethane	79-00-5	ND	3
Trans-1,3-Dichloropropene	10061-02-6	ND	5
2-Chloroethylvinylether	100-75-8	ND	3
Bromoform	75-25-2	ND	3
1,1,2,2-Tetrachloroethane	79-34-5	ND	4
Tetrachloroethene	127-18-4	ND	4

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS
(LOW LEVEL METHOD)

(CONTINUED)

Sample I.D.: MW-1-6.5'

Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/13/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/14/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9006099-01A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Toluene	108-88-3	ND	2
Chlorobenzene	108-90-7	ND	3
Ethylbenzene	100-41-4	ND	3
1,3-Dichlorobenzene	541-73-7	ND	3
1,2-Dichlorobenzene	95-50-1	ND	3
1,4-Dichlorobenzene	106-46-7	ND	3
Freon 113	76-13-1	ND	3
Total Xylenes	1330-20-7	ND	3
Acetone	67-64-1	ND	20
2-Butanone	78-93-3	ND	20
4-Methyl-2-pentanone	108-10-1	ND	20
2-Hexanone	591-78-6	ND	20
Vinyl acetate	108-05-4	ND	10
Carbon disulfide	75-15-0	ND	3
Styrene	100-42-5	ND	3
Acrolein	107-02-8	ND	10
Acrylonitrile	107-13-1	ND	10

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS
(LOW LEVEL METHOD)

Sample I.D.: METHOD BLANK

Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/13/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/14/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9006099-03A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	10
Bromomethane	74-83-9	ND	4
Vinyl chloride	75-01-4	ND	4
Chloroethane	75-00-3	ND	4
Methylene chloride	75-09-2	ND	10
Trichlorofluoromethane	75-69-4	ND	3
1,1-Dichloroethene	75-35-4	ND	3
1,1-Dichloroethane	75-35-3	ND	3
Trans-1,2-Dichloroethene	156-60-5	ND	3
Cis-1,2-Dichloroethene	156-59-2	ND	3
1,2-Dichloroethene (total)	540-59-0	ND	3
Chloroform	67-66-3	ND	3
1,2-Dichloroethane	107-06-2	ND	3
1,1,1-Trichloroethane	71-55-6	ND	3
Carbon tetrachloride	56-23-5	ND	3
Bromodichloromethane	75-27-4	ND	3
1,2-Dichloropropane	78-87-5	ND	3
Cis-1,3-Dichloropropene	10061-01-5	ND	3
Trichloroethene	79-01-6	ND	4
Benzene	71-43-2	ND	2
Dibromochloromethane	124-48-1	ND	2
1,1,2-Trichloroethane	79-00-5	ND	3
Trans-1,3-Dichloropropene	10061-02-6	ND	5
2-Chloroethylvinylether	100-75-8	ND	3
Bromoform	75-25-2	ND	3
1,1,2,2-Tetrachloroethane	79-34-5	ND	4
Tetrachloroethene	127-18-4	ND	4

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS
(LOW LEVEL METHOD)

(CONTINUED)

Sample I.D.: METHOD BLANK
Client: HARSCH INVESTMENTS CORP.

Sample Received: 06/13/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/14/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9006099-03A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Toluene	108-88-3	ND	2
Chlorobenzene	108-90-7	ND	3
Ethylbenzene	100-41-4	ND	3
1,3-Dichlorobenzene	541-73-7	ND	3
1,2-Dichlorobenzene	95-50-1	ND	3
1,4-Dichlorobenzene	106-46-7	ND	3
Freon 113	76-13-1	ND	3
Total Xylenes	1330-20-7	ND	3
Acetone	67-64-1	ND	20
2-Butanone	78-93-3	ND	20
4-Methyl-2-pentanone	108-10-1	ND	20
2-Hexanone	591-78-6	ND	20
Vinyl acetate	108-05-4	ND	10
Carbon disulfide	75-15-0	ND	3
Styrene	100-42-5	ND	3
Acrolein	107-02-8	ND	10
Acrylonitrile	107-13-1	ND	10

ND = Not detected at or above limit of detection

EXTRACTABLE PETROLEUM HYDROCARBONS
EPA METHOD 8015/3550

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/14/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006099

Lab No.	Sample I.D.	Diesel mg/kg	Limit of Detection mg/kg
-01	MW-1-6.5'	ND	2
-02	MW-5-4.0'	ND	2
-MB	Method Blank	ND	2

ND = Not detected at or above limit of detection

VOLATILE PETROLEUM HYDROCARBONS
EPA METHOD 8015/3510

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/25/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006099

Lab No.	Sample I.D.	Gasoline µg/kg	Limit of Detection µg/kg
-01	MW-1-6.5'	ND	300
-02	MW-5-4.0'	ND	300
-MB	Method Blank	ND	300

ND = Not detected at or above limit of detection

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/18/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006099

Batch Sub. No.	Sample Identification	Cadmium (mg/kg)	Chromium (mg/kg)
-01	MW-1-6.5'	<0.1	21
-02	MW-4-4.0'	<0.1	24
-MB	Method Blank	<0.1	<1
Limit of Detection:		0.1	1
Method Reference:		EPA 6010	EPA 6010

< Less than the indicated limit of detection (LOD)

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/18/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006099

Batch Sub. No.	Sample Identification	Lead (mg/kg)	Zinc (mg/kg)
-01	MW-1-6.5'	<1	14
-02	MW-5-4.0'	12	12
-MB	Method Blank	<1	<1
Limit of Detection:		1	1
Method Reference:		EPA 6010	EPA 6010

< Less than the indicated limit of detection (LOD)

EXTRACTION LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS CORP.
Sample Received:	06/12/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/14/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9006099

Batch Sub. No.	Sample Identification	Total Recoverable Petroleum Hydrocarbons (mg/kg)
-01	MW-1-6.5'	20
-02	MW-5-4.0'	160
-MB	Method Blank	<10
Limit of detection:		10
Method Reference:		EPA 418.1 (Modified)

< Less than the indicated limit of detection (LOD)

Clayton ENVIRONMENTAL CONSULTANTS

A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 1	
Project No.		
Batch No.	9006093	
Client No.		
Date Received	6-13-90	By TS
Date Logged In		By

Purchase Order No. | Client Job No. 29196.00

SEND INVOICE TO
Name: Harsch Investment Corp.
Company: Clayton | Dept.
Address:
City, State, Zip:

REPORT RESULTS TO
Name: Laurene Compton | Title:
Company: Clayton | Dept.
Mailing Address:
City, State, Zip:
Telephone No. | Telefax No.

Date Results Required: Standard TAT

Rush Charges Authorized? ☐ Yes ☑ No

Special Instructions: (method, limit of detection, phone results, rush results, etc.)

* Explanation of Preservative.

CLIENT SAMPLE IDENTIFICATION	TIME	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	5030/8015 PLV2 Gas	3510/8015 Diesel	418.1	8240	Pb/chromium cadmium, zinc						FOR LAB USE ONLY
MW-1-6.5'	0845	6-12-90	SOIL	2" brass	1	X	X	X	X	X						01 A
MW-5-4.0'	1100	↓	↓	↓	1	X	X	X		X						02 ↓

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CHAIN OF CUSTODY (If required)

Relinquished by: Lye Comply | Date/Time 6/12/90 1800 | Received by:
Relinquished by: | Date/Time | Received at lab by: Tung Salus | Date/Time 6-13-90 7:30am
Method of Shipment:

Sample condition upon receipt: Ok

Authorized by: Lye Comply (Client Signature Must Accompany Request) Date

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive, Novi, MI 48050, (313) 344-1770
Raritan Center, 160 Fieldcrest Ave., Edison, NJ 08837, (201) 225-6040
400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144, (404) 499-7500
1252 Quarry Lane, Pleasanton, CA 94566, (415) 426-2600

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600
Fax (415) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

September 7, 1990

Mr. Alan Gibbs
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref. No. 30493.00
Work Order No. 9008197
Lab Client Code INT_EEP

Dear Mr. Gibbs:

Attached is our analytical laboratory report for the samples received on August 24, 1990. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (415) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/dt
Attachments

GASOLINE AND DIESEL FUEL
EPA METHOD 8015 (MODIFIED)
(MICRO EXTRACTION)

Sample I.D.: MW-9-5'

Client: HARSCH INVESTMENTS

Sample Received: 08/24/90
Sample Extracted: 08/30/90
Sample Analyzed: 09/06/90

Client Ref. No.: 30493.00

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9008197-01A

Analyte	Concentration mg/kg	Limit of Detection mg/kg
Gasoline	ND	10
Diesel	ND	10

NA = Not analyzed
ND = Not detected at or above limit of detection

GASOLINE AND DIESEL FUEL
EPA METHOD 8015 (MODIFIED)
(MICRO EXTRACTION)

Sample I.D.: METHOD BLANK

Client: HARSCH INVESTMENTS

Sample Received: 08/24/90
Sample Extracted: 08/30/90
Sample Analyzed: 09/06/90

Client Ref. No.: 30493.00

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9008197-02A

Analyte	Concentration mg/kg	Limit of Detection mg/kg
Gasoline	ND	10
Diesel	ND	10

NA = Not analyzed
ND = Not detected at or above limit of detection

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: MW-9-5'

Client: HARSCH INVESTMENTS

Sample Received: 08/24/90

Client Ref. No.: 30493.00

Sample Analyzed: 08/29/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9008197-01A

Compound	CAS #	Concentration mg/kg	Limit of Detection mg/kg
Chloromethane	74-87-3	ND	0.06
Bromomethane	74-83-9	ND	0.07
Vinyl chloride	75-01-4	ND	0.05
Chloroethane	75-00-3	ND	0.05
Methylene chloride	75-09-2	ND	0.2
1,1-Dichloroethene	75-35-4	ND	0.02
1,1-Dichloroethane	75-35-3	ND	0.04
Trans-1,2-Dichloroethene	156-60-5	ND	0.04
Cis-1,2-Dichloroethene	156-59-2	ND	0.04
1,2-Dichloroethene (total)	540-59-0	ND	0.04
Chloroform	67-66-3	ND	0.05
1,2-Dichloroethane	107-06-2	ND	0.03
1,1,1-Trichloroethane	71-55-6	ND	0.05
Carbon tetrachloride	56-23-5	ND	0.06
Bromodichloromethane	75-27-4	ND	0.07
1,2-Dichloropropane	78-87-5	ND	0.05
Cis-1,3-Dichloropropene	10061-01-5	ND	0.05
Trichloroethene	79-01-6	ND	0.03
Dibromochloromethane	124-48-1	ND	0.06
1,1,2-Trichloroethane	79-00-5	ND	0.06
Trans-1,3-Dichloropropene	10061-02-6	ND	0.06
2-Chloroethylvinylether	100-75-8	ND	0.1
Bromoform	75-25-2	ND	0.07
Tetrachloroethene	127-18-4	ND	0.05
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.05
Chlorobenzene	108-90-7	ND	0.07
1,3-Dichlorobenzene	541-73-7	ND	0.2
1,2-Dichlorobenzene	95-50-1	ND	0.4
1,4-Dichlorobenzene	106-46-7	ND	0.4
Dichlorodifluoromethane	75-71-8	ND	0.1
Trichlorofluoromethane	75-69-4	ND	0.04
Freon 113	76-13-1	ND	0.06

ND = Not detected at or above limit of detection

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: METHOD BLANK
Client: HARSCH INVESTMENTS

Sample Received: 08/24/90
Client Ref. No.: 30493.00

Sample Analyzed: 08/29/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9008197-02A

Compound	CAS #	Concentration mg/kg	Limit of Detection mg/kg
Chloromethane	74-87-3	ND	0.06
Bromomethane	74-83-9	ND	0.07
Vinyl chloride	75-01-4	ND	0.05
Chloroethane	75-00-3	ND	0.05
Methylene chloride	75-09-2	ND	0.2
1,1-Dichloroethene	75-35-4	ND	0.02
1,1-Dichloroethane	75-35-3	ND	0.04
Trans-1,2-Dichloroethene	156-60-5	ND	0.04
Cis-1,2-Dichloroethene	156-59-2	ND	0.04
1,2-Dichloroethene (total)	540-59-0	ND	0.04
Chloroform	67-66-3	ND	0.05
1,2-Dichloroethane	107-06-2	ND	0.03
1,1,1-Trichloroethane	71-55-6	ND	0.05
Carbon tetrachloride	56-23-5	ND	0.06
Bromodichloromethane	75-27-4	ND	0.07
1,2-Dichloropropane	78-87-5	ND	0.05
Cis-1,3-Dichloropropene	10061-01-5	ND	0.05
Trichloroethene	79-01-6	ND	0.03
Dibromochloromethane	124-48-1	ND	0.06
1,1,2-Trichloroethane	79-00-5	ND	0.06
Trans-1,3-Dichloropropene	10061-02-6	ND	0.06
2-Chloroethylvinylether	100-75-8	ND	0.1
Bromoform	75-25-2	ND	0.07
Tetrachloroethene	127-18-4	ND	0.05
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.05
Chlorobenzene	108-90-7	ND	0.07
1,3-Dichlorobenzene	541-73-7	ND	0.2
1,2-Dichlorobenzene	95-50-1	ND	0.4
1,4-Dichlorobenzene	106-46-7	ND	0.4
Dichlorodifluoromethane	75-71-8	ND	0.1
Trichlorofluoromethane	75-69-4	ND	0.04
Freon 113	76-13-1	ND	0.06

ND = Not detected at or above limit of detection

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	**Client:**	HARSCH INVESTMENTS
Sample Received:	08/24/90	**Client Ref. No.:**	30493.00
Sample Analyzed:	08/29/90	**Lab Client Code:**	INT_EEP
Sample Matrix:	Soil	**Lab No.:**	9008197

Batch Sub. No.	Sample Identification	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)
-01	MW-9-5'	<0.1	20	2
-MB	Method Blank	<0.1	<1	<1
Limit of Detection:		0.1	1	1
Method Reference:		EPA 6010	EPA 6010	EPA 6010

< Less than, the indicated limit of detection (LOD)

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	08/24/90	Client Ref. No.:	30493.00
Sample Analyzed:	08/29/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9008197

Batch Sub. No.	Sample Identification	Zinc (mg/kg)
-01	MW-9-5'	10
-MB	Method Blank	<1
Limit of detection:		1
Method Reference:		EPA 6010

< Less than, the indicated limit of detection (LOD)

EXTRACTION LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	08/24/90	Client Ref. No.:	30493.00
Sample Analyzed:	08/31/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9008197

Batch Sub. No.	Sample Identification	Total Recoverable Petroleum Hydrocarbons (mg/kg)
-01	MW-9-5'	<10
-MB	Method Blank	<10
Limit of detection:		10
Method Reference:		EPA 418.1 (Modified)

< Less than, the indicated limit of detection (LOD)

Clayton
ENVIRONMENTAL CONSULTANTS
A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 1
Project No.	30493.00
Batch No.	9008197
Client No.	
Date Received	8-24-90 By TS
Date Logged In	✓ By ✓

Purchase Order No.: | Client Job No.:

SEND INVOICE TO
Name:
Company: Hansch INVESTMENTS | Dept.:
Address:
City, State, Zip:

REPORT RESULTS TO
Name: M. JOHNSON or ALAN GIBBS | Title: EE DEPT
Company: Xt 689 | Dept.:
Mailing Address:
City, State, Zip:
Telephone No.: | Telefax No.:

Date Results Required: | Rush Charges Authorized? ☐ Yes ☒ No

Special Instructions: (method, limit of detection, phone results, rush results, etc.)
~~20% DISCOUNT~~
* Explanation of Preservative
PER ALAN GIBBS - TPH as gas + DIESEL 10ppm D.L

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request, Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	418.1 OIL + GREASE	~~5030/8015 GAS~~ ~~MOD GASOLINE~~	3510/8015 ~~TPH DIESEL~~	601/8010 PURGEABLE HALOCARBONS	ICAP FOR Pb, Cd, Cr, Zn	8015 MODIFIED DIESEL GASOLINE				FOR LAB USE ONLY
MW-9-5'	8/24	Soil		1	X	X	X	X	X	+				01A
~~MW-9-6.5'~~ my	~~8/24~~	~~Soil~~	my	~~1~~	~~X~~	X	X	X	X	my	← HOLD THIS SMPL my			02

CHAIN OF CUSTODY (if required)
Relinquished by: M. Johnson | Date/Time: 8/24 2PM | Received by: | Date/Time:
Relinquished by: | Date/Time: | Received at lab by: Terry Salvo | Date/Time: 2:24pm 8-24-90
Method of Shipment: | Sample condition upon receipt: OK

Authorized by: ________ Date ________
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive, Novi, MI 48050, (313) 344-1770
Raritan Center, 160 Fieldcrest Ave., Edison, NJ 08837, (201) 225-6040
400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144, (404) 499-7500
1252 Quarry Lane, Pleasanton, CA 94566, (415) 426-2600

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

7/89 20K

Clayton
ENVIRONMENTAL
CONSULTANTS

SOIL SAMPLES

FROM

AERATING SOILS

AND

TRENCHES

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600
Fax (415) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

August 7, 1990

Ms. Laurene Compton
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, Ca. 94566

Client Ref. No. 29196.00
Work Order No. 9007204
Lab Client Code INT_EEP

Dear Ms. Compton:

Attached is our analytical laboratory report for the samples received on July 26, 1990. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (415) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/dt
Attachments

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: SP-1
Client: HARSCH INVESTMENTS

Sample Received: 07/26/90
Client Ref. No.: 29196.00

Sample Analyzed: 08/02/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9007204-01A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	21	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND = Not detected at or above limit of detection

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: SP-2

Client: HARSCH INVESTMENTS

Sample Received: 07/26/90

Client Ref. No.: 29196.00

Sample Analyzed: 08/02/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9007204-02A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	1.7	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND = Not detected at or above limit of detection

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: SP-3
Client: HARSCH INVESTMENTS

Sample Received: 07/26/90
Client Ref. No.: 29196.00

Sample Analyzed: 08/02/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9007204-03A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	3.7	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND = Not detected at or above limit of detection

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: SP-4

Client: HARSCH INVESTMENTS

Sample Received: 07/26/90

Client Ref. No.: 29196.00

Sample Analyzed: 08/02/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9007204-04A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND = Not detected at or above limit of detection

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: SP-5

Client: HARSCH INVESTMENTS

Sample Received: 07/26/90

Client Ref. No.: 29196.00

Sample Analyzed: 08/02/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9007204-05A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND = Not detected at or above limit of detection

EPA METHOD 8010
PURGEABLE HALOCARBONS

Sample I.D.: METHOD BLANK
Client: HARSCH INVESTMENTS

Sample Received: 07/26/90
Client Ref. No.: 29196.00

Sample Analyzed: 08/02/90
Lab Client Code: INT_EEP

Sample Matrix: SOIL
Lab No.: 9007204-10A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND = Not detected at or above limit of detection

EXTRACTABLE PETROLEUM HYDROCARBONS
EPA METHOD 8015/3550

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	07/26/90	Client Ref. No.:	29196.00
Sample Analyzed:	07/31/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9007204

Lab No.	Sample I.D.	Diesel mg/kg	Limit of Detection mg/kg
-08	T4C	ND	2
-09	T7	ND	2
-MB	Method Blank	ND	2

ND = Not detected at or above limit of detection

VOLATILE PETROLEUM HYDROCARBONS
EPA METHOD 8015/5020

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	07/26/90	Client Ref. No.:	29196.00
Sample Analyzed:	07/30/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9007204

Lab No.	Sample I.D.	Gasoline µg/kg	Limit of Detection µg/kg
-08	T4C	ND	300
-09	T7	ND	300
-MB	Method Blank	ND	300

ND = Not detected at or above limit of detection

EXTRACTION LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	07/26/90	Client Ref. No.:	29196.00
Sample Analyzed:	08/01/90	Lab Client Code:	INT_EEP
Sample Matrix:	Soil	Lab No.:	9007204

Batch Sub. No.	Sample Identification	Total Recoverable Petroleum Hydrocarbons (mg/kg)
-08	T4C	50
-09	T7	10
-MB	Method Blank	<10
Limit of detection:		10
Method Reference:		EPA 418.1 (Modified)

< = less than, below limit of detection

Clayton
ENVIRONMENTAL CONSULTANTS
A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page ____ of ____
Project No.	
Batch No.	9007204
Client No.	
Date Received	7/26/90 By TS
Date Logged In	✓ By ✓

Purchase Order No. | Client Job No. 29196.00

SEND INVOICE TO
Name LAURENE COMPTON
Company HARSCH INVESTMENT Dept.
Address
City, State, Zip

REPORT RESULTS TO
Name LAURENE COMPTON Title
Company CLAYTON Dept.
Mailing Address
City, State, Zip
Telephone No. Telefax No.

Date Results Required: NORMAL T.A.T.

Rush Charges Authorized? ☐ Yes ☒ No

Special Instructions: (method, limit of detection, phone results, rush results, etc.)
* Put on hold per Laurene Compton 7/27/90

* Explanation of Preservative:

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	EPA 8010	EPA 5030/8015	EPA 3550/8015	EPA 418.1	FOR LAB USE ONLY
SP-1 TIME 1540	7-25-90	SOLID	2" BRASS	1	X				01A
SP-2 1542				1	X				02
SP-3 1545				1	X				03
SP-4 1548				1	X				04
SP-5 1550				1	X				05
T4A * 1340				1		X	X	X	06
T4B * 1405				1		X	X	X	07
T4C 1405				1		X	X	X	08
T7 1450				1		X	X	X	09 ✓

CHAIN OF CUSTODY (If required)
Relinquished by: Richard Silver Date/Time 7-26-90
Relinquished by: Date/Time
Method of Shipment:

Authorized by: Richard Silver Date 7-26-90
(Client Signature Must Accompany Request)

Received by: Date/Time
Received at lab by: Tracy Salio Date/Time 7/26/90 8:30 AM
Sample condition upon receipt: OK

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive, Novi, MI 48050, (313) 344-1770
Raritan Center, 160 Fieldcrest Ave., Edison, NJ 08837, (201) 225-6040
400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144, (404) 499-7500
1252 Quarry Lane, Pleasanton, CA 94566, (415) 426-2600

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

WATER SAMPLES

FROM

MONITORING WELLS

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600
Fax (415) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

May 16, 1990

Ms. Laurene Compton
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566

Client Ref. No. 29196.00
Work Order No. 9005111
Client Code No. INT_EEP

Dear Ms. Compton:

Attached is our analytical report for the samples received on May 11, 1990. Verbal results were reported to you on May 15, 1990. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Representative, at (415) 426-2657.

Sincerely,

Mary D. Beck for

Ronald H. Peters, CIH
Manager, Laboratory Services
Western Operations

RHP/tb
Attachment

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSH ASSOCIATES
Sample Received:	05/11/90	Client Ref. No.:	29196.00
Sample Analyzed:	05/15/90	Lab Client Code:	INT_EEP
Sample Matrix:	Water	Lab No.:	9005111

Batch Sub. No.	Sample Identification	Total Dissolved Solids (mg/L)
-01	WC-3	1,200
-MB	Method Blank	<5
Limit of detection:		5
Method Reference:		EPA 160.1

< = less than, below limit of detection

Clayton ENVIRONMENTAL CONSULTANTS

A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 1
Project No.	
Batch No.	9005111
Client No.	
Date Received	5/11/90 By
Date Logged In	By

SEND INVOICE TO

Purchase Order No. | Client Job No. 29196.00

Name

Company Harsh Assoc. | Dept.

Address

City, State, Zip LC

REPORT RESULTS TO

Name Laurie Compton | Title

Company Clayton | Dept.

Mailing Address

City, State, Zip

Telephone No. | Telefax No.

Date Results Required: ~~5/10/90~~ LC 48 hrs

Rush Charges Authorized? LC 100% ☒ Yes ☐ No

Special Instructions: (method, limit of detection, phone results, rush results, etc.)

48 hour rush Single Samples #30

* Explanation of Preservative:

Waive $100 minimum invoice - ok'd MDB

ANALYSIS REQUESTED

(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	LC TDS	FOR LAB USE ONLY
WC-3	5/10/90	H2O	1 Qt. P	1	X	01A

CHAIN OF CUSTODY (If required)

Relinquished by: Lyc Comply | Date/Time 5/10/90

Relinquished by: | Date/Time

Method of Shipment:

Authorized by: Lyc Comply (Client Signature Must Accompany Request) Date 5/10/90

Received by:

Received at lab by: Tracy B Hurlbut | Date/Time 5/11/90 9:45

Sample condition upon receipt: OK

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive, Novi, MI 48050, (313) 344-1770

Raritan Center, 160 Fieldcrest Ave., Edison, NJ 08837, (201) 225-6040

400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144, (404) 499-7500

1252 Quarry Lane, Pleasanton, CA 94566, (415) 426-2600

DISTRIBUTION:

WHITE - Clayton Laboratory

YELLOW - Clayton Accounting

PINK - Client Retains

7/89 20K

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600
Fax (415) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

June 28, 1990

Mr. Richard Silva
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref. No. 29196.00
Work Order No. 9006192
Lab Client Code INT_EEP

Dear Mr. Silva:

Attached is our analytical laboratory report for the samples received on June 22, 1990. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Representative, at (415) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/tb
Attachments

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-2

Client: HARSH ASSOCIATES

Sample Received: 06/22/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/26/90

Lab Client Code: INT_EEP

Sample Matrix: WATER

Lab No.: 9006192-01C

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline	-----	ND	50

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-5
Client: HARSH ASSOCIATES

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/26/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006192-02C

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	2,100	4
Toluene	108-88-3	100	3
Ethylbenzene	100-41-4	820	3
Xylenes	1330-20-7	390	4
Gasoline	-----	7,700	500

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: METHOD BLANK
Client: HARSH ASSOCIATES

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/26/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006192-03A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline	-----	ND	50

ND = Not detected at or above limit of detection

Clayton
ENVIRONMENTAL CONSULTANTS
A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page ____ of ____
Project No.	
Batch No. 9006192	
Client No.	
Date Received 6/22/90	By RfR
Date Logged In 6/25/90	By L

Purchase Order No. | Client Job No. 29196.00

SEND INVOICE TO
Name: RICHARD SILVA
Company: HARSCH INVESTMENT | Dept.
Address:
City, State, Zip:

REPORT RESULTS TO
Name: RICHARD SILVA | Title
Company: CLAYTON | Dept.
Mailing Address:
City, State, Zip:
Telephone No. | Telefax No.

Date Results Required: ONE WEEK T.A.T.
Rush Charges Authorized? ☒ Yes ☐ No

Special Instructions: (method, limit of detection, phone results, rush results, etc.)

* Explanation of Preservative:

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	Number of Containers	TPH-G	BTXE									FOR LAB USE ONLY
MW-2 SAMPLED AT 1115	6-22-90	H_2O	40 mL	2	X										-01 A,B
MW-2 " " "	6-22-90			2		X									C,D
MW-5 SAMPLED AT 1535	↓	↓	↓	2	X										-02 A,B
MW-5 " " "	↓	↓	↓	2		X									C,D

CHAIN OF CUSTODY (If required)
Relinquished by: Richard Silva | Date/Time 6-22-90
Relinquished by: | Date/Time
Method of Shipment:
Received by: | Date/Time
Received at lab by: Rebecca Kline Clark | Date/Time 6/22/90 5:45
Sample condition upon receipt:

Authorized by: Richard Silva Date 6-22-90
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive
Novi, MI 48050
(313) 344-1770

Raritan Center
160 Fieldcrest Ave.
Edison, NJ 08837
(201) 225-6040

400 Chastain Center Blvd., N.W.
Suite 490
Kennesaw, GA 30144
(404) 499-7500

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600
Fax (415) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

June 29, 1990

Mr. Richard Silva
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref. No. 29196.00
Work Order No. 9006195
Lab Client Code INT_EEP

Dear Mr. Silva:

Attached is our analytical laboratory report for the samples received on June 22, 1990. Verbal results for TPH as gasoline were reported to Alan Gibbs on June 28, 1990. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Representative, at (415) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/tb
Attachments

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-1
Client: HARSCH INVESTMENTS
Sample Received: 06/22/90
Client Ref. No.: 29196.00
Sample Analyzed: 06/26/90
Lab Client Code: INT_EEP
Sample Matrix: WATER
Lab No.: 9006195-01A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline	-----	ND	50

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-2

Client: HARSCH INVESTMENTS

Sample Received: 06/22/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/26/90

Lab Client Code: INT_EEP

Sample Matrix: WATER

Lab No.: 9006195-02A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline	-----	ND	50

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-3
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/26/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-03A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline	-----	ND	50

ND = Not detected at or above limit of detection

Results of Analysis
for
HARSCH INVESTMENTS

Client Reference: 29196.00
Clayton Project No. 90082.58

Sample Identification: MW-9-WS
Lab Number: 9008258-01C
Sample Matrix/Media: WATER
Analytical Method: EPA 8010

Date Sampled: 08/31/90
Date Received: 08/31/90
Date Analyzed: 09/05/90

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.3
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	0.7	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND Not detected at or above limit of detection

Results of Analysis
for
HARSCH INVESTMENTS

Client Reference: 29196.00
Clayton Project No. 90082.58

Sample Identification: MW-C WS
Lab Number: 9008258-01C
Sample Matrix/Media: WATER
Analytical Method: EPA 8020

Date Sampled: 08/31/90
Date Received: 08/31/90
Date Analyzed: 09/05/90

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Aromatics			
Benzene	71-43-2	ND	0.4
Chlorobenzene	108-90-7	ND	0.3
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,3-Dichlorobenzene	541-73-7	ND	0.3
1,4-Dichlorobenzene	106-46-7	ND	0.5
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.2
Xylenes	1330-20-7	ND	0.4

ND Not detected at or above limit of detection

Results of Analysis
for
HARSCH INVESTMENTS

Client Reference: 29196.00
Clayton Project No. 90082.58

Sample Identification: METHOD BLANK
Lab Number: 9008258-03A
Sample Matrix/Media: WATER
Analytical Method: EPA 8010

Date Sampled: 08/31/90
Date Received: 08/31/90
Date Analyzed: 09/05/90

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.3
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND Not detected at or above limit of detection

Results of Analysis
for
HARSCH INVESTMENTS

Client Reference: 29196.00
Clayton Project No. 90082.58

Sample Identification:	METHOD BLANK	Date Sampled:	08/31/90
Lab Number:	9008258-03A	Date Received:	08/31/90
Sample Matrix/Media:	WATER	Date Analyzed:	09/05/90
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Aromatics			
Benzene	71-43-2	ND	0.4
Chlorobenzene	108-90-7	ND	0.3
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,3-Dichlorobenzene	541-73-7	ND	0.3
1,4-Dichlorobenzene	106-46-7	ND	0.5
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.2
Xylenes	1330-20-7	ND	0.4

ND Not detected at or above limit of detection

VOLATILE PETROLEUM HYDROCARBONS
EPA METHOD 8015/5030

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	08/31/90	Client Ref. No.:	29196.00
Sample Analyzed:	09/04/90	Lab Client Code:	INT_EEP
Sample Matrix:	Water	Lab No.:	9008258

Lab No.	Sample I.D.	Gasoline (µg/L)	Limit of Detection (µg/L)
-01	MW-9-WS	ND	50
-MB	METHOD BLANK	ND	50

ND = Not detected at or above limit of detection

EXTRACTION LABORATORY ANALYSES

Sample I.D.:	See below	**Client:**	HARSCH INVESTMENTS
Sample Received:	08/31/90	**Client Ref. No.:**	29196.00
Sample Analyzed:	09/07/90	**Lab Client Code:**	INT_EEP
Sample Matrix:	Water	**Lab No.:**	9008258

Batch Sub. No.	Sample Identification	Total Recoverable Petroleum Hydrocarbons (mg/L)
-01	MW-9-MS	1
-MB	METHOD BLANK	<1
Limit of detection:		1
Method Reference:		EPA 418.1

< less than, below limit of detection

Results of Analysis
for
Harsch Investments

Client Reference: 29196.00
Clayton Project No. 90100.17

Sample Identification:	See below	Date Sampled:	10/02/90
Lab Number:	9010017	Date Received:	10/02/90
Sample Matrix/Media:	Water	Date Analyzed:	10/05/90
Analytical Method:	EPA 418.1		

Batch Sub. No.	Sample Identification	Total Recoverable Petroleum Hydrocarbons (mg/L)
-01	MW-3	2
-02	MW-4	3
-03	MW-5	6
-MB	Method Blank	<1
Limit of detection:		1

< = Less than the indicated limit of detection (LOD)

Clayton ENVIRONMENTAL CONSULTANTS

A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 1
Project No.	29196.00
Batch No.	901017
Client No.	
Date Received	10/2/90 By RBR
Date Logged In	10/2/90 By

SEND INVOICE TO

Name
Company HANSCH INVESTMENTS Dept.
Address ALAMEDA
City, State, Zip

REPORT RESULTS TO

Name LAURENE COMPTON Title EE
Company Dept.
Mailing Address
City, State, Zip
Telephone No. 671 Telefax No.

Purchase Order No. Client Job No.

Date Results Required: Rush Charges Authorized? ☐ Yes ☒ No

Special Instructions: (method, limit of detection, phone results, rush results, etc.)

* Explanation of Preservative: P=HCl

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	418.1 OIL & GREASE	FOR LAB USE ONLY
MW-3	10/2	H2O	1 LITER	2	XP	01A, B
MW-4	↓	↓	↓	2	X	02
MW-5	↓	↓	↓	2	X	03

CHAIN OF CUSTODY (if required)

Relinquished by MIKE JOHNSON Date/Time 10/2 427
Relinquished by Date/Time
Method of Shipment:

Received by: Date/Time
Received at lab by: Rebecca Date/Time 10/2/90 4:30
Sample condition upon receipt: OK

Authorized by _____ Date _____
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive Novi, MI 48050 (313) 344-1770	Raritan Center 160 Fieldcrest Ave. Edison, NJ 08837 (201) 225-6040	400 Chastain Center Blvd., N.W. Suite 490 Kennesaw, GA 30144 (404) 499-7500	1252 Quarry Lane Pleasanton, CA 94566 (415) 426-2600

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

EXTRACTABLE PETROLEUM HYDROCARBONS
EPA METHOD 8015/3510

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	08/31/90	Client Ref. No.:	29196.00
Sample Analyzed:	09/12/90	Lab Client Code:	INT_EEP
Sample Matrix:	Water	Lab No.:	9008258

Lab No.	Sample I.D.	Diesel (µg/L)	Limit of Detection (µg/L)
-01	MW-9-WS	ND	50
-MB	METHOD BLANK	ND	50

ND = Not detected at or above limit of detection

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	**Client:**	HARSCH INVESTMENTS
Sample Received:	08/31/90	**Client Ref. No.:**	29196.00
Sample Analyzed:	09/12/90	**Lab Client Code:**	INT_EEP
Sample Matrix:	Water	**Lab No.:**	9008258

Batch Sub. No.	Sample Identification	Cadmium (mg/L)	Chromium (mg/L)
-01	MW-9-WS	<0.005	<0.05
-MB	METHOD BLANK	<0.005	<0.05
Limit of Detection:		0.005	0.05
Method Reference:		EPA 6010	EPA 6010

< less than, the indicated limit of detection (LOD)

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	08/31/90	Client Ref. No.:	29196.00
Sample Analyzed:	09/12/90	Lab Client Code:	INT_EEP
Sample Matrix:	Water	Lab No.:	9008258

Batch Sub. No.	Sample Identification	Lead (mg/L)	Zinc (mg/L)
-01	MW-9-WS	<0.05	<0.05
-MB	METHOD BLANK	<0.05	<0.05
Limit of Detection:		0.05	0.05
Method Reference:		EPA 6010	EPA 6010

< less than, the indicated limit of detection (LOD)

Clayton ENVIRONMENTAL CONSULTANTS

A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 1	
Project No.	29196.00	
Batch No.	9008258	
Client No.		
Date Received	8-31-90	By TS
Date Logged In		By

Purchase Order No. | Client Job No.

SEND INVOICE TO
Name
Company HAASCH INVESTMENTS | Dept.
Address
City, State, Zip

REPORT RESULTS TO
Name [redacted] GUILFOYLE | Title EE GEOLOGIST
Company COMPTON | Dept. EE
Mailing Address
City, State, Zip
Telephone No. | Telefax No.

Date Results Required. | Rush Charges Authorized? ☐ Yes ☐ No

Special Instructions (method, limit of detection, phone results, rush results, etc.)

* Explanation of Preservative.

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	BTEX for Diesel and Gasoline 5030/8020 Vol.	Hydrocarbons 418.1 for Waste Oil & Grease	601/8010 Halocarb. Purg.	ICAP for PDJ Ca, Cr, Zn	Hold	TS	FOR LAB USE ONLY
MW-9-WS	8/31/90	H2O	2x40ml	2	X	X	X	X	X	TS	01 A B
			2x40ml	2	P						C, D
			2x1L	2		P					E F
			2x1L	2			X				G H
			1LPl	1				P			I
Trip Blank			2x40ml	2					X		02 ~~A~~ B

CHAIN OF CUSTODY (if required)
Relinquished by M. Johnson | Date/Time 8/31/90 1032 | Received by:
Relinquished by: | Date/Time | Received at lab by: Terry Sales | Date/Time 8/31/90 10:35am
Method of Shipment:
Sample condition upon receipt: OK

Authorized by _____ Date _____
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive Novi, MI 48050 (313) 344-1770	Raritan Center 160 Fieldcrest Ave. Edison, NJ 08837	400 Chastain Center Blvd., N.W. Suite 490 Kennesaw, GA 30144	1252 Quarry Lane Pleasanton, CA 94566 (415) 426-2600

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600
Fax (415) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

October 5, 1990

Ms. Laurene Compton
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566

Client Ref. No. 29196.00
Clayton Project No. 90101.17
Lab Client Code INT_EEP

Dear Ms. Compton:

Attached is our analytical laboratory report for the samples received on October 2, 1990. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (415) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/dt
Attachments

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-4
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/26/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-04A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline	-----	ND	50

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-5
Client: HARSCH INVESTMENTS
Sample Received: 06/22/90
Client Ref. No.: 29196.00
Sample Analyzed: 06/26/90
Lab Client Code: INT_EEP
Sample Matrix: WATER
Lab No.: 9006195-05A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	1,600	40
Toluene	108-88-3	60	0.3
Ethylbenzene	100-41-4	73	0.3
Xylenes	1330-20-7	250	4
Gasoline	-----	3,900	500

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: TRIP BLANK
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/26/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-06A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline	-----	ND	50

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: METHOD BLANK
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/26/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-07A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline	-----	ND	50

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS

Sample I.D.: MW-1

Client: HARSCH INVESTMENTS

Sample Received: 06/22/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/27/90

Lab Client Code: INT_EEP

Sample Matrix: WATER

Lab No.: 9006195-01G

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Chloromethane	74-87-3	ND	10
Bromomethane	74-83-9	ND	4
Vinyl chloride	75-01-4	ND	4
Chloroethane	75-00-3	ND	4
Methylene chloride	75-09-2	ND	10
Trichlorofluoromethane	75-69-4	ND	3
1,1-Dichloroethene	75-35-4	ND	3
1,1-Dichloroethane	75-35-3	ND	3
Trans-1,2-Dichloroethene	156-60-5	ND	3
Cis-1,2-Dichloroethene	156-59-2	ND	3
1,2-Dichloroethene (total)	540-59-0	ND	3
Chloroform	67-66-3	ND	3
1,2-Dichloroethane	107-06-2	ND	3
1,1,1-Trichloroethane	71-55-6	ND	3
Carbon tetrachloride	56-23-5	ND	3
Bromodichloromethane	75-27-4	ND	3
1,2-Dichloropropane	78-87-5	ND	3
Cis-1,3-Dichloropropene	10061-01-5	ND	3
Trichloroethene	79-01-6	ND	4
Benzene	71-43-2	ND	2
Dibromochloromethane	124-48-1	ND	2
1,1,2-Trichloroethane	79-00-5	ND	3
Trans-1,3-Dichloropropene	10061-02-6	ND	5
2-Chloroethylvinylether	100-75-8	ND	3
Bromoform	75-25-2	ND	3
1,1,2,2-Tetrachloroethane	79-34-5	ND	4
Tetrachloroethene	127-18-4	20	4

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS

(CONTINUED)

Sample I.D.: MW-1
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/27/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-01G

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Toluene	108-88-3	ND	2
Chlorobenzene	108-90-7	ND	3
Ethylbenzene	100-41-4	ND	3
1,3-Dichlorobenzene	541-73-7	ND	3
1,2-Dichlorobenzene	95-50-1	ND	3
1,4-Dichlorobenzene	106-46-7	ND	3
Freon 113	76-13-1	ND	3
Total Xylenes	1330-20-7	ND	3
Acetone	67-64-1	ND	20
2-Butanone	78-93-3	ND	20
4-Methyl-2-pentanone	108-10-1	ND	20
2-Hexanone	591-78-6	ND	20
Vinyl acetate	108-05-4	ND	10
Carbon disulfide	75-15-0	ND	3
Styrene	100-42-5	ND	3
Acrolein	107-02-8	ND	10
Acrylonitrile	107-13-1	ND	10

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS

Sample I.D.: MW-2

Client: HARSCH INVESTMENTS

Sample Received: 06/22/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/27/90

Lab Client Code: INT_EEP

Sample Matrix: WATER

Lab No.: 9006195-02G

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Chloromethane	74-87-3	ND	10
Bromomethane	74-83-9	ND	4
Vinyl chloride	75-01-4	ND	4
Chloroethane	75-00-3	ND	4
Methylene chloride	75-09-2	ND	10
Trichlorofluoromethane	75-69-4	ND	3
1,1-Dichloroethene	75-35-4	ND	3
1,1-Dichloroethane	75-35-3	ND	3
Trans-1,2-Dichloroethene	156-60-5	ND	3
Cis-1,2-Dichloroethene	156-59-2	ND	3
1,2-Dichloroethene (total)	540-59-0	ND	3
Chloroform	67-66-3	ND	3
1,2-Dichloroethane	107-06-2	ND	3
1,1,1-Trichloroethane	71-55-6	ND	3
Carbon tetrachloride	56-23-5	ND	3
Bromodichloromethane	75-27-4	ND	3
1,2-Dichloropropane	78-87-5	ND	3
Cis-1,3-Dichloropropene	10061-01-5	ND	3
Trichloroethene	79-01-6	ND	4
Benzene	71-43-2	ND	2
Dibromochloromethane	124-48-1	ND	2
1,1,2-Trichloroethane	79-00-5	ND	3
Trans-1,3-Dichloropropene	10061-02-6	ND	5
2-Chloroethylvinylether	100-75-8	ND	3
Bromoform	75-25-2	ND	3
1,1,2,2-Tetrachloroethane	79-34-5	ND	4
Tetrachloroethene	127-18-4	ND	4

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS

(CONTINUED)

Sample I.D.: MW-2
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/27/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-02G

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Toluene	108-88-3	ND	2
Chlorobenzene	108-90-7	ND	3
Ethylbenzene	100-41-4	ND	3
1,3-Dichlorobenzene	541-73-7	ND	3
1,2-Dichlorobenzene	95-50-1	ND	3
1,4-Dichlorobenzene	106-46-7	ND	3
Freon 113	76-13-1	ND	3
Total Xylenes	1330-20-7	ND	3
Acetone	67-64-1	ND	20
2-Butanone	78-93-3	ND	20
4-Methyl-2-pentanone	108-10-1	ND	20
2-Hexanone	591-78-6	ND	20
Vinyl acetate	108-05-4	ND	10
Carbon disulfide	75-15-0	ND	3
Styrene	100-42-5	ND	3
Acrolein	107-02-8	ND	10
Acrylonitrile	107-13-1	ND	10

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS

Sample I.D.: METHOD BLANK

Client: HARSCH INVESTMENTS

Sample Received: 06/22/90

Client Ref. No.: 29196.00

Sample Analyzed: 06/27/90

Lab Client Code: INT_EEP

Sample Matrix: WATER

Lab No.: 9006195-07A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Chloromethane	74-87-3	ND	10
Bromomethane	74-83-9	ND	4
Vinyl chloride	75-01-4	ND	4
Chloroethane	75-00-3	ND	4
Methylene chloride	75-09-2	ND	10
Trichlorofluoromethane	75-69-4	ND	3
1,1-Dichloroethene	75-35-4	ND	3
1,1-Dichloroethane	75-35-3	ND	3
Trans-1,2-Dichloroethene	156-60-5	ND	3
Cis-1,2-Dichloroethene	156-59-2	ND	3
1,2-Dichloroethene (total)	540-59-0	ND	3
Chloroform	67-66-3	ND	3
1,2-Dichloroethane	107-06-2	ND	3
1,1,1-Trichloroethane	71-55-6	ND	3
Carbon tetrachloride	56-23-5	ND	3
Bromodichloromethane	75-27-4	ND	3
1,2-Dichloropropane	78-87-5	ND	3
Cis-1,3-Dichloropropene	10061-01-5	ND	3
Trichloroethene	79-01-6	ND	4
Benzene	71-43-2	ND	2
Dibromochloromethane	124-48-1	ND	2
1,1,2-Trichloroethane	79-00-5	ND	3
Trans-1,3-Dichloropropene	10061-02-6	ND	5
2-Chloroethylvinylether	100-75-8	ND	3
Bromoform	75-25-2	ND	3
1,1,2,2-Tetrachloroethane	79-34-5	ND	4
Tetrachloroethene	127-18-4	ND	4

ND = Not detected at or above limit of detection

EPA METHOD 8240
PURGEABLE ORGANICS

(CONTINUED)

Sample I.D.: METHOD BLANK
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/27/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-07A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Toluene	108-88-3	ND	2
Chlorobenzene	108-90-7	ND	3
Ethylbenzene	100-41-4	ND	3
1,3-Dichlorobenzene	541-73-7	ND	3
1,2-Dichlorobenzene	95-50-1	ND	3
1,4-Dichlorobenzene	106-46-7	ND	3
Freon 113	76-13-1	ND	3
Total Xylenes	1330-20-7	ND	3
Acetone	67-64-1	ND	20
2-Butanone	78-93-3	ND	20
4-Methyl-2-pentanone	108-10-1	ND	20
2-Hexanone	591-78-6	ND	20
Vinyl acetate	108-05-4	ND	10
Carbon disulfide	75-15-0	ND	3
Styrene	100-42-5	ND	3
Acrolein	107-02-8	ND	10
Acrylonitrile	107-13-1	ND	10

ND = Not detected at or above limit of detection

EPA METHOD 601
PURGEABLE HALOCARBONS

Sample I.D.: MW-3
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/28/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-03D

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND = Not detected at or above limit of detection

EPA METHOD 601
PURGEABLE HALOCARBONS

Sample I.D.: MW-4. .
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/28/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-04D

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND = Not detected at or above limit of detection

EPA METHOD 601
PURGEABLE HALOCARBONS

Sample I.D.: METHOD BLANK
Client: HARSCH INVESTMENTS

Sample Received: 06/22/90
Client Ref. No.: 29196.00

Sample Analyzed: 06/28/90
Lab Client Code: INT_EEP

Sample Matrix: WATER
Lab No.: 9006195-07A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
1,2-Dichloroethene (total)	540-59-0	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6
2-Chloroethylvinylether	100-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6

ND = Not detected at or above limit of detection

EXTRACTABLE PETROLEUM HYDROCARBONS
EPA METHOD 8015/3510

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	06/22/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/28/90	Lab Client Code:	INT_EEP
Sample Matrix:	Water	Lab No.:	9006195

Lab No.	Sample I.D.	Diesel µg/L	Limit of Detection µg/L
-01	MW-1	ND	50
-02	MW-2	ND	50
-03	MW-3	ND	50
-04	MW-4	ND	50
-05	MW-5	910	50
-MB	Method Blank	ND	50

ND = Not detected at or above limit of detection

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	06/22/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/27/90	Lab Client Code:	INT_EEP
Sample Matrix:	Water	Lab No.:	9006195

Batch Sub. No.	Sample Identification	Cadmium (mg/L)	Chromium (mg/L)
-01	MW-1	<0.005	<0.05
-02	MW-2	<0.005	<0.05
-03	MW-3	<0.005	<0.05
-04	MW-4	<0.005	<0.05
-05	MW-5	<0.005	<0.05
-MB	Method Blank	<0.005	<0.05
Limit of Detection:		0.005	0.05
Method Reference:		EPA 6010	EPA 6010

< Less than the indicated limit of detection (LOD)

INORGANIC LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	06/22/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/27/90	Lab Client Code:	INT_EEP
Sample Matrix:	Water	Lab No.:	9006195

Batch Sub. No.	Sample Identification	Lead (mg/L)	Zinc (mg/L)
-01	MW-1	<0.05	<0.05
-02	MW-2	0.07	0.18
-03	MW-3	<0.05	<0.05
-04	MW-4	<0.05	<0.05
-05	MW-5	<0.05	<0.05
-MB	Method Blank	<0.05	<0.05
Limit of Detection:		0.05	0.05
Method Reference:		EPA 6010	EPA 6010

< Less than the indicated limit of detection (LOD)

EXTRACTION LABORATORY ANALYSES

Sample I.D.:	See below	Client:	HARSCH INVESTMENTS
Sample Received:	06/22/90	Client Ref. No.:	29196.00
Sample Analyzed:	06/28/90	Lab Client Code:	INT_EEP
Sample Matrix:	Water	Lab No.:	9006195

Batch Sub. No.	Sample Identification	Total Recoverable Petroleum Hydrocarbons (mg/L)
-01	MW-1	<1
-02	MW-2	<1
-MB	Method Blank	<1
Limit of detection:		1
Method Reference:		EPA 418.1

< Less than the indicated limit of detection (LOD)

Clayton
ENVIRONMENTAL CONSULTANTS
A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only — Page ____ of ____
Project No.
Batch No. 6006195
Client No.
Date Received 6/22/90 — RSAL
Date Logged In 6/25/90 — 6

Purchase Order No. — Client Job No. 29196.00

SEND INVOICE TO
Name: RICHARD SILVA
Company: HARSCH INVESTMENT — Dept.
Address
City, State, Zip

REPORT RESULTS TO
Name: RICHARD SILVA — Title
Company: CLAYTON — Dept.
Mailing Address
City, State, Zip
Telephone No. — Telefax No.

Date Results Required: NORMAL T.A.T.
Rush Charges Authorized? ☐ Yes ☒ No

Special Instructions. (method, limit of detection, phone results, rush results, etc.)
TPH gas + BTEX Rush for samples MW-2 + MW-5 1 week TAT per Alan Gibbs 6/25/90
* Explanation of Preservative:

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	Number of Containers	5030/8015/5020 mod	3510/8015/418.1	ICAP*	EPA 8240	*Pb, Cd, Cr, Zn					FOR LAB USE ONLY
MW-1 SAMPLED AT 1435	6-22-90	H2O	40mL	2	X									01A,B
MW-1 " " "			1 LITER	3		X								C,D,E
MW-1 " " "			250 mL	1			X							F
MW-1 " " "			40mL	2				X						G,H
MW-2 SAMPLED AT 1115			40mL	2	X									02 A,B
MW-2 " " "			1 LITER	3		X								C,D,E
MW-2 " " "			250mL	1			X							F
MW-2 " " "	↓	↓	40mL	2				X						G,H

CHAIN OF CUSTODY (If required)
Relinquished by: Richard Silva — Date/Time 6-22-90
Received by: — Date/Time
Relinquished by: — Date/Time
Received at lab by: Rebecca [signature] — Date/Time 6/22/90 5:45
Method of Shipment:
Sample condition upon receipt:

Authorized by Richard Silva — Date 6-22-90
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive, Novi, MI 48050, (313) 344-1770
Raritan Center, 160 Fieldcrest Ave., Edison, NJ 08837, (201) 225-6040
400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144, (404) 499-7500
1252 Quarry Lane, Pleasanton, CA 94566, (415) 426-2600

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

7/89 20K

Clayton
ENVIRONMENTAL CONSULTANTS
A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page ____ of ____
Project No.	
Batch No.	9006195
Client No.	
Date Received	6/22/90 By: RBR
Date Logged In	6/25/90 By: b

Purchase Order No. | Client Job No. 29196.00

SEND INVOICE TO
Name: RICHARD SILVA
Company: HARSCH INVESTMENT | Dept.
Address:
City, State, Zip:

REPORT RESULTS TO
Name: RICHARD SILVA | Title:
Company: CLAYTON | Dept.
Mailing Address:
City, State, Zip:
Telephone No. | Telefax No.

Date Results Required: NORMAL T.A.T.

Rush Charges Authorized? ☐ Yes ☒ No

Special Instructions: (method, limit of detection, phone results, rush results, etc.)

* Explanation of Preservative:

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	5030/8015 VOX	3510/8015	EPA 601	ICAP*	*Pb, Cr, Cd, Zn	FOR LAB USE ONLY
MW-3 SAMPLED AT 1205	6-22-90	H_2O	40mL	2	X					03A,B
MW-3 " " "			1 LITER	1		X				C
MW-3 " " "			40mL	2			X			D,E
MW-3 " " "			250mL	1				X		F
MW-4 SAMPLED AT 1245			40mL	2	X					04A,B
MW-4 " " "			LTER	1		X				C
MW-4 " " "			40mL	2			X			D,E
MW-4 " " "			250mL	1				X		F

CHAIN OF CUSTODY (if required)
Relinquished by: Richard Silva | Date/Time 6-22-90
Relinquished by: | Date/Time
Method of Shipment:

Authorized by: Richard Silva Date 6-22-90
(Client Signature Must Accompany Request)

Received by: | Date/Time
Received at lab by: Rebecca Turner Chenault | Date/Time 6/22/90 5:45
Sample condition upon receipt:

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive
Novi, MI 48050
(313) 344-1770

Raritan Center
160 Fieldcrest Ave.
Edison, NJ 08837
(201) 225-6040

400 Chastain Center Blvd., N.W.
Suite 490
Kennesaw, GA 30144
(404) 499-7500

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600

DISTRIBUTION:
WHITE - Clayton Laboratory
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Clayton

ENVIRONMENTAL CONSULTANTS

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REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page ___
Project No.	
Batch No.	9006195
Client No.	
Date Received	6/22/90
Date Logged In	6/25/90

Purchase Order No. | Client Job No. 29196.00

SEND INVOICE TO
- Name: RICHARD SILVA
- Company: HARSCH INVESTMENT — Dept.
- Address
- City, State, Zip

REPORT RESULTS TO
- Name: RICHARD SILVA — Title
- Company: CLAYTON — Dept.
- Mailing Address
- City, State, Zip
- Telephone No. — Telefax No.

Date Results Required: NORMAL T.A.T

Rush Charges Authorized? ☐ Yes ☑ No

Special Instructions: (method, limit of detection, phone results, rush results, etc.)

* Explanation of Preservative:

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	5030/8015	3510/8015	ICAP*	HOLD	*Pb, Cr, Cd, Zn					FOR LAB USE ONLY
MW-5 SAMPLED AT 1535	6-22-90	H_2O	40mL	2	X									-05A,B
MW-5 " " "	↓	↓	LITER	2		X								C,D
MW-5 " " "			250mL	1			X							E
TRIP BLANK			40mL	2	X			[illegible]						-06A,B

CHAIN OF CUSTODY (If required)		
Relinquished by:	Date/Time	Received by: — Date/Time
Relinquished by:	Date/Time	Received at lab by: Rebecca [illegible] — Date/Time 6/22/90 5:45
Method of Shipment		Sample condition upon receipt:

Authorized by: ______ Date ______

(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive
Novi, MI 48050
(313) 344-1770

Raritan Center
160 Fieldcrest Ave.
Edison, NJ 08837
(201) 225-6040

400 Chastain Center Blvd., N.W.
Suite 490
Kennesaw, GA 30144
(404) 499-7500

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600

DISTRIBUTION:
- WHITE - Clayton Laboratory
- YELLOW - Clayton Accounting
- PINK - Client Retains

7/89 20K

Western Operations

1252 Quarry Lane
Pleasanton, CA 94566
(415) 426-2600
Fax (415) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

September 17, 1990

Ms. Laurene Compton
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

REVISED REPORT
Client Ref. No. 29196.00
Work Order No. 9008258
Lab Client Code INT_EEP

Dear Ms Compton:

Attached is our analytical laboratory report for the samples received on August 31, 1990 and originally reported to you on September 14, 1990. Sample concentration units have been corrected from mg/kg to ug/L. We hope this has not caused you any inconvenience. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (415) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/tb
Attachments